### GOVERNMENT OF ANDHRA PRADESH FOREST DEPARTMENT

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Sri. Y. Madhusudhana Reddy, I.F.S., Prl. Chief Conservator of Forests (WL) & Chief Wildlife Warden, Andhra Pradesh, Aranya Bhavan, Mangalagiri – 522503.

#### To

The Project Director, Project Implement Unit, D.No.1-69/6, Near Sai Baba Temple, Ganesh Nagar, Chinamushidiwada, Visakhapatnam 530051

## Rc.no. 3307/2023/WL-2, Date: 23.05.2023

Sub:- Andhra Pradesh Forest Department – Wildlife – Diversion 60.06 ha. of forest land for rehabilitation and up-gradation to two lane with paved shoulder configuration of Koyyuru – Chaparathipalem – Lammasingi, Paderu section of NH-516E - Bio-diversity Impact Assessment and Wildlife Mitigation Plan – Approved - Reg.,

**Ref:-** CCF, Visakhpatnam Rc.no. 3956/2020/TO Dated 12.04.2023 \*\*\*\*

Under the circumstances reported by the CCF, Visakhapatnam in the reference cited, the Bio-diversity Impact Assessment and Wildlife Mitigation Plan is hereby approved for the proposed rehabilitation and up-gradation of two lane with paved shoulder configuration of Koyyuru – Chaparathipalem – Lammasingi, Paderu Section of NH-516E. The details are as follows:

- The Project road is located in erstwhile Visakhapatnam District (presently in Alluri Seetharama Raju and Anakapalli Districts) of Andhra Pradesh and starts from Koyyuru (17°38'9.47"N Latitude, 82°13'58.49"E Longitude) and ends near Paderu (18° 5'58.52"N Latitude, 82°40'20.65"E Longitude) connecting to Rajahmundry to Vizianagaram highway. The length of project highway is 133.974 Km.
- <u>Forest jurisdiction</u>: The project road covers two (2) Forest Divisions viz., Paderu and Chinthapalli Divisions. The total forest land required for the project is 60.06 ha, which comprises 59.82 ha in Chinthapalli (Erstwhile Narsipatnam) Division and 0.24 ha in Paderu Division.
- The proposed project location 82.25 km away from Kambalakonda Wildlife Sanctuary.
- The study of the proposed project carried out core and buffer zones (up to 10 km radius) in the following RFs. i.e., Bointhi RF, Sarugudu VI RF, Chinthapalli RF, Wangasara RF, Lammasingi –I RF, Krishnapuram RL and Sirasapalli RF.
- From the secondary data and indirect evidence during the site visit, the predominant species found are Sloth bears, Deers, Wild boars etc, Bonnet macaque (Macaca radiate), Rhesus macaque (Macaca mulatta), Wild boar (Sus scrofa), Indian hare (Lepus nigricollis), Grey House shrew (Suncus murinus) and Indian Tree shrew (Anatha eliioti).
- Birds are very common near the aquatic habitats and terrestrial habitats.
   Peafowls are found near the ponds. Among the reptiles, Skinks, Geckos,

lizards are commonly sighted. Snakes such as Krait, Common Tree Snake, Saw scaled wiper, Russell's earth boa, Johns earth boa, Common wolf snake, Indian Cobra, Common Rat snake and Green pit viper are present.

• The following mitigation measures are suggested:

- Plantation and other Habitat Improvement activities within the Forest Areas. (Avenue Planation / Greenbelt plantation)
- o Development of Infrastructure.
- o Habitat enrichment works.
- Wildlife Research and Monitoring works.
- Protection of Wildlife
- Publicity and Awareness
- o Species specific general Mitigation measures.
- Under Passes (Animal Passages)
- 28 no. of new structures and 63 no. existing structures are being improved as animal passages proposed by the User Agency cost of User Agency.
- Financial Plan.

| Management intervention in the impact area  | Estimated cost(Rs.in lakh)                         |  |  |  |
|---|--|--|--|--|
| Raising Avenue plantations/ Greenbelt plantations along the road.   | The cost is to be included in the                  |  |  |  |
| Underpasses and Rumble strips on the road to be constructed by User Agency in Consultation with DFO.  | project cost and to<br>be borne by User<br>agency) |  |  |  |
| Hoardings and signage's (Animal crossing, Don't feed animals, No horn zone etc.,) in every 400 m (at straight path) and in every 100 m (at the turns) on the road where it passes through forest. |  |  |  |  |
| Wildlife Conservation Plan for Schedule –I fauna observed in the Study area. (Habitat improvement)  | 200.00   |  |  |  |
| Wildlife Mitigation works proposed within project area. (Protection and Mitigation)   | 86.00  |  |  |  |
| Total   | 286.00   |  |  |  |

Encl: - Bio-diversity Impact Assessment and Wildlife Mitigation Plan

# Sd/- Y.Madhusudhana Reddy

Prl. Chief Conservator of Forests (WL) & Chief Wildlife Warden

Copy to the PCCF (FCA) O/o PCCF & HoFF, AP, Mangalagiri for information and necessary action.

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

Copy to the Divisional Forest Officers, Chintapalli and Paderu for information and necessary action. He is request to submit detailed plan for the Conservation & Management of Langurs and get approval from the competent authority before utilizing funds under the relevant head.

Copy to the Curator, IGZP, Visakhpatnam for information and necessary action. She is requested to submit detailed plan before utilization of funds in IGZP, Visakhpatnam for conservation of Schedule-I fauna.

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Dy. Conservator of Forests (WL)

0 29.09.2023

## 6.2. FINANCIAL PLAN

| Sl.no. | Management intervention in the core area  | Estimated<br>cost(Rs.in lakh)                       |  |  |  |  |
|--------|---|---|--|--|--|--|
| 1      | Raising Avenue plantations/ Greenbelt plantations along the road.   | \$ 0.   |  |  |  |  |
| 2      | Underpasses and Rumble strips on the road to be constructed by User Agency in Consultation with DFO.  | It is a part of scope of work and to be taken up by |  |  |  |  |
| 3      | Hoardings and signage's (Animal crossing, Don't feed animals, No horn zone etc.,) in every 400 m (at straight path) and in every 100 m (at the turns) on the road where it passes through forest. | EPC Contractor of MoRTH.                            |  |  |  |  |
| 4      | Wildlife Conservaiton plan for Schedule –I fauna observed in the Study area. (Habitat improvement)  | 200.00  |  |  |  |  |
| 5      | Wildlife Mitigation works proposed within project area. (Protection and Mitigation)   | 86.00   |  |  |  |  |
|        | Total   | 286.00  |  |  |  |  |

roject Director, Project Implement Unit Visakhapatnam

District Forest Officer, Chintapalli

Divisional Forest Officer, Paderu

Chief Conservator of Forests,
Visakhapatnam

Prl. Chief Conservator of Forests (WL) & Chief Wildlife Warden

# <u>Wildlife Conservation Plan for Schdule-I Fauna observed in the Study Area.</u>

| S.No | Particulars   | Nos        | Unit<br>cost<br>(Rs in<br>Lakhs) | Total amount (Rs in Lakhs) |
|------|---|------------|----------------------------------|----------------------------|
| 1    | Conservation and Management of<br>Langurs   | LS         | LS                               | 10.00                      |
| 2    | Habitat improvement works in the forest areas   | LS         | LS                               | 20.00                      |
| 3    | Solar based automatic water filling system with borewell and storage pit  | 10         | 5.00                             | 50.00                      |
| 4    | Establishing Salt licks   | LS         | LS                               | 4.00                       |
| 5    | Detailed study to understand the long-term impact on wildlife due to expansion of project                                   | LS         | LS                               | 25.00                      |
| 6    | Ecological monitoring at a gap of every 4 to 5 years to understand the wildlife population and effectiveness of mitigation. | 3<br>times | 2.00                             | 6.00                       |
| 7    | Soil and moisture conservation<br>measures in RF areas in Zone of<br>influence<br>a) CCTs<br>b) RFDs<br>Small Check dams    | LS         | LS                               | 50.00                      |
| 8    | Equipment for wildlife monitoring and research  | LS         | LS                               | 10.00                      |
| 9    | Development of Waterholes/ small ponds in RF areas  | 30<br>No   | 0.50                             | 15.00                      |

| 10 | Water   | storage     | and  | retention | 20 | 0.50   | 10.00 |
|----|---------|-------------|------|-----------|----|--------|-------|
|    | structu | re / Saucer | pits |           |    |        |       |
|    |         | rnf.        | (    |           |    | 200.00 |       |

**Note:** Part of the above Conservation plan amount will be utilized at Indira Gandhi Zoological Park, Visakhapatnam which is nearst Zoo Park for conservation of Schedule –I fauna in consultaion with the Chief Wildlife Warden, Andhra Pradesh.

# Wildlife Mitigation works proposed within project area. (Protection and Mitigation)

| S.No | Particulars   | Total amount<br>(Rs in Lakhs) |
|------|---|-------------------------------|
| 1    | Cost of drones 2 no. for monitoring wild animal movement @ 3,00,000/ drone  | 6.00                          |
| 2    | For protection and anti-depredation activity in Chinthapalli Forest Division with 2 no of squads with 10 persons. | 70.00                         |
| 3    | Corpus fund/ emergency fund   | 10.00                         |
|      | Grand total   | 86.00                         |

**Note:** The entire mitigation plan amount will be utilized on the impacted areas in and around the project area for mitigation of fauna.

Table: 6.2 YEAR WISE FINANCIAL PLAN\* (Rs. In Lakhs)

| Year  | 1                                 | 2                                 | 3                                 | 4                                 | 5                                 | 6                         |
|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------|
|   | 2022-<br>2023<br>(Rs in<br>Lakhs) | 2023-<br>2024<br>(Rs in<br>Lakhs) | 2024-<br>2025<br>(Rs in<br>Lakhs) | 2025-<br>2026<br>(Rs in<br>Lakhs) | 2026-<br>2027<br>(Rs in<br>Lakhs) | Total<br>(Rs in<br>Lakhs) |
| Conservation and<br>Management of<br>Langurs  | 5.00                              | 3.00                              | 2.00                              | 0.00                              | 0.00                              | 10.00                     |
| Habitat<br>improvement<br>works in thre   | 5.00                              | 5.00                              | 5.00                              | 5.00                              | 0.00                              | 20.00                     |
| Solar based<br>automatic water<br>filling system with<br>borewell and<br>storage pit  | 20.00                             | 20.00                             | 10.00                             | 0.00                              | 0.00                              | 50.00                     |
| Establishing Salt<br>licks  | 1.00                              | 1.00                              | 1.00                              | 1.00                              | 0.00                              | 4.00                      |
| Detailed study to understand the long-term impact on wildlife due to expansion project                                      | 5.00                              | 5.00                              | 5.00                              | 5.00                              | 5.00                              | 25.00                     |
| Ecological monitoring at a gap of every 4 to 5 years to understand the wildlife population and effectiveness of mitigation. | 2.00                              | 1.00                              | 1.00                              | 1.00                              | 1.00                              | 6.00                      |
| Soil and moisture conservation measures in RF areas in Zone of influence c) CCTs d) RFDs Small Check dams                   | 10.00                             | 10.00                             | 10.00                             | 10.00                             | 10.00                             | 50.00                     |

| Equipment for wildlife monitoring and research  | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 10.00  |
|---|-------|-------|-------|-------|-------|--------|
| Development of<br>Waterholes/ small<br>ponds in RF areas  | 3.00  | 3.00  | 3.00  | 3.00  | 3.00  | 15.00  |
| Water storage and retention structure / Saucer pits   | 2.00  | 2.00  | 2.00  | 2.00  | 2.00  | 10.00  |
| Cost of drones 2 no. for monitoring wild animal movement @ 3,00,000/ drone  | 6.00  | 0.00  | 0.00  | 0.00  | 0.00  | 6.00   |
| For protection and anti-depredation activity in Chinthapalli Forest Division with 2 no of squads with 10 persons. | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 70.00  |
| Corpus fund/<br>emergency fund  | 10.00 | 0.00  | 0.00  | 0.00  | 0.00  | 10.00  |
| Grand total   | 115   | 46    | 45    | 43    | 37    | 286.00 |