

F.No.6-256/2022 WL
Government of India
Ministry of Environment, Forest and Climate Change
(Wildlife Division)

2nd Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi 110003
Date: 23rd May, 2023

To,
The Special Chief Secretary,
Department of Environment, Forests, Science and Technology,
Aranya Bhavan, Sankurathri Residency,
Agathavarappadu, Mahatma Gandhi Inner Ring Road,
Peda Kakani Mandal,
Guntur 522509

Sub: Proposal for construction of greenfield 4 lane Bangalore-Chennai Expressway Phase-II from Km 71.000 to Km 156.000 falling in Palamaner RF and Tekumanda Extn.RF of Palamaner Beat & range of Chittoor (West) Division which are part of the ESZ of Koundinya Wildlife Sanctuary and Rayala Elephant Reserve under Bharatmala in favour of NHAI-
FP/AP/ROAD/154254/2022.

Sir,

Reference is invited to the subject mentioned above. The above proposal was considered in the 72nd Meeting of Standing Committee of National Board for Wild Life held on 25th April, 2023 under the Chairmanship of Hon'ble Minister for Environment, Forest & Climate Change.

2. After discussions, the Standing Committee recommended the proposal with the following conditions:

- i. The proposed area will be utilized only for the purpose for which the user agency has sought, but not for any other commercial purpose.
- ii. The User Agency should inform the commencement of the work to the Concerned DFO. The diversion work will be executed under the supervision of the Forest Department.
- iii. The User Agency should invariably demarcate the proposed land for diversion with any suitable permanent stones/pillars. After demarcation only the works should be commenced.
- iv. The User Agency should not resort to the excavation of the surrounding forest land for collection of the earth to be used. If such excavation is found during the work period or later, the User Agency will be charged with suitable provisions of relevant acts.
- v. The User Agency shall obey any other conditions stipulated by the Forest Department as per Acts and Rules.



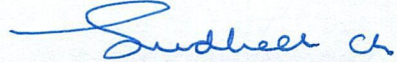
- vi. The User Agency will be solely responsible for every violation which attracts the provisions of A.P Forest Act and Forest (Conservation) Act, 1980.
- vii. Wildlife Conservation plan for Rs.1698.00 lakhs to be deposited by the User Agency in Wildlife Conservation Projects & CSP (WLC & CSR).
- viii. The User Agency shall deposit 2% of project cost in BIOSAF account for conservation of the elephant habitat to tackle the Human and Elephant conflicts and Mitigation other ameliorative measures.
- ix. Wildlife signage boards to be erected in and around the entire project.
- x. Work shall be carried out only from dawn to dusk.
- xi. No labour camps to be established in the protected area.
- xii. The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wild Life Warden and an annual compliance certificate shall be submitted by the State Chief Wild Life Warden to the Government of India.

3. The report of Committee constituted by the Standing Committee is enclosed for compliance of the recommendations made therein.

4. The minutes of the meeting have been posted online in the "PARIVESH" portal of this Ministry.


Yours faithfully,

Encl: As mentioned above.


(Dr. Sudheer Chintalapati)
Scientist 'E'
Email: sudheer.ch@gov.in

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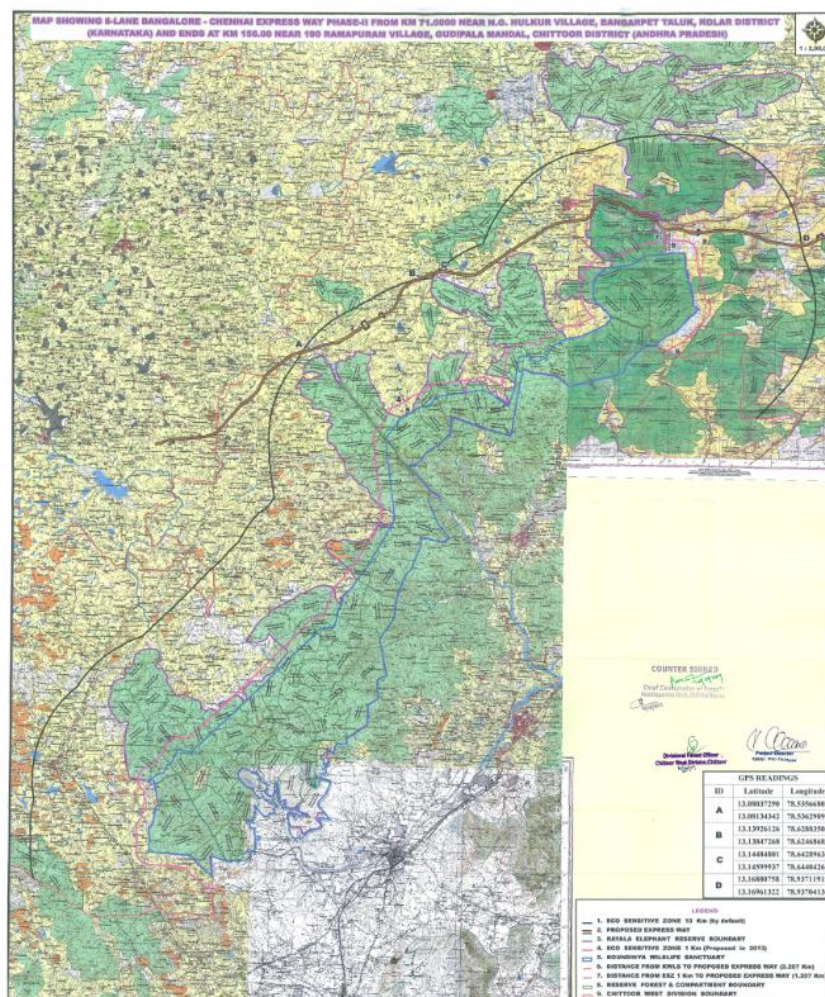
1. Chief Wild Life Warden, Department of Environment, Science and Technology, Aranya Bhavan, Sankurathri Residency, Agathavarappadu, Mahatma Gandhi Inner Ring Road, Peda Kakani Mandal, Guntur 522509.
2. Deputy Director General of Forests, Integrated Regional Office, Ministry of Environment, Forest and Climate Change, I and II Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai-34.
3. The Inspector General of Forests, FC Division, MoEF&CC, New Delhi.
4. The Joint Secretary, IA Division, MoEF&CC, New Delhi.


(Dr. Sudheer Chintalapati)
Scientist 'E'
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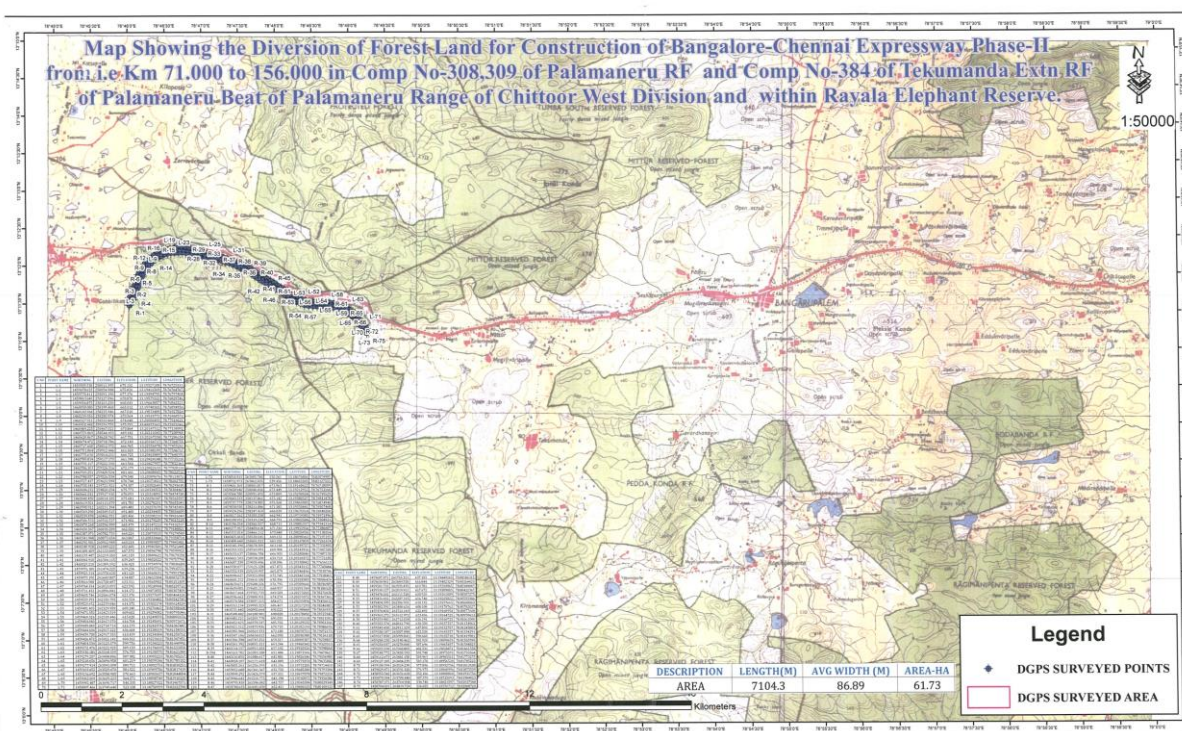
REPORT OF THE COMMITTEE REGARDING 4 LANE BANGALORE-CHENNAI EXPRESSWAY PHASE-II, ANDHRA PRADESH

1. BACKGROUND

An online proposal no. FP/AP/ROAD/154254/2022 was received in the Ministry of Environment, Forest and Climate Change (hereinafter the Ministry) from the State Government of Andhra Pradesh for use of 61.73 ha falling in ESZ of Koundinya Wildlife Sanctuary for construction of greenfield 4 lane Bangalore-Chennai Expressway Phase-II in favour of NHAI. The proposal was discussed in the 71st meeting of the Standing Committee of the National Board for Wild Life (SCNBWL) held on 29.12.2022 wherein the SCNBWL decided that a committee comprising of Dr. R. Sukumar, Member, NBWL, Dr. H. S. Singh, Member, NBWL and Deputy Inspector General of Forests (Wildlife), Ministry would carry out site inspection for the proposed greenfield highway, examine animal passage plan submitted along with the proposal and the requirement of animal passage structures in the existing highway and submit report to the Ministry.



Map showing location of proposed road vis-à-vis Koundinya sanctuary and its ESZ.



Map showing location of the proposed road proposal under consideration of the SCNBWL

2. CONSTITUTION OF THE COMMITTEE

As decided by the SCNBWL, the Ministry constituted a committee vide the Ministry's Office Memorandum 6-256/2022 WL dated 03.02.2023. The composition and terms of reference for the Committee were as follows:

1.	Dr. R. Sukumar, Member, NBWL	Member
2.	Dr. H. S. Singh, Member, NBWL	Member
3.	Deputy Inspector General of Forests (Wildlife), MoEFCC	Member - convenor

Terms of Reference:

- The Committee shall carry out site inspection.
- The Committee shall examine animal passage plan submitted along with the proposal and the requirement of animal passage structures in the existing highway.
- The Committee may co-opt experts in this field.
- The Committee shall study relevant reports, court orders, tribunal decisions, policy directives etc. with regard to proposal.
- The Committee shall submit its report within a period of one month from the date of its constitution.

The OM of the Ministry is placed as **ANNEXURE I**.

The Committee held its meeting on 8th February, 2023 and decided to carry out field inspection of the site on 4th March, 2023. During the meeting, the Committee also opined that a Scientist from Wildlife Institute of India, Dehradun (WII) may also accompany the Committee. Accordingly, on the request of the Committee, the Director, WII nominated Dr. Vishnupriya Kolipakkam, Scientist 'D'.

3. SITE INSPECTIONS AND DISCUSSIONS

- a. The Committee reached Chittoor on 3rd March 2023 and visited the site on 4th March, 2023 along with the CCF, Anantapura, DFO, Chittoor, officials of the National Highways Authority of India. The Committee also visited the existing National Highway (NH-4) passing close to the proposed project. The Committee also visited the proposed project area outside the reserve forest falling within the default Eco-sensitive Zone of Koundinya Wildlife Sanctuary.



The site for the proposed road within reserve forest in Chittoor Forest Division



The site for the proposed road within reserve forest



Existing National Highway (NH-4) passing within the Reserved Forest near the proposed expressway



View of the location of the proposed road



Road construction outside the Reserved forest within the default ESZ of Koundinya Wildlife Sanctuary

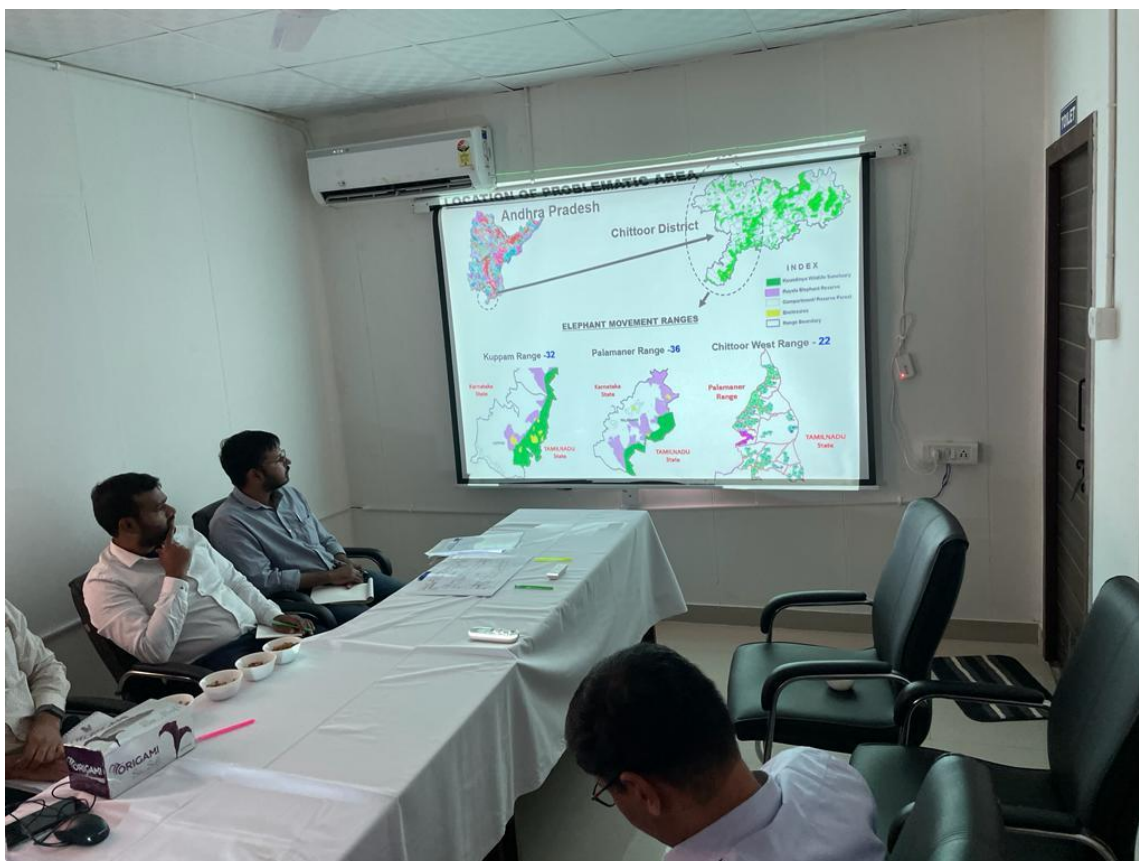
- b. Thereafter, the Committee held discussions with the officials of the Andhra Pradesh Forest Department accompanying the Committee, officials of the National Highways Authority of India and Shri Rakesh Kalva, Wildlife Biologist. Presentations were made before the Committee by the DFO, Chittoor which is placed as **ANNEXURE II**, Project Manager, NHAI which is placed as **ANNEXURE III** and Shri Rakesh Kalva which is placed as **ANNEXURE IV**.



On-site discussions by the Committee with the Andhra Pradesh Forest Department Officials and the Officials of NHAI



Presentations before the Committee on 4th March 2023



Presentations before the Committee (showing location of the project)

- c. The NHAI thereafter examined the passage plan as per the discussions during the field visit and submitted report vide letter no. NHAI/PIU-CTR/BCE/Forest/13002/2023/231, dated 14-03-2023.

4. HISTORY OF THE ELEPHANTS IN SOUTHERN ANDHRA PRADESH

Elephants, which had been largely absent from the state for decades or centuries, began to recolonize southern parts of Andhra Pradesh, in particular the Chittoor district, in early 1984 following the severe drought of 1982 in southern India (Sukumar 1995). The few hundred elephants in Hosur Forest Division (Tamil Nadu), the easternmost part of the elephant's range in the south, are part of the largest single known population (estimated at over 8000 individuals) of Asian elephants in the continent. The deciduous forests of the Hosur Forest Division (Tamil Nadu) were already under pressure from the resource extractive activities of a number of human settlements within this forest division (Kumar 1994). Beginning in 1984, several herds of elephants dispersed from the forests of Hosur and adjoining areas of Bannerghatta (Karnataka) north-eastwards through a number of small forest patches into the Chittoor Forest Division of Andhra Pradesh, a region where wild elephants were unknown for a few hundred years. The first dispersal seems to have been a herd of seven elephants from Hosur in March 1984, while another herd of 22 elephants from Bannerghatta was reported to have moved into Chittoor in 1986 (Sivaganesan and Bhushan 1986; Prasad and Reddy 2002). Reports of elephant deaths and other evidence (Sivaganesan and Bhushan 1986; Rao 1995), suggest that

several elephant herds and bulls, perhaps totalling about 100 individuals, had moved to Andhra from Tamil Nadu and Karnataka during the 1980s (Manakadan et al. 2010).

Andhra Pradesh declared the Koundinya Wildlife Sanctuary over an area of 357.63 sq. km in the year 1998. Later, the Rayala Elephant Reserve over an area of 766.13 sq.km was notified by the Government of Andhra Pradesh in the year 2003 for the conservation of these elephants. However, the elephants did not settle down in these areas but many of them dispersed further northward into the districts of Anantapur and Kadapa where they suffered high mortality and disappeared. However, a number of elephants also moved into the Sri Venkateswara Wildlife Sanctuary (in the Thirumala hills) and Seshachalam Biosphere Reserve (4,756 sq. km notified in the year 2011) The all-India Elephant Population Estimation of 2017 came up with a figure of 54 elephants in the Chittoor West and Tirupati Forest Divisions in southern Andhra Pradesh. However, the DFO Chittoor and researchers working here presently estimate that there are 85-95 elephants in Palamner district, but over 100 elephants in the southern Andhra region with seasonal fluxes from Tamil Nadu and Karnataka.

5. OBSERVATIONS OF THE COMMITTEE:

The Committee after the site inspection and discussions with the officials of Andhra Pradesh Forest Department, NHAI, and Shri Rakesh Kalva (Wildlife Biologist) made the following observations:

- a. The animal passage plan for the new expressway proposed by NHAI across the 7.1 km stretch of Rayala Elephant Reserve was observed to be grossly inadequate by the site inspection committee as the number and dimensions of the underpasses for large mammals such as the elephant were insufficient. In addition to elephants, a number of other wildlife species are present in the area, including leopard (*Panthera pardus*), wild dog (*Cuon alpinus*), golden jackal (*Canis aureus*), rusty spotted cat (*Prionailurus rubiginosus*), jungle cat (*Felis chaus*), sloth bear (*Melursus ursinus*), four-horned antelope (*Tetracerus quadricornis*), sambar (*Rusa unicolor*), spotted deer (*Axis axis*), mouse deer (*Moschiola indica*), Indian pangolin (*Manis crassicaudata*), Indian star tortoise (*Geochelone elegans*), Indian rock python (*Python molurus*), slender loris (*Loris lydekkerianus*) and others, whose safe passage across the expressway also needs to be taken care of, especially given the potential for collision with vehicles.
- b. One of the proposed bridges projected as animal underpass for elephants is, in fact, only about 25% within the forest area and the remaining portion is outside the reserve forest area.
- c. The NHAI has proposed tremendous amount of filling of earth for levelling the road with the surrounding area when, instead, bridges can be made at these places for the elephants and other wildlife to pass through the stretch of the highway.
- d. The project area extends into the default ESZ of Koundinya Sanctuary and it requires environment clearance under the Environment (Protection) Act, 1986. However, the NHAI has only submitted proposal for portion of the project falling within the Reserve Forest within the ESZ around Koundinya Sanctuary.

- e. The dispersal and subsequent seasonal movements of elephants from Tamil Nadu and Karnataka into Andhra Pradesh happens through a series of small forest patches (within a largely agricultural landscape) which cannot sustain elephants even in the medium term. These elephants have therefore been in serious conflict with agriculture and people, with a large number of human and elephant deaths as well as damage to cultivated crops. Elephants cross at least at 12 points along the existing highway (NH69), but the indications are that with expansion of this highway, they are now moving further eastward (outside the forest area) to cross along the north-south direction. This has implications for expansion of the zone of elephant-human conflicts. The initial linear movement of elephants between these states has now slowly given way to a more circular movement within the large forested area of Thirumala hills in Andhra Pradesh indicating that the animals may be settling into a different seasonal or annual routine of movement. The history of elephant populations in this region is relatively recent, spanning about four decades, and therefore the cultural landscape is not used to dealing with this megaherbivore. Any permanent break in this stretch of forest linking the (dispersing) elephant populations from the south (Tamil Nadu and Karnataka) could amplify human–elephant conflicts in this highly fragmented region, as well as render non-viable the elephant population which may eventually establish to the north in larger forested tracts such as the Thirumala hills and beyond in Andhra Pradesh. The Government of Andhra Pradesh wishes to retain the elephants within the state and, therefore, this committee has proceeded to make its observations and recommendations accordingly.
- f. As per the design for animal passage proposed by NHAI, the 4-lane expressway would be aligned at ground level at several places, thereby permitting animals to cross the road. This would put both animals and vehicles at high risk of collisions. The committee members observed that a collision between a vehicle travelling at the speed limit of 120 km per hour and a large, black-bodied elephant weighing 3-5 tonnes would be disastrous for the animal, the vehicle and its occupants. Therefore, NHAI should design barriers to prevent any animal from crossing the expressway aboveground but divert them entirely through the underpasses.
- g. The committee also observes that when multilane highways connecting major cities already exist, new expressways are being built parallel to the existing ones (e.g. between Nagpur and Mumbai). Similarly, there are two multilane highways between Bangalore and Chennai for the stretch between Bangalore and Ranipet (beyond which they merge into a single, multilane highway up to Chennai). With new technology, there was perhaps the possibility to transform one of the existing highways (especially NH-69, old NH4) into a high-speed express highway for the stretch between Bangalore and Ranipet (which passes through a forested tract). However, the new expressway has already been largely constructed, before asking for permissions for the part falling within the Rayala Elephant Reserve and the ESZ of Koundinya Sanctuary. Construction of such wide, high-speed expressways parallel to the existing highway involves massive disruption of the land surface, along with consumption of productive agricultural land and natural areas such as lakes, rivers and forests. Such linear projects not only block the movement of wildlife, but also cause social fragmentation (in villages along both sides of the road), disruption of the natural flow of water during heavy rains and even flooding of the area.

- h. There are larger issues of developing safe, reliable, accident-free and low energy (low carbon emissions) transportation infrastructure for goods and people between major cities in the country, beyond the proposed high speed expressways (which are highly prone to accidents besides high energy consumption). Media reports indicate that a high speed train between Bangalore and Chennai is already in the offing; this will also pass close to the existing highway and the new expressway being constructed. NHAI, Railways and other ministries of the government tasked with developing the transport infrastructure should consider views of the Committee in future while planning high speed expressways cutting through forests. This issue may be debated and an expert committee may be constituted to study and examine various issues for evolution of appropriate highway versus railway policy in the long-term interest of the nation.

6. RECOMMENDATIONS OF THE COMMITTEE:

The committee based on the observations makes following recommendations:

- a. The animal passage plan for the 4-lane expressway along the 7.1 km stretch passing through the forests of Chittoor Forest Division and Rayala Elephant Reserve should be considerably strengthened following the guidelines issued by Wildlife Institute of India. Overall, this should ensure that at least half of this 7.1 km stretch should allow free movement of the largest mammal, namely, the elephant by providing underpasses of adequate height (8m) and breadth at multiple locations. The NHAI has revised the length of clear passage for animals to 3090 m in the proposed road as per the proposal. This may be re-examined by the NHAI in consultation with the DFO, Chittoor to maximise it, if feasible.
- b. While working in the forest area, the planning and execution of work by NHAI should be done with the concurrence of the DFO-Chittoor so that disturbance to the forest and wildlife can be minimised.
- c. The underpass design and openness ratio has to be adhered to the Wildlife Institute of India's Eco-friendly measures to mitigate impacts of Linear Infrastructure on Wildlife. This has also been mandated by the Ministry of Road Transport & Highways, Government of India vide their order No RW-NH-11013/02/2019-S&R (P&B) dated 29th May 2019.
- d. Wherever terrain permits, there should be underpasses to facilitate movement of smaller animals and filling (as is currently proposed) should not be undertaken.
- e. The entire 7.1 km stretch of the proposed expressway should not allow the crossing of animals aboveground. Along the non-elevated sections of the expressway, this can be ensured for the elephant by adopting the mechanical railway barrier design used by Karnataka Forest Department at places in Bandipur and Nagarhole National Parks, but should be further modified by adding an extra horizontal rail line to the prevailing 2 rail lines in the Karnataka PAs and raising the overall height of the topmost line by about 0.5 to 1.0 metres. Chain-link fence may also be added along the lower part of the barrier to prevent mammals such as leopards, sloth bear, and others to cross the expressway.

- f. The animal passages planned for retrofitting in the National Highway (NH69-old NH4) running close to and parallel to the proposed 4-lane expressway should be consistent with the structures proposed with the present project proposal and included in the stage 2 compliance of the present proposal. This passage plan should conform to the detailed recommendations of Shri M. S. Negi (Member, EAC) who visited the site during 4-5th March 2022 (as per report dated 22nd March 2022).
- g. A research project to study the movement of elephants and other fauna in this landscape, including GPS collaring, with the funding from NHAI, involving regional institutions, researchers, Wild Life Warden/DFO and field staff should be carried out to ensure the efficacy of the animal passages as well as monitor possible repercussions such as wildlife-human conflicts.
- h. A Biodiversity Conservation plan, including setting up a rapid response team and other measures for the mitigation of wildlife-human conflicts, for the entire 48 km stretch of the NHAI road within 10 km of ESZ should be prepared and implemented by the Forest Department of Andhra Pradesh with funding from NHAI.

F.No.6-256/2022 WL
Government of India
Ministry of Environment, Forest and Climate Change
(Wildlife Division)

2nd Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi 110003.

Date: 3rd February, 2023

OFFICE MEMORANDUM

Sub: Constitution of Committee - Decision of Standing Committee of National Board for Wild Life in 71st meeting - Proposal for use of 61.73 ha falling in ESZ of Koundinya Wildlife Sanctuary for construction of greenfield 4 lane Bangalore-Chennai Expressway Phase-II from Km 71.000 to Km 156.000 falling in Palamaner RF and Tekumanda Extn.RF of Palamaner Beat & range of Chittoor (West) Division which are part of the ESZ of Koundinya Wildlife Sanctuary and Rayala Elephant Reserve under Bharatmala in favour of NHA- reg.

Reference is invited to the subject mentioned above. The above proposal was discussed in the 71st Meeting of Standing Committee of National Board for Wild Life held on 29th December, 2022 under the Chairmanship of Hon'ble Minister for Environment, Forest & Climate Change wherein the Standing Committee decided that a committee comprising of Dr. Sukumar, Member, NBWL, Dr. H. S. Singh, Member, NBWL and Deputy Inspector General of Forests (Wildlife) would carry out site inspection for the proposed greenfield highway, examine animal passage plan submitted along with the proposal and the requirement of animal passage structures in the existing highway and submit report to the Ministry.

2. Accordingly, a committee with following composition and terms of reference is given below:

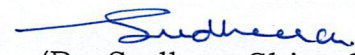
1. Dr. Sukumar, Member, NBWL	Member
2. Dr. H. S. Singh, Member, NBWL	Member
3. Deputy Inspector General of Forests (Wildlife), MoEFCC	Member - convenor

Terms of Reference:

- i. The Committee shall carry out site inspection.

- ii. The Committee shall examine animal passage plan submitted along with the proposal and the requirement of animal passage structures in the existing highway.
- iii. The Committee may co-opt experts in this field.
- iv. The Committee shall study relevant reports, court orders, tribunal decisions, policy directives etc. with regard to proposal.
- v. The Committee shall submit its report within a period of one month from the date of its constitution.

This issues with the approval of competent authority.

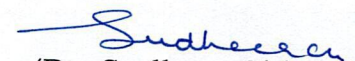

(Dr. Sudheer Chintalapati)
Scientist 'E'
Email: adwl-mefcc@nic.in

Distribution:

1. The Members of the Committee

Copy to:

1. The Chief Wild Life Warden, Aranya Bhavan, P.V.S.Land Mark, Near APIIC Towers, Mangalagiri, Guntur District-522503, Andhra Pradesh.
2. Deputy Director General of Forests(C), MoEF&CC, Integrated Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F, Wings, 17th Main Road, Koramangala II Block, Bengaluru - 560034
3. Joint Secretary, I.A. Division, MoEF&CC.
4. PSO to the ADGF (WL)/PPS to IGF (WL)/PPS to DIGF (WL)


(Dr. Sudheer Chintalapati)
Scientist 'E'
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DISTRICT LEVEL FOREST PROTECTION AND MANAGEMENT MEETING

**DISTRICT FOREST OFFICER,
CHITTOOR**

12.01.2023

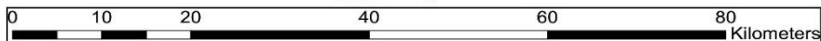
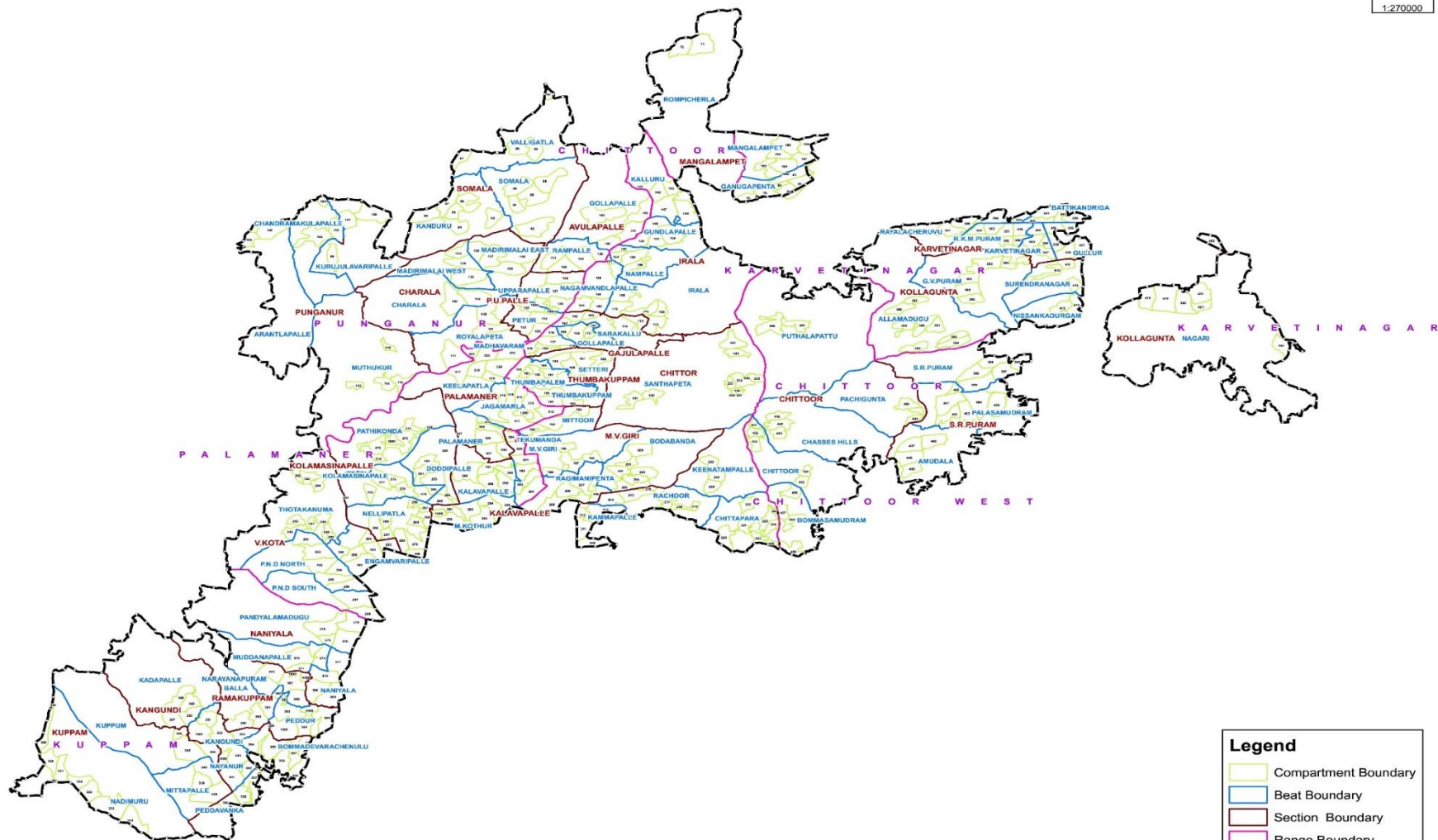


AGENDA

1. Man Animal Conflict- Palamaner, Pugnaur & Kuppam.
2. Prevention of elephant death with special reference to Electricity Department.
3. Diversion of Forest land-FCA violations.
4. Forest Settlement/Encroachments.
5. Joint Surveys- Somala batch cases.
6. Eco-Tourism initiatives- involvement of line departments.
7. RoFR pattas/Issues.
8. Any other topic with the permission of the Chariman.

District Administrative Map

Administrative Map showing Chittoor Division



HUMAN – ELEPHANT CONFLICT

KOUNDINYA WILDLIFE SANCTUARY

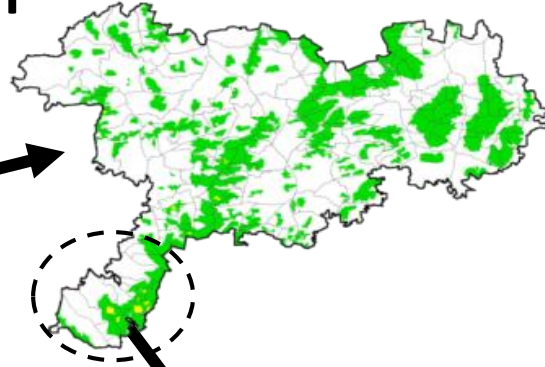
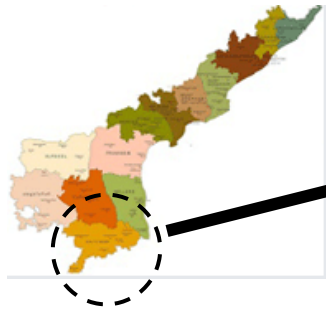
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LOCATION OF KWL SANCTUARY

NOTIFIED IN 1998

Andhra Pradesh

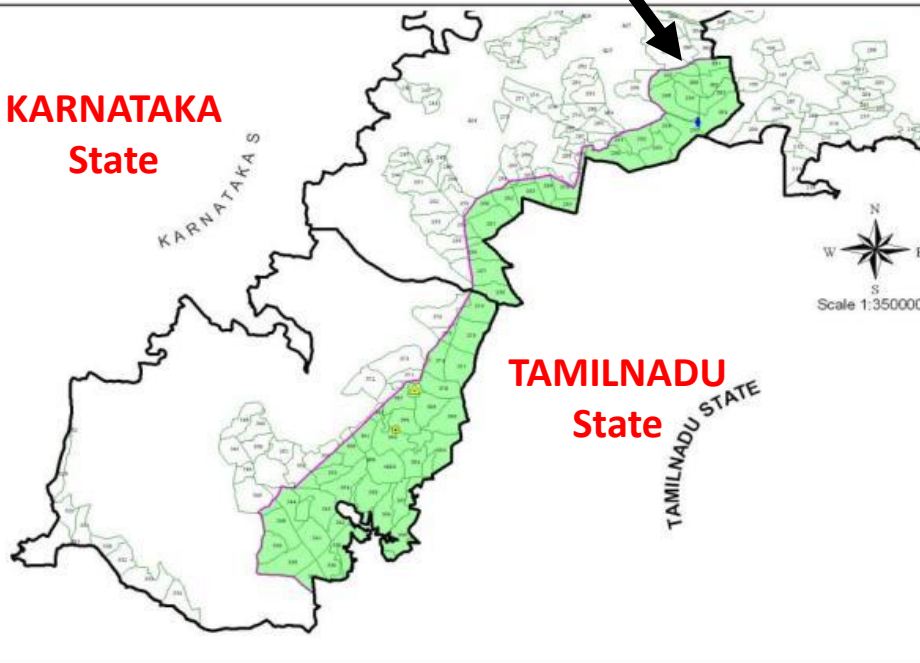
Chittoor District



Area : 357.63 Sq.Km

**KARNATAKA
State**

**TAMILNADU
State**



STAFFS COVERED IN KWLS

No. Rangers :	3
No. Section:	7
No. Beats:	16
No. Compt :	66
No. RF :	10

FOREST PERSONALS ON JOB

Staff	Sanctioned	Working	Vacant
FROs	3	3	0
DyROs	6	5	1
FSOs	9	8	1
FBOs	49	9	40
ABOs	50	28	22
Total	117	53	64

BASE CAMPS (Protection Watchers including Animal Trackers)

Name of the Range	No Base Camp	No of PW Working
Kuppam Range	6	30
Palamaner Range	5	25
Chittoor West Range	1	5
Total	12	60

Koundinya Wildlife Sanctuary

Map of KWLS + RER

Koundinya Wildlife Sanctuary, Rayala Elephant Reserve Map



Area 766.13 Sq. Km

Notification of RER

G.O.Ms. No: 106, EFS&T (For.II)
Department Dated: 09.12.2003

**KARNATAKA
STATE**

Declaration Notification of KWLS

GO.Ms.No. 308, EFES&T (For.III) Dept., Dt: 13-12-1990

Final Notification of KWLS

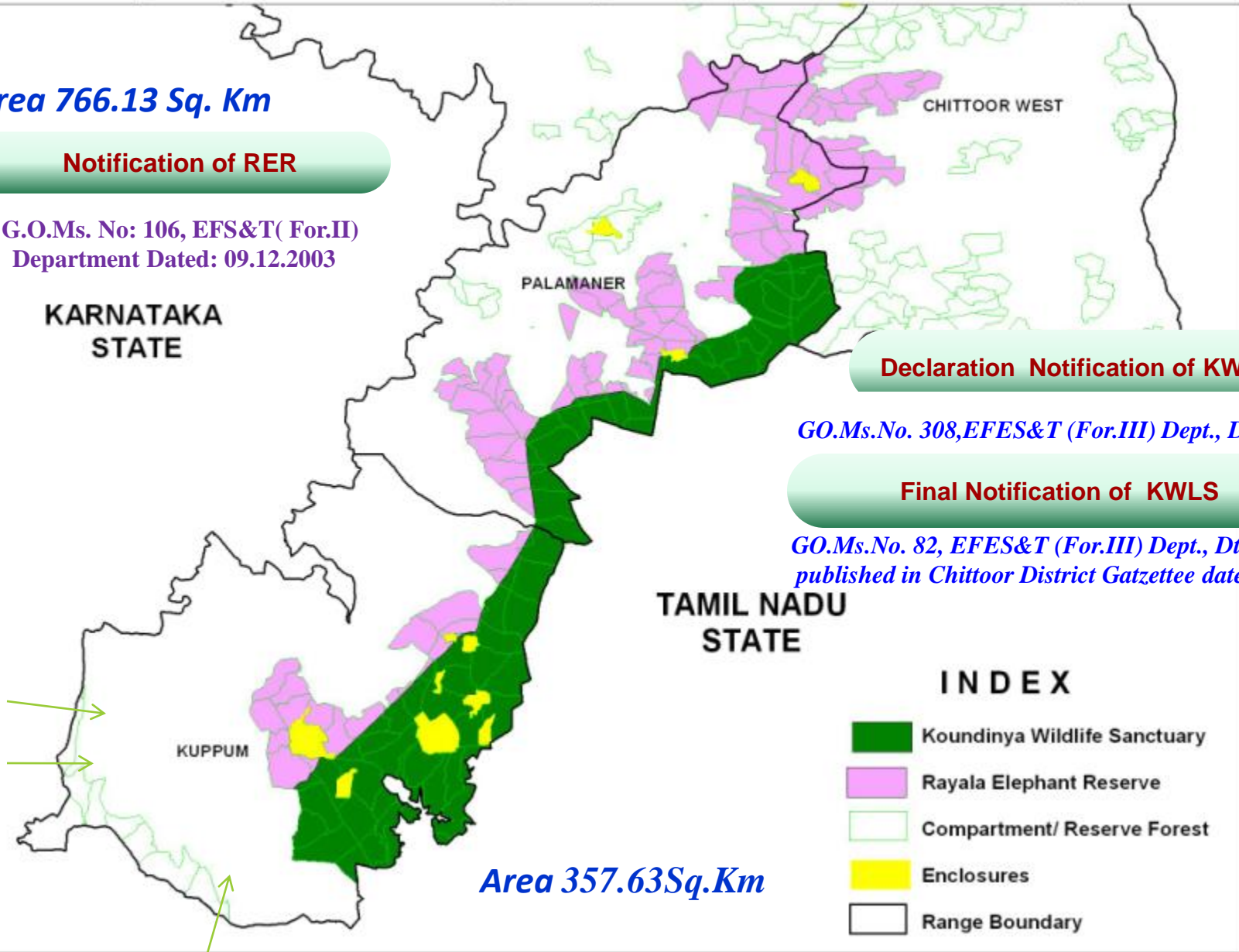
*GO.Ms.No. 82, EFES&T (For.III) Dept., Dt: 27-06-1998 ,
published in Chittoor District Gazettee dated. 11-09-1998*

**TAMIL NADU
STATE**

INDEX

-  Koundinya Wildlife Sanctuary
-  Rayala Elephant Reserve
-  Compartment/ Reserve Forest
-  Enclosures
-  Range Boundary

Area 357.63Sq.Km



Population pattern of Elephants

2012 Estimation :

8 Elephants

(3 Females, 3 Males & 2 Calves)

2013 Estimation :

22 Elephants

(11 Females, 7 Males & 4 Calves)

2017 Estimation :

30 Elephants

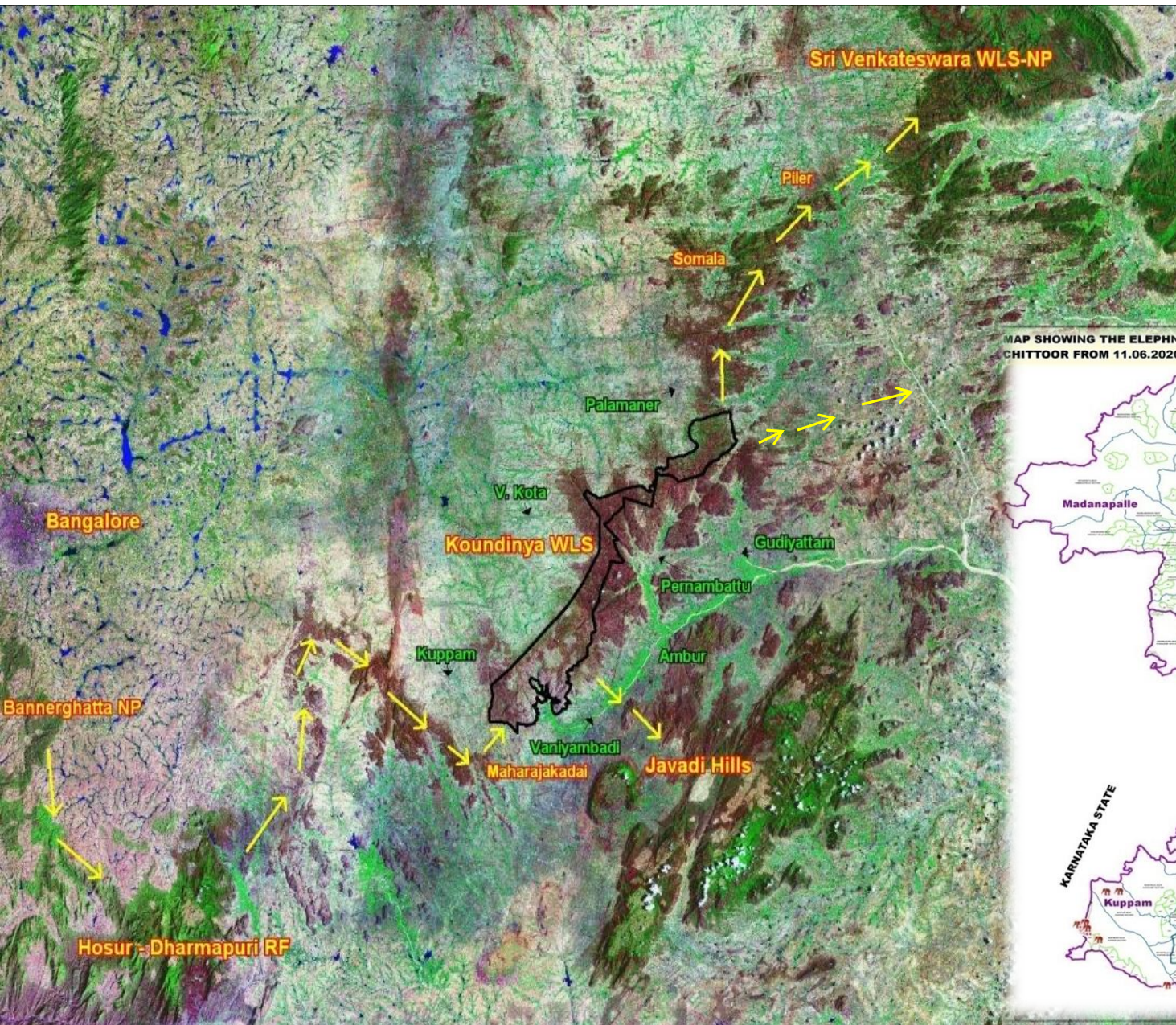
**(6 Adult Females, 9 Adult Males, 5 Calves
and 10 unidentified)**

2022 (as on 31.12.2022) :

123 Elephants

(Palamaner : 63, Kuppam: 40, Punganur : 20)

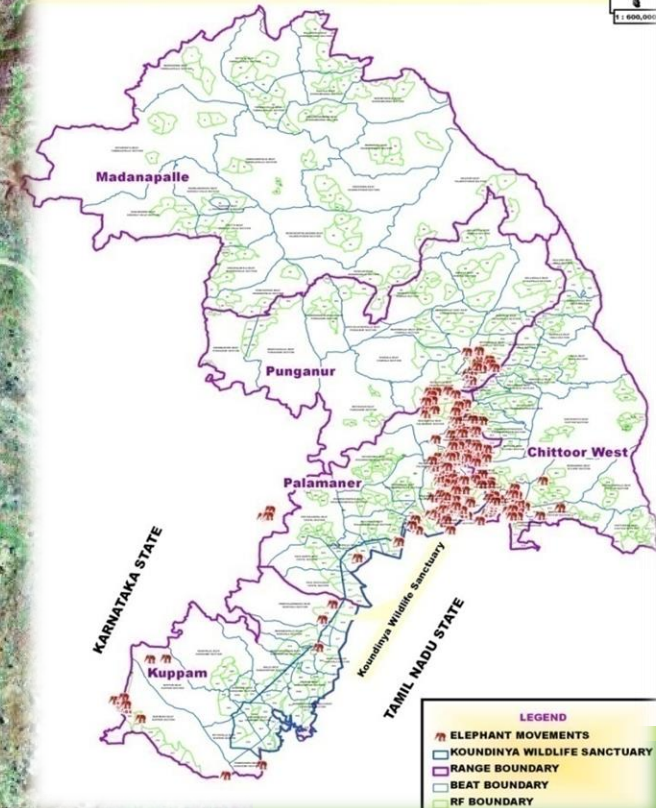
Migratory Map prepared by BNHS



Presence and movement of Elephants

Range	:	4
Section	:	11
Beat	:	23
Compt	:	65
RF	:	21
Sanctuary Area	:	357.63 Sq.m

MAP SHOWING THE ELEPHANT MOVEMENTS IN CHITTOOR WEST DIVISION, CHITTOOR FROM 11.06.2020 TO 21.10.2020



INCIDENTS OF ELEPHANT DEATH OCCURRED DURING 2010-11 to 2022-23

Sl. No.	Range	Elephant death date	No. of elephants died	Latitude	Longitude	Gender	Age	Location	Reasons for death				
									Electricution		Accidental		OR/UDOR
									Legal	Illegal	in fighting	Falling in the well	
1	Palamaner	22.03.2010	1			Male	3 Years Approximately	Musalimadugu RF Comp,t/No.298 of Palamaner Range	0	0	0	1	-
2	Kuppam	28.05.2013	1	12.8183	78.54714	Male	Approx 25 years	Sy.NO.415-1E of 89-Pedduru Village , Pedduru Extent, Ramakuppam (M), Koundinya Wild life Sanctuary.	1	0	0	0	-
3	Kuppam	31.10.2014	1	12.8183	78.54714	Male	Below 1 year	Nallagutta in compt.No.366 , Pedduru RF , Narayanapuram Beat, Ramakuppam Section, Kuppam Range.	1	0	0	0	-
4	Kuppam	10.02.2015	1	12.8999	78.57837	Female	Approx 11 years	Agriculture fields of Sri B.R. Chinna Swamy Naick, S/o Ramji Naick of PM Thanda in Sy.No.266/3C of Kuppam Range	0	1	0	0	Case booked vide OR. 45/2015-16, against accused Raja Reddy, Case Pending in Honorable court , Kuppam.
5	Kuppam	17.12.2015	1	12.9171	78.55889	Female	Approx 11 years	Agriculture in Sy.No.118/1 of Pallikuppam Village, Ramakuppam Mandal, Panyalamadugu Beat of Kuppam Range	0	1	0	0	Case booked vide OR.94/2014-15, against accused Sreenivasulu vide CC. NO.103/2017- , Case Pending in Honorable court , Kuppam.The case posted for hearing to 14.09.2021.
6	Palamaner	05.09.2018	1	13.1775	78.76935	Female	Approx 8 years	Agriculture at Berupalle Village, Palamaner Mandal, Palamaner Range	1	0	0	0	-
7	Palamaner	11.05.2019	1	13.0858	78.78369	Female	Approx 14 years	Compt. No.293, Mordana Rf of M.Kotur Beat of Palamaner Range	0	0	1	0	-
8	Palamaner	15.07.2019	1	13.0661	78.73401	Female	Approx 16 years	Compt.No.290, Mordana Reserve Forest of M.Kotur Beat of Palamaner Range	0	0	1	0	-
9	Palamaner	21.07.2019	1	13.1898	78.76509	Male	Approx 5 years	Agriculture fields, Gubbillakoturu area of Palamaner Range	1	0	0	0	-
10	Chittoor West	14.10.2019	2	13.38033 13.38036	79.01373 79.01394	Male Female	Approx 20 years Approx 20 years	Patta land Sy.No.1158/1 of P. Subramanyam, S/o Veeraiah& T. Viswanadha, S/o Veeraiah, Abbagundu village, P. Errepalle Panchayat, Irala Mandal, Chittoor West Range	0	2	0	0	Case booked vide OR.69/2019-20, against accused 1. P. Lokanatham 2. Subramanyam, 3. Guru murthy 4. Sreenivasulu, case Pedning in Hon'ble court , Chittoor
11	Palamaner	01.12.2019	1	13.1796	78.8434	Male	Approx 26 years	Agricultural lands of Mogilivaripalli (V) of Bangarupalem Mandal, Tekumanda Beat of Palamaner	1	0	0	0	-

INCIDENTS OF ELEPHANT DEATH OCCURRED DURING 2010-11 to 2022-23

Sl. No.	Range	Elephant death date	No. of elephants died	Latitude	Longitude	Gender	Age	Location	Reasons for death				
									Electricution		Accidental		OR/UDOR
									Legal	Illegal	in fighting	Falling in the well	
1	Palamaner	22.03.2010	1			Male	3 Years Approximately	Musalimadugu RF Comp,t/No.298 of Palamaner Range	0	0	0	1	-
2	Kuppam	28.05.2013	1	12.8183	78.54714	Male	Approx 25 years	Sy.NO.415-1E of 89-Pedduru Village , Pedduru Extent, Ramakuppam (M), Koundinya Wild life Sanctuary.	1	0	0	0	-
3	Kuppam	31.10.2014	1	12.8183	78.54714	Male	Below 1 year	Nallagutta in compt.No.366 , Pedduru RF , Narayanapuram Beat, Ramakuppam Section, Kuppam Range.	1	0	0	0	-
4	Kuppam	10.02.2015	1	12.8999	78.57837	Female	Approx 11 years	Agriculture fields of Sri B.R. Chinna Swamy Naick, S/o Ramji Naick of PM Thanda in Sy.No.266/3C of Kuppam Range	0	1	0	0	Case booked vide OR. 45/2015-16, against accused Raja Reddy, Case Pending in Honorable court , Kuppam.
5	Kuppam	17.12.2015	1	12.9171	78.55889	Female	Approx 11 years	Agriculture in Sy.No.118/1 of Pallikuppam Village, Ramakuppam Mandal, Panyalamadugu Beat of Kuppam Range	0	1	0	0	Case booked vide OR.94/2014-15, against accused Sreenivasulu vide CC. NO.103/2017- , Case Pending in Honorable court , Kuppam.The case posted for hearing to 14.09.2021.
6	Palamaner	05.09.2018	1	13.1775	78.76935	Female	Approx 8 years	Agriculture at Berupalle Village, Palamaner Mandal, Palamaner Range	1	0	0	0	-
7	Palamaner	11.05.2019	1	13.0858	78.78369	Female	Approx 14 years	Compt. No.293, Mordana Rf of M.Kotur Beat of Palamaner Range	0	0	1	0	-
8	Palamaner	15.07.2019	1	13.0661	78.73401	Female	Approx 16 years	Compt.No.290, Mordana Reserve Forest of M.Kotur Beat of Palamaner Range	0	0	1	0	-
9	Palamaner	21.07.2019	1	13.1898	78.76509	Male	Approx 5 years	Agriculture fields, Gubbillakoturu area of Palamaner Range	1	0	0	0	-
10	Chittoor West	14.10.2019	2	13.38033 13.38036	79.01373 79.01394	Male Female	Approx 20 years Approx 20 years	Patta land Sy.No.1158/1 of P. Subramanyam, S/o Veeraiah& T. Viswanadha, S/o Veeraiah, Abbagundu village, P. Errepalle Panchayat, Irala Mandal, Chittoor West Range	0	2	0	0	Case booked vide OR.69/2019-20, against accused 1. P. Lokanatham 2. Subramanyam, 3. Guru murthy 4. Sreenivasulu, case Pending in Hon'ble court , Chittoor
11	Palamaner	01.12.2019	1	13.1796	78.8434	Male	Approx 26 years	Agricultural lands of Mogilivaripalli (V) of Bangarupalem Mandal, Tekumanda Beat of Palamaner	1	0	0	0	-

Sl. No.	Range	Elephant death date	No. of elephants died	Latitude	longitude	Gender	Ige	Location	Reasons for death				
									Electricution		Accidental		OR/UDOR
									Legal	Illegal	in fighting	Falling in the well	
12	Chittoor West	20.01.2020	1	13.1589	78.86014	Male	Approx 24 years	Sy.No.68/5, Tekumanda Village of Bangarupalem Mandal of Chittoor West Range	1	0	0	0	-
13	Palamaner	05.05.2020	1	13.2126	78.76894	Male	Approx 16 years	Sy.No.786 Beisde Mannayanipalli Cheruvu of Mannayanapalli (V),Palamaner (M) of Palamaner Beat of Palamaner Range	0	1	0	0	Case booked vide OR.8/2020-21,against accused Uday kumar,Case Pending in Honorable court , Palamaner
14	Palamaner	23.06.2020	1	13.2816	78.76973	Female	Approx 10 years	Compt.No.319, Melumai RF of Keelapatla Beat of Palamaner Range	0	0	1	0	-
15	Palamaner	11.06.2021	1	13.1639	78.75804	Female	Approx 10 years	Sy.No.178/2 of B. Markondaiah ,Kothigutta (V) , Kaluvapalli (Post) of Palamaner Range	1	0	0	0	-
16	Punganuru	19.08.2021	1	13.36	78.86232	Male	Approx 17 years	Sy.No.531/1B land Bonamanda(V) of Somala (M) of P.U.Palle Beat of Punganuru Range	1	0	0	0	
17	Chittoor West	07.12.2021	1	13.3034	78.881631	Male	Approx 7 years	Sy.No.67/2A of Sri. B. Subramanyam, Vepanapalle (V), Bangarupalem (M), Chittoor West Range.	1	0	0	0	-
18	Chittoor West	12.02.2022	1	13.2962	78.82644	Male	Approx 18 to 20 years	Noogulakottalu locality on Madhavaram to Company Road due to hit to an electric pole (6.3 KV line) in Compt. No.183, Thumba North RF of Thumbapalem Beat	1	0	0	0	
19	Punganuru	02.04.2022	1	13.4758	78.912633	Female	Approx 7 years	Agricultural lands (of Sy.No.189/2 of Sri G. Subramanyam, S/o Chinnappa) of Pothumvaripalle, Cherukuvaripalle Village & Panchyat, Sodum Mandal	0	1	0	0	
20	Palamaner	02.11.2022	1	13.04438	78.73813	Male	Approx 10 years	Sy. No. 1007/3B Smt. K. Lakshmamma W/o Y. Chinna Yeggappa R/o Nagireddypalli (V), V. Kota (M) of Thotakanuma Beat of Plamanaer Range	0	1	0	0	OR.No.67/2022-23 against Y. Suresh, S/o Y. Chinna Yeggappa, Nagireddypalli (V), V.Kota (M), Chittoor District

SL No.	Range	Elephant death date	No. of elephants died	Latitude	longitude	Gender	Ige	Location	Reasons for death				
									Electricution		Accidental		OR/UDOR
									Legal	Illegal	in fighting	Falling in the well	
21	Chittoor West	02.12.2022	1	13.164857	78.846326	Male	Approx 15 years	One Male Loner Single Tusker Elephant is died at about 1.15 PM on 02.12.2022 in the mango garden situated nearer to Revenue Gutta at Sy.No.341/5, over an extent of 1.90 cents belongs to K.Lavanya, W/o Ekodhar Naidu, R/o Mogilivaripalle village of Bangarupalem Mandal of MV Giri Beat limits of MV Giri Section of Chittoor West Range limits	1	0	0	0	
22	Palamaner	16.122022	1	13.11606	78.85699	Female	Approx 20 years	One Female Elephant found dead in Sy.No.84/4, C.Chinnabba Mandadi S/o C. Krishnamandhadi R/o Kodhalamadugu (V), Bangarupalem (M) of Tekumanda Beat of Palamaner Range on 16.12.2022 at about 7.45 A.M due to electrocution	0	1	0	0	
		TOTAL ::	23						11	7	3	1	
	ABSTRACT						ABSTRACT						
	Death due to	1. Illegal electrical connections				9	SL NO	Range				No of Elephant Deaths	
		2. APTRANCO electrical lines /transformers				10	1	Chittoor West				5	
		3. Normal factors i.e., age, disease etc.,				0	2	Kuppam				4	
		4. Accidental incidents like				0	3	Palamaner				11	
		a)Falling in the well				1	4	Punganuru				3	
		b) In fighting etc.,				3	5	Madanapalle				0	
	Total ::					23	Total ::					22	

Size	
Calf	0 to 1 year
Juvenile	1 to 5 years
Small / Sub Adult	5 to 15 years
Adult	Morethan 15 years

DETAILS OF HUMAN DEATHS / INJURIES - CATTLE KILLS - CROP DAMANGES OF CHITTOOR WEST DIVISION, CHITTOOR LAST 8 YEARS

Sl. No.	Year	Human Deaths		Human Injuries		Cattle Kill		Crop damage			TOTAL		
		No.	Compen-sation	No.	Compen-sation	No.	Compen-sation	No.	Area (Acres)	Compen-sation	No.	Area (Acres)	Compen-sation
1	2013-14	1	6.000	0	0.000	2	0.230	853	418.240	74.606	856	418.240	80.836
2	2014-15	0	0.000	0	0.000	0	0.000	814	430.050	45.913	814	430.050	45.913
3	2016-17	1	5.000	0	0.000	6	1.740	431	329.750	25.941	431	329.750	32.681
4	2017-18	2	10.000	1	1.263	2	0.450	385	349.260	19.676	385	349.260	31.389
5	2018-19	0	0.000	0	0.000	6	2.559	559	563.470	18.459	559	563.470	21.018
6	2019-20	0	0.000	4	1.862	14	2.643	740	505.849	42.419	740	505.849	46.924
7	2020-21	4	20.000	4	2.664	6	1.857	657	670.740	24.8040	671	670.740	49.3250
8	2021-22 (31.03.2022)	3	15	0	0.000	2	0.780	899	962.11	58.511	904	962.11	74.2910
TOTAL:		11	56	9	5.789	38	10.259	5338	4229.469	310.329	5360	4229.469	382.377

Sl. No.	Year	Human Deaths		Human Injuries		Cattle Kill		Crop damage			TOTAL		
		No.	Compensation	No.	Compensation	No.	Compensation	No.	Area (Acres)	Compensation	No.	Area (Acres)	Compensation
1	2022-23 (upto Dec-22)	1	5.000	0	0.000	0	0	0	0	0	1	0	5.000
TOTAL:		1	5.000	0	0.000	0	0	0	0	0	1	0	5.000

Note: Ex-gratia amount paid under IOCL funds for Rs 5.00 lakhs on Reimbursement basis.

(Elephant problems)

Note:

Sl. No.	Range	No. of Elephants movements as on 31.12.2022
1	Palamaner	63
2	Kuppam	40
3	Punganur	20
	TOTAL	123

At present **123 elephants** are moving in Kuppam, Palamaner, & Punganur range. The elephants movement are from Reserve Forests to fringe villages near to the reserve forest and damage the crops in agricultural lands. For that **65 Nos. of Elephant Trackers** are engaged and they are working in Chittoor District Forest. They are monitoring the movements of Elephants in RFs and surrounding villages and the elephants are being driven safely into the deep Reserve Forests, nearby every day and night at one place or the other.

ELEPHANT DEATHS



13.11607333333334N 78.85704166666666E
Major District Road 64
Syanagunta R.F.
Andhra Pradesh
Dec 16, 2022 9:48:12 AM



13.116078333333332N 78.85707166666666E
Dec 16, 2022 9:46:45 AM



ELEPHANT DEATHS - CAUSES

1. Electrocution by low hanging wires.
2. Electrocution by Transformers .
3. Electrocution by hitting electricity poles.
4. Poaching.
5. Road accidents.

ELEPHANT DEATHS- MITIGATIVE MEASURES

1. Electrocution is the primary cause of elephant deaths in Chittoor District.
2. Elephant deaths can be reduced
 - Increasing the height of low lying electric wires.
 - Fencing/Insulating Transformers .
 - Providing agriculture electricity during day time and cutting off power during nights.
 - Co-ordination between forest and electricity departments at the field level.

IDENTIFICATION OF LOW LYING ELECTRIC LINES

The list of identified low lying Electric lines have been submitted to AD/DEE, Operations, APSPDCL to increase the height of low laying Electric power lines.

It is requested that APSPDCL to increase the height of the Transformers in the Adjacent Fringe Villages of Reserve Forest.

Further it is requested that APSPDCL to Power cut during the night times in the Agricultural lands which are nearer to the Reserve Forest/ Sanctuary and where the elephant movement exists.

IDENTIFICATION OF LOW LAYING ELECTRIC LINES			
Sl. NO	Name of the Beat	No. of Low laying Electric lines identified	Name of the Villages
1	Tekumanda	70	Tekumanda, Keeramanda, Bandladoddi, Kodalamadugu, Samichenu Mitta, Mogili, Mogilivaripalle, Gandlapalle, Gowrisankarapuram
2	Palamaner	15	Gantavuru, Gobbillakoturu, T.S.Agraharam, Pengaragunta, Kotha Indlu, Berupalle, Mannarunayanipalle
3	Vengamvaripalle	14	Vengamvaripalle, Kalligutta, Kadathatlapalle, Kadapanatham
4	PND North	15	Dandikuppam, Chinnasyama, Nagireddypalle, Lingapuram, Thettu
5	PND South	40	Nayakaneri, Kallibanda, Balinthalallabanda, Ramanathapuram, Guvvalakanur, Mudaramdoddi, Boyachinnaganapalle, Nadamanthram
6	Thotakanuma	10	Pathapeta, Pathurunatham, Kuppanapalle, Devadoddi
	Total	164	

IDENTIFICATION OF UN-PROTECTED ELECTRIC TRANSFORMERS.

Sl. NO	Name of the Beat	No. of Electric Transformers identified	Name of the Villages
1	Kaluvapalle	86	Kaluvapalle, Mandipeta, Krishnapuram, Nunevaripalle, Jodirachala, Musalimadugu, ST Colony
2	Tekumanda	97	Tekumanda, Keeramanda, Bandladoddi, Kodalamadugu, Samichenu Mitta, Mogili, Mogilivaripalle, Gandlapalle, Gowrisankarapuram
3	M. Koturu	68	Chethapenta, Vusarapenta, Mandipeta
4	Palamaner	27	Gantavuru, Gobbillakoturu, T.S.Agraharam, Pengaragunta, Kotha Indlu, Berupalle, Mannarunayanipalle
5	Jagamarla	22	Jagamarla, B. Jaravaripalle, Gandhi Nagar, Gutta Morallu, Kurappalle, Nadimpalle, Kothapalle,
6	Keelapatla	12	Keelapatla, Chinnamanayanipalle, Bommanapalle, Budidapalle, K.C.Penta, Manjunatha Colony
7	Nellipatla	110	Nellipatla, Nallaguttlapalle, Oterupalyam, Raghunayakuladinne, Kakkanur, Bapalanatham, Mekalanagireddypalle, Gownithimmepalle
8	Kolamasanapalle	26	Madigabanda
9	Doddipalle	15	Doddipalle, T. Vadduru, Gadduru, Pakeerupalle, Karidimadugu
10	Vengamvaripalle	10	Vengamvaripalle, Kalligutta, Kadathatlapalle, Kadapanatham
11	PND North	53	Dandikuppam, Chinnasyama, Nagireddypalle, Lingapuram, Thettu
12	PND South	30	Nayakaneri, Kallibanda, Balinthalallabanda, Ramanathapuram, Guvvalakanur, Mudaramdoddi, Boyachinnaganapalle, Nadamanthram
13	Thotakanuma	26	Pathapeta, Pathurunatham, Kuppanapalle, Devadoddi
	Total	582	

PRESENT CROP COMPENSATION PATTERN

Sl. No	Name o f the Crop	GO.Ms.No. 12 Revenue (DM.III) Dated. 15.12.2012	GO.Ms.No.9 Revenue (DM.III) dated. 12.10.2014 (Hudhud)	GO.Ms.No. 57, EFS & T (For.III) Dated. 29.5.2014 (Rs)
1	Paddy, Groudnut, Sugarcane, Chillies	10,000/ Ha	15,000/ Ha	6000/Ac
2	Maize	8333/Ha	12500/ Ha	6000/Ac
3	Sunflower,	6250/ Ha	10000/ Ha	6000/ Ac
4	Soyabean, wheat etc.,	6250/ Ha	10000/Ha	6000/ Ac
5	Coconut Tree	-	1000 /Tree	1500 /Tree
6	Mango tree	15000 /Ha	20000 /Ha	1500 /Tree
7	Banana	-	25000 /Ha	Crop damage for acre:- <ol style="list-style-type: none"> 1. Upto value of Rs.7,500/- full payment limited to the loss assessed per acre. 2. Ranging value from Rs.7,500/- to Rs.35,000/. 50% of the loss assessed subject to minimum of Rs.7,500/- and maximum of Rs.21,250/- per acre. 3. Above Rs.35,000/- 30% of the loss assessed subject to minimum of RS.21,500/- and maximum of Rs.50,000/- per acre (Extent and value of damaged crop as assessed by Revenue Officer)

LAND ISSUES

- Joint Survey of Somala batch cases
- Betrayaswamy RF – Bharath Gold Mines Ltd.,
- Thumba North – DKT Patta issues
- Mucchukaluva – Encroachments -Joint Survey
- Sy.No: 568 & 569- Avulapalle RF- WP & CRP
implead Petitions- progress

FC Act, 1980- Diversions- Issues

- Diversion of Forest Land for construction of roads – Chittoor-Yadamari Mandals- PR Department.
- NH-4- Bangalore- Chennai Highway.
- Durgamkonda- Construction of temple- Endowment Department.
- Jagamarla- Palamaner Road- PR Department.
- Any other issues.

Eco-Tourism Initiatives

- Nagarvanams- Ecological Park- Near SVCET, College, Chittoor.
- Naniyala Eco-Tourism- Park.
- Boyakonda Gangangamma- Temple Eco-Tourism.
- Durgamkonda – Temple Eco-Tourism.
- Palamaner- Nagarvanams/Thopus.

➤ **RoFR- Tribal welfare issues**

➤ **Greening of Chittoor District- Route Map**

➤ **Any other topic**

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THANK YOU





**Site Visit of Standing Committee Members of
National Board of Wild Life (NBWL)
MoEF&CC (Wildlife Division), Government of India**

BANGALORE-CHENNAI EXPRESSWAY PHASE-II

**PROPOSAL FOR SC-NBWL RECOMMENDATION ON WILDLIFE STRETCH FALLING WITHIN DEFAULT 10 KM ESZ
OF KAUNDINYA WILDLIFE SANCTUARY IN CHITTOOR DISTRICT IN THE STATE OF ANDHRA PRADESH**

**User Agency
NATIONAL HIGHWAYS AUTHORITY OF INDIA**

4-5th March 2023

BACKGROUND OF BANGALORE-CHENNAI EXPRESSWAY (BCE)

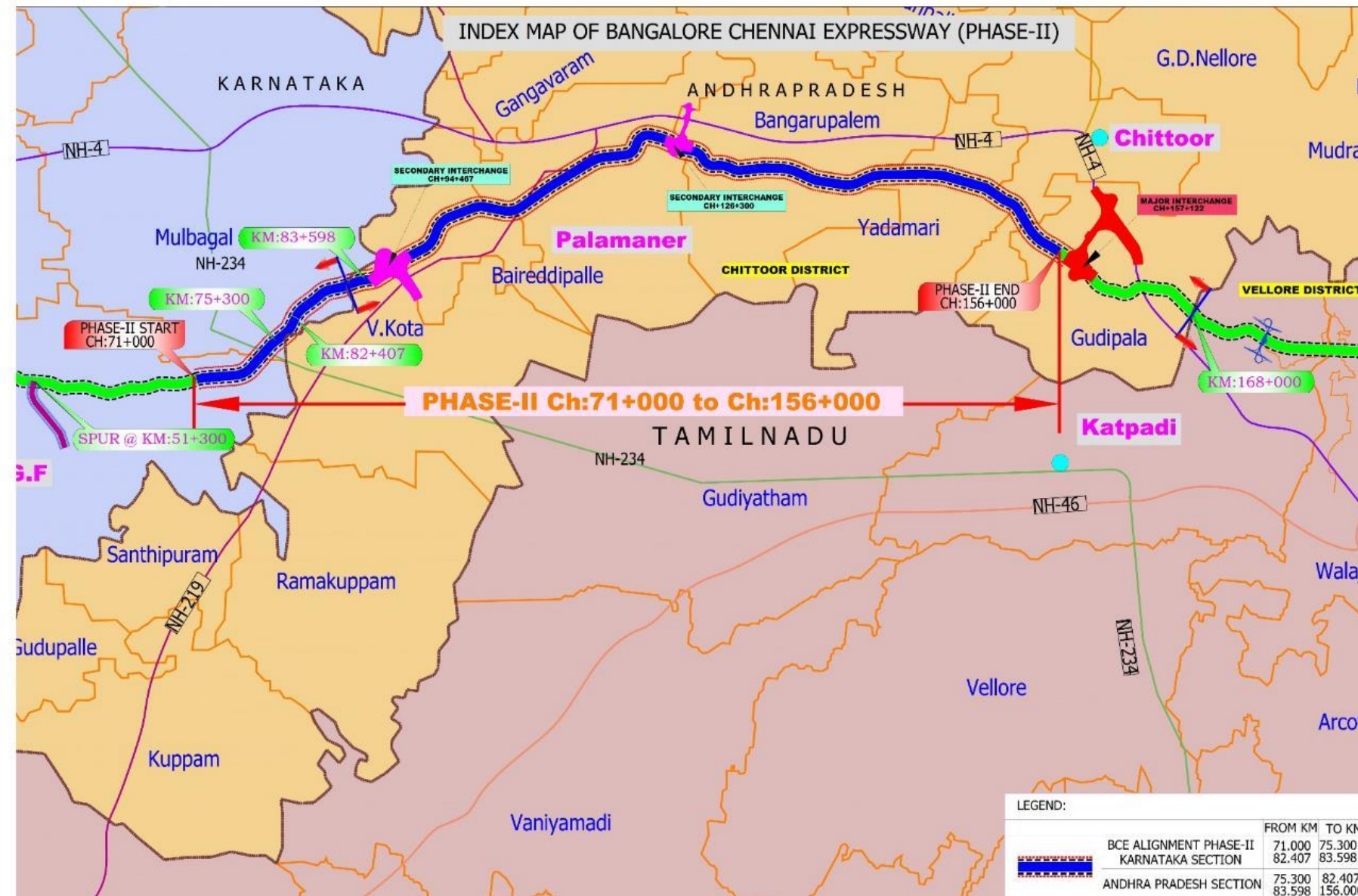
- ❑ The BCE is proposed for a better, efficient & high Speed transport connectivity in Bangalore-Chennai Region under Bharatmala Pariyogna..
- ❑ BCE **starts from east of Bangalore** at Km 301.200 of NH-4 in Hoskote in Karnataka state and **ends near Sriperumbudur in Tamil Nadu** at Km 35.650 of NH-4 covering a total length of 262.100 Km.
- ❑ Bangalore-Chennai Expressway is start from Satellite Town Ring Road (STRR) of Bangalore for connectivity of the State Capital of Karnataka and Tamil Nadu.
- ❑ The Proposed Expressway is implemented in **3 Phases, viz. BCE Phase-I, BCE-Phase-II & BCE Phase-III**. Bangalore-Chennai expressway will be fully access controlled.
- ❑ BCE Phase-I and Phase-III do not involve any Protected Area (PA). The Present Proposal is for Phase-II , which passes through default 10 Km ESZ of KWLS but outside the boundary of the Sanctuary (PA). Phase-III involved 5.42 ha. of forest diversion for which stage-II has already been obtained.
- ❑ The alignment of BCE is passing through 3 states & 7 districts namely:
 - ❑ **Rural Bangalore and Kolar districts** in Karnataka
 - ❑ **Chittoor** in Andhra Pradesh
 - ❑ **Vellore, Ranipet, Tiruvallur, Kanchipuram districts** in Tamil Nadu.

STATUS OF APPLICABLE STATUTORY CLEARANCES

BCE Phases	Alignment Stretch	Location	Length (in Km)	Status of Regulatory Clearances		
				EC	FC	WLC
PHASE-I	Km 0.000 to Km 71.000	Rural Bangalore and Kolar District of Karnataka	71.000	Obtained	NA	NA
PHASE-II	Km 71.000 to Km 156.000	Kolar District (Length 5.491 Km) of Karnataka & Chittoor District (Length 79.509 Km) of Andhra Pradesh	85.000	Obtained	Obtained	At NBWL (The Present Case)
PHASE-III	Km 156.000 to Km 262.100	Chittoor District of Andhra Pradesh (Length 12.00 Km), Vellore, Ranipet, Kanchipuram, Tiruvallur districts in Tamil Nadu (Length 94.100 Km)	106.100	Obtained	Obtained	NA
		Total	262.100			

The Clearance is required for present proposal from Km 86.500 to Km 135.500 from SBWL and SC-NBWL for the stretch of 48.5 Km of BCE falls in ESZ of KWLS wherein 7.1Km falls in Palamaner RF and Tekumanda Extn., RF remaining 41.5 Km passes through Non-Forest area of default 10Km ESZ of KWLS


INDEX MAP : BCE PHASE-II



- BCE Phase-II Length:**
 85 Km. (5.491 Km in Kolar District of Karnataka and 79.509 Km in Chittoor District of Andhra Pradesh)
- In Karnataka (Km 71+00 to Km 75+300 & Km 82+407 to Km 83+598);
- In Andhra Pradesh (Km 75+300 to Km 82+407 & Km 83+598 to Km 156+00)
- ROW :** In General- 90 m
- The default 10 Km ESZ of KWLS start from Km 86.50 to Km 135.50 of BCE Phase-II.



BCE PHASE-II IN DEFAULT 10 KM ESZ OF KWLS

- Total Length of **85 Km** of BCE Phase-II i.e. Km 71.00 to Km 156.00
- The proposal was recommended and forwarded by Govt. of Andhra Pradesh for consideration of NBWL vide their letter no. 1893/Section-II/2022/1895627 dated 15.11.2022 for grant of clearance from NBWL for the stretch from Km 115.400 to 122.300 of Length 7.1 Km having area 61.73 ha. as informed by the DIG (WL) during online meeting held on 08.02.2023.
- It is submitted that in Part-III Para 19 it is mentioned that ***"It is bring to the notice of esteemed committee that proposed project passes through Eco Sensitive Zone of Kaundinya Wildlife Sanctuary to an extent of 48.50Kms i.e. from Km 86.500 to Km 135.50 falls within 10Km of Kaundinya Wildlife Sanctuary of which 7.1043 Kms falls in Palamner RF and Tekumanda Extn., RF remaining 41.5 Kms passes through other than RF of Eco Sensitive Zone"*** and Part-IV Para 7 it is mentioned that ***"The Proposed project passing through the default Eco Sensitive Zone of Kaundinya Wildlife Sanctuary to an extent of 48.50 Km i.e., from Km 86.500 to Km 135.50 of which 7.1043 km falls in Palamner RF and Tekumanda Extn. RF, remaining 41.5 Kms passes through other than RF of Eco Sensitive Zone."*** 
- As advised by WL Division of MoEF&CC, NHAI submitted Online Proposal from Ch. 86.50 to Ch. 135.50 for the stretch falls in Non-Forest Area of length 42.5 Km with area 396.973 vide online proposal no ***WL/AP/ROAD/418292/2023*** for consideration of SBWL and NBWL.

APPLICABLE STATUTORY CLEARANCES - EC

S.No.	Environmental Clearance Chronology	
1	187th EAC meeting for granted TOR by Hon'ble EAC (MoEFCC) after appraisal of 5 alternative alignment	14 th May 2018
2	279th EAC Meeting for grant of EC by Hon'ble EAC (MoEFCC) Deferment of proposal for grant of EC as details sought on exploring connectivity options with existing adjacent 4-lane road for un-interrupted Elephant underpass.	15 th Nov 2021
3	284th EAC Meeting for grant of EC by Hon'ble EAC (MoEFCC) NHAi deliberated the detailed connectivity of Elephants through the existing NH-4 in consultation with the concerned forest official and location & dimension of the passages also been discussed with forest official and the other observation of EAC member during its 279 th Meeting. EAC Recommended that <i>One EAC member</i> Sh. Manmohan Singh Negi will visit the project site and will advise the NHAi regarding the precise location for the elephant underpass Detailed Site Report Ex. ADG and Member EAC recommended 6 location at Existing NH-4 for smooth passage of Elephants KML Location of Animal Passages on NH-4	29 th Dec 2022
4	302th EAC Meeting for grant of EC by Hon'ble EAC (MoEFCC) EAC recommended for grant of EC as per Site Inspection of Sh. Manmohan Singh Negi with concerned forest officials viz. Shri S. Ravi Shankar, Divisional Forest Officer(DFO), Chittoor West, Shri B. Srinivasulu, Forest Range Officer, Palamaneru, Shri Madhan Mohan Reddy, Forest Range Officer, Kuppam, Shri Subash, Forest Range Officer, Chittoor West and Shri G. Mohan Murali, Forest Section Officer, Palamaneru, and with certain other condition. <i>a) Underpasses for the elephants as advised by the state forest department should be constructed at specific chainage.</i>	7 th July 2022


APPLICABLE STATUTORY CLEARANCES - FC

S.No	Forest Clearance Chronology	Date
1	NHAI Applied the Forest Proposal in PARIVESH (FP/AP/ROAD/154254/2022)	13.04.2022
2	7 th REC Meeting at IRO, Vijayawada	19.09.2022
3	Stage-1 Granted by for the Forest Section falling in BCE Phase-II	23.09.2022
	Recommendation in Stage-I related to Wildlife	Compliance Measures
4 a)	The User Agency shall obtain prior approval from the SC-NBWL before commencement of work and Stage Government Shall ensure all clearance/approval before issuing of Working Permission	NHAI to ensure work only after all WL Recommendation
b)	The Wildlife Mitigation Measures Plan shall include measures not only for the road stretch passing through Forest Area but also for the stretch which is elephant corridor including the road stretch passing in non-forest area in Rayala Elephant Reserve. Such mitigation Plan for the non-forest area falling in the Rayala Elephant reserve shall be prepared by the User Agency at their cost and shall be duly approved by Chief Wildlife Warden. The User Agency/State Government shall implement such measures. Copy of Approved mitigation measures plan shall be submitted to IRO Vijayawada for monitoring purpose; this shall be in addition to the mitigation plan approved by the SC-NBWL, in case of agreeing to the proposal.	<p>WL Department has approved WL Mitigation Plan with mitigation budget of INR16.98 Cr. vide PCCF (WL) letter <i>no. 2517/2019/WL-2 dated 08.08.2022.</i></p> <p>The same amount has already been deposit by NHAI as compliance.</p> <p>Apart from it, NHAI has proposed structural measures in the form EUP and other underpasses for smooth passage of elephants with additional cost.</p>

APPLICABLE STATUTORY CLEARANCES - WLC

S.No	Wildlife Clearance Chronology	Date
1	Proposal for approval and SBWL and NBWL for the stretch <i>project passes through Eco Sensitive Zone of Kaundinya Wildlife Sanctuary to an extent of 48.50Kms i.e. from Km 86.500 to Km 135.50 falls within 10Km of Kaundinya Wildlife Sanctuary of which 7.1043 Kms falls in Palamner RF and Tekumanda Extn., RF remaining 41.5 Kms passes through the Non Forest Area (other than RF of Eco Sensitive Zone)</i>	26 th Apr 2022
2	Field Inspection of Project By DFO, Chittoor (W)	29 th June 2022
3	Field Inspection of Project By CCF (Anantapur) and IRO, Vijayawada	07 th July 2022 14 th Sep 2022
4	SBWL Recommended the Wildlife Proposal	19 th Oct 2022


CCF Recommendation


Recommendation of PCCF (WL) & CWLW


Recommendation of SBWL

RECOMMENDATION OF WL MITIGATION PLAN

- ❑ Biodiversity Impact Assessment and Wildlife Mitigation Plan was prepared in consultation with concerned forest officials.
- ❑ PCCF (WL)/CWW (GoAP) approved the said conservation plan vide its ref. letter no RC. no. 2517/2019/WL-2 dated 08.08.2022 with a financial implication of **16.98 Cr.** for offsetting the impact through mitigation plan which is to be carried out by the Forest Dept
- ❑ NHAI deposited the said fund on 18.08.2022 as per account detail mentioned by PCCF (WL)/CWW while recommending the Wildlife proposal for grant of Clearance by SBWL and SC-NBWL for the stretch of 48.5 Km of BCE which falls in ESZ of KWLS wherein 7.1Km falls in Palamaner RF and Tekumanda Extn. RF, remaining 41.5 Km passes through other than RF of ESZ around Koundinya WLS.
- ❑ Demand Note after Stage-I not received and Working permission is yet to be obtained.
- ❑ The Structural measures in the form of Underpasses will be taken up by the NHAI as part of Project.

Wildlife

Plan

PCCF (WL)/CWW Recommendation Letter

WILDLIFE MITIGATION PLAN

- In addition of above the Onsite mitigation plan designed by NHAI as per suggestion of PCCF and CWLW. The proposed structural detailed is as under

Proposed Elephant Underpasses and Elevated sections in Rayala Elephant Reserve

S.No	Project Chainage (km)	Type	Total Length (m)	Carriageway width (m)	Vertical Clearance (m)
1	116.905-117.360	Elevated (Elephant Underpass at km 117.035)	455	2 x 12.75	16.752
2	120.081-120.406	Elevated (Elephant Underpass at km 120.300)	325	2 x 12.75	15.97
3	121.900-125.945	Elevated (Elephant Underpass at km 122.205)	4030	2 x 12.75	54.788
B. Elevated Section in Reserved Forest Stretch (Underpass)					
1	117.645-117.840	Other Elevated structures	195	2 x 12.75	5.325
2	121.581-121.776	Elevated Expressway	195	2 x 12.75	5.495

Proposed Minor Bridges in Palamaner Reserved Forest Stretch

S.No	Project Chainage (km)	Existing Feature	Place	Linear Waterway(m)	Carriageway Width (m)	Vertical Clearance (m)
1	114.855	Gobbillakoturu Tank	Palmaner	40	2 X 12.75	1.33
2	115.530	Stream	Palmaner RF	10	2 X 12.75	3.00
3	116.000	Stream	Palmaner RF	8	2 X 12.75	3.00
4	116.662	Stream	Palmaner RF	50	2 X 12.75	11.96
5	127.050	Stream	Mogili	20	2 X 12.75	7.49

Box Culverts in Palamaner Reserved Forest Stretch

S.No	Project Chainage (km)	Type of Culvert	Span/Opening (No. x Length in m x Height in m)	Place
1	118.785	RCC Box	1 x 2.0 x 2.5	Palmaner RF
2	119.375	RCC Box	2 x 3.0 x 2.5	Palmaner RF
3	119.580	RCC Box	1 x 2.0 x 2.5	Palmaner RF



ANIMAL PASSAGE IN NON-FOREST AREA

Major Bridge

Sl. No.	Chainage (km)	Name of Bridge	Linear waterway (m)	Carriageway Width (m)	Vertical Clearance (m)	Place
1	98.775	Belupalli Tank	450	2 X 12.75	4.025	No.27 Belupalli
2	104.25	Pond	300	2 X 12.75	3.231	No.25 Kolamasanapalli
3	108.464	Tank	200	2 X 12.75	5.687	No.15 Moram
4	109.859	Tank	225	2 X 12.75	2.268	No.18 Jallipeta
5	110.55	Kaundinya River	125	2 X 12.75	9.315	No.18 Jallipeta
6	112.875	Tank	240 (MJB + VUP)	2 X 12.75	8.582	No.1 Palmaner
7	114.088	Gangapura Tank	275	2 X 12.75	5.074	No.1 Palmaner
8	114.638	Gobbillakoturu Tank	100	2 X 12.75	2.951	No.1 Palmaner
9	132+275	Varadappanayani Cheruvu	450	2 X 12.75	5.341	Bodabandla

Minor Bridge

Sl. No	Ch. (km)	Place	Linear Waterway (m)	Carriage-way Width (m)	Vertical Clearance (m)	Existing Feature
1	86.316	No.52 totakanama	8	2 X 12.75	3.50	Stream
2	87.025	No.52 totakanama	60	2 X 12.75	10.62	Stream
3	88.012	No.51 kaigallu	20	2 X 12.75	7.20	Stream
4	89.524	No.32 tirtham	8	2 X 12.75	3.50	Stream
5	89.77	No.32 tirtham	11	2 X 12.75	3.00	Stream
6	91.723	No.50 devadoddi	8	1 X 12.75 + 1x 20.25	2.50	Stream
7	95.244	No.36 kammanapalli	20	2 X 12.75	7.82	Stream
8	101.975	No.25 kolamasanapalli	30	2 X 12.75	4.64	(Marumur Tank)
9	102.085	No.25 kolamasanapalli	60	2 X 12.75	4.06	(Marumur Tank)
10	105.925	No.25 kolamasanapalli	20	2 X 12.75	5.35	Stream
11	106.205	No.25 kolamasanapalli	40 (MNB + VUP)	2 X 12.75	5.50	Stream
12	106.75	No.25 kolamasanapalli	10	2 X 12.75	3.00	Stream
13	106.868	No.25 kolamasanapalli	50	2 X 12.75	2.00	Tank
14	114.855	No.1 palmaner	40	2 X 12.75	2.00	(Gobbillakoturu Tank)
15	127+050	No.165 mogili	20	2 X 12.75	7.49	Stream
16	127+360	No.165 mogili	60	2 X 12.75	4.62	Stream
17	127+850	No.165 mogili	60	2 X 12.75	7.97	Stream
18	128+060	No.165 mogili	18	2 X 12.75	3.00	Stream
19	In addition, on an average balancing culvert of 70 no. are provided to maintain natural surface drainage pattern and surface runoff.					

WILDLIFE MITIGATION PLAN FOR EXISTING NH-4

- Expert Appraisal Committee directed NHAI to make arrangement for the safe passages for Elephants on NH-69 (Old NH-4) especially the stretches adjoining proposed BCE for free movement and it was also decided that Sh. Manmohan Singh Negi, Ex. ADG Wildlife MoEF&CC and present EAC member (Infra-I) will visit the site along with all concerned forest officials for deciding the location and dimension of the passage for the elephant on existing NH-4.
- Sh. Negi. Member EAC (Infra-I) visited the site to review the proposed underpasses in BCE-II and on the existing NH-4 on 4-5th March 2022 along with concerned Forest and NHAI officials and suggested for underpasses on NH-4 to maintain the continuity of the proposed Elephant/Animal Underpasses of BCE-II

Location Specific Recommendation on NH-69 (Old NH-4)

Sr. No	Name of Location	Latitude	Longitude	Chainage @NH-4	Location specific observations and recommendations
1	Near Anjaneya -swamy Temple	13.2063221	78.7746264	192+667	An elevated road with 70m span and with vertical clearance of 8.0 m
2	Near Gandhinagar Road	13.205884	78.777680	191+789	Eco-duct/Overpass of width 30m with planation for camouflaging
3	Before Jagamerla Road	13.2006938	78.7953622	189+780	An elevated road with 100m span and with vertical clearance of 8.0 m
4	Near Jagamerla (Lothu Vanka)	13.197258	78.803098	188+810	An elevated road with 70m span and with vertical clearance of 8.0 m
5	After Jagamerla Road	3.1940106	8.8076846	88+200	Fencing/ Metal beam crash barrier on either side of road of length 100m with height of 6 feet.
6	At Dora Cheruvu	13.192073	78.820723	186+650	NHAI to improve the geometry of road to prevent fatal & non-fatal accidents and construction of 30m overpass or underpass

| SITE VISITS



Site visit conducted along with forest and wildlife department to ascertain Elephants movement.

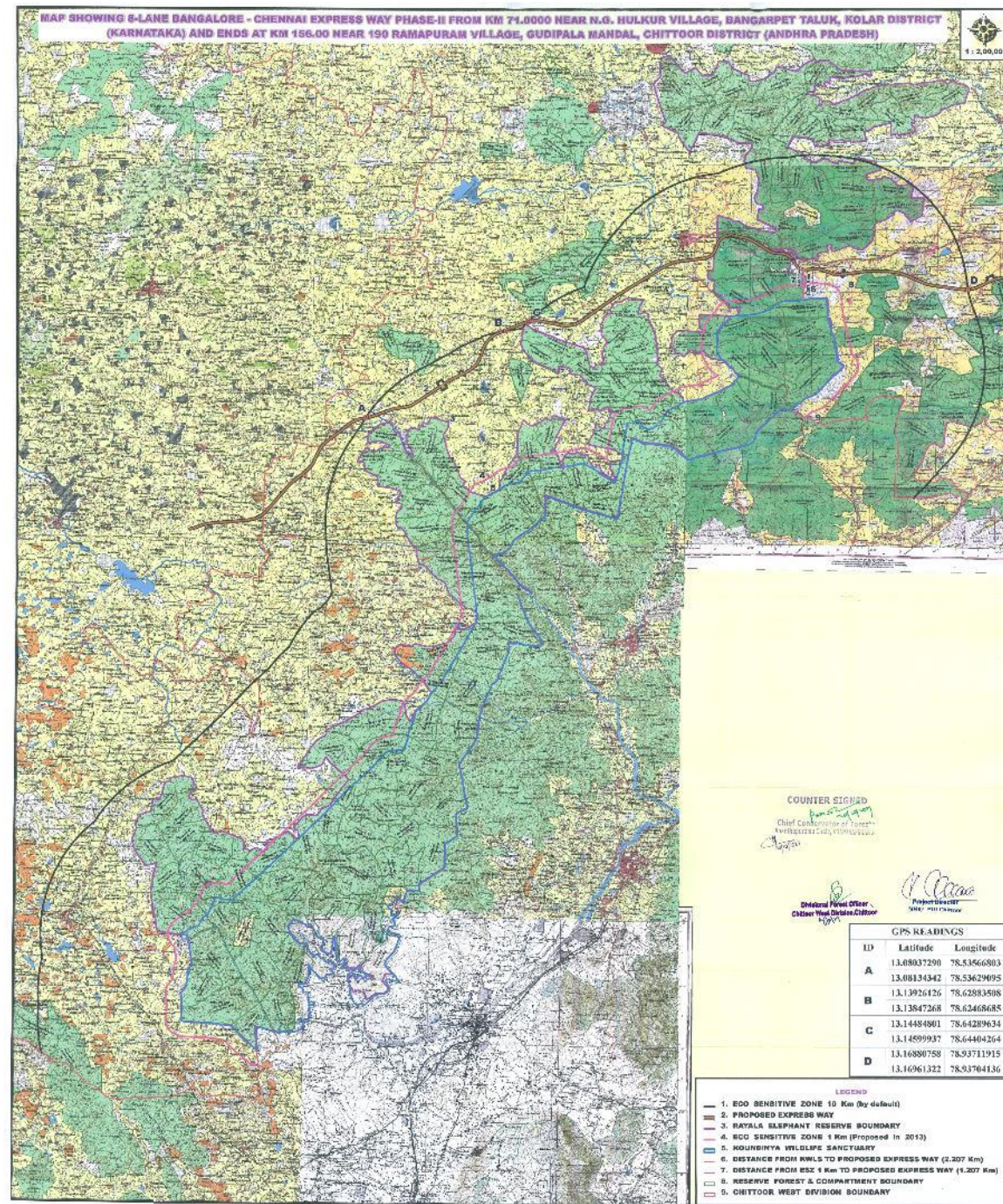
WILDLIFE MITIGATION PLAN

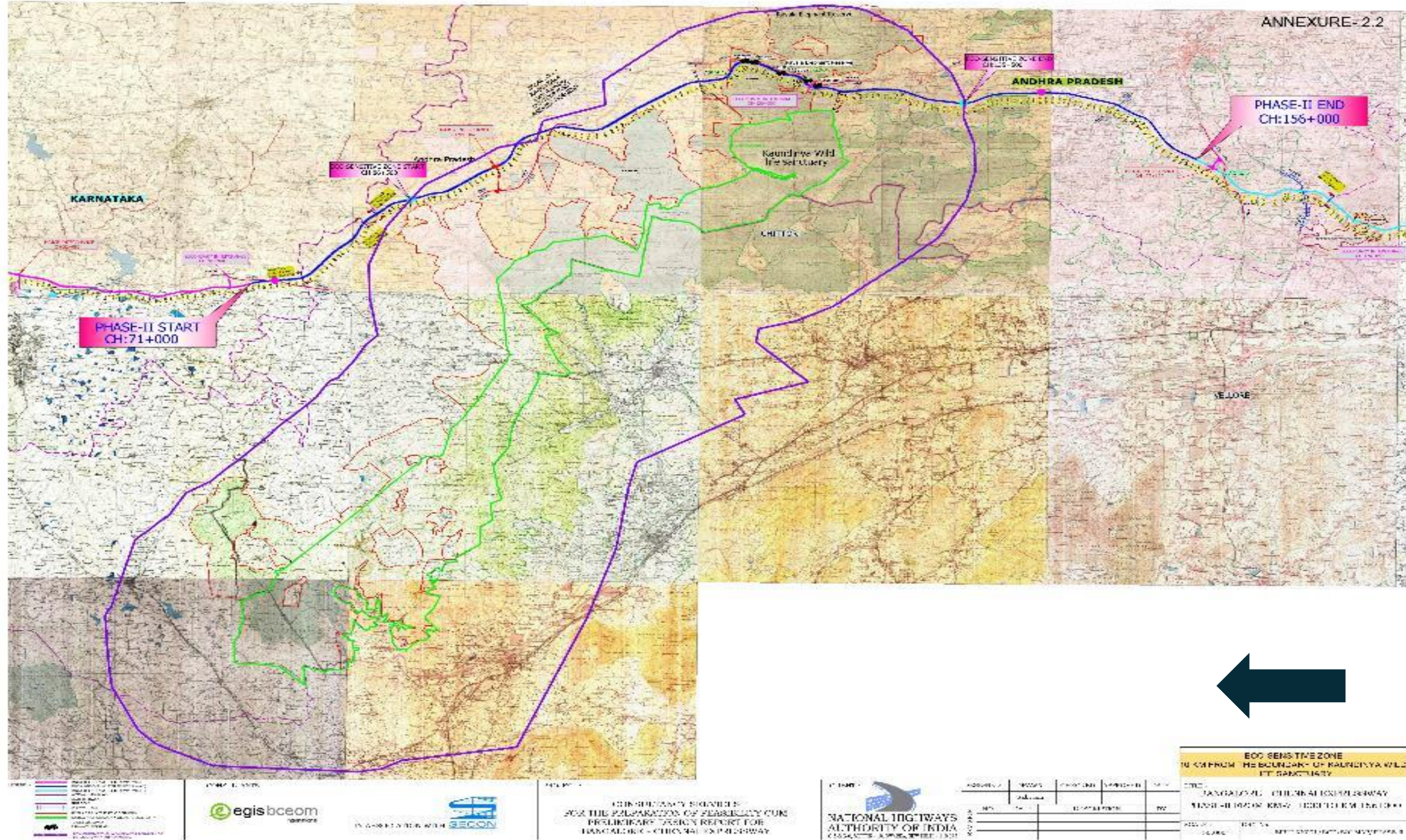
❑ The Budget proposed for Wild life Mitigation Plan is as below

S.No.	Description	Requirement (in lakh)
1	Construction of Water bodies/ Water Holes, Ponds, borewells, solar pumps and others for providing water for the elephants and wildlife	90
2	Habitat improvement and development of grassland / pastures & plantations, food availability for wild life, maintenance of elephants, conservation measures, plantation of suitable species in forest areas.	60
3	Soil and Moisture conservation works in buffer areas and forest areas.	70
4	Capacity building of elephant trackers, base camp workers and forest staff. Provision for providing safety guards, uniforms, training and staff welfare and others.	70
5	Improvement of livelihoods of local communities through Eco tourism activities, and development of infrastructure and maintenance of eco-tourism sites, forest administration etc.,	460
6	Provisions for constructions of wildlife treatment center and equipment. Forest Department will provide land. Provision for providing rescue vehicles, vehicles for wildlife monitoring, conservation, quick response fire fighting etc., Project proponents will construct treatment center and procure vehicles and handover to the forest /wildlife department, Chittoor West Division, Chittoor	188
7	Mitigation of Man-Animal conflict, elephant drives, Compensation of crop damages and others, elephant proof trenches, Solar fencing, erection of hanging solar fencing and maintenance etc., Maintenance of rescue vehicles, vehicles for wildlife monitoring, fire fighting, elephant drives, mobility charges etc.,	590
8	Providing funds for forest wild life department for watch towers, awareness generation of local people, organizing camps, Environment Education Centers, Nagaravans etc.,	100
9	Documentation of wildlife and provision for wildlife survey, wildlife research, study on Animal behavior, procurement of hardware and software, technology upgradation & overheads etc.,	70
Total:		1698

THANK YOU

Boundary Map as Authenticated by Forest Department





PART-III OF WL PROPOSAL

PART – III

(To be completed by the Officer-In-Charge of the National Park/ Sanctuary completed and submitted to the Chief Wild Life Warden or Officer authorized by him in this behalf within 30 days of the receipt of PART-II).

1	Date of receipt of the PART – II	:	5.11.2021 through the PCCF, A.P., Guntur (WL) & CWLW AP Guntur and from user agency on 21.06.2022.
2	Total Area (Ha) of National Park/ Sanctuary	:	357.63 Sq. Kms (Koundinya Wildlife Sanctuary Notification)
3	Total area (Ha) diverted from the NP/ WLS so far for development purposes	:	-
4	List the past projects and the area (Ha) diverted	:	-
5	Positive impact/due to the diversion of area for the projects referred to in Column.4 above	:	-

Name of the Project/s	Positive impact	Scientific Basis of Assessment
-	-	-

(Attach separate document if required)

6	Negative impact/s due to the diversion of area for the projects referred to in column 4 above	:	-
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Name of the Project/s	Negative impact	Scientific Basis of Assessment
-	-	-

(Attach separate document if required)

7	Management Plan period	:	The Working Plan for the period from 2007-08 to 2016-17 is approved vide GOI, MoEF, Regional office, Bangalore Lr.No.FDA/11.6/209/AP/WP/1908, dt.26.09.2007. The Management plan of the PA for the period from 2012-13 to 2021-22 was approved by the Prl. Chief Conservator of Forests (WL) & Chief Wildlife Warden, AP Hyderabad vide Re.No. 26208/2011/WL-3(I), dt.12.9.2013.
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Attach copy of the Management Plan/Management Scheme/Recommendation of Chief Wild Life Warden

8	List of Management actions taken/ proposed to be taken in the whole Block/Zone in which the proposed area is located.	:	Necessary Management Practices have been proposed in the Working Plan. The proposed area is falling in Eco Sensitive Zone of Koundinya Wildlife Sanctuary.
9	Type of forest in which the proposed area falls	:	5A C3 – Dry deciduous
10	Location of the proposed area w.r.t. the Critical/Intensive Wild Life Management Areas/Wild Life Habitats (attach Map to scale)	:	The location of the proposed area falls in Eco Sensitive Zone of Koundinya Wildlife Sanctuary and it is the habitat of Elephas maximus. Map enclosed to the scale.

11	List of the likely POSITIVE AND NEGATIVE impact/s of the proposed project giving scientific and technical justification for each impact.	:	The project will neither have any positive impact nor negative impact, as the High way is passing in RER over the Under Passes & Bridges and they never interface with the wild life of the location.
12	Provide COMPREHENSIVE details of the impact of the proposal in terms of Sections 29 and/or section 55 (6) of the Wild Life (Protection) Act, 1972 as the case may be	:	The proposal is not passing through the Protected Area. However it is falling within its 10 Km Eco Sensitive Zone. No incremental damage or exploitation for any forest produce or wildlife product is anticipated. Though proposal is not in Protected Area, adequate structural measures like culverts, bridges and under passes have been undertaken for free flow of water.
13	Whether the project authorities have ever committed violation of the Wild Life (Protection) Act, 1972 or Forest Conservation Act, 1980. If yes, provide the EXHAUSTIVE details of the offence and present status of the case.	:	No

(Concealing or misrepresenting the facts will lead to rejection of the case in addition to any other penalty as prescribed under Law)

14	Have you examined the Project Appraisal document and the alternatives as provided in PART-II	:	Yes
15	Have you examined the Bio-diversity Impact Assessment Report	:	Yes
16	If yes, please give your comments on the recommendations given in the report	:	Satisfactory
17	Dates and duration of your field visits to the proposed site	:	29.06.2022
18	Do you agree that the present proposal of diversion of NP/WLS area is the best or only option and it viable	:	Yes
19	Any other information that you would bring to the notice of the State Board National Board or its Committee that may be relevant and assist in decision making.	:	1. It is bring to the notice of esteemed committee that proposed project passes through Eco Sensitive Zone of Koundinya Wildlife Sanctuary to an extent of 48.50 Kms i.e., from KM 86.500 to Km 135.50 falls within 10 Kms of Koundinya Wildlife Sanctuary of which 7.1043 Kms falls in Palamaner RF and Tekumanda Extn., RF remaining 41.5 Kms passes through otherthan RF of Eco Sensitive Zone. 2. There is constant interface between wildlife and human especially with respect to elephant in this area. 3. Proper Wildlife Mitigation Plan with sufficient funding is needed to reduce the Man-Animal conflict. 4. A bare minimum of Rs.16.98 Crores has been proposed by user agency, Divisional Forest Officer, Chittoor West Division, Chittoor has accepted it, considering

PART-IV OF WL PROPOSAL




PART - IV (To be completed by the Chief Wildlife Warden within 15 days of the receipt of PART - II and PART - III)

1	Date of Receipt of PART - II and PART - III by the Wildlife Warden or the Officer authorized by him in this regard.	02.08.2022
2	Do you agree with the information and recommendations provided by the Officer in-Charge in PART - III	Yes, Agreed.
3	If not, please provide the reasons	-
4	Have you visited the site yourself and held discussions with the applicant?	-
5(a)	Do you agree that the present proposal for permitting use of NP/WLS area is the best option or only option and is viable?	Yes, Agreed. This proposal is not passing through the Protected area i.e., Koundinya Wildlife Sanctuary. Falling within 10 km Eco-Sensitive Zone and Rayala Elephant Reserve. This is the minimum possible option for diversion of 61.73 ha in Chittoor West Division. The details of the proposed diversion are as follows. Chittoor (West) Division: Area : 61.73 ha Reserve Forest: (i) Palamaner RF (ii) Tekumanda Ext. RF Beats: Palamner. Range : Palamner.
5(b)	Whether the proposal sub-judice? If yes, give details.	No
6	Please provide specific comment w.r.t. Section 29 of the Wildlife (Protection) Act, 1972	As per the justification furnished by the User agency, there is no alternative route to this alignment except proposing the diversion of 61.73 ha of forest land.
7	Any other information that you would like to bring to the notice of the state Board for Wildlife or its Standing Committee that may relevant and assist in decision making.	1. The proposed project passing through the default Eco Sensitive Zone of Koundinya Wildlife Sanctuary to an extent of 48.50 Km i.e., from KM 86.500 to Km 135.50 of which 7.1043 Km falls in Palamaner RF and Tekumanda Extn., RF remaining 41.5 Kms passes through other than RF of default Eco Sensitive Zone.

		2. An amount of Rs.16.98 Crores has been proposed by user agency for implementation of Wildlife Conservation plan in Elephant Corridor. 3. Underpasses and Over passes are proposed to the existing road NH-4 which is parallel to this proposed alignment to avoid obstacle for free movement of elephants and Wildlife.
8	Do you recommend the project? (please provide full justification to support your recommendation)	Yes. Recommended, <ul style="list-style-type: none"> The proposed Project will improve connectivity between Chennai and Bangalore; there by providing employment in this region and thus may promote economic growth and steer the development. There is no other alternate route to this alignment is recommended. It will pass through the business corridor and will be used for transportation of food grain, fertilizer, Petroleum, Minerals oils, Heavy Machineries etc.
9	Conditions, if any, to be ensured in the interest of protection and conservation of wildlife for allowing use of area?	The proposal is recommended subject to the following conditions should be strictly followed while executing the work. <ol style="list-style-type: none"> The proposed area will be utilized only for the purpose for which the user agency has sought, but not for any other commercial purpose. The User Agency should inform the commencement of the work to the Concerned DFO. The diversion work will be executed under the supervision of the Forest Department The User Agency should invariably demarcate the proposed land for diversion with any suitable permanent stones/pillars. After demarcation only the works should be commenced.

RECOMMENDATION BY WILDLIFE WARDEN

- ❑ Wildlife warden visited the site on 29.06.2022
- ❑ The project was reviewed and concluded that No Incremental damage or exploitation of any forest produce or wildlife product is anticipated.
- ❑ WLW has recommended the proposal stating that adequate measures have been taken by the User Agency for free flow of water and wildlife animals



**Government of Andhra Pradesh
Forest Department**

From
Sri C. Chaitanya Kumar Reddy,
Divisional Forest Officer,
Chittoor West Division,
Chittoor.

To
The Chief Conservator of Forests,
Ananthapuramu Circle,
Ananthapuram.

Re.No. 98/2021/TO, Dated: 30.07.2022

Sir,

Sub : FCA-1980 – Proposals for Diversion of 61.73 Ha of Forest Land in Compartment no: 308 & 309 of Palamaner RF and Compartment No. 384 of Tekumanda Extn. RF, Palamaner Beat & Range, Chittoor west Division for construction of 4 lane Bangalore - Chennai Express way Phase-II from Km 71.000 to Km 156.000 in Andhra Pradesh in favour of NHAI – 12 sets Wild life Proposals along with 4 sets of Mitigation Plan submitted for approval- Requested- Reg.

Ref : 1. Pri. Chief Conservator Forests (WL) & CWW, AP., Guntur Re.No.EFS02-2517/2019-WL.2, dt: 25.01.2021, 30.01.2021 and 08.07.2022.
2. This office Re.No. 98/2021/TO, dated. 25.01.2021, 26.06.2021, 18.10.2021 and 02.02.2022
3. Forest Range Officer, Palamaner Re.No. 58/2017/PLNR, dated. 01.02.2022
4. Project Director, NHAI/PIU-CTR/BCE-Forest/13002/2022/448, dt. 21.06.2022.
5. Pri. Chief Conservator Forests (WL) & CWW, AP., Guntur Re.No.EFS02-2517/2019-WL.2, dt: 08.07.2022
6. This office Re.No. 98/2021/TO, dated. 25.07.2022.

☺☺☺


In obedience to reference 5th cited above, I submit that the Pri. Chief Conservator of Forests, AP. Guntur has issued instructions to go through the "Wildlife Mitigation Plan" and submit the remarks duly verifying the Flora and Fauna within the zone of influence, impacts on Wildlife, mitigation measures duly signed and counter signed by the Head.

As per the above instructions the User Agency i.e., Project Director, NHAI, Chittoor, has submitted the certificates and proposals on diversion of 61.73 Ha of Forest Land in Compartment no: 308 & 309 of Palamaner RF and Compartment No. 384 of Tekumanda Extn. RF, Palamaner Beat & Range, Chittoor west Division for construction of 4 lane Bangalore - Chennai Express way Phase-II in Chittoor District in the State of Andhra Pradesh and in the reference 3rd cited, the Forest Range Officers, Palamaner have submitted the reports on field verification.

In view of the above and as per the report of Forest Range Officer, Palamaner Range the proposed project is not passing through the Protected Area. However it is falling within its 10 Kms Eco Sensitive Zone. No incremental damage or exploitation for any forest produce or wildlife product is anticipated. Though proposal is not in Protected Area, adequate structural measures like culverts, bridges and under passes have been undertaken by user agency for free flow of water and wild animals.

It is further submitted that I have inspected the site on 29.06.2022 and field observations are drafted and kept in the proposals. The other certificates required under Wildlife Act guidelines from User Agency & Department are kept in as noted in the checklist. Thus, I recommend the proposals for sanction as per Rules under Wildlife (Protection) Act, 1972. The Wildlife Mitigation proposals 4 sets duly modifying certain changes and 12 sets of Wildlife proposals are herewith submitted for approval.

This is submitted for favour of information and necessary action.

Yours faithfully,

Wildlife Warden/
Divisional Forest Officer,
Chittoor West Division, Chittoor.

Encl: Proposals in (12) sets along with
4 sets of Wildlife Mitigation Plan booklets.

RECOMMENDATION BY CHIEF WILDLIFE WARDEN

GOVERNMENT OF ANDHRA PRADESH FOREST DEPARTMENT

From

Sri Y. Madhusudhan Reddy, I.F.S.,
Prl. Chief Conservator of Forests (WL),
Chief Wildlife Warden,
Andhra Pradesh.
Aranya Bhavan, Guntur

To

The Project Direct,
Project Implementation Unit,
BV Reddy Colony
Chittoor 517001

Rc.no.2517/2019/WL-2, Dated:08.08.2022

Sub:- Andhra Pradesh Forest Department - Wildlife - Bangalore-Chennai Expressway from Km 71.000 to Km 156.000 in the States of Karnataka to Gudipala in the state Andhra Pradesh (Phase-II) under Bharatmala on Hybrid Annuity Mode (length : 85Km) - Biodiversity impact Assessment & Wildlife Mitigation Plan - Approved - Regarding.

Ref:- CCF, Ananthapuramu Rc.no. 127/2021/TO dated 01.08.2022

-oOo-

It is to inform that, in the reference cited, the Chief Conservator of Forests, Ananthapuramu has submitted Biodiversity impact Assessment & Wildlife Mitigation Plan with financial out lay of Rs.1698.00 lakh for period of five (5) years. The details are as follows.

- The Proposed diversion of 61.73 ha Forest land in Compt. no. 308, 309 of Palamner RF and Compt. no. 384 of Tekumanda Ext. RF of Palamner Beat of Palmaner Range of Chittoor West Division falls in the ESZ of Koundinya Wildlife Sanctuary and Rayala Elephant Reserve.
- An extent of 48.50 km i.e., KM 86.500 to KM 135.50 falls within 10 km of Koundinya Wildlife Sanctuary of which 7.104 km falls in Palamaner RF and Tekumanda Extn., RF remaining 41.5 Km passes through other than RF of ESZ around Koundinya WLS.
- Underpasses and Over passes are proposed to the existing road NH-4 which is parallel to this proposed alignment to avoid obstacle for free movement of elephants and Wildlife.
- Mitigation and management Plan in Proposed alignment i.e., Bangalore-Chennai Expressway is as follows.
 - Three (3) elephant underpasses are proposed in Rayala Elephant Reserve.
 - Two (2) animal underpasses are proposed in RF Stretch.
 - Five (5) minor bridges and are Three (3) Box culverts are proposed in Palamaner RF.
- An amount of Rs.16.98 Cr has been proposed by user agency for implementation of Wildlife Conservation plan in Elephant Corridor in and around Koundinya Wildlife Sanctuary and Rayala Elephant Reserve.
- The following Schedule-I fauna are observed in the study area.

S.no.	Mammals	Birds
1	Leopard	Peafowl
2	Sloth Bear	Oriental Honey-Buzzard
3	Wolf	Black Shouldered kite
4	Indian Pangolin	Black kite
5	Asian Elephant	Short-toed Snake-Eagle
6	Mouse Deer	Shikra etc.,

Further, in addition to above, the following suggestions are proposed to be incorporate in Wildlife Mitigation Plan based on field conditions.

- One Truck lay bye is proposed at chainage km 115.800 which is near to Elephant Underpass proposed chainage 116.905 - 117.360. It might lead to increased Human Elephant conflict. Hence, it is requested to re-examine the above issue.
- The elevated structures / Underpasses are need to be fortified with sound barriers as per Eco-Friendly mitigation measures issued by the WII, Dehradun.

The Biodiversity impact Assessment & Wildlife Mitigation Plan has been examined and hereby approved. The Project Director, Project Implementation Unit, Chittoor is requested to deposit an amount of Rs.1698.00 lakh (Rupees: Sixteen hundred ninety lakh only) in the following Account at an early date.

Name of the account:	Biodiversity Conservation Society of Andhra Pradesh (BIOSAP)
Name of the Bank	Union Bank of India, Kannavarithota Branch, Guntur, Andhra Pradesh.
Account No.	110310100014082.
IFSC code:	UBIN0802425

Encl:- Biodiversity impact Assessment & Wildlife Mitigation Plan.

Sd/-Y.Madhusudhan Reddy

Prl. Chief Conservator of Forests (WL),
Chief Wildlife Warden, AP.,

Copy submitted to the Spl. Chief Secretary, EFS & T Dept., Velagapudi for information and necessary action.

Copy to the Principal Chief Conservator of Forests (FCA/HRD) & Nodal Officer, O/o PCCF & HoFF, AP, Guntur for information and necessary action.

Copy to the Chief Conservator of Forests, Ananthapuram for information and necessary action.

Copy to the Divisional Forest Officers, Chittoor (West) for information and necessary action.

//T.C.B.O.//

Dy. Conservator of Forests (WL)



RECOMMENDATION BY SBWL

Sl. no.	Proposal No.	Name of the Proposal	User Agency	Area (ha.)
1	FP/AP/IRR IG/25639/2017	Construction of Sri Balaji Reservoir, Mallemadugu reservoir & Kailasagiri canal under GNSS Phase-II PCCF (WL) & CWLW Rc.no.: 21024/ 4/2018/WL-2 dt: 22/11/2019	Chief Engineer, NTR TGP, Tirupati	594.75
2	FP/AP/Others/35298/2018	Diversion of 12.98 Ha forest land for Development of Samarth Sadguru Sri Kasinayana Ashramamat Jyothi Kshetram in Jyothi Beat, Porumamilla Range of Proddatur Division, Kadapa YSR District. PCCF (WL) & CWLW Rc.no.5541/ 2021/WL-2 dated 22.04.2022	President, Sri Kasireddy Nayana Gari Asharamam, YSR Kadapa District, Andhra Pradesh.	12.98
3	FP/AP/OF C/35350/2018	Laying of Underground Optical Fiber Cable (OFC). PCCF (WL) & CWLW. Rc.no. 13694/ 2018/ WL-2 Dt: 02/01/2021	M/s Reliance Jio Infocomm Ltd., Visakhapatnam	1.19
4	FP/AP/Others/4535/2019	Development of LNG Facility at Kakinada Deep Water Port (KDWP). PCCF (WL) & CWLW Rc.no. 13694/ 2018/WL-2 Dt: 02/01/2021	Director, M/s East Coast Concessions Pvt Ltd.,	0 (falling in ESZ area)
5	FP/AP/OF C/81411/2020	Execution of Optical Fiber Network (IPI) Project Nellore District in the State of Andhra Pradesh for the favour of Vindhya Telelinks Limited. PCCF (WL) & CWLW Rc.no.: 5541/2021/WL-2 dt: 04/04/2022	M/s Vindya Teelinks, Secunderabad	0.45
6	FP/AP/Pipeline /141032/2021	Construction of additional pipe line from stage-1 to stage-2 along the road from Srinivasamangapuram to Srivarimettu through compartment nos 114 and 56 of Perumalapally beat of Tirupathi Extension RF of SVNPTirupathi range and Nagapatla beat of Nagapatla R.F of SVNPTirupathi range, WLM Tirupathi. PCCF (WL) & CWLW Rc.no.6858/ 2020/WL-2 Dated:31.05.2022	Executive Engineer, TTD, Tirumala	0.046
7	FP/AP/VE LEC/122063/2021	Erection of 33KV and 11KV lines is passing through Kandlakunta RF of Sirigiripadu section in Compt.70 and Kandlakunta beat of Kandlakunta RF of Sirigiripadu section in Compt.75 of V.P. South Range. PCCF (WL)&CWLW Rc.no. 11630/ 2019/ WL-2 dt:22.11.2021	Executive Engineer Construction Division, APSPDCL, Guntur, A.P	0.5
8	FP/AP/RO AD/154254/2022	Proposed Diversion of Forest Land from Palamner Reserved Forest within Rayala Elephant Reserve for Construction of Bangalore-Chennai Expressway Phase-II in Chittoor District in the state of Andhra Pradesh. PCCF (WL) & CWLW Rc.no.2517/ 2019/ WL-2 Dt 08.08.2022	The Project Direct, Project Implementation Unit, Chittoor.	61.73 Falling in ESZ Area)

The State Board for Wildlife has considered the recommendation of the Chief Wildlife Warden and approve the following resolution:

Resolution:

"The proposals mentioned in the table above are approved for 'Wildlife Clearance' and it is further directed the Chief Wildlife Warden, Andhra Pradesh to take further necessary action in the matter."

Hon'ble Chief Minister of Andhra Pradesh
Chairperson

Hon'ble Minister for Environment, Forests, Science and Technology of Andhra Pradesh
Vice- Chairperson

Spl. Chief Secretary to Government, Environment, Forests, Science and Technology of Andhra Pradesh
Member

Principal Chief Conservator of Forests and Head of Forest Force, Andhra Pradesh
Member

Principal Secretary to Government, Tribal welfare Department, Andhra Pradesh
Member

Managing Director, AP tourism Development Corporation Ltd., AP
Member

Addl. Director General of Police (Law & Order), Andhra Pradesh
Member

Director of Animal Husbandry, Andhra Pradesh
Member

Director / Commissioner of Fisheries, Andhra Pradesh
Member

Principal Chief Conservator of Forests(WL) & Chief Wildlife Warden, Andhra Pradesh
Member Secretary

Understanding Elephants of Rayala Elephant Reserve





PAST/
HISTORY

History of elephants in Andhra Pradesh...



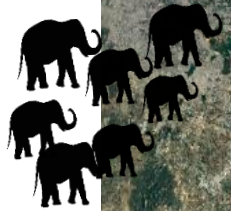
- The state of Andhra Pradesh is not known to have elephants since the past 200 years (Syam Prasad & Reddy 2002),
- In the early 1980's a small herd had come in from the Hosur-Dharmapuri Forest (Manakadan *et al.*, 2010).

Colonization of elephants in Koundinya WLS

Sri Venkateswara NP

Karnataka

Andhra Pradesh



1987

1984



Hosur-Dharmapuri

Kuppam

Koundinya WS

1990

There were
believed to be
90-100
elephants

Tamil Nadu

0 25 50 km

Sanctuary & Elephant Reserve



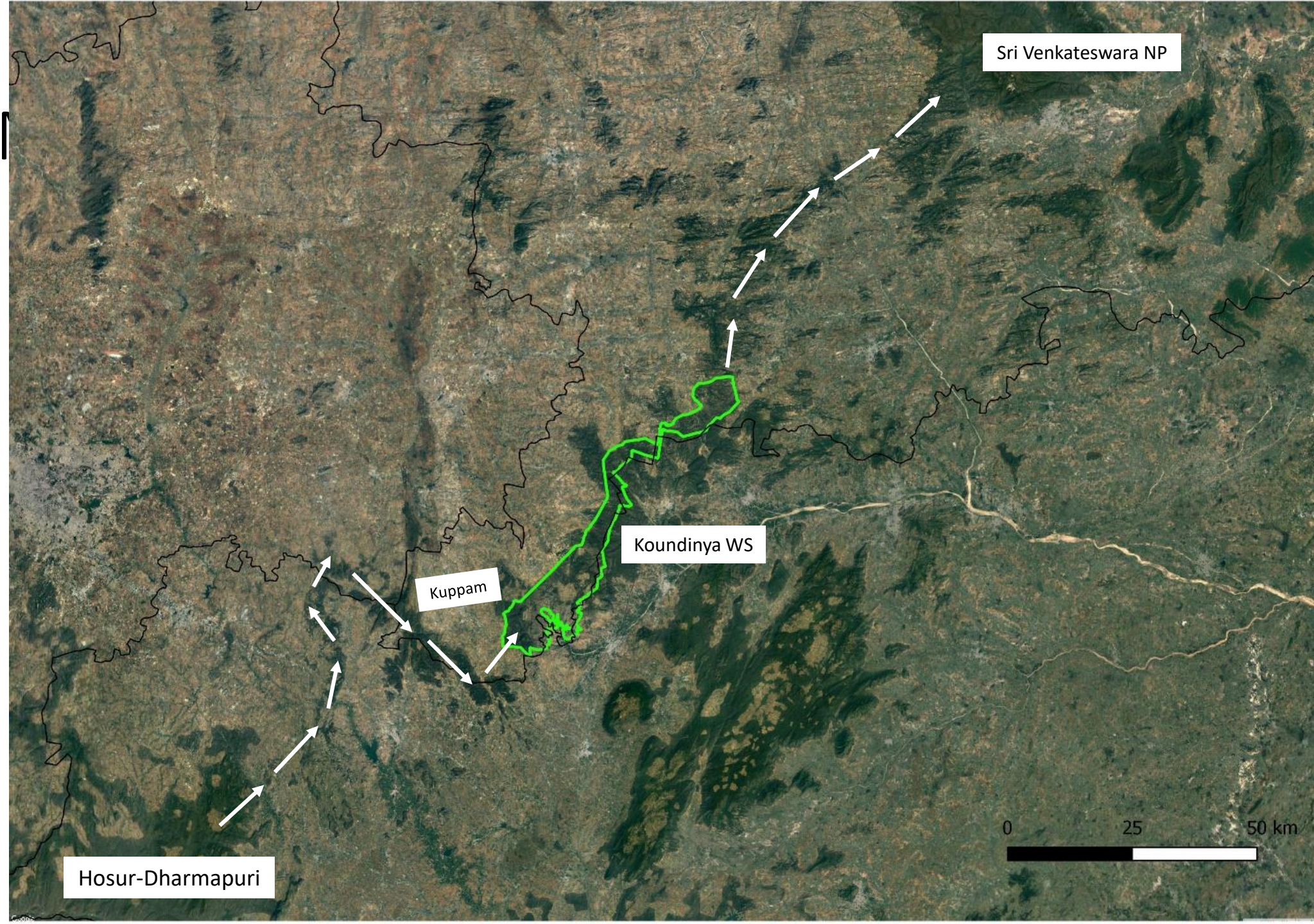
Koundinya Wildlife Sanctuary was established in 1990.

Size of Koundinya is 357.6 sq.km

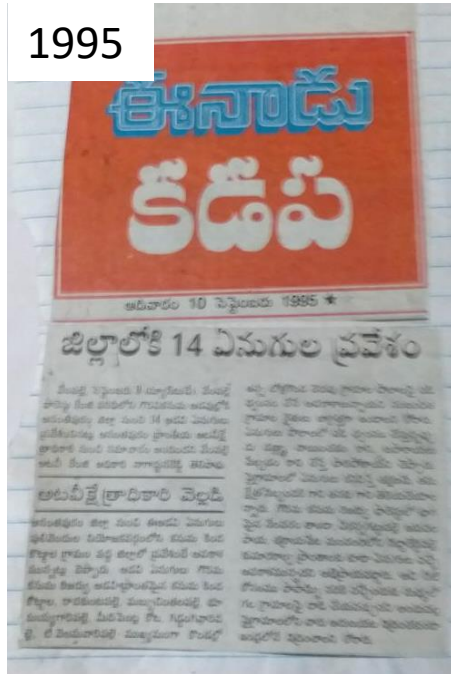
Rayala Elephant Reserve

In 2003 Rayala Elephant reserve was notified.

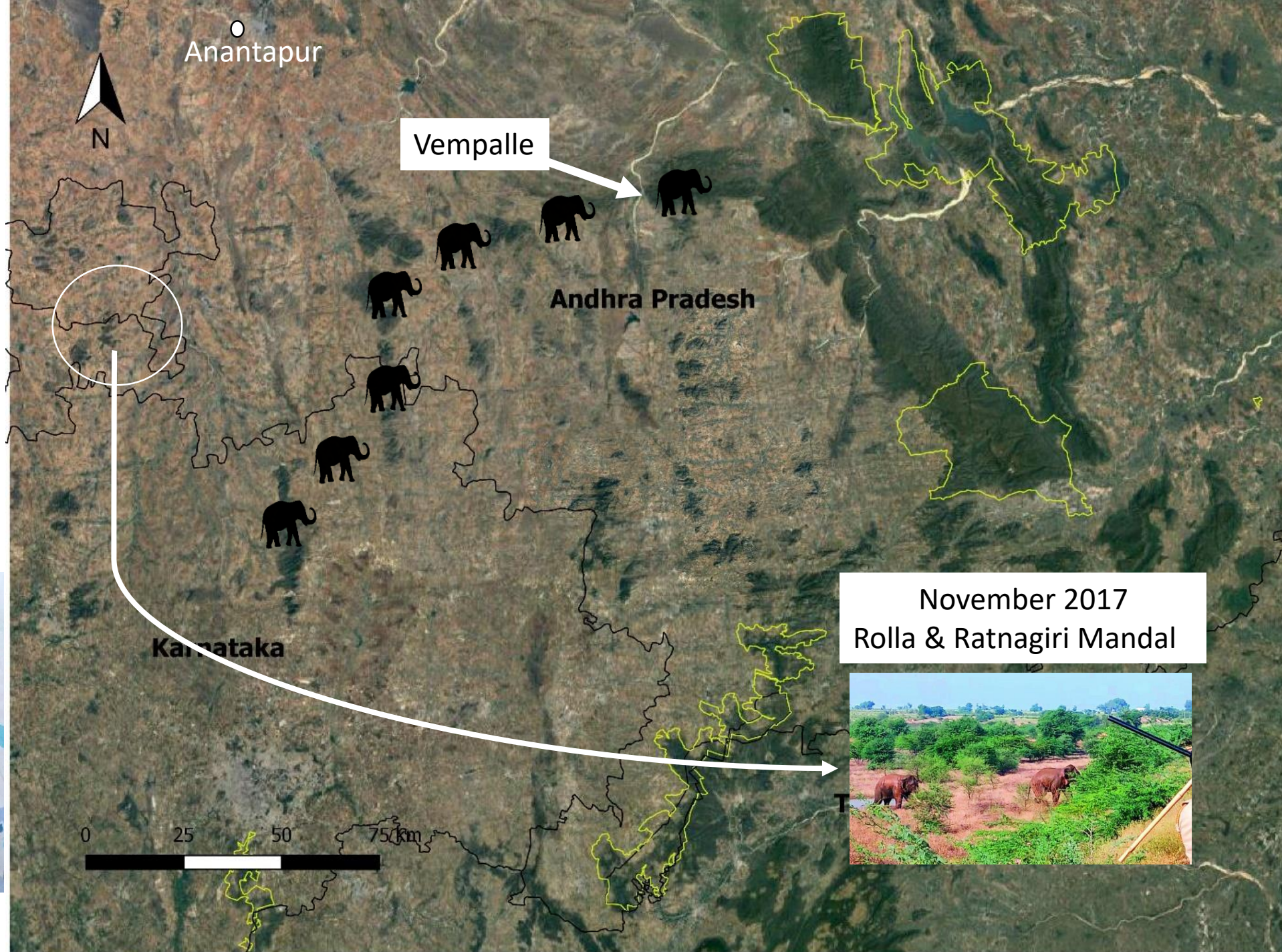
Its part of the **Brahmagiri-Nilgiri-Eastern Ghat Landscape.**



1995



1998



November 2017
Rolla & Ratnagiri Mandal



A photograph of an elephant in a dark, nighttime setting. The elephant is positioned on the left side of the frame, facing slightly towards the right. Its trunk is visible, and its ears are spread out. The background is very dark, with some faint, blurry shapes of vegetation. The overall mood is mysterious and somber.

PRESENT/
RECENT PAST

Synchronized Elephant Population Estimation India 2017



August 2017

Project Elephant Division
Ministry of Environment, Forest and Climate Change
Government of India



Population estimation

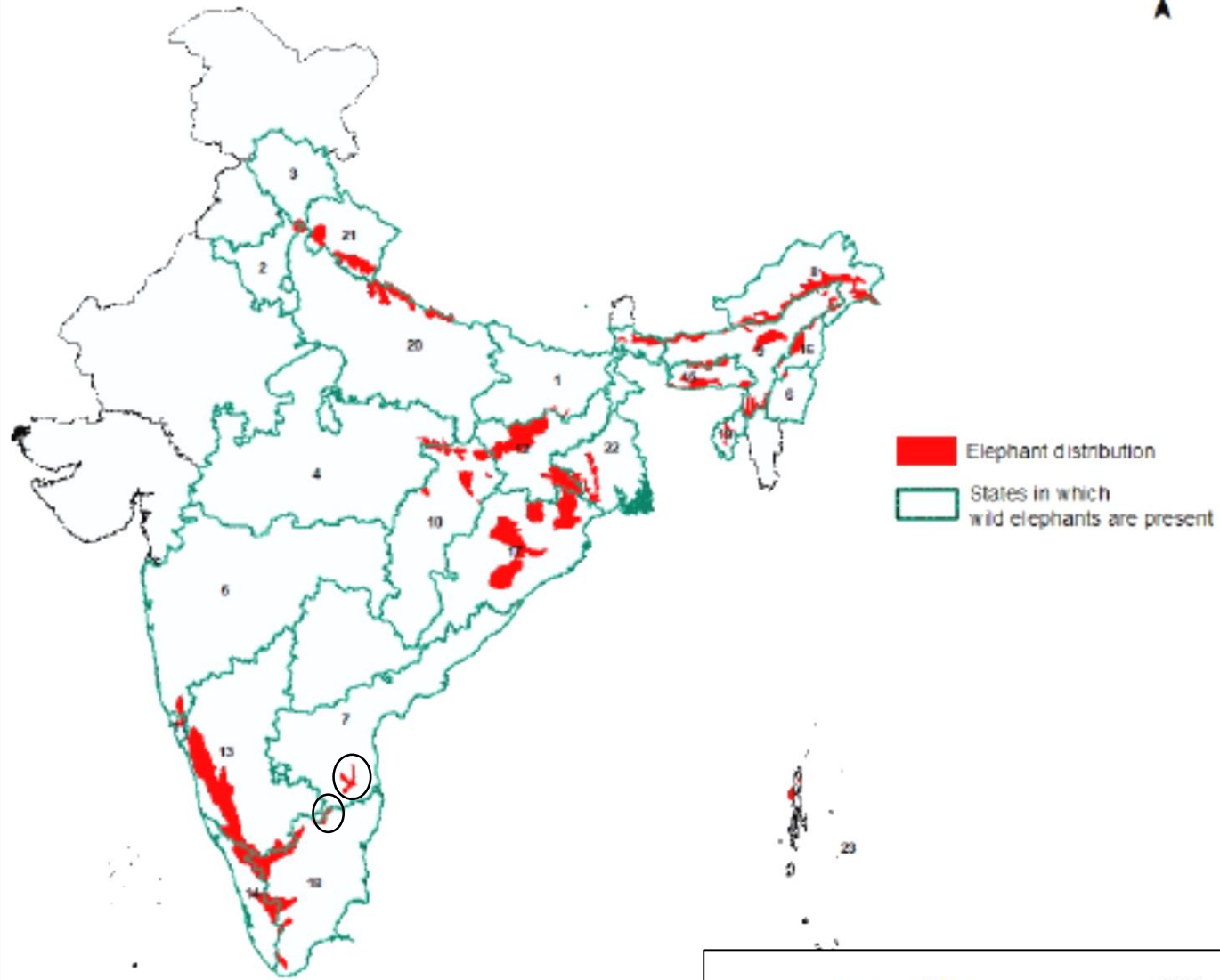
Andhra Pradesh

A total of between 55 and 65 elephants are reported for the state of Andhra Pradesh. Elephants regularly move between Tamil Nadu and Karnataka in southern region of the state (area belonging mainly to Chittoor West division) and also from Odisha into northeastern Andhra Pradesh (Srikakulam Division). In Chittoor West division, elephant numbers range from 25 to 30 elephants. In Tirupati Circle a video captured 24 elephants near Kalyani Dam, Chamala Range. In addition to this, 4 elephants are estimated in Pathapatnam Range, Srikakulam Division (Table 23).

Table 23: Elephant numbers estimated for Andhra Pradesh

Andhra Pradesh	Elephant density/km ²	Elephant distribution area in km ²	Elephant Population
			65
Chittoor West			30
Tirupati			24
Srikakulam Division			4

Synchronized Elephant Population Estimation India 2017



August 2017

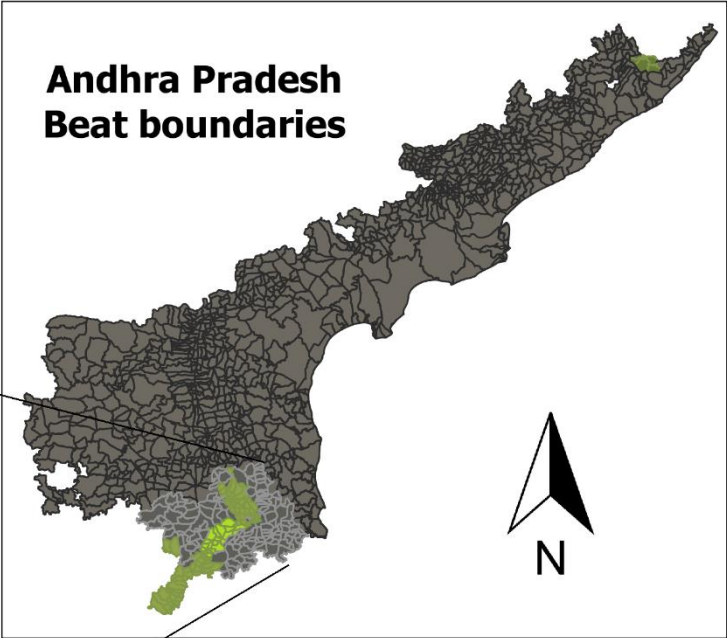
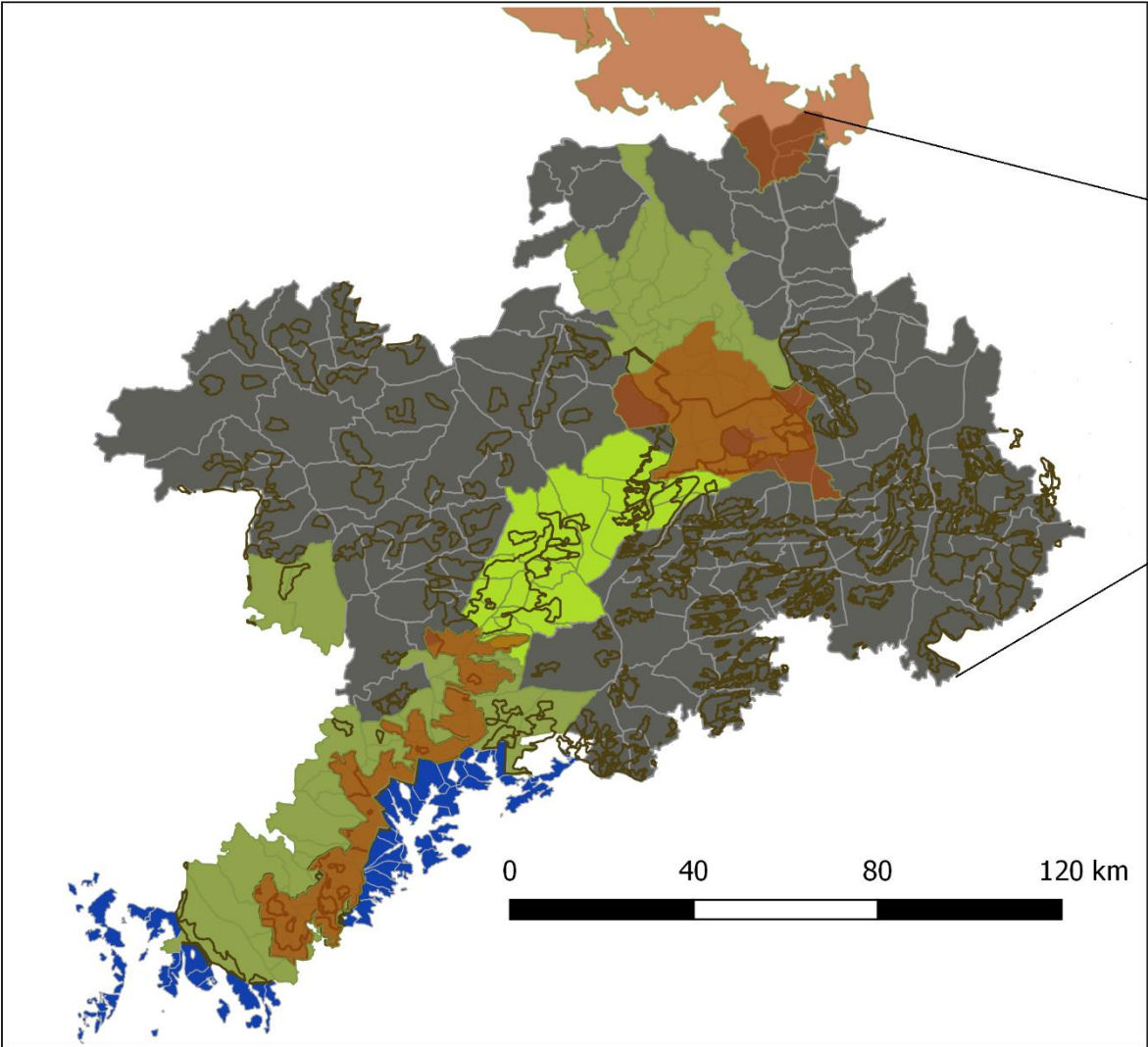
Project Elephant Division
Ministry of Environment, Forest and Climate Change
Government of India



Elephant use areas



Elephant Presence Area (South Andhra Pradesh)



Legend

Elephant Presence

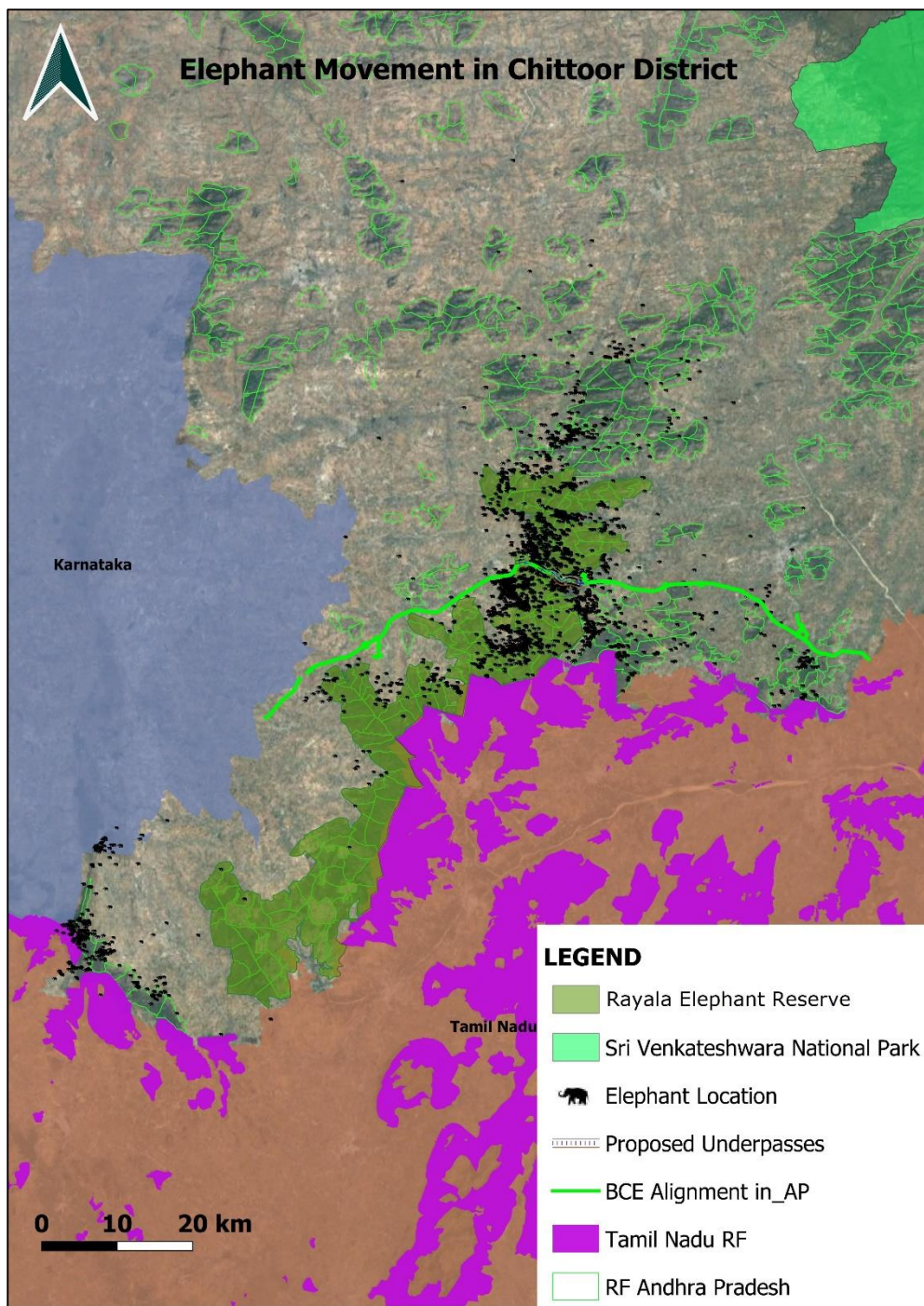
- Elephant movement in past
- Past 5 years (2012-2017)

Forest Area

- Protected Area
- Reserve Forest (Chittoor District)
- Tamil Nadu (Reserve Forest)

Map prepared by: **Rakesh Kalva**

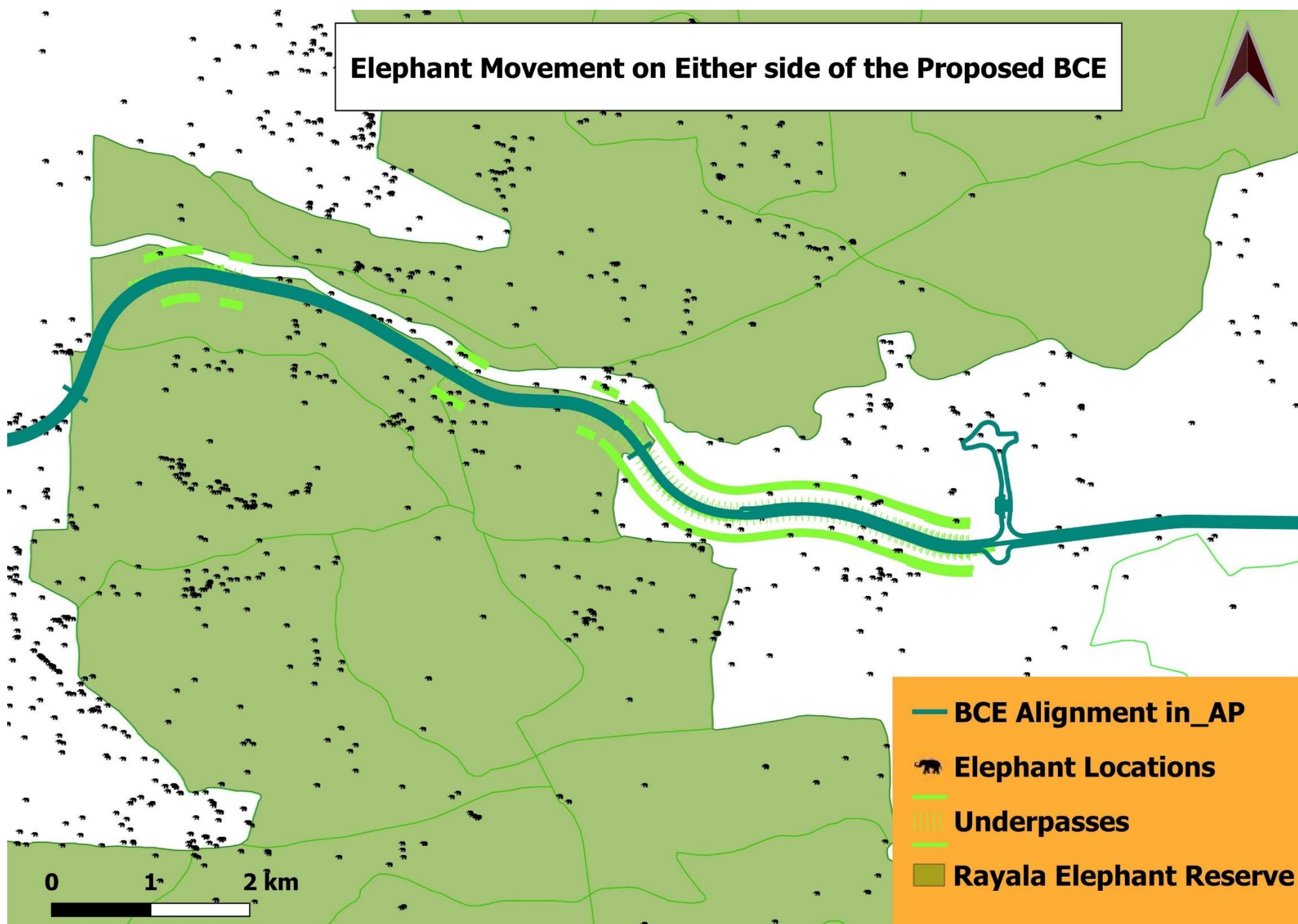
Note: The map above is only pertaining to elephants in South Andhra Pradesh (Chittoor West, Chittoor East, Tirupati WLM and Rajampet Division). This is a map showing beat wise elephant presence in the region.

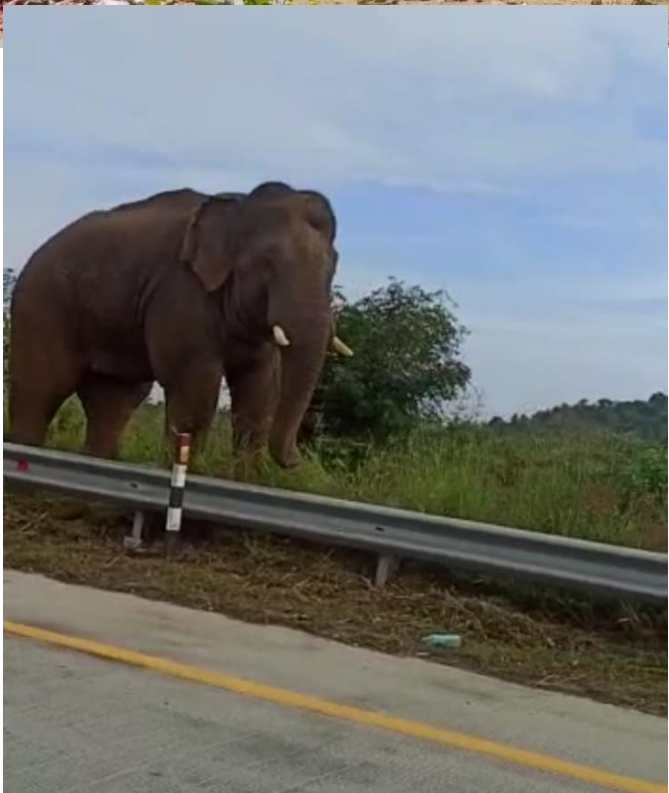
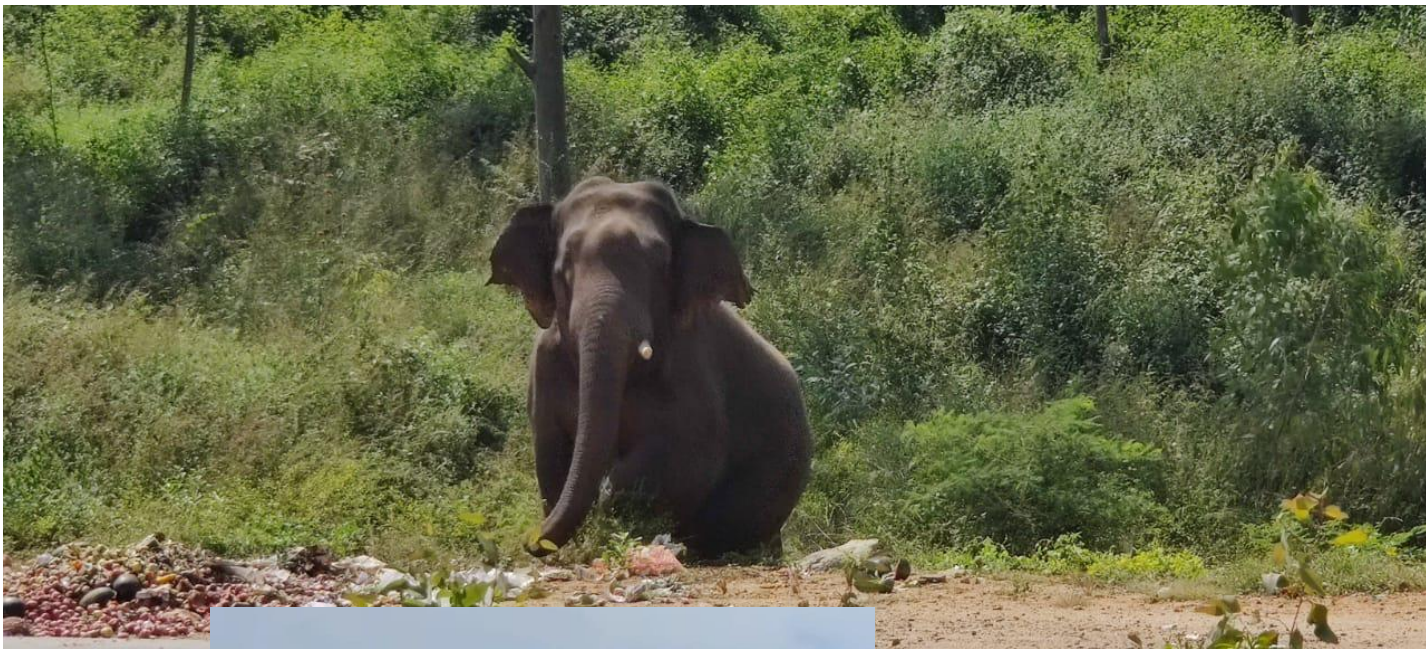


Elephant Movement data

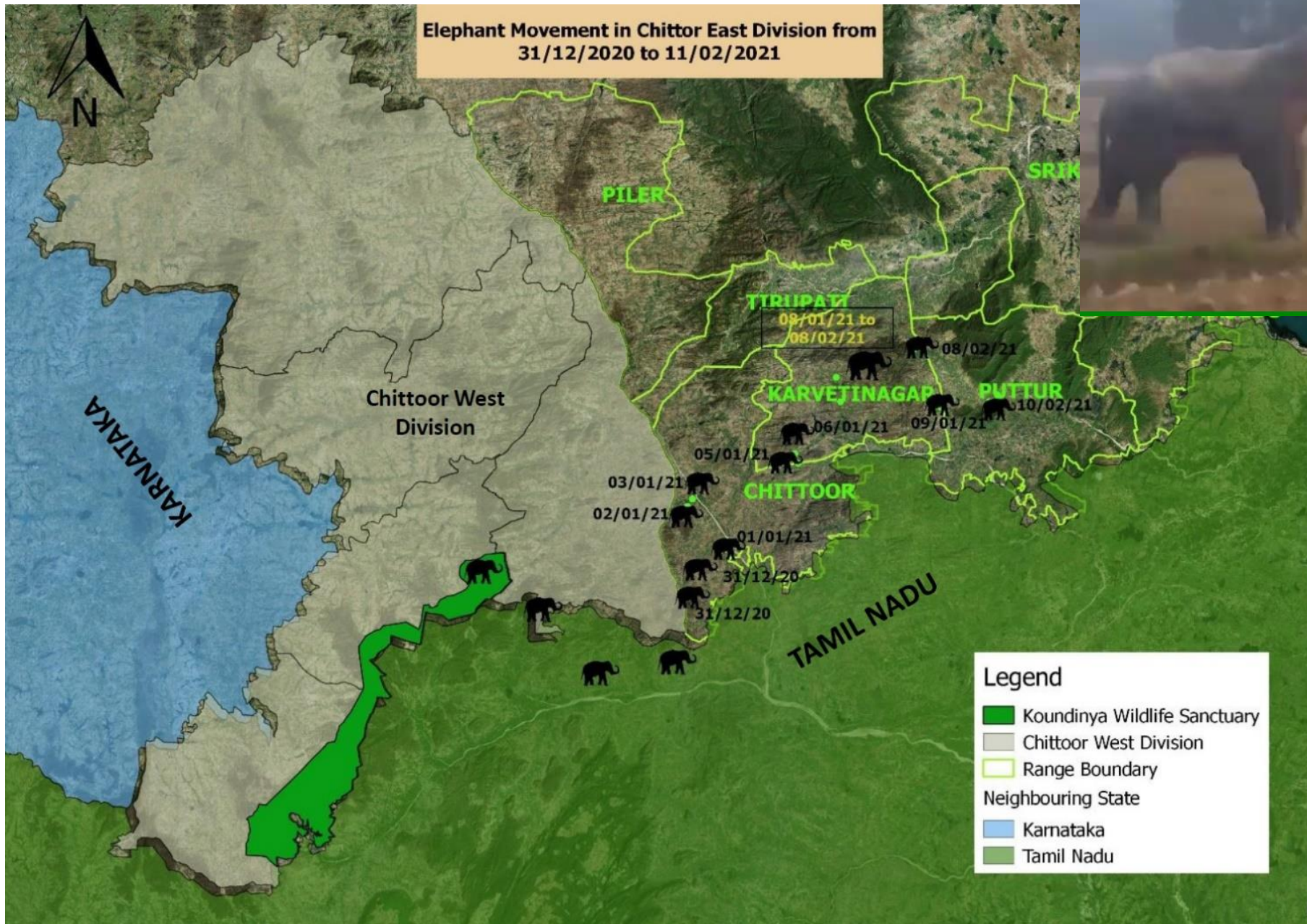
1. From 2020 to 2022
2. More than 4500 signs were recorded during this period
3. Data Source: Trial surveys, crop compensation records, information from locals and forest department staff.

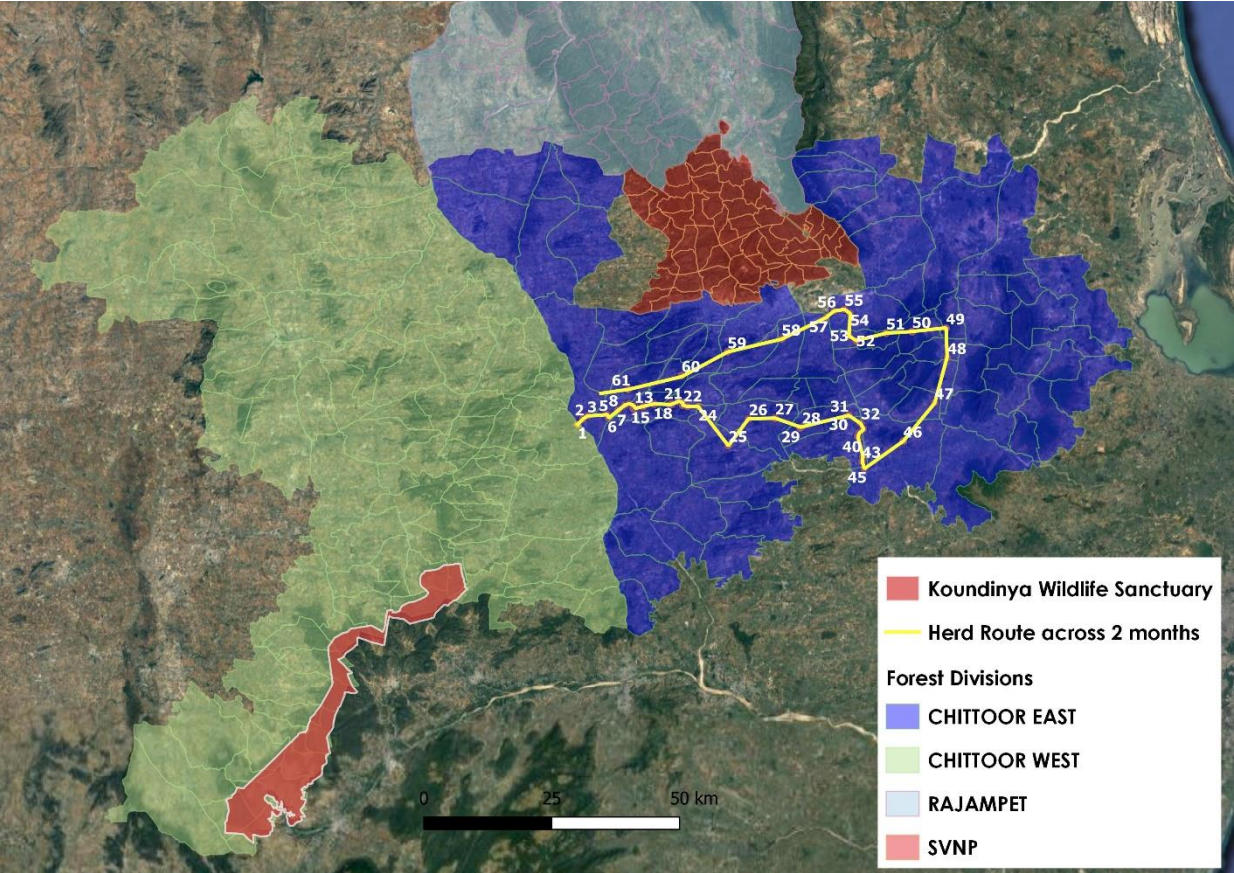
Elephant Movement on Either side of the Proposed BCE





Elephant Movement in Chittoor East Division from 31/12/2020 to 11/02/2021



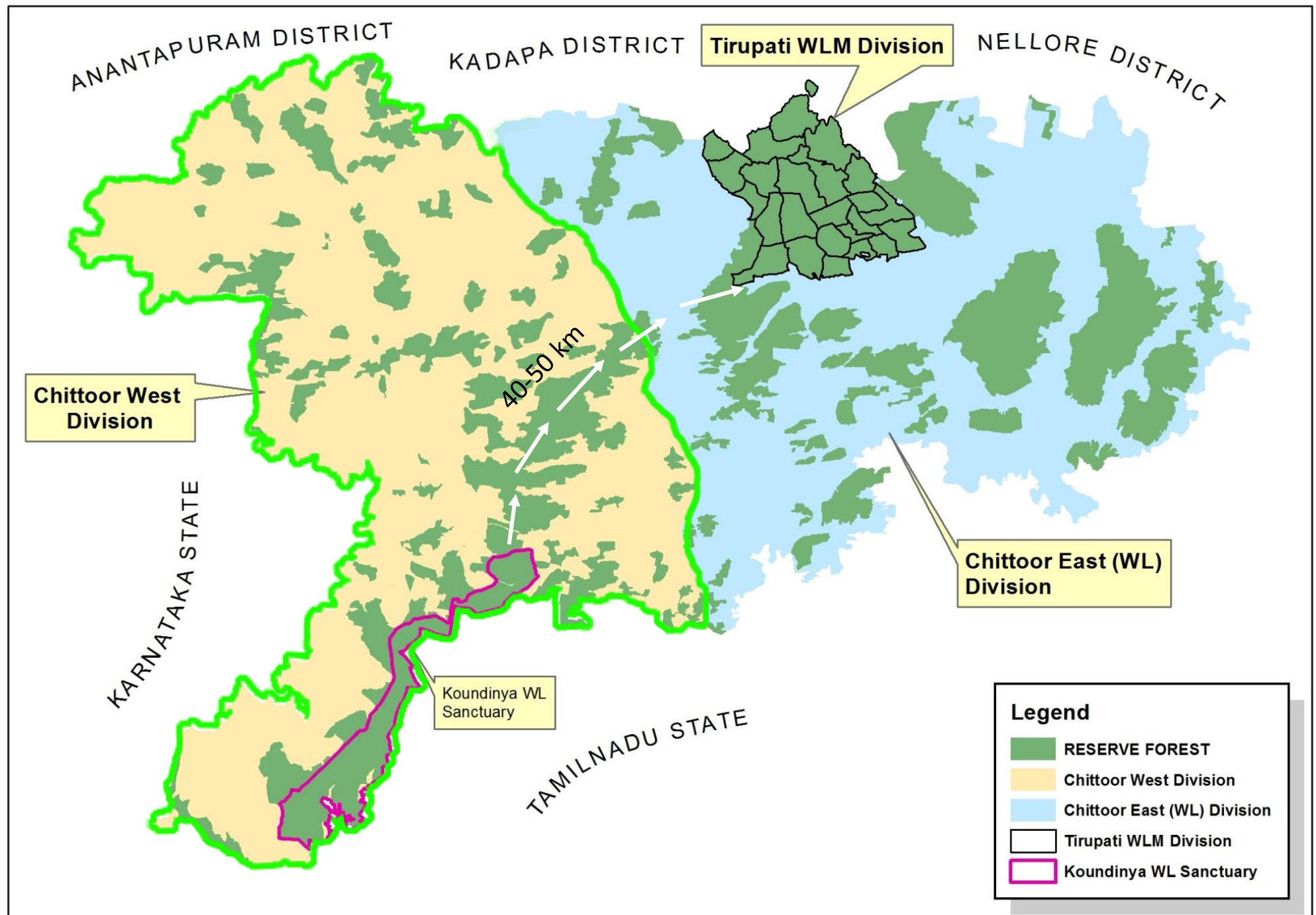


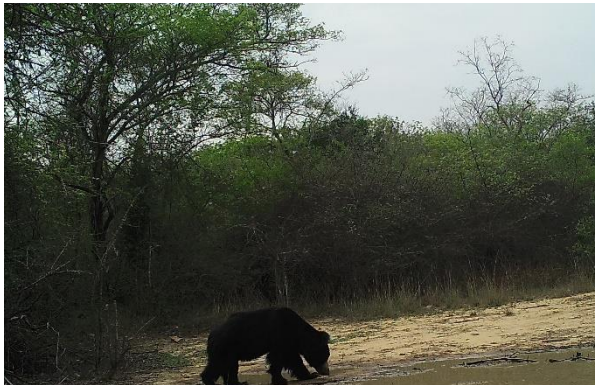
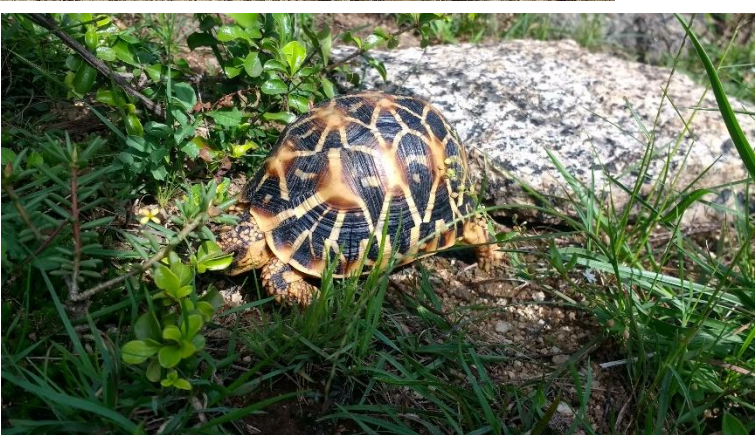
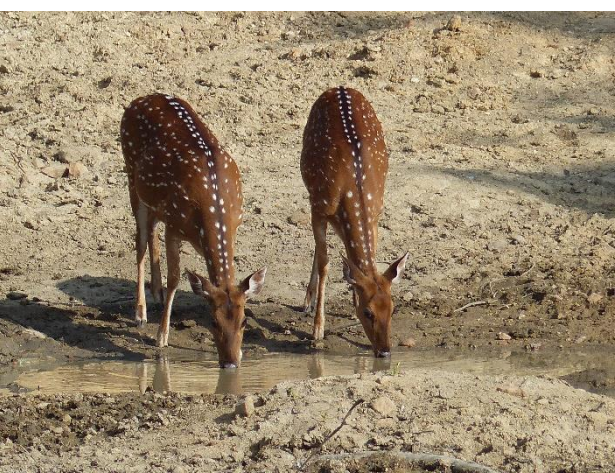






Elephant Corridor





14 Point to consider for the proposed Bangalore-Chennai Expressway

Rakesh Kalva

1. The Reserved Forest stretch is a high frequency elephant movement area and repeated elephant movement is observed on either side of the existing Highway. There is field research data available on elephant movement for the past 3 years and for the year 2017 as well showing elephant movement. There was one incident where elephant was hit by a fast moving vehicle on the exiting highway.
2. The locations and lengths of underpasses proposed by NHAI were derived from a rapid survey for elephant movement undertaken in 2013. Elephant population and movement have undergone drastic and significant changes since then, necessitating a thorough revision based on recent research work undertaken in this area.
3. Apart from elephants the other key wildlife of the Sanctuary include Leopard, Wild Dog, Jackal, Rusty Spotted Cat, Jungle Cat, Sloth Bear, Four-Horned Antelope, Sambar, Spotted Deer, Mouse Deer, Pangolin, Indian Star Tortoise, Indian Rock Python, Slender Loris. Apart from this around 240 species of birds and other species have been recorded.
4. At present there are around 85-95 elephants in Chittoor District with majority of them in Palamaner Range. 60-70 % of the elephants are within 3-4 km radius of the existing highway.

5. There are more than 12 locations where elephants have been seen crossing the highway and in some occasions walking along the highway and exit at someplace else. This shows that the movement is random and it's difficult to pin point at a few exact locations where they can pass through.
6. In the recent past, with the expansion of the NH4 it has been noticed that, elephants are moving into newer areas and coming into conflict in places that had never seen elephants in the recent past. On two occasions in 2021 & 2022 elephants have moved eastwards into chitter town and entered Karvetinagar range into Tirupati. This route has never been used by them in the recent past. There is reason to believe that the elephants which usually take the South to North direction have started going eastwards because of the expansion of NH4.
7. It is recommended for an Independent 3rd part to conduct review of the feasibility of the entire stretch of the BCE to be elevated. To ensure that the maximum stretch of the 7 KM stretch passes through the Reserve Forest. It is vital to have an anonymous engineering expert to conduct feasibility of the entire stretch of the highway to be elevated, if not the entire stretch, the maximum possible area to be elevated.
8. The underpasses proposed by NHAI through the RF is for a total length of 4810 meters. But only 1174 meters passes through the RF. Hence the position of the proposed underpasses is inaccurate.

9. Based on the study undertaken by BNHS in the year 2008, the All India Synchronized Elephant Population Estimation and the study undertaken by Rakesh Kalva, Wildlife Biologist points that the stretch of Rayala Elephant Reserve through which the proposed BCE passes is a corridor used by elephants to move towards the north of the Reserve and also towards Sri Venkateswara National Park in the North East side of Rayala Elephant Reserve.
10. The terrain is undulating and a non-elevated pillared road will require huge quantity of filling to ensure a smooth road. The large quantity of earth matter that would be required will put further pressure on the environment. This can be avoided by providing an elevated express way, this will eliminate filling and also aid wildlife in passing through.
11. As per the KML file with us there is a proposal for Truck Laybay and rest room in the RF area. Given the high frequency of elephant movement, this is of great risk for humans and elephants.
12. Elephants move into Pilaru Range and RF on the other side of the Highway hence dispersing the elephants and the conflict. If adequate passage is not provided it will lead to concentrated conflict on the south of the proposed highway leading to retaliation of people.
13. There is only one stretch of Reserved Forest (RF) which connects Koundinya to the forest in the North-East side into SVNP and the larger Seshachalam Biosphere Reserve. Hence, to ensure long term dispersal and conservation of the elephants in this landscape, it is crucial to ensure a free passage.

14. The proposed expressway is of around 262 km and the stretch through the state of Andhra Pradesh is approximately 85 km. Out of the 85 km ELEVATED Expressway is requested only for a stretch of 7 KM, that too at one location, which passes through Rayala Elephant Reserve.

Based on the above points it is kindly requested to recommend for a feasibility study to be undertaken by an Independent Engineering expert on the 7 km stretch and ensure the maximum possible length to be elevated. Apart from this the Mitigation Plan during construction and post-construction should be revised after consulting with the forest Department.



**WORLD
WILDLIFE DAY**



Thank
you!

