

RECEIPT SLIP

Receipt of the application/appeal filed in the National Green Tribunal Sitting
at *New Delhi*... by *Shri/Kum/Smt. Sanjay G. Puri, Advocate*

Residing at *29, Presidential Estate, N. 28, Madin East* is hereby acknowledged.

Dated:

For Registrar
The National Green Tribunal
Seal: Place of Sitting

National Green Tribunal, New Delhi
Diary No. *2575/18*
Dated *26-4-18*
Sign. of Receiver *[Signature]*

**IN THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH AT NEW DELHI
MEMORANDUM OF APPLICATION**

ORIGINAL APPLICATION NO. OF 2018

**(Under Section 14 read with Sections 15, 17(1) and 18(1) of the National
Green Tribunal Act, 2010)**

IN THE MATTER OF:

Pradip Kumar Bhuyan & Ors

Applicants

Versus

Union of India & Ors

Respondents

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DATE: 26/4/2018

PLACE: New Delhi

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**IN THE NATIONAL GREEN TRIBUNAL
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MEMORANDUM OF APPLICATION**

ORIGINAL APPLICATION NO. OF 2018

**(Under Section 14 read with Sections 15, 17(1) and 18(1) of the National
Green Tribunal Act, 2010)**

IN THE MATTER OF:

1. Pradip Kumar Bhuyan

IITian and Senior Citizen

Ghoramara, North Guwahati,

Guwahati - 781039

Assam

.... Applicant No.1

2. Dr. Kashmira Kakati

Heaven, Madhuban Hill

Guwahati - 781021 Assam

... Applicant No.2

3. Joydeep Bhuyan

House no. 11, Kanya Mahavidhyalay Path,

Gitanagar, Mother Teresa Road

P.S.-Geetanagar

Guwahati- 781024

... Applicant No.3

VERSUS

1. Union of India

Through the Secretary

Ministry of Environment, Forest and Climate Change

Indira Paryavaran Bhawan



Jorbagh – New Delhi 110003

...Respondent No.1

2. Ministry of Railways

Through the Secretary

Rail Bhawan, New Delhi 110001

...Respondent No.2

3. State of Assam

Through the Chief Secretary

Block C, 3rd Floor, Sachivalaya

Dispur, Guwahati 781006

...Respondent No.3

4. Assam State Forest Department

Through the PCCF,

Aranya Bhawan, Panjabari

Guwahati, Assam – 781037

...Respondent No.4

5. Assam Power Distribution Company Limited (APDCL)

Through Chairman and Managing Director,

4th Floor, Bijulee Bhawan,

Paltan Bazar,

Guwahati – 781001, Assam

...Respondent No.5

6. North-Eastern Frontier Railways

Through the General Manager,

Maligaon, Guwahati,

Assam – 781011

...Respondent No.6

7. Consultative Committee of Plantation Association

Through the Chairman

Royal Exchange

6, Netaji Subhash Road

Kolkata – 700001

...Respondent No.7

8. National Highway and Infrastructure Development Corporation

Limited

Through the Managing Director

3rd Floor, PTI Building

4, Parliament Street

New Delhi – 110001

...Respondent No.8

- I. The address of the Applicant is given above for the service of notices of this Application.

The addresses of the Respondents are given above for the service of notices of this Application.

- II. This application is within the jurisdiction of this Hon'ble Tribunal as it is pursuant to the conditions specified under Sections 14, 15 and 18(1) of the National Green Tribunal Act, 2010.

FACTS

The Humble Applicant most respectfully sheweth as under:

1. That the instant petition seeks to raise substantial question of environment in the nature of conservation and protection of the habitat of our national heritage animal, the Indian Elephant, especially the corridors as well as the reserves (notified or otherwise), before this Hon'ble Tribunal by bringing to

its notice the increasing number of unnatural elephant deaths taking place in the State of Assam due to train accidents, electrocution and other human interventions which have seriously affected the numbers of this already endangered species adversely.

It is also the case of the Applicants that the deaths of the elephants due to negligent train accidents and electrocution due to high tension power lines, are in total contravention of the Guidelines especially 05.05.2014 alongwith 19.11.2014 among others laid down by the Respondent No.1 as well as the Judgments of this Hon'ble Tribunal and therefore, it must be compensated, as this amounts to damage to the environment and the agencies responsible must be made liable to pay the relief for such deaths under the heads specified in Schedule II of the National Green Tribunal Act, 2010.

Furthermore, it is the case of the applicant that such deaths are ultimately due to degradation, disturbance, fragmentation and loss of their original forest habitat thereby causing them to both stray outside their natural habitats and face threats within them and through this application the Applicants seek the indulgence of this Hon'ble Tribunal to direct the Respondents to restore their prime habitats and secure their reserves and movement corridors so that they do not meet death in such a ghastly fashion.

2. That it is the case of the Applicants that it is the complete lack of legal protection to elephant corridors and elephant reserves that has led to a large number of deaths in areas beyond the Protected Areas and for which the Applicants have sought intervention from this Hon'ble Tribunal. It is also the case of the Applicants that owing to the increased denudation and loss of their forest habitats, elephants have come increasingly into conflict with humans and faced deliberate retaliatory killings and accidents at railway

crossings, high tension power lines, power fences and trenches. This has occurred across Assam and the foothill forests of Arunachal Pradesh, but has been most glaring in the landscape north of the Brahmaputra whose forests were subjected to extensive and rapid encroachment in the 1980s and 1990s. The Applicant, in the light of the above, seeks reclamation and restoration of PAs and Reserve Forests that were the habitat of elephants, to mandate measures to be taken by railways to prevent elephant deaths in the entire length of railway tracks which are potential elephant accident zones, including within elephant reserves and corridors and to direct power companies to increase the height of the power lines or insulate or lay them underground and monitor illegal electricity lines therein so that accidental deaths from these two major causes may be avoided. The Applicants also seek compensation for these elephant deaths, which should be used for protecting the environment.

3. That the Applicant through this Application also seeks to create an Environment Relief Fund as envisaged under the NGT Act, 2010, under Section 24 read with Section 27 by way of compensation for elephant deaths caused due to train accidents, electrocution, or any other human intervention by agencies involved in order to use such funds for their relief and rescue and more importantly to enhance the quality, integrity and connectivity of their habitats so that their requirements of food, water, safety and shelter are met within these landscapes.
4. It is humbly submitted that since the Elephant is a product and function of a habitat, valuation of estimated carbon sequestration by timber, grass, shrubs and ecosystem valuation will put the value of an elephant, which is priceless,

in crores. It is important to note here that there are approximately only about twenty six thousand elephants left in the country and in this context, at best, the valuation in monetary terms of an elephant killed can only be a guess estimate only. It would be imprudent and perverse to assess its value in the illegal market but certainly, a bench mark. By another calculation, as in the 1870s, 'through the right of preemption, the Assam government had retained the right to buy elephants over 6 to 7.5 feet in height at the fixed rate of Rs 600'(Reference: Letter from A.D.Campbell, Superintendent of Kheda in Lakhimpur to the Officiating Secretary to the Chief Commissioner of Assam, 27 December, ASP, No. 34R, 1881, (ASA) cited in Saikia, A. 2005. Jungles, Reserves, Wildlife, A history of Forests in Assam. Wildlife Areas Development and Welfare Trust, Assam).The Applicants beg that an adequate sum of money (say 50 lacs to one crore at least) [although this may not be treated as any true benchmark value for the invaluable and priceless elephant and is being just quoted so that a substantial sum may be collected to protect the habitat of the elephant] may be set aside as compensation to an Environment Relief Fund controlled jointly by the Central Government through the Project Elephant and the State Government through the Department of Wildlife alongwith at least two external experts in order to frame a mitigation and restitution plan for elephant habitats including corridors.

5. The Applicant No.1 is a senior citizen and a former IITian based in Guwahati, Assam and is a wildlife enthusiast who is deeply attached to the causes of the environment. The Applicant No.2 is a wildlife biologist and environmental activist working the North Eastern forests of India. In 2010, she announced the discovery of the presence of

seven species of wild cats in the Jeypore-Dehing forests in Assam. Dr. Kakati graduated from the Wildlife Institute of India, Dehradun. She pursued her doctorate research on gibbons in Assam as part of the Wildlife Research Group, University of Cambridge. The Applicant No.3 is a wildlife photographer and conservationist with a keen sense of attachment with the wildlife.

BACKGROUND AND FACTS:

IMPORTANCE OF ELEPHANTS IN THE ECO-SYSTEM

6. That the Applicants humbly submit that elephants are creation of the forest habitat and the forest habitat is maintained by the elephants. Both are equally dependent on each other. Elephant as a species has a particularly large effect on an environment relative to its abundance as it plays a crucial role in maintaining ecological communities by affecting many other organisms within the ecosystem. The Report of the Elephant Task Force, 2010 states, *“The Elephant is more than a symbol of our cultures. It is an animal that has fascinated the best of our poets, writers and singers across the ages. Its sociability and intelligences are proverbial.*

7. That, the Elephant Maximus is a keystone species in the Asian tropical forest. It can act as an umbrella or flagship for conserving biodiversity. Gajah can help save critical parts of the landmass that will be functional ecosystem representative of Asian biomass. And also, serve as a living bridge for science, store of genetic wealth and place where we can continue how nature works.

Furthermore, the elephant has a number of roles in the maintenance of the natural environment.

a) Landscape architects

Elephants create clearing 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.

b) 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.

c) Nutrition :

Elephant dung provides nourishment to plants and animals and acts as a breeding ground for insects.

d) Water provider :

In times of drought they access water by digging holes, which benefits other wildlife. Further, their large footprints collect water when it rains, benefitting smaller creatures.

e) Food Chain:

Apex predators like tigers will sometimes hunt young elephants. Further, elephant carcasses provide food for other animals.

f) 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.

8. That it is also submitted that the elephant is responsible for creating clearings and gaps in the canopy that encourage tree regeneration. The feeding behaviour of the elephant frequently ensures that no single plant

species is able to dominate the environment. The elephants not only affect plant ecosystems, but they also impact every other animal that depends on those plants, including carnivorous predators that prey on grazing herbivores. Thus, it is submitted that to have elephants in isolated populations, unable to move freely through their home ranges, would therefore have a devastating effect on India's natural heritage. As quoted in a paper titled 'A brief review of the status, distribution and biology of wild Asian elephants' as per the publication titles, 'The Asian elephant: an action plan for its conservation' published by the IUCN loss and fragmentation of habitat is perhaps the most important factor having a direct impact on elephants in many parts of Asia. Many animal species would suffer with decrease in elephant population and the ecosystem balance of several wild habitats would be unalterably upset. It would also, of course, eventually lead to the local extinction of India's National Heritage Animal, one of the wisest and most beloved species on the planet.

9. That the Applicant humbly submits that the continued survival and growth of elephants in India in the wild is a major challenge for the Government and the people. To achieve this objective, the Central Government launched the Project Elephant in 1992, which has since then done some commendable work. But Elephant habitats all over India are under immense pressure due to human development and activities which have seriously encroached on forest covers including elephant corridors and reserves. To the best of the Applicant's knowledge, over 60 percent of the Elephant Reserves is not under the Protected Area Regime or even in any category of unclassed state forests in Assam. Human-elephant conflicts have assumed very serious

dimensions because of shrinking forest covers in the recent years and needs urgent resolution.

10. It is believed that Assam has one of the highest rates of forest loss and forest land encroachments in the country. The loss is directly attributable to complete negligence of the state government at securing government-owned forest land. One of the most important consequences of this forest loss is the fragmentation of habitat which is required for sustaining a viable population of elephant. This is further exacerbated by the negligence of agencies such as railways and electricity providers, which results in not only human-wildlife conflict, but also the tragic death of elephants on railway tracks and by electrocution from sagging high transmission lines as well as by illegally drawn electric wires and illegal electric fencing. These deaths are directly due to dereliction of duty, human negligence and callousness on the part of Respondent No. 2, Indian Railways and Respondent No. 5, APDCL, which has been dealt in detail in later part of the Application.

11. That before going into the seriousness of the problem of elephant deaths due to railway tracks and high transmission power lines as well as other direct and indirect causes, the Applicant is placing on record certain facts relating to elephant population, elephant reserves in Assam, elephant ranges and corridors which is important for assessing the magnitude of the problem at hand.

(i) Elephant Population:

Details of elephant estimation for the year 2007 and 2012

Sl. No.	States	Elephant Population
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		2007	2012
1.	Assam	5281	5620
2.	Karnataka	4035	5648-6488
3.	Kerala	6068	5942-6422
Total		27657-27682	29391 - 30711

* Meghalaya and Uttarakhand has not conducted elephant census after 2007. Therefore the figure of 2007 has been maintained for 2012 as well.
Source: <http://www.moef.nic.in/division/introduction-4>

That the latest data published in Synchronized Elephant Population Estimation India 2017 published by Project Elephant by the MoEF&CC in August, 2017 states that there are about 5719 Elephants in Assam estimated by the direct block Count method during March-May 2017, clearly the highest in the north eastern region and second only Karnataka. Elephants are found in 36 Forest Divisions in Assam and the overall density is about 0.38 per square km. This also means that this population is most vulnerable in this region.

The elephant population now is estimated to be 27,312 clearly a decline from the earlier estimation.

(ii) Elephants reserves in Assam :

In the Task Force meeting held in Shillong as early as 1981, four areas in north east India were proposed for notification as Elephant Reserve. These areas, to the best of our knowledge, were said to harbour about 51% of the elephant population of the State, excluding about 10% population covered in other wildlife areas and 39% outside these two categories. The Elephant Reserve areas that fell under Assam territory were as under: -

The following are the some facts about the Elephant Reserves of Assam:

- (1) Kameng – Sonitpur Inter State Elephant Reserve covering the forests from Bhairabkunda to Bargang.

- (2) Dibru – Deomali Inter State Elephant Reserve extending from Dibrusaikhowa WS (now NP) and encompassing all the RFs of Digboi FD, Doom Dooma FD and Joypur RF of Dibrugarh FD;
- (3) Kaziranga – KarbiAnglong – Intanki Inter State Elephant Reserve comprising Kaziranga NP and all notified forests under KarbiAnglong East FD and KarbiAnglong West FD, Nambor North RF and LangtingMupa RF of NC Hills FD.
- (4) Borail – Saipung Inter State Elephant Reserve covering Borail RF and part of North Cachar RF. (pg 21 Elephants in Assam, Assam Forest Department, 2009)

The Task Force in 1981 also identified the following problematic elephant population pockets in disjointed habitats –

- a. Hologapar (Now Hologapar Gibbon WS): in Jorhat District;
- b. Bhutiachang : in Darrang District;
- c. Rani : in Kamrup District;
- d. Panikhaiti : in Kamrup District.

However, five Elephant Reserves were declared in the state, where Borail Reserve Forest area was excluded and Kaziranga-KarbiAnglong proposed Elephant Reserve was divided into two parts. The Elephant Reserves, its area and date of notification along with their extent are produce in Table below:

DETAILS OF NOTIFIED ELEPHANT RESERVES OF ASSAM

Sl. No.	Name of ER	Area (km ²)	Date of notification	District	Forest Divisions
1	Chirang – Ripu	2600	06.03.2003	Kokrajhar, Chirang, Maksa, Udalguri	Kachugaon, Haltugaon, Chirang, Dhansiri
2	Sonitpur	1420	07.03.2003	Darrang, Sonitpur	Dhansiri, Sonitpur West and East, WAWL
3	Dehing-Patkai	937	17.04.2003	Dibrugarh, Sivasagar, Tinsukia	Doom Dooma, Digboi, Dibrugarh, Sivasagar
4	Kaziranga – K Anglong	3270	17.04.2003	Golaghat, K, Anglong, Sonitpur, Nagaon	EAWL, KarbiAng-long, East & West, Nagaon and NagaonSuth
5	Dhansiri – Lungding	2740	19.04.2003	KarbiAnglo ng, NCHills, Nagaon	KarbiAnglong East & West, Nagaon South, NC Hills.
	Total	10967			

Another account of the Elephant range in this North Eastern Region stating the bigger picture including its connect with other neighboring States is as follows:

Sl.No	Elephant Range	Elephant Reserve with date of notification	State	Total Area (Sq. Km)
II	North Brahmaputra (Arunachal – Assam)	1. Kameng ER (19.6.02)	Arunachal	1892
		2. Sonitpur ER (6.3.03)	Assam	1420
	Total			3312
III	South Brahmaputra (Assam-Arunachal)	3. Dihing-Patkai ER (17.4.03)	Assam	937
		4. South Arunachal ER (29-2-08)	Arunachal	1957.50
	Total			2894.50
IV	Kaziranga (Assam-Nagaland)	5. Kaziranga – KarbiAnglong ER (17.4.03)	Assam	3270
		6. Dhansiri-Lungding ER (19.4.03)	Assam	2740
		7. Intanki ER (28.2.05)	Nagaland	202
	Total			6212

The Elephant Reserves, its area along with their extent has been stated through the various notifications which has been marked and annexed thereto as **ANNEXURE A/ 1 (Colly)**.

(iii) Elephant Ranges :

Considering the movement and habitat of elephants and the number of elephants, the Forest Department of Assam has divided the habitat and population of elephants in Assam into nine major Elephant Ranges (ERs) covering the elephant bearing areas. Most of these nine major Elephant

Ranges are not confined within the jurisdiction of a single civil administration unit (i.e. district) nor do they fall under one particular Forest Division. The different elephant populated ranges are:

1. **Ripu – Khalingduar Elephant Range** : The range extends eastward from the river Sonkosh to the Dhansiri river along the Indo – Bhutan boundary.
2. **Bhairabkund – Gohpur Elephant Range** : The range includes areas east from Bhairabkund to the Gohpur RF along with the Assam – Arunachal Pradesh boundary.
3. **Kakoi – Dibru – Kokilamukh Elephant Range**: The range is highly amorphous and encompasses areas east of Ranga RF and extends over the forest and non-forest areas along the border of Arunachal Pradesh and then spreads along both the banks of the river Brahmaputra up to Kokilamukh and includes Dibru-Saikhowa NP and the Majuli Island covering an area of 1213.64km² and significant non-forest areas.
4. **Dehing – Joypur Elephant Range**:The range extends from Doom Dooma RF towards south-east along the Arunachal border and covers the entire forest area of Digboi FD, and encompasses the southern parts of Dibrugarh FD along with the RFs of Sivasagar and Jorhat Division all along the Assam Nagaland border.
5. **Kaziranga – KarbiAnglong Elephant Range**: The range covers the forests of Golaghat FD, Eastern Assam Wildlife Division, KarbiAnglong East FD and part of Nagaon FD and Nagaon South FD within the civil districts of Golaghat, Nagaon and KarbiAnglong.
6. **Dhansiri – Lungding Elephant Range**: The range encompasses part of the forests of KarbiAnglong Autonomous district, NC Hills Autonomous

district and parts of Nagaon district extending over the forests under KarbiAnglong West FD, Hamren FD, Nagaon FD and Nagaon South FD.

7. **Kholahat – Bogaikhas Elephant Range:** The range stretches west along the border of Khasi Hills covering parts of Nagaon FD, Kamrup East FD, Kamrup West FD and Guwahati Wildlife Division within the civil district of Nagaon and Kamrup.
8. **Goalpara Elephant Range:** The range spreads over the forest and non-forest areas of Goalpara Forest Division within the civil district of Golapara and extends from the Garo Hills border on the south to the river Brahmaputra on the north covering a total of 244.17km² forest area.
9. **Patharia – Innerline Elephant Range:** The range covers forests of the southern and western parts of the erstwhile Cachar district of Assam.

Source: Elephants in Assam AFD, 2009

12. It is submitted that the Railway lines crisscross all the above Elephant Ranges except 1 above. The maps showing the railway tracks in the various Elephant Ranges (8 out of 9) have been marked and annexed as **ANNEXURE A/2 (Colly)**.

DENUDEATION, ENCROACHMENT, FRAGMENTATION OF FOREST: ELEPHANT CORRIDORS

13. That at the outset, the Applicants humbly submit that fragmentation of forests coupled with its denudation and encroachments is one of the most important reasons which has led to the reduction of the natural habitat of the elephants. It is pertinent to mention here that as per the Right of Passage Report published by the Wildlife Trust of India in collaboration with the Project Elephant (initially in 2004 and then in 2017), the more forest habitat

is degraded, the farther an elephant herd has to roam in search of food and water, thereby further increasing the chances of human-elephant conflict. The report by the Wildlife Trust of India also records that as humans encroach on forest areas, planting nutritious crops near forestlands, building homes and roads and railways, this invites conflict with elephants.

14. That the abovementioned Right of Passage Report published by the Wildlife Trust of India in collaboration with the Project Elephant recommended that all the elephant corridors that the report identified should be notified as State Elephant Corridors by the respective states. In this regard, it is important to mention letter dated 11.08.2006 (attached as **ANNEXURE A/3**) from the then Director, Project Elephant to the Chief Wildlife Wardens of all States and Union Territories that it would be necessary for the 88 identified elephant corridors to be provided with some legal protection, such as under the Environment Protection Act, 1986 and directs the states to take necessary actions in this regard. The letter further talks about furnishing of the Action Taken Report with regard to the implementation of the directions.

15. That the Applicants submit that, to the best of our knowledge, no elephant corridor has been notified as such by the State Governments, which has led to the unfortunate fate of the elephants. This Hon'ble Tribunal may call upon the State of Assam to furnish the steps taken by them in pursuance to the letter dated 11.08.2006 and apprise accordingly. This Hon'ble Tribunal has also given specific directions in the case titled *KashmiraKakativs Union of India & Ors* (OA No. 19/2014 decided on 08.12.2017) wherein the said administratively notified Elephant Reserves were asked to be notified under

the Environment Protection Act, 1986 and also give it protection under the Wildlife Protection Act, 1972, through the clearance procedure under the National Board for Wildlife as well as assessments under the Biodiversity Act, 2002 especially under Section 36(4) of the said Act. This Hon'ble Tribunal may call upon the Respondents to furnish the steps taken in this regard.

16. That the recommendations of the Right of passage Report as published in the 2004 edition of the Report were reiterated in what is popularly known as the 'Gajah Report' published by the Elephant Task Force of the MoEF&CC on 31.08.2010 and it was stated that the Forest Department and National Elephant Conservation Authority (NECA), which could be created, should make effort to protect the corridors and through purchase, voluntary relocation of people, or securing with involvement of local community (Sl. 4 pg 117 of the Gajah report). Unfortunately, to the best of our knowledge, neither the National Elephant Conservation Authority has been constituted nor any effective steps have been taken in this regard as well. This Hon'ble Tribunal may direct the States to furnish the steps taken by them, if at all, in this regard.

17. That the Applicants humbly submit that as per the Gajah Report, the elephant habitats of the northern bank of the State of Assam are under severe biotic pressure resulting in degradation and fragmentation. Between 1991 and 1998, more than 1500 sq.km of forest area has come under human encroachment in the north bank. The Sonitpur district of Assam has been the worst affected and between 1994 and 1999, it lost 86.75 km² of forest area and more recently between 1999 and 2001, it lost 145.44 km² of forest area.

Thus 229.64 km² of moist deciduous forest and 2.55 km² of semi-evergreen forest have been lost between 1994 and 2001. The Gohpur Reserved Forest (133 km²), in the Sonitpur district, is now totally encroached with no sign of the forest. Due to degradation and shrinkage of habitat in SonaiRupai Wildlife Sanctuary, Charduar Reserved Forest and Balipara Reserved Forest, elephants have started visiting ArimuraChapori (adjacent to the Brahmaputra River, near Tezpur) since the past 15 years. Elephants from SonaiRupai Wildlife Sanctuary and Charduar Reserved Forest visit ArimuraChapori either via Gabharu-Dipota-Becheria or via Dhendai and Dhulepachung Tea Estate while from Balipara Reserved Forest to ArimuraChapori they come via Addabari and Harichuri Tea Estate. Elephants take shelter in ArimuraChapori (a small patch of forest) during the day and raid crops at night. That urgent remedial measures need to be taken to improve the habitats of SonaiRupai Wildlife Sanctuary, Charduar Reserved Forest and Balipara Reserved Forest to restrict the movement of elephants to ArimuraChapori to reduce human-elephant conflict. Movement of elephants has also been affected between Pakke Tiger Reserve and Papum Reserved Forest in Arunachal Pradesh due to human encroachment and agricultural activities. Elephants mainly use river-beds to move between these two areas; Seijosanullah and a small plantation area near LongkaNullah serve as a movement path between the two habitats due to the complete clearing of forest in Nauduar Reserved Forest in Assam. The hydro-electric project in Lower Subansiri has also adversely and seriously affected the elephant movement in the area.(pg 38 of the Gajah report)

18. That as per the report of the Assam Forest Department in 2009, in the Bhairabkunda – Gohpur elephant reserve, the total Elephant bearing forest

comprises of a total area of 1429.95 sq.km. and there are 6 isolated satellite habitats of 208.5 sq.km. The 6 isolated satellites are totally encroached. More than 549.36 sq.km. (28.4% of the total) is under encroachment as of 2009. The approximate percentage of encroachment are as follows:

- **Sonitpur West FD** – more than 74.22% under homestead encroachment (433.83 sq.km. total area out of which 322 sq.km. encroached.)
- **Charduar RF** – more than 91.39% under encroachment
- **Naduar RF** – more than 77.59% under encroachment
- **Singilimara RF** – more than 58.85% under encroachment
- **Balipara RF** – more than 52.71% under encroachment
- **Singilian RF** – more than 35% under encroachment

19. That the applicant beg to state that the above figures indicate massive loss of forest cover in the northern landscape of Assam, which is a major habitat of elephants and other wild lives. Human activities have fragmented these vast areas which were under thick forest canopy, now lost. A Google map of Charduar – SonaiRupai Wildlife Sanctuary is marked and annexed herewith as **ANNEXURE A/4** which shows over 70% of these vital forest covers is lost.

**DEATHS OF ELEPHANTS IN THE RAILWAY TRACKS OF ASSAM
IN THE 9 ELEPHANT RANGES AND REMEDIAL STEPS THAT
MAY BE TAKEN**

20. That the Applicant humbly submits that the physical presence of the roads and railway lines in the elephant habitat creates new habitat edges, alters the hydrological dynamics and creates a barrier to the movement of elephants and other animals, leads to the fragmentation of habitat and more importantly, causes death due to train and vehicular hits. As per the Gajah

Report (pg 51), rail traffic operates in a synergetic way across several landscapes and causes not only an overall loss and isolation of wildlife habitat, but also splits up the landscape in a literal sense.

21. That the Gajah report further observes that (pg 52) in India, a large number of endangered wild animals including elephants are being killed annually by train hits, which includes a staggering 36% cases recorded in Assam alone in the years between 1987-2007. The report identifies various factors that contribute to the elephant mortality by train hits such as ecological (steep embankments and turning), technical (speed of train, frequency and time, unmanaged disposal of the edible waste and garbage) and lack of awareness among drivers, passengers and planners.

22. That as per the Gajah Report there exists a general lack of co-ordination between the forest department and the railways and attributes the same for the lack of any sustained mitigation measures (page 52 of the Report). The 2017 edition of the Right to Passage Report too reveals that though other forms of development also impede the movement of elephants, it is railway lines that permanently impede movement along corridors in the absence of prohibitively expensive mitigation.

23. That the Applicants humbly submit that as per the available public information 55 elephants were killed in train accidents in Assam between 2001 and 2015, an average of 3.6 elephants/year. In the last 3 years, however, elephant train accident death rates have gone up steeply. Between 2016 to March 2018, 26 elephants lost their lives in train accidents in

Assam, making for an average of 11.5 elephants/year which could have been avoided if adequate preventive measures were put in place.

24. It is submitted that such problems are not new and have been studied in the past. Thus for example the accident hotspots across Assam were mapped by (Sarma et al 2006; Singh et al 2013), alongwith other stakeholders – including Forest Department and Indian Railways. Scientists have been involved in collaborative pilot projects in order to prevent accidents which were carried out and demonstrated to be effective at avoiding accidents. Due suggestions were made to the Indian Railways to implement policies that would prevent elephants dying on railway tracks. These have been flagrantly ignored time and again by Indian Railways. A reference may be made here to the above studies by Sarma et al 2006 titled “ Deadly Tracks - A scientific approach to understanding and mitigating elephant mortality due to train hits in Assam”, as well as Singh et al, 2013 which relates to a similar study in the Rajaji National Park of Uttarakhand. The above study gives several recommendations including sensitization of train drivers, use of signage, improving visibility for the train drivers, reducing the speed of the train in critical areas, joint patrolling, making the sides of railway track elephant friendly, conservation action oriented scientific studies, among others. A copy of the recommendations in the report titled “ Deadly Tracks - A scientific approach to understanding and mitigating elephant mortality due to train hits in Assam is marked and appended as ANNEXURE A/5.

25. That it is submitted that as per public knowledge since December 2017 to middle of February 2018, i.e. in 2½ months 13 elephants have been killed in railway tracks by speeding trains.

26. Some details of tragic elephant deaths – on railway tracks and through electrocution in the last 3 months.

- In the latest incident on 10.02.2018, four elephants were killed by speeding 15611 Guwahati-Silchar Fast Passenger train under Lumding Division of NE Frontier Railways on the railway tracks.
- 6 Elephants including calf were killed after a train hit them. The incident took place in Balipara in the Sonitpur district inside an Elephant Corridor on 10.12.2017. The elephants were hit by the Guwahati – Naharlagun Express at around 1 a.m. night, when the herds were crossing the railway track.
- On 19.11.2017 two elephants were killed after hit by speeding train near Thakurkuchi Rly. Station located close to Guwahati when a herd was crossing the railway track.
- 3 Elephants were killed after they were hit by a speeding train in Jogijan area near Hojai Railway Station in Central Assam. Railway authorities say that the area was not an identified elephant corridor and hence there was no question of any speed limit.
- On 27.09.2017 two elephants were killed after they were hit by a speeding train near Assam Nagaland border.

27. That according to a leading environmental NGO in the region called Aranyak, 40 Elephants have died unnaturally in 100 days i.e. between October, November and December 2017. The various news articles reporting the incidents of such callous deaths have been marked and annexed herewith as **ANNEXURE A/6**. From 1993 to 2007, 23 elephants were killed in train

accidents in Tinsukia and Kamrup Districts. Ten of them were from areas within Digboi Forest Division and 13 from areas under Kamrup East Forest Division. Another 6 elephants from areas under Nagaon South Forest Division were knocked dead by train, raising the death toll number to 53 in a period of 15 years. Repeated evidences of elephant deaths could have been minimized if Railway Authorities addressed the matter in a concerned and attentive manner. The true copy of a detailed account of elephant deaths due to electrocution and train accidents as compiled by the Applicants is appended as ANNEXURE A/7.

Immediate measures that may be taken to minimize death of elephants on railway tracks:

28. That the elephants move in all directions in search of food, shelters and traditional elephant corridors have lost much of its significance in Assam, and elephant now cross railway tracks not only in the designated elephant corridors but anywhere within the 9 Elephant Ranges (5 Elephant Reserves) where railway tracks cross the Ranges. In this context, the railway tracks inside the 9 Elephant Ranges need to be treated as vulnerable tracks and same precaution as taken for designated elephant corridors of speed among others, must be taken for the entire stretch of railway tracks inside the Elephant Ranges. Details of railway tracks inside the Elephant Ranges for the State of Assam has already been marked and annexed as ANNEXURE A/2 (Colly).

There is however, grave destruction and fragmentation of the Wildlife Sanctuary – SonaiRupai, and major Reserve Forests, - Khalingduar, Charduar, Balipara, Naduar, BiswanathBehali and Gohpur Reserve Forests,

in the northern landscape of Assam which is the major habitat of the elephants of Assam and need immediate attention,

29. That this Hon'ble Tribunal may call upon the Respondent No. 7 Railways and the Respondent No. 4 Assam State Forest Department to jointly identify the areas of maximum vulnerability in the tracks and after identification the Respondent No. 7 shall take steps for construction of permanent underpasses/overpasses, permanent power fencing along railway tracks and other measures. (pg 102 onwards of Singh et al 2013)

30. That, it is humbly submitted that an Early Warning System (EWS) should be used as an immediately implementable step for railway tracks. An Early System detection of movements of elephants by village and other designated NGO groups to be specially registered for this purpose will go a long way in averting many railway / high tension wire killings. A modality needs to be worked out between the governmental authorities and the various civil society groups. These NGO groups could be motivated and also paid for their service through a dedicated Environment Relief Fund specially created for this purpose. They will be equipped with field communication systems connected with Forest Department, District / Sub-Division authorities who in turn will be connected with the Railways. Drivers of the trains will be informed about presence of elephant(s) or herds near the railway track with location etc.

31. That a good example of the joint collaboration was shown recently when a voluntary 'WhatsApp' group prevented possible jumbo death in Nagaon

district. A What'sApp group titled "Elephant Movement Monitor" had been formed and has representative from Railways, Forest Department, Assam Power Distribution Co., and other civil society members. When a group of about 150 elephants crossed the NH 39 and reached Kampur in Nagaon District on 14th Dec'17, Thursday, night the group sent flurry of messages about the presence of the herd and the officials of the Power Company shut down a feeder HT lines and the railways imposed restriction of 30 kmph for train on that stretch and successful averted a possible catastrophe. The newspaper article dated 17.12.2017 has been marked and annexed herewith as **ANNEXURE A/8**.

Use of Technology:

32. That alarmed at the abnormally high incidence of elephant fatalities on railway tracks in Assam, wildlife experts have called for use of Modern Surveillance technology like Automated Early Warning Systems (AEWS) to check elephant mortalities alongwith calling for assessment of the factors behind the growing presence of elephants on railway tracks. Nature & Wildlife Association of France (NWA) and Green Guard Nature Organization, which had a meeting in Thailand recently, suggested, among other things, installation of an automated on-train early warning system that can track and warn drivers about animal presence on and around tracks from a distance of over 3 km. There are other agencies such as Ear to the Wild Foundation which also provides a responsible environmentally technological solution to the threats wildlife is increasingly facing in India by using sounds, images and remote control tracking technologies, as well as state-of-the-art communication methods, capable of detecting the presence of endangered animals in forests areas.

33. That another technology that can provide early warning on elephant presence as well as facilitate the monitoring of elephant movement,” NWA president Andy Merk said. He said that the AEWS developed by Rail Vision, an Israel-based company, involves a safety device that is mounted on the train locomotive, and which can detect the presence of an animal on or near tracks and thereafter send a warning to the loco pilot. The system works with a specially adapted sensor with a unique algorithm located on the top of the locomotive that provides an alarm for any suspicious interfering object with a preliminary classification of the any object nature. This information is then presented to the loco pilot as a visual image (on-board monitor) for additional exploring of the obstacle ahead of the train. The operational range of the system is up to two miles.

“Many trains across the globe are increasingly using these technologies to minimize different types of train accidents, including animal-hits. Dash-cam with remote live view and backup is another useful technology,” Rituraj Phukan, secretary general, Green Guard Nature Organization said.

The Respondents may call upon such Experts to formulate a time bound and effective programme to mitigate such unnatural deaths of elephants.

34. That Tea Gardens and preventive measures installed by them have also proved to be a threat to elephants. Many tea gardens are located on traditional elephant corridors. The tea gardens should allow movement of elephants through the pathway of the tree bushes as elephants do not damage the bushes. Many Tea Gardens put up electric fences, Razor Blade Technology (RBT) fences that lacerates elephant bodies inside the plantation areas. But some progressive Tea gardens also allow and facilitate movement of the

elephant herd through their tea gardens plantation, because elephant do not damage tea bushes. That tea gardens in elephant movement corridors must remove electric fences, RBT and other fences to facilitate elephant movement through gardens. When Tea Gardens block the traditional elephant routes of migration, the elephants enter villages seeking new passages, which increases the man-animal conflict in these areas. Tea gardens may put low power electric fences to protect the labour lines etc., if needed.

DEATHS CAUSED BY ELECTROCUTION AND RECOMMENDATIONS FOR SAFETY

35. That the applicant humbly submits that another major threat to the Asian elephant population is death due to electrocution by low hanging and illegally drawn power lines across Assam that has reached alarming proportions. According to Forest Department records, 48% i.e. 116 of 243 unnatural elephant deaths recorded in Assam between 2001 and 2015 were attributed to electrocution. The average, rate of deaths due to electrocution on power lines was 7.7 elephants/year between 2001 and 2016. However, 15 elephants were killed in 2017 alone, marking the highest rate of mortality due to electrocution of the last 18 years, which could again be avoided if adequate measures were put in place.

36. That on 25.08.2017, an elephant was electrocuted at Katonibari tea estate at Mariani in Jorhat district, Assam after it came in contact with an overhead high-tension electric line. That again on 12.11.2017 again an elephant was electrocuted at Bijulee tea estate near Numaligarh after it came into contact with a live high-tension electric cable.

37. That it is humbly submitted that the Hon'ble the Union Minister for Environment, Forests and Climate Change Dr. Harsh Vardhan, while reporting 21 elephant deaths between April 2016 and 09.02.2017 across India has gone on record to state that the highest number of deaths were in Assam. Further it is submitted that a representation was also made by the Applicant No. 2 to the Chief Minister, Assam on 16.11.2017 explicitly raising concerns about the abnormal rate of deaths of elephants by electrocution, has gone unacknowledged.

38. That it is humbly submitted by the applicant that the Assam Power Distribution Company Limited (APDCL) has been grossly negligent in allowing ill-maintained and low hanging transmission wires to endanger elephants and that they have failed to monitor power theft through illegal power lines by which elephants are further deliberately or accidentally electrocuted. That despite joint surveys and reports by the forest department and ASEB/APDCL officials to identify potentially dangerous sections, in both Golaghat district (2013) and Jorhat district (2017), no concrete actions have been taken by APDCL. Similarly, in Tinsukia district (2014) and Karbianglong (2018), complaints about low hanging lines and unsteady electric posts had been made by the local people and Forest Department to ASEB/APDCL, that went unheeded and resulted in elephant fatalities.

39. It is submitted that the MoEF&CC, Respondent No.1 herein, has issued guidelines from time to time with regard to transmission lines and the possible safeguards that needs to be put in place to avoid fatality on wildlife.

Thus for example the Guidelines issued on 05.05.2014 apart from other things clearly states that incase of transmission lines passing through National Parks, Wildlife Sanctuaries and Wildlife Corridors, insulated conductors shall only be used to prevent electrocution of animals. Another Guideline dated 19.11.2014 which partially amended the above mentioned guidelines and stated that incase of transmission lines to elephant reserves/ corridors additional clearances of at least 6 mts shall be provided over and above the minimum clearance as stipulated under the Central Electricity Authority (Measures Relating to Safety and Electricity Supply) Regulations, 2010 above the ground from the lowest conductor of the transmission lines. Another detailed Guidelines dated 24.10.2016 clearly describes the safeguards to be adopted especially regarding electrical accidents occurring in and around forest areas involving human/ animals. It also clearly states that in order to prevent the death of animals like elephant etc. in the forest areas due to electrocution by the distribution lines, in the forest area the distribution companies shall preferably use ABC or underground cable. It further states that in case of the overhead lines, the clearance above ground of the lower conductor of 11KV and 33 KV overhead lines should be as per the CEA Regulations 58(3) and 58(4) or above maximum trunk height of the elephant, whichever is higher. A copy of the abovesaid Guidelines is marked and collectively annexed as **ANNEXURE A/9 (Colly)**. For convenience the relevant sections of 58(3) & 58(4) of the Central Electricity Authority Regulations is being reproduced hereunder:

58 – Clearance above ground of the lowest conductor of overhead lines

.....

(3) No conductor of an overhead line including service lines, erected elsewhere than along or across any street shall be at a height less than-

(i) for lines of voltage upto and including 4.6 metres - 11,000 Volts, if bare

(ii) for lines of voltage upto and including 4.0 metres - 11,000 Volts, if insulated

(iii) for lines of voltage exceeding 11,000 Volts but not exceeding 33 ~V - 5.2 m

(4) For lines of voltage exceeding 33 kV the clearance above ground shall not be less than 5.2 m plus 0.3 m for every 33,000 Volts or part thereof by which the voltage of L'l.e line exceeds 33,000 volts;

Provided that the maximum clearance along or across any street shall not be less than 6.1.m

40. Further the MoEF&CC, Respondent No.1, has also issued the Draft Guidelines for linear infrastructure intrusions in natural areas; roads and powerlines which has been given for comments to the Standing Committee of the National Board of Wildlife for the prevention of electrocution deaths of the Asian elephants. The said draft clearly demarcates the height above the ground for such wires i.e a minimum of 20 feet (6.6 metres) above ground on level terrain (slope 20 degrees) and a minimum of 30 feet (9.1 metres) above ground on steeper terrain (slope > 20 degrees). It is for the MoEF&CC to state whether such guidelines have been finalized and whether it is being implemented on the ground or not. The true copy of the relevant excerpts of the Draft Guidelines has been marked and annexed as **ANNEXURE A/10.**

Electrocution deaths of elephants: Four Member Committee Report of death of elephants by electrocution in Orissa 2010

41. That the Report of the Four Member Committees for enquiry into the cause of deaths of elephants due to electrocution in Orissa, as submitted to the MoEF&CC on 15.12.2010, is a very comprehensive report about elephant deaths in Orissa, and is relevant for Assam, or any part of India and these recommendations should be made mandatory for the power distribution companies. In its report it states that:

“The status of protection device of the power distribution networks of Orissa is far from satisfactory, many old lines in the 33KV/11KV system have defunct circuit breakers many of the new lines are energized without mandatory inspection.” (Page 11 of the Report)

“Non tripping of line – On many cases the trunks of the elephants were burnt, which gives clear indication of current flow for a sufficient long period it shows that tripping mechanism did not work properly” (page 62 of the report). It is humbly submitted that the finding of such study may also be incorporated and adapted in the case of Assam to prevent elephant deaths. The true copy of the relevant pages of the above said report of the Four Member Committee on death of elephants by electrocution in Orissa 2010 is marked and appended as **ANNEXURE A/11**.

42. That in this context of elephant deaths due to electrocution, some of the recommendations from the ‘Gajah’ Report which may be implemented under the directions of this Hon’ble Tribunal are as follows:

- a) It should be made mandatory for Power Grid Corporation, NTPC etc. which frequently requires forest land for laying high tension wire to take permission for National Elephant Conservation Authority (as and when

constituted) for laying high voltage lines in Elephant Reserves. *Alternatively, it should take the clearance of the NBWL which should necessarily have elephant experts preferably having first hand experience of such areas in such meetings. (Applicants' suggestion)*

- b) In case of death of elephants by electrocution due to high voltage wire, adequate compensation should be taken from Power Grid Corporation, NTPC, APDCL and the like.
- c) Landowner of agricultural land where an elephant dies of electrocution should be prosecuted.

The above are vital recommendations by the MoEF&CC Elephant Task Force but there has not been any implementation of these vital recommendations.

43. That the Applicants beg to bring to the attention of the Hon'ble Tribunal that the failure to comply with the above Guidelines and the recommendations by the numerous studies conducted by the MoEF&CC itself, have been the cause of death of many elephants. This Hon'ble Tribunal may thus direct the MoEF&CC to implement their own Guidelines and recommendations at the earliest.

44. Furthermore, the following are some of the permanent solutions as suggested by the Applicants for the avoidance of such incidents in the future are as follows:

- a. Underpasses, overpasses in the Railway tracks inside the Elephant Reserves as permanent solutions.

The Railways must identify all critical areas of elephant movement across railway tracks, in a joint effort with the Forest Department, and

plan and construct scientifically designed, environmentally acceptable underpasses, overpasses, fences as needed as a permanent solution to avoid elephant deaths in the railway tracks while crossing the railway tracks inside Elephant Reserves, as a National priority.

b. To accord legal sanctity to all elephant corridors and elephant reserves of Assam in consonance with the judgment of the Hon'ble Court Dr. KashmiraKakati v/s Union of India OA No. 19/2014.

c. Rejuvenation of elephant habitats and corridors with community support

45. That the applicant begs to state that in order to provide for a long term protection of the elephant population, the best way forward is to take measures to increase the forest cover in the state of Assam. It is an accepted fact that encroachment of the natural habitats is one of the most critical issues in wildlife conservation and the consequences of an ever increasing pressure of human development are depletion, degradation and fragmentation of habitats, loss of corridors and an increased human-animal conflict. Therefore, an increase in forest cover will result in the growth of the natural habitat of the elephants and minimize human-elephant conflict. The long-term plan to rescue the elephants from its present plight can happen only by rejuvenating the lost forest habitats, including Protected Areas and Reserve Forests, and the corridors. However, it will be difficult to achieve without community support. As per the paper titled, 'Local attitudes toward community-based conservation policy and programmes in Nepal: a case study in the Makalu-Barun Conservation Area' Community-based conservation (CBC) has been projected as the most practical approach to stem biodiversity loss in developing countries (Annexure II). When the village communities will see the benefit of regenerating the forests by

protecting them *inter alia* which will minimize their conflict with elephants, they may get motivated to contribute towards elephant conservation. It is necessary to intensify such schemes by the government which will benefit the community and the wildlife alike.

46. That the Assam Forest Department-Respondent No. 4 must undertake urgent rejuvenation project of the denuded and encroached protected areas and reserve forests of Assam. Exigent sites in the north bank, which are critical for elephant conservation, and where also clear gains can be demonstrated, include SonaiRupai Wildlife Sanctuary and the Khalingduar, Rowta, Charduar, Balaipara, Naduar, Biswanath, Behali and Gohpur Reserve Forests.

47. That it is further suggested, that Respondent No.4, Forest Department to undertake urgent measures which may include relocation of people from inside the SonaiRupai Wildlife Sanctuary, and from the Reserve forests as mentioned above in accordance with law and to start a rejuvenation process of the forest with a sense of great urgency. The same should also be replicated in the following very important Elephant bearing areas namely Ripu and Chirang Reserve Forests and Kaziranga-Karbi Anglong-Intanki Landscape.

48. That the prioritized degraded SonaiRupai Wildlife Sanctuary and other Reserve Forests of the northern landscape of Assam may be taken up for rejuvenation in a "community governmentparticipatory model" on a mission of true urgency for a long term solution, in the form of rejuvenation of forest covers in the protected areas, reserve forests, elephant corridors which is the

key to survival of the elephants habitats as well of the elephants. But it needs community support. When the village communities will see the benefit of regenerating the forests by protecting them, which will minimize their conflict with elephants, and when they know that their rights will be protected under the law, they can be motivated. If Forest Department gives them fruit and medicinal plant for planting inside the RFs&PAs and they earn for their labour, it will be an added incentive to the villagers.

49. That there is already in existence a community based project in the State of Assam, the Assam Haathi Project. The project is a community-based approach to helping people in Assam (Northeast India) live safely alongside wild elephants. In this project, two conservation organizations – UK based Chester Zoo and Assam-based Ecosystems-India have joined hands to mitigate ways of eco-existence between humans and elephants. The following approaches have been adopted by the Project:

- Community-based elephant conflict mitigation – assisting communities in developing effective, non-harmful elephant damage control measures.
- Elephant monitoring and research – following the movements of elephants herd and studying their behaviour, nutritional needs and analyzing patterns using Geographic Information Systems (GIS).
- Conservation collaboration – bringing together conservation groups and government agencies working on elephant conservation in Assam, to implement a long-term strategy for habitat protection and land-use planning. (SOURCE: Assam Haathi Project – <http://www.assamhaathiproject.org/>)

Thus, NGOs and spirited individuals can play a big role in bringing an end of this crisis. The support of government is also a crucial necessity in this aspect.

50. It is further submitted that the central range of the south bank of the Brahmaputra is one of the most important habitats for the elephant in north-eastern India and extends from Kaziranga National Park across the Karbi plateau into Nagaland and includes parts of the central Brahmaputra plains and the basin of the Diyung River to the foot of the Meghalaya plateau in Assam and Meghalaya. This population has become separated from the south bank-western population due to expansion of Guwahati city (capital of Assam), clearing of forest, 'jhum' cultivation and settlements along the National Highway 40 (Shillong-Guwahati) in the Rhi-Bhoi district of Meghalaya.

51. The elephants from the eastern Karbi plateau move down regularly to the plains of Kaziranga National Park at the beginning of winter, ascending once again at the advent of the floods (Choudhury, 1999). Movement between these two forests takes place mainly through tea gardens and cultivated lands. Heavy traffic on National Highway 37 passing through the corridor is one of the major barriers for animal movement, especially during the rains. There is occasional movement between this population and the south bank-western area population through Nongkhylllem Reserved Forest and the degraded habitat of Rhi-Bhoi district (through NongwahMawphar village area established in 1999).

52. That this landscape covers the forests of Golaghat, Eastern Assam Wildlife Division, KarbiAnglong East FD and part of Nagaon FD and Nagaon south FD within Golaghat, Nagaon and KarbiAnglong districts. Dhansiri-Lungding Elephant Reserve encompasses part of the forests of KarbiAnglong Autonomous district, North Cachar Hills Autonomous District and parts of Nagaon district extending over the forests under KarbiAnglong West, Hamren, Nagaon and Nagaon south Forest Divisions. Elephants also inhabit Dhansiri and Daldali Reserved Forests in KarbiAnglong and Intanki sanctuary in Kohima in an area of about 1050 km². Elephants regularly move between Dhansiri and Intanki across the interstate boundary. Inside Assam, they move between Dhansiri and Daldali and adjacent forests. It is humbly submitted that the answering respondents must take the above facts into consideration while preparing the rejuvenation plan as suggested above.

The Applicants submit that if the Hon'ble Tribunal so desires a comprehensive rejuvenation plan may also be submitted for the Hon'ble Tribunal's consideration.

Valuation and Compensation for elephant deaths in Railway Tracks and Electrocutation

53. That elephants are priceless and no price can really be fixed as price of an elephant. Elephants are habitat builders. Elephants are products of a forest habitat, as well as they are the habitat builders as illustrated above. So price of an elephant need to be linked with the price of a habitat – number of trees, estimated carbon sequestration by the trees, grasses, shrubs and its value in international market, cost of soil retentions, stream and river water flow and purity etc. If the price of the habitat is calculable taking into account various

parameters, then this price divided by number of elephants in the habitat will fix the cost of an elephant which, if quantified, may be in crores.

54. That, the death of a single elephant for the above preventable reasons is a tragedy for the Nation when only about 28,000 thousand or so elephants exist in the country. In this context, the price of an elephant for its death can only be fixed arbitrarily say 50 lacs to one crore that may be charged as compensation from the agency who are responsible for causing the death of elephants.

55. In view of the above it is humbly submitted that for every elephant killed, the Indian Railway/ or the Assam Power distribution Corporation Limited or any other agency responsible must pay a compensation of Rs. 50.0 lakhs to one crore depending on the negligence and other factors resulting in death to a special Elephant Conservation And Protection Fund to be created by the Forest Department of Assam, under the aegis of MoEF&CC and independent experts. Alternatively a special Environment Relief Fund as mandated by Section 24 of the NGT Act, 2010 may also be created under the directions of this Hon'ble Tribunal so that such funds may be used for restitution, rehabilitation, rescue and other such measures for elephant preservation in the State of Assam which may serve as an example for the rest of the country.

GROUND

That the Applicants are filing the present Application on the following and other grounds which the Applicants may take at the time of the hearing of the matter:

- A. Because the Environment Protection Act, 1986 defines environment to include water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property, the definition of environment would therefore include the inter-relationship between human and elephants. Elephants being an endangered species, the reduction in their population will therefore interfere in the equilibrium of the eco-system.
- B. Because there are no specific legal provisions for elephant reserves and corridors, it is difficult to identify and punish the wrong-doers and negligent parties. In this respect, it is important for all aforementioned areas to attain legal recognition as envisaged under *KashmiraKakati v. UOI & Others* in OA No. 19/2014 vide judgment dated 08.12.2017.
- C. Because, there exists no monitoring mechanism to keep a check on the speed limit of the trains in the elephant reserves and corridors, a large number of elephants are mowed down by the trains. Thus, provision for creating such a mechanism is a necessity. In this respect, the order of the Karnataka High Court in the case of *SuoMotuvs The State Of Karnataka (WP14029/2008)*, is important wherein the Hon'ble High Court ordered the State government to constitute committees which shall file periodical report before the High Court Legal Services Committee and the Karnataka State Legal Services Authority at least once in three months, for their constant monitoring, as to the implementation of short-term and long-term measures framed and proposed to be framed, as undertaken by the Government referred to above, for conservation of elephants and prevention of unnatural death of elephants as well as other wildlife.

- D. Because it is the duty of the state under Article 48-A of the Constitution of India that the *“state shall endeavor to protect and improve the environment and to safeguard the forests and wildlife the country”*.
- E. Because under Article 51-A (g) of the Constitution, every citizen of India has the duty to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures.
- F. Because the Hon’ble Supreme Court in *GodavarmanThirumulpad vs. Union of India (UOI)* and Ors (13.02.2012 - SC) stated that, *“Human-wildlife conflict is fast becoming a critical threat to the survival of many endangered species... elephants, tiger, lion etc. such conflicts affect not only its population but also has broadened environmental impacts on ecosystem equilibrium and biodiversity conservation.... rights of wild animals often tend to be of secondary importance...”*
- G. Because the Hon’ble Supreme Court in *M.C. Mehta v. KamalNath* (1997) 1 SCC 388 held that Article 21 of the Indian Constitution incorporates the Public Trust doctrine, and as such extends to the protection of natural resources, including elephants.
- H. Because the elephant is an endangered species and has been accorded a special status under specific legislation like the WLPA.

- I. Because, it is a well established fact that elephants are migratory animals who have well set routes and construction of railway lines and low lying apparatus set up by the APDCL pose a grave threat on their lives.
- J. Because the lack of protection to the Elephant Reserves would be violative of Environment Protection Act, 1986 and the precautionary principle.
- K. Because the NGT Act, 2010 in Section 20 states that “the Tribunal shall, while passing any order or decision or award, apply the principles of sustainable development, the precautionary principle and the polluter pays principle.
- L. Because the respondents have failed to follow the Guidelines issued from time to time especially the Guidelines dated 05.05.2014, 19.11.2014 and 24.10.2016.
- M. Because a liability has to be fixed under the Public Liability Insurance Act, 1991 and compensation amount needs to be fixed for the death of Elephants so that such amounts may be used for rescue, rehabilitation, restitution of habitat in accordance with law.
- N. Because there is little or no protection beyond protected areas and the judgment delivered by the Hon’ble Tribunal in KashmiraKakativsUniion of India in OA nO. 19/ 2014 vide judgment dated 08.12.2017 is still to be implemented and that such protection is required for the whole State of Assam and infact the entire country.

JURISDICTION

56. That the Applicants humbly submit that this Hon'ble Tribunal has the jurisdiction to entertain this Application as has been held in the matter titled Dr Kashmira Kakativs Union of India & Ors (OA No. 19/2014, decided on 08.12.2017) that one of the most important hurdles in protection of identified elephants corridors is that they do not have any legal protection under the Environment Protection Act, 1986 or the Wildlife Protection Act, 1972, which only talks about management of protected areas such as sanctuaries, tiger reserves and national parks, but fails to address habitat connectivity as well as habitats beyond protected areas in a concrete way. This Hon'ble Tribunal in the said landmark judgment mandated legal sanctity to elephant reserves and elephant corridors vide Final Order and Judgment dated 08.12.2017 and has directed that the Central Government to exercise the power conferred by Section 5 of the Environment Protection Act, 1986, read with the provisions of Wildlife (Protection) Act 1972, to declare the areas inhabited or used by elephants as conservation reserves. The said judgment has also further stated that before any proposed development within the established elephant habitat is carried out, a prior Wildlife Clearance from the Standing Committee of the National Board of Wildlife is mandatory. The Applicant therefore prays that all matters regarding these areas come under the Jurisdiction of this Hon'ble Tribunal under Section 14 of the NGT Act and this Hon'ble Tribunal is competent to adjudicate on the same.

LIMITATION

That the present application is being filed in accordance with Section 14(3) and Section 15(1), read with section 17(1) of the National Green Tribunal Act, 2010. Moreover the violations are recurring and successively trigger a

fresh lease of limitation in accordance with the catena of judgments of this Hon'ble Tribunal.

PRAYER

The Applicants humbly prays before this Hon'ble Tribunal, to direct -

- a) The Respondent No. 1 to give legal recognition to the elephant reserves and corridors and other areas to ensure conservation and free passage of the elephants in the entire State of Assam in consultation with Respondent No. 3 & 4 in accordance with Dr Kashmira Kakati vs Union of India & Ors (OA No. 19/2014, decided on 08.12.2017) by this Hon'ble Tribunal.
- b) The Respondent No 3 along in consultation with Respondent No 1 constitution of an Elephant Task Force for the State of Assam which is duly empowered under the Environment Protection Act, 1986 with independent experts as well as the highest state and central functionaries so that quick action on issues arising out of elephant conservation, rescue, rehabilitation of animal as well as habitat including corridors are taken.
- c) The Elephant Task Force so created and empowered to implement the recommendations given by various committees/studies as described particularly in paras 12, 13, 39, 40 and 41, among others in consultation with all the answering Respondents, of this Application.
- d) The Respondent No. 1 in consultation with Respondent Nos. 2, 3, 4, 5, 5 and 8 to declare the railways tracks, national and state highways, and transmission lines as elephant protection zones in the nature of ecologically sensitive areas of special importance under the

Environment Protection Act, 1986 where elephants are known to cross or stray, based on scientific studies of the past as well as new assessments that may be carried out by the Elephant Task Force and ensure mitigation measures for the same.

- e) The Respondent State, Respondent No.3, and Respondent No. 4 for carrying out an immediate habitat rejuvenation plan especially ensuring species that form the food of the elephants in forest areas including protected areas, reserve forests, unclassed state forests, elephant corridors through a community-government participation model.
- f) The Respondent State, Respondent No.3, to prohibit putting of fresh power/electrical fencing within and around the protected areas and elephant corridors proposed or already existing;
- g) The Respondent state government, Respondent No.3 to take appropriate measures for public awareness with respect to guidelines related to elephant reserves and corridor for the prevention of future man-elephant conflicts, including state action plans and Task Force activities on elephant conservation;
- h) The Respondent No. 1, in consultation with Respondent Nos. 2, 3, 5, 6 and 8 to avoid linear infrastructure projects or its expansion, or atleast ensure adequate environmental safeguards measures as a precondition before such linear infrastructures projects or their expansions are sanctioned;
- i) The Respondents especially Respondent nos. 2, 5, 6 and 8 to explore and identify alternate routes of already existing railway lines,

transmission lines or highways and roads in order to prevent further killing of the elephants by trains, transmission lines or roads;

- j) The Respondent Nos. 1, to pass an order to the Highway as well as Railway and Electricity authorities to conform to existing rules and guidelines or frame new guidelines to ensure that it is followed by the drivers, operators passing through these areas and appropriate penalties for strict implementation of the guidelines so formed.
- k) The Respondent No. 1 to prescribe an appropriate compensation amount and deposit to an Environment Relief Fund as envisaged in the Section 24 of the NGT Act, 2010, to be paid by the Railways, Highways or Electricity Authorities, or any other agency responsible for each elephant killed due to their negligence and such amount may be used for elephant rescue, rehabilitation and habitat restoration or rejuvenation.
- l) Pass any other such order(s)/ direction(s) as this Hon'ble Tribunal deem fit and proper in the present case.

DATE: 26/4/2018

PLACE: New Delhi

DRAWN AND FILED BY:

Sanjay Upadhyay, ^{Eisha} Eisha Krishn and Sharmishtha Shukla

Advocates for the Applicants

BEFORE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH AT NEW DELHI

O.A. No. OF 2018

IN THE MATTER OF:

Pradip Kumar Bhuyan & Ors

Applicants

Versus

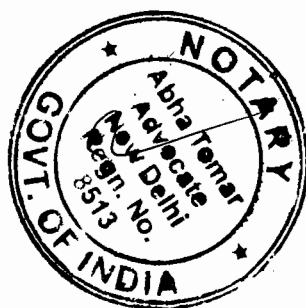
Union of India & Ors

Respondents

AFFIDAVIT

I, Pradip Kumar Bhuyan, S/o Dr. Ratna Bhuyan, aged 80 years, R/o Ghoramara, North Guwahati, P.O. Guwahati, Assam, India -781039, presently at Kolkata, do hereby solemnly affirm and declare as under:

1. That I am the Original Applicant in the present matter duly authorized to swear this affidavit, fully conversant with the facts and circumstances of the matter and am competent to swear this affidavit.
2. That the accompanying Applicant has been drafted by my counsel on my instructions and I have read and understood the contents of same and nothing material has been concealed therefrom.



Pradip Bhuyan
DEPONENT

VERIFICATION:

That all the facts mentioned in the affidavit are true to my knowledge and no part thereof is false and nothing material had been concealed therefrom.

Verified at 26 APR 2018 on this day of April, 2018.

Pradip Bhuyan
DEPONENT

Certified that the foregoing statement
was declared on solemn affirmation
before me which was read over
to the deponent and he admitted

It is correct

[Signature]
Notary, DELHI

26 APR 2018

**BEFORE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH AT NEW DELHI**

O.A. No. OF 2018

IN THE MATTER OF:

Pradip Kumar Bhuyan & Ors

Applicants

Versus

Union of India & Ors

Respondents

AFFIDAVIT

I, Mr. Joydeep Bhuyan, S/o Mr. Pradip Kumar Bhuyan, R/o House No. 11, Kanya Mahavidyalaya Path Gitanagar, Mother Teresa Road, Guwahati 781024, Assam presently at New Delhi, do hereby solemnly affirm and state as under:

1. That I am the Original Applicant in the present matter duly authorized to swear this affidavit, fully conversant with the facts and circumstances of the matter and am competent to swear this affidavit.
2. That the accompanying Applicant has been drafted by my counsel on my instructions and I have read and understood the contents of same and nothing material has been concealed therefrom

Upon



Joydeep
DEPONENT

VERIFICATION:

That all the facts mentioned in the affidavit are true to my knowledge and no part thereof is false and nothing material had been concealed therefrom.

Verified at **26 APR 2018** on this day of April 2018.

Joydeep
DEPONENT

Certified that the foregoing statement
was declared on solemn affirmation
before me which has been read over
to the deponent who has admitted
it as correct

[Signature]
Notary, DELHI

26 APR 2018

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH AT NEW DELHI

Original Application No. of 2018

IN THE MATTER OF:

Pradip Kumar Bhuyan & Ors. APPLICANTS

Versus

Union of India & Ors.RESPONDENTS

AFFIDAVIT

I, Dr. Kashmira Kakati, D/o Late Shri Hrishikesh Kakati , R/O 'Heaven',
Madhuban Hill, Government Press Road, P.O. Bamunimaidan, Guwahati –
781021, Assam, presently at New Delhi, do hereby solemnly affirm and state as
under:

1. That I am the Applicant in the present application, familiar with the facts and circumstances of the case and am competent to swear this affidavit.
2. That I have read and understood the contents of the accompanying rejoinder and they have been drafted by my counsel on my instructions and nothing material has been concealed there from.

Pradip Kumar Bhuyan
I certify the deponent's signature and has signed in my presence

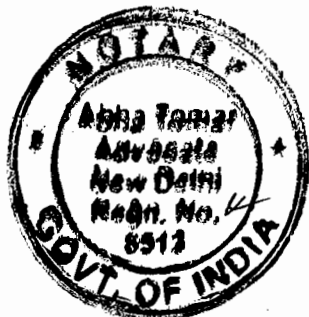
Kashmira Kakati
DEPONENT

VERIFICATION:

23 APR 2018

I, the above named deponent do hereby verify that all the facts mentioned in the affidavit are true to my knowledge and no part thereof is false and nothing material has been concealed therefrom.

Verified at on this day of August 2018



23 APR 2018

Certified that the foregoing statement was declared on solemn affirmation before me which has been read over to the deponent who has admitted it as correct
Abha Tomar
Notary, DELHI

Kashmira Kakati
DEPONENT

IN THE NATIONAL GREEN TRIBUNAL

OA NO. OF 2018

IN THE MATTER OF:

Pradip Kumar Bhuyan & Ors.



Petitioner (s)
Appellant (s)

-VERSUS -

UNION OF INDIA & ORS.

Respondent (s)
Defendant (s)

VAKALATNAMA

I/We Pradip Kumar Bhuyan, Kashmiri Kakati & Jaydeep Bhuyan
 DEFENDANT / RESPONDENT/ PETITIONER / OPPOSITE PARTY, in the above application/
 suit/appeal/petition/ reference do hereby appoint and return **Sanjay Upadhyay / Eisha Krishn / Upama
 Bhattacharjee / Saumya Chaudhari/ Prakhar Pandey/ Saumitra Jaiswal/ Sharmishtha Shukla**
 Advocate of the National Green Tribunal, to act and appear for me/us in the above application/
 suit/petition/appeal reference and on my/our behalf to conduct and prosecute or defend or with draw the
 same and all proceedings that may be taken in respect of any application connected with the same or any
 decree or order passed therein, including proceedings in taxation and application for Review to file and
 obtain return of documents and to deposit and receive money on my / our behalf in the
 Application/Suit/Petition/Appeal reference and application for Review, and to represent me/us and to take
 all necessary steps on my/our behalf in the above matter. I/We agree to ratify all act done by the aforesaid
 advocate, in pursuance of this authority.

[Signature]
 Accepted Identified By

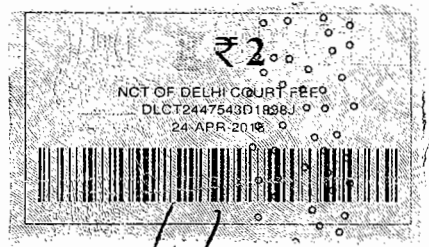
Dated this the 24th day of 20

[Signature]
 Advocate,

Kashmiri Kakati
Pradip Bhuy
Jaydeep Bhuya
 (Petitioner (s) / Appellant (s)
 Respondent (s) / Defendant(s) / Opposite Party

MEMO OF APPEARANCE

To,
 The Registrar,
 National Green Tribunal
 New Delhi



Sir,

Kindly enter my appearance in the above matter on behalf of the Petitioner / Appellant / Respondent.

Dated 2018

[Signature]
 Advocate for the
 Petitioner(s)/Appellant(s)/Respondent(s)