



कार्यालय : उप- तल प्रबंधक  
Office of Sub-Surface Manager

ऑयल एण्ड नेचुरल गैस कॉर्पोरेशन लिमिटेड  
त्रिपुरा परिसम्पत्ति, अगरतला- ७९९ ०१४  
Oil and Natural Gas Corporation Limited  
Tripura Asset, Agartala- 799 014 (India)

Date:-06.05.2022

To,  
The Member Secretary,  
Expert Appraisal Committee, Industry Projects-2  
IA (II) Division,  
Ministry of Environment, Forest and Climate change,  
Indira Paryavaran Bhawan, Jor Bagh Road,  
New Delhi -110003.

**Subject: Reply to the EDS (Essential Details Sought) raised by MoEFCC against the EC proposal "Development Drilling of 9 wells in Tichna Gas Field, Construction of Tichna Well Manifold & Conversion of 9 Exploration Wells in to Development Wells & laying of associated Flow Line at South Tripura District, Tripura".**

Ref: Proposal No. IA/TR/IND/3403/2008

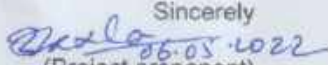
Respected Sir,

With reference to the above subject, point wise responses are submitted with requisite documents for your kind consideration and further processing of EC application.

Sl. No.	Query	Response
1	ToR letter in section 6	Copy of ToR is attached at Annexure-1
2	Forwarding letters to MoEF&CC for PH held in South Tripura.	Forwarding letter submitted to MoEFCC by TSPCB for all 4 PHs conducted is attached at Annexure-2.
3	Latest CCR of existing EC shall be submitted	Latest CCR of EC no. J-13011/213/2008-IA.II (I) dated 11th June 2008. & EC No. J-11011/633/2007-IA-II (I) dated 22.10.2007 is attached at Annexure-3.
4	Baseline is older than 3 years. Submit 15 days latest baseline data	Baseline studies were carried out for period 1st March 2018 to 31st May 2018. It is submitted that in reference to MoEF&CC notification S.O. 221(E) dtd 18.01.2021 (copy of notification attached at Annexure-4), relaxation of one year i.e. period from the 1st April 2020 to the 31st March 2021 was given due to outbreak of Corona Virus (COVID-19) and subsequent lockdowns. <b>Quote</b> "(ix). Notwithstanding anything contained above, the period from the 1st April, 2020 to the 31st March, 2021 shall not be considered for the purpose of calculation of the period of validity of Terms of Reference granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, <u>however, all activities undertaken during this period in respect of the said Terms of Reference shall be treated as valid.</u> " <b>Unquote</b> Therefore, it is requested to accept the Baseline studies data as it is falling within required timeline of

		three years.
5	Two WLS are present. Submit Final notification of both the WLS.	Final ESZs Notification by MoEF&CC for Sepahijala Wild Life Sanctuary & Trishna Wild Life Sanctuary is attached at Annexure-5.
6	Submit well locations/blocks/PML distance from both the WLS on toposheet.	Topo sheet showing location of wells & blocks w.r.t. Sepahijala Wild Life Sanctuary & Trishna Wild Life Sanctuary is attached at Annexure-6. Table showing distance of two WLS from wells /blocks is attached at Annexure-7.
7	Submit co-ordinates of all the wells.	<ul style="list-style-type: none"> <li>ToR has been obtained for 9 development wells and 9 conversion wells (exploratory to development wells.) and Trishna EPS.</li> <li>However, current proposal is being submitted for grant of EC for 6 development wells, 7 conversion wells and Trishna EPS. Remaining 2 conversion wells &amp; 3 development wells are not included in the proposal. Details given in Annexure-7.</li> </ul>
8	Applicability of NBWL shall be clarified as per Notification dated 8th August, 2019 and 16th July, 2020	<ul style="list-style-type: none"> <li>ToR has been obtained for 9 development wells and 9 conversion wells (exploratory to development wells.) and Trishna EPS.</li> <li>However, current proposal is being submitted for grant of EC for 6 development wells, 7 conversion wells and Trishna EPS. Remaining 2 conversion wells &amp; 3 development wells are not included in the proposal. Details given in Annexure-7.</li> <li>Out of six development wells, recommendations from NBWL have been obtained for 4 development wells i.e. TIDD, TIDA, TIDE and TIDF vide minutes of 52<sup>nd</sup> SCNBWL dtd 22.01.2019 and 65<sup>th</sup> SCNBWL dtd 08.10.2021. (Copy of Minutes of Meeting of 52<sup>nd</sup> and 65<sup>th</sup> NBWL is attached at Annexure-8). For remaining two development wells i.e. TIDC and TIDG recommendations from NBWL is under process.</li> <li>Trishna EPS is outside ESZ boundary of Trishna WLS &amp; Sepahijala WLS therefore NBWL recommendations is not applicable.</li> <li>9 conversion wells are outside ESZ boundary of Trishna WLS &amp; Sepahijala WLS therefore NBWL recommendations is not applicable.</li> </ul>
9	Submit conservation plan to concerned DFO and copy of submission receipt and conservation plan shall be uploaded/submitted.	Conservation plan already submitted to concerned authority. Receipt of submission along with Conservation plan already uploaded. Conservation plan along with receipt from PCCF office is attached at Annexure-9.
10	Distance of all the rivers as mentioned in section 29 from wells & blocks shall be clarified.	Toposheet showing location of wells & blocks w.r.t. rivers and Table showing distance of all the rivers from wells /blocks is attached at Annexure-10.

Thanking you,

Sincerely  
  
 (Project proponent)  
 ONGC Tripura Asset

**Annexure-1**



Government of India  
Ministry of Environment, Forest and Climate Change  
(IA Division)

**Yogendra Pal Singh**  
**Scientist 'D'**

F. No. J-11011/64/2017-IA.II (I)

Indira Paryavaran Bhawan  
Aliganj, Jor Bagh Road  
New Delhi - 110 003

Telefax: 91-11-24695365  
E-mail : [yogendra78@nic.in](mailto:yogendra78@nic.in)

Dated: 31<sup>st</sup> May, 2017

To,

**The DGM (Chemistry), CHSE**  
**(Shri Rajeeva Kumar)**  
**M/s ONGC**  
**Corporate HSE,**  
**8<sup>th</sup> Floor Core IV,**  
**SCOPE Minar, Delhi 110092**

**Sub: Development Drilling of 9 Wells in Tichna Gas Field, Construction of Tichna Well Manifold & Conversion of 9 Exploration Wells in to development wells & laying of Associated Flow lines at South Tripura District, Tripura by M/s ONGC Ltd. - Terms of References - reg.**

**Ref.: Your online Proposal No. IA/TR/IND2/62643/2017; dated 20th February, 2017.**

Sir,

Kindly refer your proposal no. IA/TR/IND2/62643/2017; dated 20<sup>th</sup> February, 2017 along with project documents including Form-I, Pre-feasibility Report and draft 'Terms of Reference' as per the EIA Notification, 2006. It is noted that the Proposal is for Development Drilling of 9 Wells in Tichna Gas Field, Construction of Tichna Well Manifold & Conversion of 9 Exploration Wells & laying of Associated Flow lines at South Tripura District, Tripura by M/s ONGC Ltd. This project includes the following activities:

- i. Drilling of 9 No. Development wells
- ii. Construction of Tichna Well Manifold
- iii. Conversion of 9 No. Exploratory Wells for Development
- iv. Associated Flow-lines

2.0 Coordinates of Development Drilling of 9 Wells are as follows:

S. No.	Wells	Latitude	Longitude
1	TIAC	23° 24' 17.077"N	91° 21' 30.409"E
2	TIAF	23° 21' 12.7368"N	91° 22' 02.8194"E
3	TIAG	23° 23' 19.19"N	91° 21' 31.55"E
4	TIDA	23° 23' 32.57"N	91° 21' 53.20"E
5	TIDC	23° 23' 10.64"N	91° 21' 51.16"E

6	TIDD	23° 23' 12.57"N	91° 22' 07.26"E
7	TIDE	23° 23' 45.8"N	91° 21' 48.06"E
8	TIDF	23° 23' 58.15"N	91° 22' 01.46"E
9	TIDG	23° 22' 12.62"N	91° 22' 0.75"E

3.0 The coordinates of these 9 old exploration wells which to be converted into the development wells are:

S. No.	Wells	Coordinates	(Flow line length) (Km)
1	ADDH	91° 23' 31.618"E, 23° 43' 21.007"N	ADB GCS (9.0)
2	ADDN_AGT	91° 21' 21.197"E, 23° 42' 47.718"N	ADB GCS (12)
3	BMSC_Sub	91° 33' 36.428"E, 23° 51' 26.19"N	Baramura GCS (13)
4	BMDJ	91° 33' 36.428"E, 23° 51' 26.19"N	Baramura GCS (13)
5	BRMG	91° 33' 0"E, 23° 52' 20.878"N	Baramura GCS (10)
6	RODN	91° 15' 13.072"E, 23° 32' 53.61"N	Sonamura GCS (18)
7	GSF	91° 34' 39.907"E, 23° 5' 50.723"N	Gojalia GCS (8)
8	GOAB	91° 36' 15.527"E, 23° 1' 33.038"N	Gojalia GCS (11)
9	TMD	91° 44' 28.936"E, 23° 14' 38.155"N	Gojalia GCS (15)

4.0 Draft Terms of Reference (TOR) have been discussed and finalized during 21<sup>st</sup> Expert Appraisal Committee (Industry-2) meeting held during 27<sup>th</sup> - 29<sup>th</sup> March, 2017 for preparation of EIA/EMP report. The Committee prescribed the following additional TOR in addition to standard TOR (refer Ministry's website) for preparation of EIA-EMP report:

**A. Additional TOR:**


- i. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- ii. A copy of application seeking clearance from NEWL w.r.t. Trishna Wildlife Sanctuary to be submitted.
- iii. Stage-1 FC to be submitted.

5.0 These '**TORs**' shall be considered for the preparation of EIA/EMP for Development Drilling of 9 Wells in Tichna Gas Field, Construction of Tichna Well Manifold & Conversion of 9 Exploration Wells & laying of Associated Flow lines at South Tripura District, Tripura by M/s ONGC Ltd., in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

6.0 You are requested to kindly submit the final EIA/EMP prepared as per TORs and incorporating all the issues raised during Public Hearing/Public Consultation to the Ministry for considering the proposal for environmental clearance **within 3 years as per the MoEF O.M. No. J-11013/41/2006-IA.II (I) dated 8<sup>th</sup> October, 2014.**


*G. J. Pr*

7.0 The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc.

  
31.5.2017  
**(Yogendra Pal Singh)**  
**Scientist 'D'**

**Copy to:-**

1. The Member Secretary, Tripura Pollution Control Board, Pandit Nehru Complex, PO- Kunjaban, Agartala - 799 006, West Tripura.
2. Guard File/Monitoring File/Website/Record File.

  
31.5.2017  
**(Yogendra Pal Singh)**  
**Scientist 'D'**

**Annexure-2**



# TRIPURA STATE POLLUTION CONTROL BOARD

(A Statutory Organisation Under Government of Tripura)

Department of Science Technology & Environment

No.F.17(36)/TSPCB/PH/8964-8965

October 28, 2021

To

The Member Secretary  
EAC, Industry Projects-2  
MoEFCC, Govt of India  
Viyu Wing, 3<sup>rd</sup> floor, Indira Pariyawaran Bhawan  
Jor Bagh, New Delhi.

**Subject: Minutes of the Four numbers of Public Hearing for development drilling of 9 wells in Tichna Gas Field, Construction of Tichna well manifold & conversion of 9 exploration wells in to development wells & laying of associated flow line -reg.**

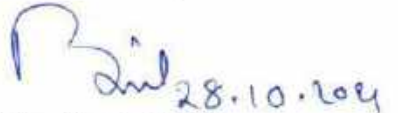
Ref: i) No.F.17(36)/TSPCB/PH/6803-08 dated 30.08.2019  
ii) No.F.17(36)/TSPCB/PH/6809-13 dated 30.08.2019

Sir,

With reference to the subject cited above, please find enclosed herewith the minutes of the four numbers of Public Hearing for "**development drilling of 9 wells in Tichna Gas Field, Construction of Tichna well manifold & conversion of 9 exploration wells in to development wells & laying of associatd flowline**" along with DVD of entire public hearing proceedings for favour of your kind information and doing needful from your end please.

This apart, news paper clippings of the public hearing notices as published in vernacular languages & national newspapers have also been communicated for records & ready reference. The same has been uploaded in the website of Tripura State Pollution Control Board (<https://tspcb.tripura.gov.in/>).

Yours sincerely,

  
(Bishu Karmakar)  
Member Secretary

Encl: As stated

Copy to:

1. The Asset Manager , Oil and Natural Gas Corporation Ltd., Tripura Asset Badharghat, Agartala, Tripura-799014.

**Annexure-3**

**Monitoring of Environmental Compliance of Exploratory Drilling for Oil & Gas at Assam Arakan Fold Belt in Baramura-Gojalia-Tulamura area, South Tripura District, Tripura by M/s ONGC Ltd.**



**Jointly Monitored with:**

- i). Dr. H. Tynsong, Scientist C,  
Ministry of Environment and Forest, Regional Office-  
Shillong-793 021.
  
- ii). Dr. Mihir Kr. Das, Scientist C &HOO,  
Tripura Pollution Control Board,  
Contact No. 09436168686.

**Date of monitoring:** 23<sup>rd</sup> April, 2014

***APRIL, 2014***

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**PART I**  
**SALIENT FEATURES OF THE PROJECT**

- ✚ **Project type** : Exploratory Drilling (Mining Operation).
- ✚ **Name of the project** : Exploratory Drilling for Oil & Gas at Assam Arakan Fold Belt in Baramura-Gojalia-Tulamura area, South Tripura District, Tripura by M/s ONGC Ltd.
- ✚ **Clearance letter no.& date** : J-11011/633/2007-IA-II (I) dated 22. 10. 2007.
- ✚ **Location** : District West Tripura.
- ✚ **Address of correspondence** : The Asset Manager-Executive Director,  
Oil and Natural Gas Corporation Ltd.,  
ONGC Tripura Assets,  
Badarghat Complex Agartala  
Tripura.
- ✚ **Environmental Management Plan** : i. Waste management (domestic waste, food waste, water waste, Biomedical waste, drilling waste, chemical waste, oil waste etc.)  
ii. Proper restoration of drilled sites,  
iii. Creation of Environmental Management Cell,  
iv. Only water based drilling mud shall be used for drilling operations,  
v. Establishment of mobile ETP,  
vi. Monitoring and  
vii. Providing acoustic enclosure to DG sets
- ✚ **Forest land required** : All wells visited are not located in forest land.
- ✚ **Person available** : Shri A. Razzaque, CG (S), Forward Base, Agartala  
Mob No. 09436500691.
- ✚ **Present status of the project:** Environmental clearance has been accorded for exploratory drilling of fifteen (15) wells. A total of nine (9) wells have been drilled. Monitoring has been conducted in three (3) wells viz., GSF, GOAB & GOAJ. GSF & GOAB are gas bearing wells, while GOAJ is dry well. It is informed by project authorities present during monitoring that there is no National Park/Wildlife Sanctuary/Biosphere Reserves located within 10 km distance of the project area. **Project authorities are required to prepare a detailed plan for development of gas fields before going for commercial production for gas bearing wells viz., TMD,SDAC, GSF GOAB & GOAG and obtain fresh clearance from the Ministry as stipulated in Specific Condition No. xvii.**

**Part II****COMPLIANCE STATUS OF SPECIFIC CONDITIONS AND GENERAL CONDITIONS****A. SPECIFIC CONDITIONS**

**Stipulation i:** The company shall obtain Forest Clearance under Forests Conservation act 1980 for the sites located within forest area.

**Status of Compliance:** *Complied with.* All wells visited are not located in forest land.

**Stipulation ii:** The company shall comply with the guidelines of Disposal of solid waste; drill cutting and drilling fluids for onshore drilling operation vide GSR. 546 (E) dated 30 August 2005.

**Status of Compliance:** *Partially complied with.* The well has already been drilled. It was told during monitoring that drill cuttings has been properly washed prior releasing to waste pit, no hazardous chemicals were used in water base mud and effluents were treated on regular basis. *However, HDPE impervious lining were provided without leachate collection system.*

**Stipulation iii.** The surface facilities shall be installed as per applicable codes and standards, international practice and applicable local regulations.

**Status of Compliance:** *Complied with.* The company is following Directorate General of Mines and Safety (DGMS) regulations, Oil Industry Safety Directorate (OISD) & American Petroleum Institute (API) standard.

**Stipulation iv.** The top soil removed shall be stacked separately for reuse during restoration process.

**Status of Compliance:** *Complied with.* Top soil stacked separately as stipulated.

**Stipulation v.** Drilling waste water & drill cuttings wash water shall be collected in disposal pit lined with HDPE lining, evaporated or treated and shall comply with the notified standards for onshore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise secured landfill shall be created at the site as per design of the approved by CPCB and obtain authorization of the SPCB.

**Status of Compliance:** *Not complied with.* *HDPE impervious lining were provided without leachate collection system. The project authorities could not also provide a copy membership of common TSDF for the disposal of drill cuttings and hazardous waste or secured landfill has been created at the site as per design of the approved by CPCB and obtain authorization of the SPCB as stipulated.*

**Stipulation vi.** The recyclable waste (oily sludge) and spent oil shall be disposed to authorized recyclers.

**Status of Compliance:** *Complied with.* It was told during monitoring that all spent oil was given to authorized recyclers through MSTC.

**Stipulation vii.** Only water based drilling mud shall be used. The drilling mud shall be recycled. In case of use of synthetic mud due to any problem geological formation for drilling, low toxicity, oil Based mud (OBM) having aromatic content <1% shall be used. If it is intended to use such OBM/SBM to mitigate specific hole problem, it should be intimated to Ministry of Environment and Forest/SPCB.

**Status of Compliance:** *Complied with.* It was informed that no oil based mud was used by the project authorities. Only water based drilling mud was used.

**Stipulation viii.** Quantities of storage of chemicals/additives below the specified threshold permitted under MSIHC Rules.

**Status of Compliance:** *Complied with.* It was informed that storage of chemicals and additives use for drilling mud preparation is below the threshold storage unit. The MSIHS rules were followed.

**Stipulation ix.** Pre hire inspection, safety meetings, tool box meeting and audits to identify hidden/potential hazardous.

**Status of Compliance:** *Complied with.* It was informed that OMR, OISD and RCP guidelines were followed for equipment and employees.

**Stipulation x.** The company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during flaring.

**Status of Compliance:** *Complied with.* It was informed that OMR, OISD and RCP guidelines were followed to prevent fire hazard.

**Stipulation xi.** The company shall take necessary measures to reduce noise level s at D/S by providing mitigation measures such as proper acoustic enclosures to DG set and meet norms notified by MoEF. Height of all stacks/vents shall be as per CPCB guidelines.

**Status of Compliance:** *Complied with.*

**Stipulation xii.** To prevent fire and explosion, potential ignition source should be kept to a minimum and adequate distance between potential ignition sources and flammable material should be in place.

**Status of Compliance:** *Complied with.* Guidelines of OMR, OISD and RCP were followed to prevent fire and explosions from potential explosion.

**Stipulation xiii.** The company shall develop contingency plan for H<sub>2</sub>S release, all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self-containing breathing apparatus.

**Status of Compliance:** *Complied with.* It was informed that no H<sub>2</sub>S gas was encountered in all drilling sites.

**Stipulation xiv.** To prevent well blowout during operation Blow out Preventer (BOP) system shall be installed. Focus on maintaining well bore hydrostatic pressure by proper pre well planning, drilling fluid, logging etc.

**Status of Compliances:** *Complied with.* It was informed that BOP was tested as per DGMS and API guidelines.

**Stipulation xv.** The company shall take measure after completion of drilling process, well plugging and secured enclosures, decommissioning of rig upon abandonment of well, the drilling site shall be restored to near original condition. In the event that no economic quantity of HC is found a full abandonment plan shall be implemented for site as per Indian Petroleum Regulations.

**Status of Compliance:** *Partially complied with. It is observed during monitoring that GOAJ have not been properly restored. Earth filling is done without artificial plantation, removal of cement concrete, brick debris etc. (Fig2.1 & 2).*



***Fig.1. GOAJ well, cement concretes still remained to be dismantled***



***Fig. 2. another view of cement concretes still remained to be dismantled at GOAJ well,***

**Stipulation xvi.** Occupational health surveillance of the workers shall be carried out as per prevailing the prevailing Acts and Rules.

**Status of Compliance:** *Complied with.* It has been informed that that regular pre-medical examination for all workers is being done.

**Stipulation xvii.** In case the commercial viability of the project is established, the company shall prepare detailed plan for development of oil & gas fields and obtain fresh clearance from Ministry.

**Status of Compliance:** *To be complied with.* Project authorities are required to prepare a detailed plan for development of gas fields before going for commercial production for gas bearing wells viz., TMD, SDAC, GSF (Fig.3), GOAB (Fig.4) &GOAG and obtain fresh clearance from the Ministry as stipulated.



**Fig.3. GSF-gas bearing well**



**Fig. 4. GOAB-gas bearing well**

## **B. GENERAL CONDITIONS**

**Stipulation i.** The project authorities must strictly adhere to stipulations made by State Pollution Control Board, the State Government and any other statutory.

**Status of Compliances:** *Complied with.* It is informed that conditions made by State Pollution Control Boards as well as the State Government were strictly implemented.

**Stipulation ii.** No further expansion or modification of project shall be carried without prior approval of MoEF. In case of deviation or alteration in the project proposal from those submitted to this ministry for clearance, a fresh reference shall be made to Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required if any.

**Status of Compliance:** *Complied with.* It was informed that no further expansion or modifications required.

**Stipulation iii.** The emissions of (RSPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, HC & HOC) from DG set and flare stack shall conform the standards of SPCB. Regular monitoring of ambient air

for HC and VOC as per CPCB guidelines. Stack height attached to DG sets shall be as per EPA and rules.

**Status of Compliance:** *Not complied with. No monitoring data of RSPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, HC & VOC from DG sets and from flare stack, could be made available during monitoring as stipulated.*

**Stipulation iv.** The project authorities must strictly comply with rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules 1989. Prior approval from Chief Inspectorate of Factories, Chief Controller of Explosive, Fire Safety Inspectorate etc must be obtained, wherever applicable.

**Status of Compliance:** *Complied with.*

**Stipulation v.** The project authorities must strictly comply with rules and regulations with regard to handling and disposal of Hazardous Wastes (Management and handling) rules 1989/2003 wherever applicable. Authorization from SPCB must be obtained for collections/ treatment/storage/ disposal of hazardous wastes.

**Status of Compliance:** *Complied with.*

**Stipulation vi.** The overall noise levels in and around the plant shall be kept within the standards by providing noise control measure including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to EPA rules, 1989 viz 75 dBA (daytime) and 70 dBA (night time).

**Status of Compliance:** *Not complied with. Monitoring data of noised could be made available during monitoring as stipulated.*

**Stipulation vii.** A separate Environmental Management Cell equipped with full fledged laboratory facilities to carry out environment management and monitoring functions.

**Status of Compliance:** *Not complied with. A separate Environment Management Cell equipped with full-fledged laboratory facilities has not been setup as stipulated. It was informed that equipment for Ambient Air Quality Monitoring and specialized analysis are being done through expert agency.*

**Stipulation viii.** The project authorities shall provide adequate funds both recurring and non-recurring to implement the conditions stipulated by MoEF and State Govt. along with implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.

**Status of Compliance:** *Partially complied with. Details of funds for implementation of environmental conditions could not be provided.*

**Stipulation ix.** The Regional Office of this Ministry/Central Pollution Control Board will monitor the stipulated condition. A six monthly compliance and the monitored data along with statistical interpretation to be submitted to them regularly.

**Status of Compliance:** *Partially complied with. Six monthly compliance report has been submitted without monitored data submitted as stipulated.*

**Stipulation x.** The project proponent shall inform the public that the project has accorded environmental clearances and copies of clearances letters are available with the State Pollution Control Board and also be seen at Web site of the Ministry of Forests at <http://www.envfor.nic.in>. This shall be advertised within seven days of the issue of this letter in at least two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.

**Status of Compliance:** *Complied with.*


**Stipulation xi.** The project authority shall inform the RO as well as the Ministry, the date of financial closure and final approval of project by the concerned authorities and date of commencing of land development work.

**Status of Compliance:** *Complied with.* Mentioned in six monthly compliance reports.

**General Remark:** Some observations made during monitoring and conveyed to project officials present during monitoring for full compliance include:

- i. Waste pits have not been provided without leachate collection system as stipulated in G.S.R.546 (E) dated 30<sup>th</sup> August, 2005 (specific condition No. ii).
- ii. The project authorities could not provide a copy membership of common TSDF for the disposal of drill cuttings and hazardous waste. Copy of authorization or membership of TSDF has not been submitted to this Regional Office. Project authorities have not also created secured landfill at the site as per design of the approved by CPCB for disposal of drill cuttings and hazardous waste as stipulated (specific condition No. v).
- iii. It is observed during monitoring that GOAJ have not been properly restored. Earth filling is done without artificial plantation, removal of cement concrete, brick debris etc. (specific condition No. xv).
- iv. Project authorities are required to prepare a detailed plan for development of gas fields before going for commercial production for gas bearing wells viz., TMD, SDAC, GSF (Fig.3), GOAB (Fig.4) & GOAG and obtain fresh clearance from the Ministry as stipulated (specific condition No. xvii).
- v. No monitoring data of RSPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, HC & VOC from DG sets and from flare stack, could be made available during monitoring as stipulated (general condition No. iii).

- vi. Monitoring data of noise level could be made available during monitoring as stipulated (general condition No. vi).
- vii. A separate Environment Management Cell equipped with full-fledged laboratory facilities has not been setup as stipulated (general condition No. vii).
- viii. Details of funds for implementation of environmental conditions could not be provided (general condition No. viii).
- ix. Monitored data has been submitted without statistical interpretation as stipulated (general condition No. ix).

  
(Dr. H. Tynsong)  
Scientist C

**MONITORING OF ENVIRONMENTAL COMPLIANCE OF ONSHORE EXPLORATORY DRILLING OF 67 WELLS FOR OIL AND GAS IN AGARTALA, DOME-BARAMURA-KHOWAI-KALYANPUR-KUNJABAN-GOJALIA-TULAMURA- SUNDALBARI-SONAMURA- KONABAN-MANIKYANAGAR-TICHNA AREAS, DISTRICT WEST AND SOUTH TRIPURA, TRIPURA BY M/S ONGC**



**Monitored by:**

Dr. H. Tynsong, Scientist-C,  
Ministry of Environment and Forest, Regional Office-  
Shillong-793021

**Date of monitoring:** 2<sup>nd</sup> February, 2012

***FEBRUARY 2012***

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## ***PART I***

### **Monitoring of Environmental Compliance of Onshore Exploratory Drilling Of 67 Wells For Oil and Gas in Agartala, Dome-Baramura-Khowai-Kalyanpur-Kunjaban-Gojalia-Tulamura-Sundalbari-Sonamura-Konaban-Manikyanagar-Tichna Areas, District West and South Tripura, Tripura**

- **Project type** : Exploratory Drilling (Mining Operation).
- **Name of the project** : Onshore exploratory drilling of 67 wells for oil and gas in Agartala, Dome-Baramura-Khowai-Kalyanpur-Kunjaban-Gojalia-Tulamura-Sundalbari-Sonamura-Konaban-Manikyanagar-Tichna Areas.
- **Clearance letter no.& date** : J.13011/213/2008-IA.II (I) date: 11<sup>th</sup> June 2008.
- **Location** : District West and South Tripura, Tripura.
- **Address of correspondence** : The Asset Manager-Executive Director,  
Oil and Natural Gas Corporation Ltd.,  
ONGC Tripura Assets,  
Badarghat Complex Agartala  
Tripura.  
Mob No.9436500814.
- **Environmental Management Plan** : Restoration of drilled sites, safe disposal of solid waste, drill cuttings, drill fluids etc.
- **Cost of the project** : Rs. 1507.5 Crores
- **Person available** : Mr. Rohit Garg, CE (E).
- **Present status of the project** : Three (3) wells drilling completed and restored viz., KUAC, SDAA & KUAE, another three (3) wells work is in progress viz., GOAK (drilling is going on), ROAX (earth cutting is in progress), ROAY (under land acquisition process) and 61 new locations to be identified.

**MONITORING OF ENVIRONMENTAL COMPLIANCE OF ONSHORE EXPLORATORY DRILLING OF 67 WELLS FOR OIL AND GAS IN AGARTALA, DOME-BARAMURA-KHOWAI-KALYANPUR-KUNJABAN-GOJALIA-TULAMURA-SUNDALBARI-SONAMURA-KONABAN-MANIKYANAGAR-TICHNA AREAS, DISTRICT WEST AND SOUTH TRIPURA, TRIPURA.**

*Part II*

**A. Specific Conditions:**

**Stipulation I:** Compensation for the land acquisition to the land outsees (if any) and for standing crop shall be paid as per the National Resettlement and Rehabilitation Policy (NRRP) 2007/ State Government norms. It may be ensure that compensation provided shall not be less that the norms of the NRRP 2007.

**Status of Compliance:** *Complied with.* Compensation has been implemented as per norms laid down by the State Government of Tripura.

**Stipulation II:** The Company shall obtain forest clearance under Forest Conservation Act 1980 for the sites located within the forest areas.

**Status of Compliance:** *Complied with.* Forest clearance has been obtained for ROAX, ROAY and GOAC drilling sites where as KUAC, SDAA and KUAE are private land.

**Stipulation III:** The company shall obtain permission to establish under Air and water acts from State Pollution Control Board for each well and copy submitted to Ministry's Regional Office at Shillong.

**Status of Compliance:** *Being complied with.* No Objection Certificate (NOC) to establish under Air and Water Acts was applied to State Pollution Control Board.

**Stipulation IV:** The company shall inform the details of each drill site to Ministry's Regional Office at Shillong.

**Status of Compliance:** *Complied with.* Details of each drill sites have been informed. Three (3) wells drilling completed and restored viz., KUAC, SDAA & KUAE, another three (3) wells, work is in progress i.e., GOAK (drilling is going on), ROAX (earth cutting is in progress), ROAY (under land acquisition process) and 61 new locations to be identified.

**Stipulation V:** The Company shall make arrangement for control of noise from the drilling activity and from DG sets.

**Status of Compliance:** *Complied with.* Acoustic enclosure is provided in the system. Personal protective equipment like ear muffs was provided for safety of the workers.

**Stipulation VI** The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546 (E) dated 30<sup>th</sup> August, 2005.

**Status of Compliance:** *Partially Complied with.* It was told during monitoring that drill cuttings has been properly washed prior to releasing in waste pit, no hazardous chemicals were used in water base mud and effluents were treated on regular basis. It is observed that pits with impervious lining material were provided *without leachate collection system as stipulated* (Fig 1).



**Fig. 1. HDPE lined waste disposal pits at GOAK site**

**Stipulation VII** The surface facilities shall be installed as per applicable codes and standards, international practices and applicable local regulations.

**Status of Compliance:** *Complied with.* The company is following Directorate General of Mines and Safety (DGMS) regulations, Oil Industry Safety Directorate (OISD) & American Petroleum Institute (API) standard.

**Stipulation VIII** The top soil removed shall be staked separately for reuse during restorational process.

**Status of Compliance:** *Complied with.* Top soil stacked separately as stipulated.

**Stipulation IX:** Drilling waste water including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise secured land fill shall be created at the site as per the design of the secured shall be approved by the CPCB and obtain the authorization

of the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office.

**Status of Compliance:** *Partially complied with. HDPE impervious lining were provided without leachate collection system. The project authorities could not also provide a copy of authorization for disposal of drill cuttings and solid wastes from the SPCB as stipulated.*

**Stipulation X:** The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste in the nearby water bodies.

**Status of Compliance:** *Complied with.*

**Stipulation XI:** The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

**Status of Compliance:** *Complied with.* It was told during monitoring that all spent oil was given to authorized recyclers through MSTC.

**Stipulation XII:** Only water based drilling mud shall be used. The drilling mud shall be recycled. In case of use of synthetic oil based mud due to any problem due to geological formation for drilling, low toxicity, Oil Based Mud (OBM) having aromatic content <1 % shall be used. If it is intended to use such OBM/SBM to mitigate specific whole problem, it should be intimated to Ministry of Environment and Forest/ SPCB.

**Status of Compliance:** *Complied with.* It was informed that no oil based mud was used by the project authorities. Only water based drilling mud was used.

**Stipulation XIII:** Quantities of storage and chemicals and additives required for drilling mud preparation shall be below the specified storage permitted under the MSIHC Rules.

**Status of Compliance:** *Complied with.* It was informed that storage of chemicals and additives use for drilling mud preparation is below the threshold storage unit. The MSIHS rules were followed.

**Stipulation XIV:** Pre hire rig inspection, safety meetings, tool box meeting, job safety analysis and audits shall be carried out to identify hidden/ potential hazardous.

**Status of Compliance:** *Complied with.* It was informed that OMR, OISD and RCP guidelines were followed for equipment and employees.

**Stipulation XV:** The company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during flaring.

**Status of Compliance:** *Complied with.* It was informed that OMR, OISD and RCP guidelines were followed to prevent fire hazard.

**Stipulation XVI:** The company shall take necessary measures to reduce noise levels at the drill site by providing mitigation measures such as proper acoustic enclosures to the DG set and meet the norms notified by the MoEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.

**Status of Compliance:** *Not complied with. Diesel based power gensets of 1225 KVA were operated in the sites. No acoustic enclosures were provided to these units.*

**Stipulation XVII:** To prevent fire and explosion at Oil and Gas facility, potential ignition sources should be kept to a minimum and adequate separation between potential ignition sources and flammable material should be in place.

**Status of Compliance:** *Complied with.* Guidelines of OMR, OISD and RCP were followed to prevent fire and explosions from potential explosion.

**Stipulation XVIII:** The company shall develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H<sub>2</sub>S detectors in location of high risk of exposure along with self containing breathing apparatus.

**Status of Compliance:** *Complied with.* It was informed that no H<sub>2</sub>S gas was encountered in all drilling sites.

**Stipulation XIX:** To prevent well blowout during operations, Blow Out Preventor (BOP) system shall be installed. Blow Out Preventor measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

**Status of Compliances:** *Complied with.* It was informed that BOP was tested as per DGMS and API guidelines.

**Stipulation XX:** The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

**Status of Compliance:** *Partially complied with.* It is observed during monitoring that drilled sites have not been properly restored. *Earth filling is done without landscaping and artificial plantation.*

**Stipulation XXI:** Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.

**Status of Compliance:** *Complied with.* It has been informed that that regular pre-medical examination for all workers is being done.

**Stipulation XXII:** In case the commercial viability of the project of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh clearance from the Ministry.

**Status of Compliance:** *Compliance stage has yet to come.*

## **B. General Conditions:**

**Stipulation I:** The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board, the State Government and any other statutory.

**Status of Compliances:** *Complied with.* It is informed that conditions made by State Pollution Control Boards as well as the State Government were strictly implemented.

**Stipulation II:** No further expansion or modifications in the project shall be carried out without prior approval of the ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, afresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

**Status of Compliance:** *Complied with.* It was informed that no further expansion or modifications required.

**Stipulation III:** The emissions of (RSPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, HC & VOC) from DG set and from flare stack shall conform to the standards prescribed by the SPCB. Regular monitoring of Ambient Air for HC and VOC shall be carried out as per CPCB guidelines. Stack height attached to DG sets shall be in- conformance with the environment protection acts and rules.

**Status of Compliance:** *Complied with.* It was informed that emissions of RSPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, HC & VOC from DG set and from flare stack was being done as per guidelines.

**Stipulation IV:** The project authorities must strictly comply with the rules and regulations under Manufacture, storage and Import of Hazardous chemicals Rules, 1989 as amended subsequently. Prior approvals from Chief Inspectorate of factories, Chief Controller of Explosive, Fire Safety Inspectorate etc. must be obtained, wherever applicable.

**Status of Compliance:** *Being complied with.*

**Stipulation V:** The project authorities must strictly comply with the rules and regulation with regard to handling and disposal of Hazardous wastes (Management and Handling) Rules, 1989/ 2003 wherever applicable. Authorization from the State pollution Control Board must be obtained for collections/ treatment/ storage/disposal of hazardous wastes.

**Status of Compliance:** *Being complied with.* SPCB is being approached for authorization.

**Stipulation VI:** The overall noise levels in and around the plant area shall within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz.75 dBA (daytime) and 70 bBA (nighttime).

**Status of Compliance:** *Complied with.*

**Stipulation VII:** A separate Environment Management Cell equipped with full fledged laboratory facilities must be set up carry out the environmental management and monitoring functions.

**Status of Compliance:** *Complied with.* An environment cell exists in Tripura Asset. It was informed that equipment for Ambient Air Quality Monitoring and specialized analysis are being done through expert agency.

**Stipulation VIII:** The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.

**Status of Compliance:** *Partially complied with.* Details of funds for implementation of environmental conditions could not be provided.

**Stipulation IX:** The Regional Office of this Ministry / Central Pollution Control Board/State Pollution Control Board shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.

**Status of Compliance:** *Complied with.*

**Stipulation X:** The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environmental and Forest at <http://envfor.nic.in>. This shall be advertised within seven days of the issue of this letter in at least two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.

**Status of Compliance:** *Complied with*

**Stipulation XI:** Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

**Status of Compliance:** *Partially complied with.*

**General Remark:** Overall, the implementation of conditions laid down in the Environment Clearance, are poor. Some of the points discussed with the project authorities who need prompt action at their end include:

- Diesel based power gensets of 1225 KVA were operated in the sites, with no acoustic enclosures provided to these units,
- The project authorities have to comply with the stipulation regarding drill cutting and drilling fluids for onshore drilling operation as per the guidelines notified vide GSR (E) dated 30<sup>th</sup> August 2005 by providing leachate collection and treatment facility.
- Site restoration should include landscaping the existing drilling sites so that it looks as similar as possible to the pre-drilling landscape, by restoring vegetation and/or previous land use and
- Authorization for disposal of drill cuttings and solid wastes from SPCB should be obtained as stipulated.
- The project authorities has not informed the Regional Office as well as the Ministry, the date of financial closure and final approval of the project (release of the exploratory well by the competent authority) and the date of commencing the land development works, which is in violation of general stipulation XI.



(Dr. H.Tynsong)  
Scientist C

**Annexure-4**



# भारत का राजपत्र The Gazette of India

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असाधारण  
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)  
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित  
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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 18 जनवरी, 2021

**का.आ. 221(अ).**— केंद्रीय सरकार, तत्कालीन पर्यावरण और वन मंत्रालय में, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) के अधीन अपनी शक्तियों के प्रयोग करते हुए, पर्यावरण समाघात निर्धारण अधिसूचना, 2006 (जिसे इसके बाद उक्त अधिसूचना कहा गया है) संख्या का. आ. 1533 (अ), तारीख 14 सितंबर, 2006 द्वारा प्रकाशित किया जा चुका है, उक्त अधिसूचना की अनुसूची में सभी संबंधित सूचीबद्ध नई परियोजनाओं या क्रियाकलापों के लिए उनके विस्तार और आधुनिकीकरण और/या उत्पाद मिश्रण में परिवर्तन किया जा सकता है यथास्थिति, भूमि को अभिप्राप्त करने के सिवाय, परियोजना प्रबंधन द्वारा किसी भी संनिर्माण कार्य या भूमि को तैयार करने से पूर्व संबंधित विनियामक प्राधिकरण से पूर्व पर्यावरणीय अनापत्ति अपेक्षित होगी।

और कोरोना वायरस (कोविड-19) के प्रकोप को देखते हुए और तत्पश्चात इसके नियंत्रण के लिए घोषित लॉकडाउन (कुल या आंशिक) ने, क्षेत्र में परियोजनाओं या क्रियाकलापों के कार्यान्वयन को प्रभावित किया है। पर्यावरण और वन जलवायु परिवर्तन मंत्रालय उक्त अधिसूचना में अनुज्ञात अधिकतम अवधि से परे पूर्व पर्यावरणीय अनापत्तियों की विधिमान्यता के विस्तार के लिए अनुरोधों की संख्या प्राप्ति में है, क्योंकि कोविड 19 महामारी अभी तक समाप्त नहीं हुई है। मामले की उक्त मंत्रालय में समीक्षा की गई है और चिंता इस तथ्य को ध्यान में रखते हुए है कि लॉकडाउन (कुल या आंशिक) के कारण, क्षेत्र में क्रियाकलापों को जारी रखना कठिन हो सकता है।

अतः अब, केंद्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के (4) खंड के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) की उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, लोक हित में उक्त नियमों के नियम 5 के उप-नियम (3) के खंड (क) के अधीन नोटिस की अपेक्षा अभिमुक्ति के पश्चात् भारत के राजपत्र असाधारण, भाग- II, खंड 3, उपखंड (II), में प्रकाशित, भारत सरकार की तत्कालीन पर्यावरण और वन मंत्रालय अधिसूचना का.आ.1533 (अ), तारीख 14 सितंबर, 2006, में निम्नलिखित और संशोधन करती है, अर्थात्: -

उक्त अधिसूचना में,

(i) उप शीर्ष II “चरण (2)\_विस्तारण”, के अधीन पैरा 7 के उप पैरा 7(i) में, खंड (viii) के पश्चात् निम्नलिखित खंड अंतःस्थापित किया जाएगा अर्थात्: -

“(ix) उपरोक्त में अंतर्विष्ट किसी बात के होते हुए, 1 अप्रैल 2020 से 31 मार्च 2021 की अवधि में कोरोना वायरस (कोविड-19) के प्रकोप को देखते हुए और तत्पश्चात् इसके नियंत्रण के लिए घोषित लॉकडाउन (कुल या आंशिक) की दृष्टि में इस अधिसूचना के उपबंधों के अधीन मंजूर संदर्भ की शर्तों की विधिमान्यता की अवधि की गणना के प्रयोजन के लिए विचार नहीं किया जाएगा ,तथापि उक्त संदर्भ की शर्तों के संबंध में इस अवधि के दौरान अपनाए गए सभी क्रियाकलाप विधिमान्य समझे जाएंगे।”;

(ii) पैरा 9 क के स्थान पर, निम्नलिखित पैरा रखा जाएगा, अर्थात्: -

“9 क. इस अधिसूचना में अंतर्विष्ट किसी बात के होते हुए, 1 अप्रैल 2020 से 31 मार्च 2021की अवधि में कोरोना वायरस (कोविड-19) के प्रकोप को देखते हुए और तत्पश्चात् इसके नियंत्रण के लिए घोषित लॉकडाउन (कुल या आंशिक) की दृष्टि में इस अधिसूचना के उपबंधों के अधीन मंजूर पूर्व पर्यावरणीय अनापत्ति की विधिमान्यताकी अवधि की गणना के प्रयोजन के लिए विचार नहीं किया जाएगा ,तथापि उक्त पर्यावरणीय अनापत्ति के संबंध में इस अवधि के दौरान अपनाए गए सभी क्रियाकलाप विधिमान्य समझे जाएंगे।”;

[फा. सं. 22-25/2020-आई.ए. III]

गीता मेनन, संयुक्त सचिव

**टिप्पण :** मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) संख्या का.आ. 1533 (अ), तारीख 14 सितंबर, 2006 द्वारा प्रकाशित की गई थी और अधिसूचना अधिसूचना संख्या का.आ. 4254 (अ), तारीख 27 नवंबर, 2020 द्वारा अंतिम बार संशोधन किया गया था।

## MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

### NOTIFICATION

New Delhi, the 18th January, 2021

**S.O. 221(E).**—Whereas, the Central Government in the erstwhile Ministry of Environment and Forests, in exercise of its powers by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 has published the Environment Impact Assessment Notification, 2006 (hereinafter referred to as the said notification) *vide* number S.O.1533(E), dated the 14<sup>th</sup> September, 2006, making the requirement of prior environmental clearance from the concerned regulatory authority mandatory for all new projects or activities listed in the Schedule to the said notification, their expansion and modernisation and/or change in product mix, as the case may be, before any construction work or preparation of land by the project management except for securing the land;

And whereas, in view of the outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, implementation of projects or activities in the field has been affected. Ministry of

Environment, Forest and Climate Change is in receipt of number of requests for extension of the validity of prior environmental clearances beyond the maximum period allowed in the said notification, as the COVID-19 pandemic has not yet come to an end. The matter has been examined in the said Ministry and the concern is genuine keeping in view the fact that due to lockdowns (total or partial), continuation of activities in the field has been difficult.

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government, after having dispensed with the requirement of notice under clause (a) of sub-rule (3) of rule 5 of the said rules in public interest, hereby makes the following further amendments in the notification of Government of India, in the erstwhile Ministry of Environment and Forests, number S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006, published in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (II), namely:-

In the said notification, -

- (i) in paragraph 7, in sub-paragraph 7(i), under sub-heading II. "Stage (2) – Scoping", after clause (viii), the following clause shall be inserted, namely:-

*"(ix). Notwithstanding anything contained above, the period from the 1<sup>st</sup> April, 2020 to the 31<sup>st</sup> March, 2021 shall not be considered for the purpose of calculation of the period of validity of Terms of Reference granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the said Terms of Reference shall be treated as valid."*

- (ii) for paragraph 9A, the following paragraph shall be substituted namely:-

*"9A. Notwithstanding anything contained in this notification, the period from the 1<sup>st</sup> April, 2020 to the 31<sup>st</sup> March, 2021 shall not be considered for the purpose of calculation of the period of validity of Prior Environmental Clearances granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the Environmental Clearance granted shall be treated as valid."*

[F.No.22-25/2020-IA.III]

GEETA MENON, Joint Secy.

**Note:** The principal notification was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) vide number S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006 and was last amended vide the notification number S.O. 4254(E), dated the 27<sup>th</sup> November, 2020.

**Annexure-5**



# भारत का राजपत्र The Gazette of India

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अधिसूचना

नई दिल्ली, 19 फरवरी, 2021

**का.आ. 789(अ).**—प्रारूप अधिसूचना भारत के राजपत्र, असाधारण, भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन, मंत्रालय की अधिसूचना सं. का.आ. 2437 (अ), तारीख 24 जुलाई, 2020, द्वारा प्रकाशित की गई थी जिसमें ऐसे सभी व्यक्तियों से, जिनकी उससे प्रभावित होने की संभावना थी, उस तारीख से, जिसको उक्त अधिसूचना को अन्तर्विष्ट करने वाले राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थीं, साठ दिन की अवधि के भीतर आक्षेप और सुझाव आमंत्रित किए गए थे;

**और**, उक्त प्रारूप अधिसूचना को अन्तर्विष्ट करने वाले राजपत्र की प्रतियां जनता को तारीख 24 जुलाई, 2020 को उपलब्ध करा दी गई थी;

**और**, प्रारूप अधिसूचना के उत्तर में व्यक्तियों और पणधारियों से कोई भी आक्षेप और सुझाव प्राप्त नहीं हुए;

**और**, सेपाहीजाला वन्यजीव अभयारण्य त्रिपुरा के सेपाहीजाला जिले में स्थित है, जो कि वन्यजीव (संरक्षण) अधिनियम, 1972 की धारा 18 (1) के अधीन अधिसूचना सं.एफ. 8 (50)/एफओआर-वन्यजीव/86/55164 के अधीन तारीख 2 फरवरी, 1987 को घोषित किया गया था, इसका क्षेत्रफल 18.54 वर्ग किलोमीटर में आच्छादित है। अभयारण्य के कोर क्षेत्र के अंतर्गत, अधिसूचना सं.एफ.8 (196)/एफओआर-वन्यजीव-2004 आईएनपी/33856-86 के द्वारा दिनांक 24 जनवरी, 2008 को 5.08 वर्ग किलोमीटर क्षेत्र को क्लुडिड लैपर्ड राष्ट्रीय उद्यान के रूप में घोषित किया गया था। अब अभयारण्य और राष्ट्रीय उद्यान के साथ निहित सभी प्रतिबंध हैं, जब तक कि मुख्य वन्यजीव वार्डन, त्रिपुरा द्वारा वन्यजीव

(संरक्षण) अधिनियम, 1972 (1986 का 29) के उपबंधों के अनुसार स्थानीय जनता द्वारा कोई क्रियाकलाप या किसी को अनुमति नहीं दी जाती है;

और, सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान में वनस्पति और जीवजंतु की विविधता जैसे फयरे लंगूर और क्लुडिड लैपर्ड के अलावा रहेसुस मकाक, सूअर-टैलेड मकाक, कप्पेड लंगूर, मुंजक, जंगली सूअर, सियार, साही, आदि है। सीवेट, तेंदुआ बिल्ली, बनबिलाव, पैंगोलिन, स्लो लोरिस, लार्ज भारतीय सीवेट, छोटा भारतीय सीवेट, सामान्य पाल्म सीवेट, हिमालयन पाल्म सीवेट, फ्लाइंग गिलहरी, क्रैब ईटिंग नेवला, येलो थ्रोटेड मार्टेन, भारतीय मॉनीटर छिपकली आदि की चार प्रजातियां विद्यमान हैं। उपरोक्त के अलावा पक्षी जैसे कबूतर, कलिज तीतर, डोंगोस, रेड जंगल फ्वोल, पाइड हॉर्नबिल, चित्तीदार कबूतर, किंगफिशर, पैराकेट, भारतीय रोलर, काइट, व्हिस्टलिंग टेल्स, ओपन बिल स्टोर्क, कोमोरेंट, रेड वाट्रुलेड लैपविंग आदि भी पाए जाते हैं;

और, सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान में पक्षियों की लगभग 124 प्रजातियाँ की पहचान की गई है और संरक्षित क्षेत्रों में 120.50 हेक्टेयर (52 संख्या) के क्षेत्र में बड़ी संख्या में जल निकाय है, जिनमें से अमृत सागर (25.35 हेक्टेयर) और रतियाबिल (20.75 हेक्टेयर) बड़े आकार के हैं जो जलीय जैव-विविधता को बढ़ाते हैं। वनस्पति में वृक्षों की 142 प्रजातियां, झाड़ियों की 55 प्रजातियां, जड़ी बूटियों की 90 प्रजातियां, पर्वरोहियों की 35 प्रजातियां, इपीफाइट्स की 11 प्रजातियां, प्टेरीडोफाइट्स की 10 प्रजातियां, बांस की 7 प्रजातियां सम्मिलित हैं। मुख्य प्रजातियों के कुछ उदाहरण शोरिया रोबस्टा, कैसिया प्रजाति, आर्टोकार्पस चपलासा, स्वीमा वाल्लिचि, सिजियम कुरानी, लेगरस्ट्रोइमिया प्रजाति, टर्मिनलिया प्रजाति, अल्बेजिया प्रजाति, माल्लोटस, डिल्लेनिया, बउहिनिया प्रजाति, फिकुस्पेइस, लिन्नेया प्रजाति, डिप्टरोकार्पस टर्बिनेटस, विटेक्स, अल्लोनिआ, स्कॉलरस, मेसुआ फेरिया, बोम्बक्स केइवा, आदि हैं;

और, सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान जैव-विविधता प्रतिनिधियों, स्थानिकता, समृद्ध प्रजातियों, भू-आकृति संबंधी विशेषता और सौंदर्य और सांस्कृतिक मूल्यों सहित अद्वितीय भूमि उपयोग पद्धतियों सहित जैव-विविधता मूल्यों में समृद्ध है और अभयारण्य में दुर्लभ, लुप्तप्राय और संकटापन्न (आर ई टी) प्रजातियों के उदाहरण में क्लुडिड लैपर्ड (नेओफेलिस नेबुलोसा), हार्नबिल (अंधेराकोकेरोस कोरोनाटस), मॉनीटर लिर्जाड (वारानुस बेंगालेंसिस), साही (अंधेरूस्मेकरोरुस अस्सामेंसिस), सीवेट (हिमालयन पाल्मकिवेटस), आदि शामिल हैं;

और, सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान के चारों ओर के क्षेत्र को, जिसका विस्तार और सीमाएं पारिस्थितिकी पर्यावरणीय से पारिस्थितिकी संवेदी जोन के रूप में पैरा 1 में विनिर्दिष्ट हैं, जैव विविधता की दृष्टि सुरक्षित और संरक्षित करना और उक्त पारिस्थितिकी संवेदी जोन में उद्योगों या उद्योगों के वर्गों के प्रचालन और प्रसंस्करण करने को प्रतिषिद्ध करना आवश्यक है;

अतः, अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) (जिसे इस अधिसूचना में इसके पश्चात पर्यावरण अधिनियम कहा गया है) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) और खंड (xiv) तथा उपधारा (3) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, त्रिपुरा राज्य के सेपाहीजाला जिला के सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान की सीमा के चारों ओर 10 मीटर (उत्तर, उत्तर-पश्चिमी, पश्चिम और दक्षिण में) से 50 मीटर (पूर्वी भाग) विस्तारित क्षेत्र को सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान पारिस्थितिकी संवेदी जोन (जिसे इसमें इसके पश्चात् पारिस्थितिकी संवेदी जोन कहा गया है) के रूप में अधिसूचित करती है, जिसका विवरण निम्नानुसार है, अर्थात् :-

1. पारिस्थितिकी संवेदी जोन का विस्तार और सीमा.- (1) पारिस्थितिकी संवेदी जोन का विस्तार सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान की सीमा के चारों ओर 10 मीटर से 50 मीटर तक विस्तृत है और पारिस्थितिकी संवेदी जोन का क्षेत्रफल 3.12 वर्ग किलोमीटर है। राज्य सरकार ने क्षेत्र और पारिस्थितिकी

संवेदी जोन के विस्तार पर स्पष्टीकरण दिया है कि “क्षेत्र ऊंचाई पर स्थित पहाड़ी क्षेत्र का प्रकार है और आसपास के क्षेत्र ज्यादातर निजी भूमि ज़मींदारों के पास हैं और इसलिए पारिस्थितिकी संवेदी जोन क्षेत्र के विस्तार के लिए बहुत अधिक विस्तार नहीं बचा है। यह भी कहा गया था कि भौगोलिक रूप से, त्रिपुरा राज्य की विशेषता है कि इसमें लगभग 74% वन आच्छादन वाली छोटी घाटी के साथ पहाड़ी क्षेत्र हैं और गैर-वानिकी प्रयोजन के लिए उपलब्ध भूमि की पूर्ण कमी है। इस बात को और दोहराया गया कि संरक्षित क्षेत्र के आसपास के अधिकांश क्षेत्र बड़ी बस्तियों के साथ निजी भूमि के अंतर्गत हैं और ऐसे क्षेत्रों के लिए स्थानीय विकास और आजीविका जरूरत के लिए आवश्यक है, जो क्षेत्र को देखते हुए काफी हैं और सार्वजनिक परामर्श के बाद पारिस्थितिकी संवेदी जोन का विस्तार 10 से 50 मीटर प्रस्तावित किया गया है”।

(2) सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान और पारिस्थितिकी संवेदी जोन की सीमा का विवरण **उपाबंध-I** के रूप में उपाबद्ध है।

(3) सीमा विवरण और अक्षांश और देशांतर के साथ पारिस्थितिकी संवेदी जोन को सीमांकित करते हुए सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान के मानचित्र **उपाबंध-IIक, उपाबंध-IIख और उपाबंध-IIग** के रूप में उपाबद्ध है।

(4) सेपाहीजाला वन्यजीव अभयारण्य और क्लुडिड लैपर्ड राष्ट्रीय उद्यान और पारिस्थितिकी संवेदी जोन की सीमा के भू-निर्देशांकों की सूची **उपाबंध-III** की सारणी क, सारणी ख और सारणी ग में दी गई है।

(5) मुख्य बिंदुओं के भू-निर्देशांकों के साथ प्रस्तावित पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाले ग्रामों की सूची **उपाबंध-IV** के रूप में उपाबद्ध है।

**2. पारिस्थितिकी संवेदी जोन के लिए आंचलिक महायोजना-** (1) राज्य सरकार, पारिस्थितिकी संवेदी जोन के प्रयोजनों के लिए राजपत्र में इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष की अवधि के भीतर, स्थानीय व्यक्तियों के परामर्श से और राज्य के सक्षम प्राधिकारी के अनुमोदन के लिए इस अधिसूचना में दिए गए अनुबंधों का पालन करते हुए आंचलिक महायोजना तैयार करेगी।

(2) राज्य सरकार द्वारा पारिस्थितिकी संवेदी जोन के लिए आंचलिक महायोजना ऐसी रीति से जो इस अधिसूचना में विनिर्दिष्ट किए गए हैं, के अनुसार तथा सुसंगत केंद्रीय और राज्य विधियों के अनुरूप और केंद्रीय सरकार द्वारा जारी मार्गनिर्देशों, यदि कोई हों, द्वारा तैयार होगी।

(3) आंचलिक महायोजना, उक्त योजना में पारिस्थितिकी और पर्यावरणीय बातों को समाकलित करने के लिए राज्य सरकार के निम्नलिखित विभागों के परामर्श से तैयार होगी.-

- (i) पर्यावरण;
- (ii) वन और वन्यजीव;
- (iii) कृषि;
- (iv) राजस्व;
- (v) शहरी विकास;
- (vi) पर्यटन;
- (vii) ग्रामीण विकास
- (viii) सिंचाई और बाढ़ नियंत्रण;
- (ix) नगरपालिका;
- (x) पंचायती राज;
- (xi) राजमार्ग;

- (xii) त्रिपुरा राज्य प्रदूषण नियंत्रण बोर्ड; और  
(xiii) लोक निर्माण विभाग।

(4) आंचलिक महायोजना अनुमोदित विद्यमान भू-उपयोग, अवसंरचना और क्रियाकलापों पर कोई निर्बंधन अधिरोपित नहीं करेगी जब तक कि इस अधिसूचना में इस प्रकार विनिर्दिष्ट न हो और आंचलिक महायोजना सभी अवसंरचना और क्रियाकलापों में, जो अधिक दक्षता और पारिस्थितिकी अनुकूल हों, का संवर्धन करेगी।

(5) आंचलिक महायोजना में अनाच्छादित क्षेत्रों के जीर्णोद्धार, विद्यमान जल निकायों के संरक्षण, आवाह क्षेत्रों के प्रबंधन, जल-संभरों के प्रबंधन, भूतल जल के प्रबंधन, मृदा और नमी संरक्षण, स्थानीय समुदायों की आवश्यकताओं तथा पारिस्थितिकी और पर्यावरण से संबंधित ऐसे अन्य पहलुओं, जिन पर ध्यान देना आवश्यक है, के लिए उपबंध होंगे।

(6) आंचलिक महायोजना विद्यमान और प्रस्तावित भूमि उपयोग विशेषताओं के व्यौरों से अनुसमर्थित मानचित्र के साथ सभी विद्यमान पूजा स्थलों, ग्रामों और नगरीय बस्तियों, वनों के प्रकार और किस्मों, कृषि क्षेत्रों, ऊपजाऊ भूमि, हरित क्षेत्र जैसे उद्यान और उसी प्रकार के स्थान, उद्यान कृषि क्षेत्र, फलोउद्यान, झीलों और अन्य जल निकायों का अभ्यंकन करेगी।

(7) आंचलिक महायोजना पारिस्थितिकी संवेदी जोन में विकास को विनियमित करेगी और सारणी में सूचीबद्ध पैरा-4 में प्रतिषिद्ध और विनियमित क्रियाकलापों का अनुपालन करेगी और स्थानीय समुदायों की जीविका को सुरक्षित करने के लिए पारिस्थितिकी अनुकूल विकास को सुनिश्चित और उसकी अभिवृद्धि भी करेगी।

(8) आंचलिक महायोजना प्रादेशिक विकास योजना की सह विस्तारी होगी।

(9) इस प्रकार अनुमोदित आंचलिक महायोजना इस अधिसूचना के उपबंधों के अनुसार निगरानी के अपने कार्यों को करने के लिए निगरानी समिति के लिए एक संदर्भ दस्तावेज तैयार करेगी।

**3. राज्य सरकार द्वारा किए जाने वाले उपाय.-** राज्य सरकार इस अधिसूचना के उपबंधों को प्रभावी करने के लिए निम्नलिखित उपाय करेगी, अर्थात्:-

(1) **भू-उपयोग.-** (क) पारिस्थितिकी संवेदी जोन में वनों, उद्यान कृषि क्षेत्रों, कृषि क्षेत्रों, मनोरंजन के प्रयोजनों के लिए चिन्हित किए गए पार्कों और खुले स्थानों का वाणिज्यिक या आवासीय या औद्योगिक संबद्ध विकास क्रियाकलापों के लिए उपयोग या संपरिवर्तन नहीं होगा:

परंतु पारिस्थितिकी संवेदी जोन के भीतर भाग (क) में विनिर्दिष्ट प्रयोजनों से भिन्न प्रयोजनों के लिए कृषि और अन्य भूमि का संपरिवर्तन निगरानी समिति की सिफारिश पर और यथा लागू और क्षेत्रीय नगर योजना अधिनियम और केन्द्रीय सरकार या राज्य सरकार के अन्य नियमों तथा विनियमों के अधीन सक्षम प्राधिकारी के पूर्व अनुमोदन से, और इस अधिसूचना के उपबंधों द्वारा स्थानीय निवासियों की निम्नलिखित आवासीय आवश्यकताओं को पूरा करने के लिए अनुज्ञात किया जाएगा, जैसे:-

(i) विद्यमान सड़कों को चौड़ा करना और उन्हें सुदृढ़ करना तथा नई सड़कों का संनिर्माण;

(ii) बुनियादी ढांचों और नागरिक सुविधाओं का संनिर्माण और नवीकरण;

(iii) प्रदूषण उत्पन्न न करने वाले लघु उद्योग;

(iv) कुटीर उद्योगों जिनके अंतर्गत ग्रामीण उद्योग भी हैं; सुविधाजनक भण्डार और स्थानीय सुविधाएं सहायक पारिस्थितिकी पर्यटन जिसके अन्तर्गत गृह वास सम्मिलित है; और

(v) पैरा 4 के अधीन दिए गए संवर्धित क्रियाकलाप:

परंतु यह और कि प्रादेशिक नगर योजना अधिनियम और राज्य सरकार के अन्य नियमों और विनियमों के अधीन सक्षम प्राधिकारी के पूर्व अनुमोदन और संविधान के अनुच्छेद 244 के उपबंधों या तत्समय प्रवृत्त विधि के उपबंधों के

अनुपालन के बिना, जिसके अधीन अनुसूचित जनजाति और अन्य परंपरागत वन निवासी (वन अधिकारों की मान्यता) अधिनियम, 2006 (2007 का 2) भी है, वाणिज्यिक या औद्योगिक विकास क्रियाकलापों के लिए जनजातीय भूमि का उपयोग अनुज्ञात नहीं होगा:

परंतु यह और भी कि पारिस्थितिकी संवेदी जोन के भीतर भू-अभिलेखों में उपसंजात कोई गलती, निगरानी समिति के विचार प्राप्त करने के पश्चात् राज्य सरकार द्वारा प्रत्येक मामले में एक बार ठीक होगी और उक्त गलती के सुधार की सूचना केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को दी जाएगी:

परंतु यह और भी कि गलती के सुधार में इस उप पैरा के अधीन यथा उपबंधित के सिवाय किसी भी दशा में भू-उपयोग का परिवर्तन सम्मिलित नहीं होगा;

(ख) वनीकरण तथा वास जीर्णोद्धार क्रियाकलापों सहित अनप्रयुक्त या अनुत्पादक कृषि क्षेत्रों में पुनः वनीकरण करने के प्रयास किए जाएंगे।

(2) प्राकृतिक जल स्रोतों.- आंचलिक महायोजना में सभी प्राकृतिक झरनों के आवाह क्षेत्रों की पहचान की जाएगी और उनके संरक्षण और नवीकरण के लिए योजना सम्मिलित होगी और राज्य सरकार द्वारा ऐसे क्षेत्रों पर या उनके निकट विकास क्रियाकलाप प्रतिषिद्ध करने के बारे में जो ऐसे क्षेत्रों के लिए अहितकर हो ऐसी रीति से मार्गदर्शक सिद्धांत तैयार किए जाएंगे।

(3) पर्यटन या पारिस्थितिकी पर्यटन.- (क) पारिस्थितिकी संवेदी जोन के भीतर सभी नए पारिस्थितिकी पर्यटन क्रियाकलाप या विद्यमान पर्यटन क्रियाकलापों का विस्तार पर्यटन महायोजना के अनुसार पारिस्थितिकी संवेदी जोन के लिए होगा।

(ख) पारिस्थितिकी पर्यटन महायोजना राज्य पर्यटन विभाग द्वारा राज्य पर्यावरण और वन विभाग के परामर्श से तैयार होगी।

(ग) पर्यटन महायोजना आंचलिक महायोजना के एक घटक के रूप में होगी।

(घ) पर्यटन महायोजना पारिस्थितिकी संवेदी जोन की वहन क्षमता के आधार पर तैयार की जाएगी।

(ङ) पारिस्थितिकी पर्यटन संबंधी क्रियाकलाप निम्नानुसार विनियमित होंगे, अर्थात्:-

(i) संरक्षित क्षेत्र की सीमा से एक किलोमीटर के भीतर या पारिस्थितिकी संवेदी जोन के विस्तार तक, इनमें जो भी निकट है, नये वाणिज्यिक होटल और रिजॉर्ट के सन्निर्माण अनुज्ञात नहीं होंगे:

परंतु, यह कि संरक्षित क्षेत्र की सीमा से एक किलोमीटर की दूरी से परे पारिस्थितिकी संवेदी जोन के विस्तार तक होटलों और रिजॉर्ट का स्थापना केवल पूर्व परिभाषित और नामनिर्दिष्ट क्षेत्रों में पर्यटन महायोजना के अनुसार पारिस्थितिकी पर्यटन सुविधाओं के लिए ही अनुज्ञात होगा;

(ii) पारिस्थितिकी संवेदी जोन के भीतर नए पर्यटन क्रियाकलापों या विद्यमान पर्यटन क्रियाकलापों का विस्तार केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के मार्गदर्शक सिद्धांतों के द्वारा तथा राष्ट्रीय व्याघ्र संरक्षण प्राधिकरण, द्वारा जारी पारिस्थितिकी-पर्यटन, पारिस्थितिकी-शिक्षा और पारिस्थितिकी-विकास पर बल देते हुए (समय-समय पर यथा संशोधित) जारी मार्गदर्शक सिद्धांतों के अनुसार होगा;

(iii) आंचलिक महायोजना का अनुमोदन किए जाने तक, पर्यटन के लिए विकास और विद्यमान पर्यटन क्रियाकलापों के विस्तार को वास्तविक स्थल विनिर्दिष्ट संवीक्षा और निगरानी समिति की सिफारिश पर आधारित संबंधित विनियामक प्राधिकरणों द्वारा अनुज्ञात किया जाएगा और पारिस्थितिकी संवेदी जोन के भीतर किसी नये होटल या रिजॉर्ट या वाणिज्यिक स्थापना का संनिर्माण अनुज्ञात नहीं किया जायेगा।

(4) **नैसर्गिक विरासत.**- पारिस्थितिकी संवेदी जोन में महत्वपूर्ण नैसर्गिक विरासत के सभी स्थलों जैसे जीन कोश आरक्षित क्षेत्र, शैल विरचनाएं, जल प्रपातों, झरनों, घाटी मार्गों, उपवनों, गुफाएं, स्थलों, भ्रमण, अश्वरोहण, प्रपातों आदि की पहचान की जाएगी और विरासत संरक्षण योजना आंचलिक महायोजना के भाग के रूप में परिरक्षण और संरक्षण के लिए तैयार की जाएगी।

(5) **मानव निर्मित विरासत स्थल.**- पारिस्थितिकी संवेदी जोन में भवनों, संरचनाओं, शिल्प-तथ्य, ऐतिहासिक, स्थापत्य, सौंदर्यपूरक और सांस्कृतिक महत्व के क्षेत्रों की और उपक्षेत्रों पहचान और उनके संरक्षण के लिए विरासत योजना आंचलिक महायोजना के भाग के रूप में तैयार की जाएगी।

(6) **ध्वनि प्रदूषण.**- पर्यावरण अधिनियम के अधीन ध्वनि प्रदूषण (विनियमन और नियंत्रण) नियम, 2000 में नियत उपबंधों के अनुसार में पारिस्थितिकी संवेदी जोन में ध्वनि प्रदूषण के नियंत्रण और निवारण का अनुपालन किया जाएगा।

(7) **वायु प्रदूषण.**- पारिस्थितिकी संवेदी जोन में, वायु प्रदूषण के निवारण और नियंत्रण का वायु (प्रदूषण निवारण और नियंत्रण) अधिनियम, 1981 (1981 का 14) और उसके अधीन बनाए गए नियमों के उपबंधों के अनुसार अनुपालन किया जाएगा।

(8) **बहिस्त्राव का निस्सरण.**- पारिस्थितिकी संवेदी जोन में उपचारित बहिस्त्राव का निस्सरण, साधारण मानकों के उपबंधों के अनुसार पर्यावरण अधिनियम और उसके अधीन बनाए गए नियमों के अधीन आने वाले पर्यावरणीय प्रदूषण के निस्सरण के लिए साधारण मानकों या राज्य सरकार द्वारा नियत मानकों, जो भी अधिक कठोर हो, के उपबंधों के अनुसार होगा।

(9) **ठोस अपशिष्ट.**- ठोस अपशिष्ट का निपटान और प्रबंधन निम्नानुसार किया जाएगा:-

(क) पारिस्थितिकी संवेदी जोन में ठोस अपशिष्ट का निपटान और प्रबंधन भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं. का.आ. 1357(अ), तारीख 8 अप्रैल, 2016 के अधीन प्रकाशित ठोस अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा; अकार्बनिक पदार्थों का निपटान पारिस्थितिकी संवेदी जोन से बाहर चिन्हित किए गए स्थानों पर पर्यावरण-अनुकूल रीति से किया जाएगा;

(ख) पारिस्थितिकी संवेदी जोन में मान्य प्रौद्योगिकियों का प्रयोग करते हुए विद्यमान नियमों और विनियमों के अनुरूप ठोस अपशिष्ट का सुरक्षित और पर्यावरण-अनुकूल प्रबंधन (ईएसएम) अनुज्ञात किया जा सकेगा।

(10) **जैव चिकित्सा अपशिष्ट.**- जैव चिकित्सा अपशिष्ट का प्रबंधन निम्नानुसार किया जाएगा:-

(क) पारिस्थितिकी संवेदी जोन में जैव चिकित्सा अपशिष्ट का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं.सा.का.नि 343 (अ), तारीख 28 मार्च, 2016 के द्वारा प्रकाशित जैव चिकित्सा अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(ख) पारिस्थितिकी संवेदी जोन में मान्य प्रौद्योगिकियों का उपयोग करते हुए विद्यमान नियमों और विनियमों के अनुरूप जैव-चिकित्सा अपशिष्ट का सुरक्षित और पर्यावरण-अनुकूल प्रबंधन अनुज्ञात किया जा सकेगा।

(11) **प्लास्टिक अपशिष्ट प्रबंधन.**- पारिस्थितिकी संवेदी जोन में प्लास्टिक अपशिष्ट प्रबंधन का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथासंशोधित अधिसूचना सं.सा.का.नि 340(अ), तारीख 18 मार्च, 2016 द्वारा प्रकाशित प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(12) **निर्माण और विध्वंस अपशिष्ट प्रबंधन.**- पारिस्थितिकी संवेदी जोन में संनिर्माण और विध्वंस अपशिष्ट प्रबंधन का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथासंशोधित अधिसूचना सं.सां.का.नि 317(अ), तारीख 29 मार्च, 2016 द्वारा प्रकाशित संनिर्माण और विध्वंस प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(13) **ई-अपशिष्ट.-** पारिस्थितिकी संवेदी जोन में ई-अपशिष्ट प्रबंधन का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथासंशोधित द्वारा प्रकाशित ई-अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(14) **यानीय यातायात.-** यातायात की यानीय गतिविधियां आवास के अनुकूल विनियमित होंगी और इस संबंध में आंचलिक महायोजना में विशेष उपबंध सम्मिलित किए जाएंगे और आंचलिक महायोजना के तैयार होने और राज्य सरकार के सक्षम प्राधिकारी द्वारा अनुमोदित होने तक, निगरानी समिति सुसंगत अधिनियमों और उसके अधीन बनाए गए नियमों और विनियमों के अनुसार यानीय क्रियाकलापों के अनुपालन को निगरानी करेगी।

(15) **यानीय प्रदूषण.-** लागू विधियों के अनुपालन में वाहन प्रदूषण का निवारण और नियंत्रण किया जाएगा और स्वच्छक ईंधन के उपयोग के लिए प्रयास किए जाएंगे।

(16) **औद्योगिक ईकाइयां.-** (क) राजपत्र में इस अधिसूचना के प्रकाशन पर या उसके पश्चात पारिस्थितिकी संवेदी जोन के भीतर कोई नए प्रदूषित उद्योगों की स्थापना की अनुज्ञा नहीं दी जाएगी।

(ख) केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा फरवरी, 2016 में जारी समय-समय पर यथा संशोधित मार्गदर्शक सिद्धान्तों में उद्योगों के वर्गीकरण के अनुसार, जब तक कि अधिसूचना में इस प्रकार विनिर्दिष्ट न हो, पारिस्थितिकी संवेदी जोन के भीतर केवल गैर-प्रदूषणकारी उद्योगों को अनुज्ञात किया जाएगा और इसके अतिरिक्त, गैर प्रदूषणकारी उद्योगों को बढ़ावा दिया जाएगा।

(17) **पहाड़ी ढलानों को संरक्षण.-** पहाड़ी ढलानों का संरक्षण निम्नानुसार होगा:-

(क) आंचलिक महायोजना पहाड़ी ढलानों पर क्षेत्रों का संकेत होगा जहां किसी भी संनिर्माण की अनुज्ञा नहीं दी जाएगी;

(ख) कटाव के एक उच्च डिग्री के साथ विद्यमान खड़ी पहाड़ी ढलानों या ढलानों पर किसी भी संनिर्माण की अनुज्ञा नहीं दी जाएगी।

**4. पारिस्थितिकी संवेदी जोन में प्रतिषिद्ध और विनियमित किए जाने वाले क्रियाकलापों की सूची.-** पारिस्थितिकी संवेदी जोन में सभी क्रियाकलाप पर्यावरण अधिनियम के उपबंधों और उसके अधीन बनाए गए नियमों जिसके अन्तर्गत तटीय विनियमन जोन, 2011 और पर्यावरणीय समाघात निर्धारण अधिसूचना, 2006 और अन्य लागू विधियों के जिसमें वन (संरक्षण) अधिनियम, 1980 (1980 का 69), भारतीय वन अधिनियम, 1927 (1927 का 16), वन्यजीव (संरक्षण) अधिनियम, 1972 (1972 का 53), सम्मिलित हैं और किये गये संशोधनों द्वारा शासित होंगे और नीचे दी गई सारणी में विनिर्दिष्ट रीति में विनियमित होंगे, अर्थात् :-

#### सारणी

क्रम सं. (1)	क्रियाकलाप (2)	वर्णन (3)
<b>अ. प्रतिषिद्ध क्रियाकलाप</b>		
1.	वाणिज्यिक खनन, पत्थर उत्खनन और अपघर्षण इकाइयां।	(क) पारिस्थितिकी संवेदी जोन के अंतर्गत वास्तविक स्थानीय निवासियों की घरेलू आवश्यकताओं जिसमें मकानों के संनिर्माण या मरम्मत के लिए धरती को खोदना सम्मिलित है, के सिवाय सभी प्रकार के नए खनन (लघु और वृहत खनिज), पत्थर उत्खनन और अपघर्षण इकाइयां तत्काल प्रभाव से प्रतिषिद्ध होंगी;  (ख) खनन प्रचालन, 1995 की रिट याचिका (सिविल) सं. 202

		में टी.एन. गौडाबर्मन थिरुमूलपाद बनाम भारत संघ के मामले में माननीय उच्चतम न्यायालय के आदेश 4 अगस्त, 2006 और 2012 की रिट याचिका (सिविल) सं. 435 में गोवा फाउंडेशन बनाम भारत संघ के मामले में तारीख 21 अप्रैल, 2014 के आदेश के अनुसरण में होगा।
2.	प्रदूषण (जल, वायु, मृदा, ध्वनि, आदि) उत्पन्न करने वाले उद्योगों की स्थापना।	पारिस्थितिकी संवेदी जोन में कोई नया उद्योग लगाने और वर्तमान प्रदूषणकारी उद्योगों का विस्तार करने की अनुज्ञा नहीं होगी:  परन्तु यह कि केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा फरवरी, 2016 में जारी समय-समय पर यथा संशोधित मार्गदर्शक सिद्धान्तों में उद्योगों के वर्गीकरण के अनुसार, जब तक कि अधिसूचना में ऐसा विनिर्दिष्ट न हों, पारिस्थितिकी संवेदी जोन के भीतर गैर-प्रदूषणकारी उद्योगों को अनुज्ञात किया जाएगा और इसके अतिरिक्त गैर-प्रदूषणकारी कुटीर उद्योगों को बढ़ावा दिया जाएगा।
3.	बृहत जल विद्युत परियोजना की स्थापना।	प्रतिषिद्ध।
4.	किसी परिसंकटमय पदार्थ का उपयोग या उत्पादन या प्रसंस्करण।	प्रतिषिद्ध।
5.	प्राकृतिक जल निकायों या क्षेत्र भूमि में अनुपचारित बहिर्वाह का निस्सारण।	प्रतिषिद्ध।
6.	नई आरा मिलों की स्थापना।	पारिस्थितिकी संवेदी जोन के भीतर नई और विद्यमान आरा मिलों का विस्तार अनुज्ञात नहीं होगा।
7.	ईट भट्टों की स्थापना करना।	प्रतिषिद्ध।
<b>आ. विनियमित क्रियाकलाप</b>		
8.	वाणिज्यिक होटलों और रिसोर्टों की स्थापना।	पारिस्थितिकी पर्यटन क्रियाकलापों लघु अस्थायी संरचनाओं के सिवाय संरक्षित क्षेत्र की सीमा से एक किलोमीटर के भीतर या पारिस्थितिकी संवेदी जोन के विस्तार तक, इनमें जो भी निकट है, नए वाणिज्यिक होटल और रिसोर्टों को अनुज्ञात नहीं किया जाएगा:  परन्तु यह कि संरक्षित क्षेत्र की सीमा से एक किलोमीटर के परे या पारिस्थितिकी संवेदी जोन के विस्तार तक इनमें से, जो भी निकट हो सभी नए पर्यटन क्रियाकलाप या विद्यमान क्रियाकलाप का विस्तार पर्यटन महायोजना और यथा लागू मार्गदर्शी सिद्धान्तों के अनुरूप होगा।
9.	संनिर्माण क्रियाकलाप।	(क) संरक्षित क्षेत्र की सीमा से एक किलोमीटर के भीतर या पारिस्थितिकी संवेदी जोन के विस्तार तक, इनमें जो भी निकट हो, किसी भी प्रकार के नये वाणिज्यिक संनिर्माण की अनुज्ञा नहीं होगी:  परन्तु यह कि स्थानीय लोगों को अपनी आवास सम्बन्धी

		<p>निम्नलिखित आवश्यकताओं को पूरा करने के लिए, पैरा 3 के उप पैरा (1) में सूचीबद्ध क्रियाकलापों सहित अपने उपयोग के लिए, अपनी भूमि में भवन उप-विधियों के अनुसार, संनिर्माण करने की अनुज्ञा होगी:</p> <p>परंतु यह कि गैर-प्रदूषणकारी लघु उद्योगों से संबंधित संनिर्माण क्रियाकलाप लागू नियमों और विनियमों, यदि कोई हों, के अनुसार सक्षम प्राधिकारी की पूर्व अनुमति से विनियमित किए जाएंगे और वे न्यूनतम होंगे।</p> <p>(ख) एक किलोमीटर क्षेत्र से परे ये आंचलिक महायोजना के अनुसार विनियमित होंगे।</p>
10.	प्रदूषण उत्पन्न न करने वाले लघु उद्योग।	<p>फरवरी, 2016 में केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी उद्योगों में वर्गीकरण के अनुसार समय-समय पर संशोधित किया जाएगा कि गैर-प्रदूषणकारी उद्योग और अपरिसंकटमय में, लघु और सेवा उद्योग, कृषि, पुष्प कृषि, उद्यान कृषि या पारिस्थितिकी संवेदी जोन से देशी सामग्री से उत्पादों को उत्पन्न करने वाले कृषि आधारित उद्योग सक्षम प्राधिकारी द्वारा अनुज्ञात होंगे।</p>
11.	वृक्षों की कटाई।	<p>(क) राज्य सरकार में सक्षम प्राधिकारी की पूर्व अनुज्ञा के बिना वन, सरकारी या राजस्व या निजी भूमि पर या वनों में वृक्षों की कटाई नहीं होगी।</p> <p>(ख) वृक्षों की कटाई संबंधित केंद्रीय या राज्य अधिनियम या उसके अधीन बनाए गए नियमों के उपबंध के अनुसार विनियमित होंगे।</p>
12.	वन उत्पादों या गैर काष्ठ वन उत्पादों का संग्रहण।	लागू विधियों के अनुसार विनियमित होंगे।
13.	विद्युत और संचार टावरों का परिनिर्माण और केबलों के बिछाए जाने और अन्य बुनियादी ढांचे।	लागू विधियों के अधीन विनियमित होंगे (भूमिगत केवल के बिछाए जाने को बढ़ावा दिया जा सकेगा)।
14.	नागरिक सुख सुविधाओं सहित अवसंरचनाएं।	न्यूनीकरण उपायों को लागू विधियों, नियमों और विनियमनों और उपलब्ध मार्गदर्शक सिद्धांतों के अनुसार किया जाना।
15.	विद्यमान सड़कों को चौड़ा करना और उन्हें सुदृढ़ करना तथा नवीन सड़कों का संनिर्माण।	न्यूनीकरण उपायों को लागू विधियों, नियमों और विनियमनों तथा उपलब्ध मार्गदर्शक सिद्धांतों के अनुसार किया जाएगा।
16.	पर्यटन से संबंधित अन्य क्रियाकलाप जैसे गर्म वायु गुब्बारें, हेलीकाप्टर, ड्रोन, माइक्रोलाइटस, आदि द्वारा पारिस्थितिकी संवेदी जोन क्षेत्र के ऊपर से उड़ना जैसे क्रियाकलाप करना।	लागू विधियों के अनुसार विनियमित होंगे।
17.	पहाड़ी ढालों और नदी तटों का संरक्षण।	लागू विधियों के अनुसार विनियमित होंगे।

18.	रात्रि में यानिक यातायात का संचलन ।	लागू विधियों के अधीन वाणिज्यिक प्रयोजन के लिए विनियमित होंगे ।
19.	स्थानीय समुदायों द्वारा चल रही कृषि और बागवानी प्रथाओं के साथ दुग्धशाला, दुग्ध उद्योग, कृषि और मछली पालन ।	स्थानीय लोगों के उपयोग के लिए लागू विधियों के अधीन अनुज्ञात ।
20.	फर्मों, निगम और कंपनियों द्वारा बड़े पैमाने पर वाणिज्यिक पशुओं और कुक्कुट फार्मों की स्थापना ।	स्थानीय आवश्यकताओं को पूरा करने के लिए लागू विधियों के अधीन विनियमित (अन्यथा उपबंधित के सिवाय) होंगे ।
21.	प्राकृतिक जल निकायों या सतही क्षेत्र में उपचारित बहिर्स्राव का निस्तारण ।	जल निकायों में उपचारित अपशिष्ट जल या बहिर्स्राव के निस्तारण से बचा जाएगा और उपचारित अपशिष्ट जल के पुनःचक्रण और पुनःउपयोग के लिए प्रयास किए जाएंगे। अन्यथा लागू विधियों के अनुसार उपचारित बहिर्स्राव के पुनर्चक्रण या प्रवाह के निर्वहन को विनियमित किया जाएगा।
22.	सतही और भूजल का वाणिज्यिक निष्कर्षण ।	लागू विधियों के अनुसार विनियमित होंगे ।
23.	ठोस अपशिष्ट का प्रबन्धन।	लागू विधियों के अनुसार विनियमित होंगे ।
24.	विदेशी प्रजातियों को लाना ।	लागू विधियों के अनुसार विनियमित होंगे ।
25.	पारिस्थितिकी पर्यटन।	लागू विधियों के अनुसार विनियमित होंगे ।
26.	पोलिथीन बैगों का उपयोग ।	लागू विधियों के अनुसार विनियमित होगा ।
27.	वाणिज्यिक सूचनापट्ट और होर्डिंग।	लागू विधियों के अनुसार विनियमित होंगे ।
<b>इ. संवर्धित क्रियाकलाप</b>		
28.	वर्षा जल संचयन।	सक्रिय रूप से बढ़ावा दिया जाएगा।
29.	जैविक खेती।	सक्रिय रूप से बढ़ावा दिया जाएगा।
30.	सभी गतिविधियों के लिए हरित प्रौद्योगिकी को अंगीकृत करना ।	सक्रिय रूप से बढ़ावा दिया जाएगा।
31.	कुटीर उद्योगों जिसके अंतर्गत ग्रामीण कारीगर भी हैं।	सक्रिय रूप से बढ़ावा दिया जाएगा।
32.	नवीकरणीय ऊर्जा और ईंधन का उपयोग।	बायोगैस, सौर प्रकाश, इत्यादि को बढ़ावा दिया जाएगा।
33.	कृषि वानिकी ।	सक्रिय रूप से बढ़ावा दिया जाएगा।
34.	बागान लगाना और जड़ी बूटियों का रोपण ।	सक्रिय रूप से बढ़ावा दिया जाएगा।
35.	पारिस्थितिकी अनुकूल परिवहन का उपयोग ।	सक्रिय रूप से बढ़ावा दिया जाएगा।
36.	कौशल विकास ।	सक्रिय रूप से बढ़ावा दिया जाएगा।
37.	निम्नीकृत भूमि या वन या वास की बहाली ।	सक्रिय रूप से बढ़ावा दिया जाएगा।
38.	पर्यावरणीय जागरूकता ।	सक्रिय रूप से बढ़ावा दिया जाएगा।

5. पारिस्थितिकी संवेदी जोन की अधिसूचना की निगरानी के लिए निगरानी समिति- केंद्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (3) के अधीन इस अधिसूचना के उपबंधों की प्रभावी निगरानी के लिए निगरानी समिति का गठन करती है, जो निम्नलिखित से मिलकर बनेगी, अर्थात्:-

क्र.सं.	निगरानी समिति का गठन	पदनाम
(i)	संबंधित जिला कलेक्टर, बीशलगढ़	अध्यक्ष, पदेन;
(ii)	राज्य सरकार द्वारा नामनिर्दिष्ट किए जाने वाले क्षेत्र में एक पारिस्थितिकी-विज्ञानी	सदस्य;
(iii)	पशु संसाधन विकास विभाग बीशलगढ़ का एक प्रतिनिधि	सदस्य;
(iv)	राज्य सरकार द्वारा नामनिर्दिष्ट किए जाने वाले वन्यजीव संरक्षण के क्षेत्र में काम करने वाले गैर-सरकारी संगठन का प्रतिनिधि	सदस्य;
(v)	राज्य सरकार द्वारा नामनिर्दिष्ट जैव विविधता में एक विशेषज्ञ	सदस्य;
(vi)	राज्य लोक निर्माण विभाग का एक प्रतिनिधि	सदस्य;
(vii)	राज्य प्रदूषण नियंत्रण बोर्ड का एक प्रतिनिधि	सदस्य;
(viii)	वन्यजीव वार्डन, सेपाहीजाला वन्यजीव अभयारण्य	सदस्य-सचिव।

6. निर्देश-निबंधन.- (1) निगरानी समिति इस अधिसूचना के उपबंधों के अनुपालन को निगरानी करेगी।

(2) निगरानी समिति का कार्यकाल अगले आदेश होने तक किया जाएगा, परंतु यह कि समिति के गैर-सरकारी सदस्यों को समय-समय पर राज्य सरकार द्वारा नामनिर्दिष्ट किया जाएगा।

(3) उन क्रियाकलापों की, जो भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना संख्यांक का.आ. 1533 (अ), तारीख 14 सितम्बर, 2006 की अनुसूची में सम्मिलित हैं, और जो पारिस्थितिकी संवेदी जोन में आते हैं, सिवाय इसके जो पैरा 4 के अधीन सारणी में यथा विनिर्दिष्ट प्रतिषिद्ध क्रियाकलापों के, निगरानी समिति द्वारा वास्तविक विनिर्दिष्ट स्थलीय दशाओं के आधार पर संवीक्षा की जाएगी और उक्त अधिसूचना के उपबंधों के अधीन पूर्व पर्यावरण अनापत्ति के लिए केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को निर्दिष्ट किया जाएगा।

(4) उन क्रियाकलापों की, जो भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना संख्यांक का.आ. 1533 (अ) तारीख 14 सितंबर, 2006 की अनुसूची में सम्मिलित नहीं है, और जो पारिस्थितिकी संवेदी जोन में आते हैं, सिवाय इसके पैरा 4 के अधीन सारणी में यथाविनिर्दिष्ट प्रतिषिद्ध क्रियाकलापों के निगरानी समिति द्वारा वास्तविक विनिर्दिष्ट स्थलीय दशाओं के आधार पर संवीक्षा की जाएगी और उसे संबद्ध विनियामक प्राधिकरणों को निर्दिष्ट किया जाएगा।

(5) निगरानी समिति का सदस्य-सचिव या संबद्ध उपायुक्त ऐसे व्यक्ति के विरुद्ध, जो इस अधिसूचना के किसी उपबंध का उल्लंघन करता है, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 19 के अधीन परिवाद फाइल करने के लिए सक्षम होगा।

(6) निगरानी समिति मुद्दा दर मुद्दा के आधार पर अपेक्षाओं पर निर्भर रहते हुए संबद्ध विभागों के प्रतिनिधियों या विशेषज्ञों, औद्योगिक संगमों या संबद्ध पणधारियों के प्रतिनिधियों को अपने विचार-विमर्श में सहायता के लिए आमंत्रित कर सकेगी।

(7) निगरानी समिति प्रत्येक वर्ष की 31 मार्च तक के अपने क्रियाकलापों की वार्षिक कार्रवाई रिपोर्ट राज्य के मुख्य वन्यजीव वार्डन को उपाबंध-V में संलग्न प्रोफार्मा में उक्त वर्ष के 30 जून तक प्रस्तुत करेगी।

(8) केन्द्रीय सरकार का पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय निगरानी समिति को अपने कृत्यों के प्रभावी निर्वहन के लिए ऐसे निर्देश दे सकेगा, जो वह ठीक समझे।

**7. अतिरिक्त उपाय.-** इस अधिसूचना के उपबंधों को प्रभावी बनाने के लिए केन्द्रीय सरकार और राज्य सरकार, अतिरिक्त उपाय, यदि कोई हों, विनिर्दिष्ट कर सकेंगी।

**8. उच्चतम न्यायालय, आदेश आदि.-** इस अधिसूचना के उपबंध भारत के माननीय उच्चतम न्यायालय या उच्च न्यायालय या राष्ट्रीय हरित अधिकरण द्वारा पारित किए गए या पारित किए जाने वाले आदेश, यदि कोई हो, के अध्यक्षीन होंगे।

[फा. सं. 25/37/2018-ईएसजेड]

डॉ. सतीश चन्द्र गढकोटी, वैज्ञानिक 'जी'

### उपाबंध- I

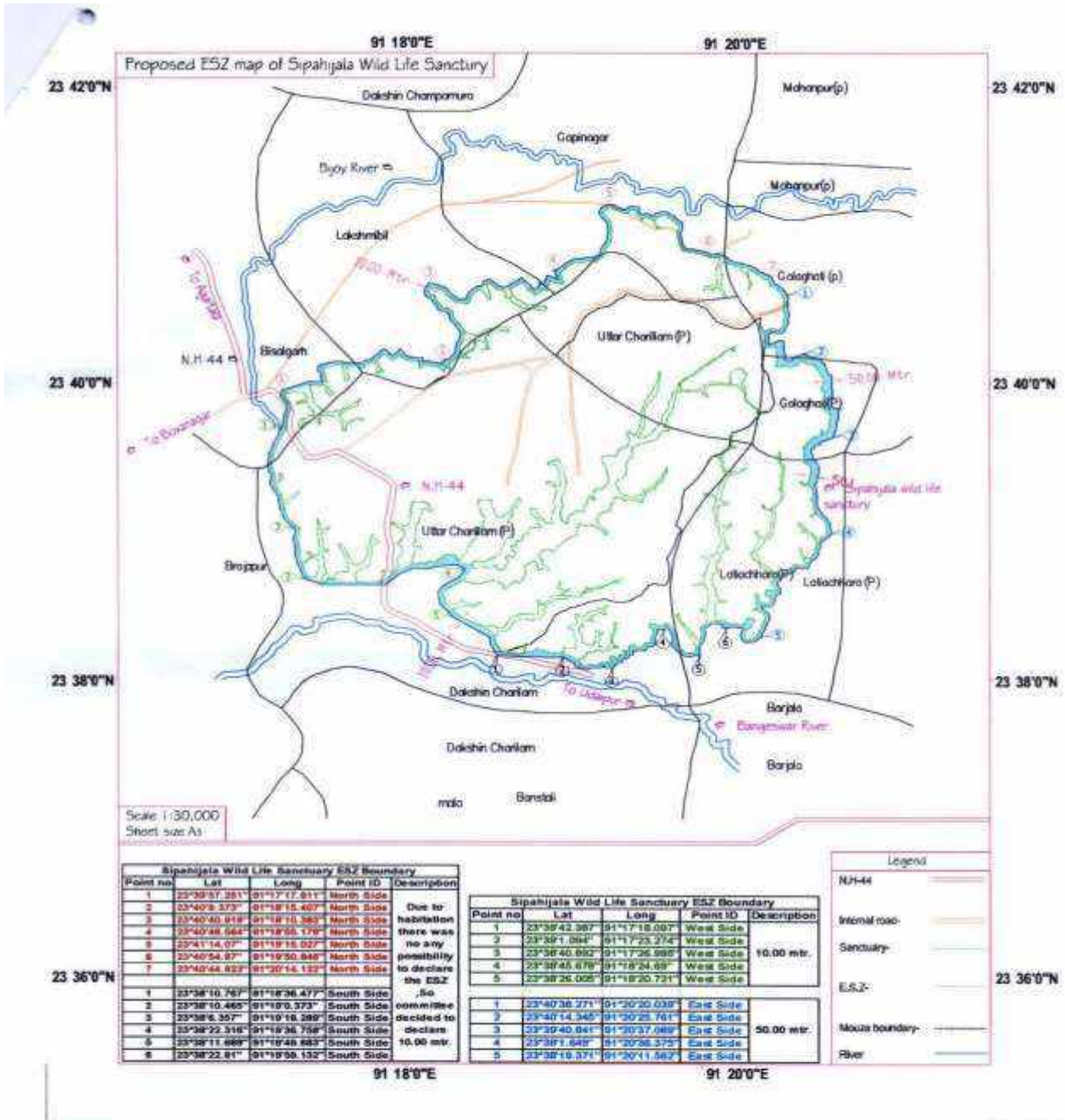
#### त्रिपुरा राज्य में सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान और इसके पारिस्थितिकी संवेदी जोन की सीमा का विवरण

उत्तर	सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन का उत्तरी भाग गोपीनगर मौजा के अंतर्गत और चंद्रा नगर और कस्बा गांव पंचायत के अंतर्गत आता है। बीजोय नदी उत्तरी भाग में बहती है जो कि सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन के मानचित्र में दर्शाया गया है। सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन के उत्तरी भाग में घनी आबादी है। यहां यह प्रस्तावित पारिस्थितिकी संवेदी जोन के लिए अभयारण्य सीमा से <b>10 मीटर</b> में रखा गया है।
उत्तर पश्चिमी सीमा	सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन का उत्तर पश्चिमी भाग अंतर्गत बीशलगढ़ नगर पंचायत और रौतखलागांव पंचायत आते हैं। सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन के उत्तर पश्चिम भाग में अत्यंत घनी आबादी है। यहां यह प्रस्तावित पारिस्थितिकी संवेदी जोन के लिए अभयारण्य सीमा से <b>10 मीटर</b> में रखा गया है। यह क्षेत्र बीशलगढ़ मौजा के अंतर्गत आता है।
पश्चिमी सीमा	सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन का पश्चिमी भाग ब्रजापुर और उत्तर चरीलम गांव पंचायत के भाग के अंतर्गत आता है। सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन के पश्चिमी भाग में आबादी घनी है। यहां यह प्रस्तावित पारिस्थितिकी संवेदी जोन के लिए अभयारण्य सीमा से

	<p><b>10 मीटर</b> में रखा गया है। यह क्षेत्र ब्रजापुर और उत्तर, चरीलम मौजा के भाग के अंतर्गत आता है। रेलवे ट्रैक बिछाई गई है जो कि सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान की निकटतम पश्चिमी सीमा से लगभग 500 मीटर है।</p>
<p><b>दक्षिणी सीमा</b></p>	<p>सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन का दक्षिणी भाग लतियाचेर्रा, एवं चिकन ए डी सी ग्राम एवं उत्तर चरीलम मौजा के अंतर्गत आता है। सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन के दक्षिणी भाग में जनसंख्या घनी है। यहां यह प्रस्तावित पारिस्थितिकी संवेदी जोन के लिए अभयारण्य सीमा से <b>10 मीटर</b> में रखा गया है। यहां एक बाजार है जिसे चरीलम बाजार कहा जाता है जो कि अभयारण्य की निकटतम सीमा से लगभग 100 मीटर है।</p>
<p><b>पूर्वी सीमा</b></p>	<p>सेपाहीजाला वन्यजीव अभयारण्य-क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन का पूर्वी भाग गोलाघाटी के भाग और लतियाचेर्रा मौजा के भाग और लतियाचेर्रा और चिकन ए डी सी ग्राम के अंतर्गत आता है। सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के प्रस्तावित पारिस्थितिकी संवेदी जोन के पूर्वी भाग में जनसंख्या विरल है। यहां यह प्रस्तावित पारिस्थितिकी संवेदी जोन के लिए अभयारण्य सीमा से <b>50 मीटर</b> में रखा गया है।</p>

उपाबंध- IIक

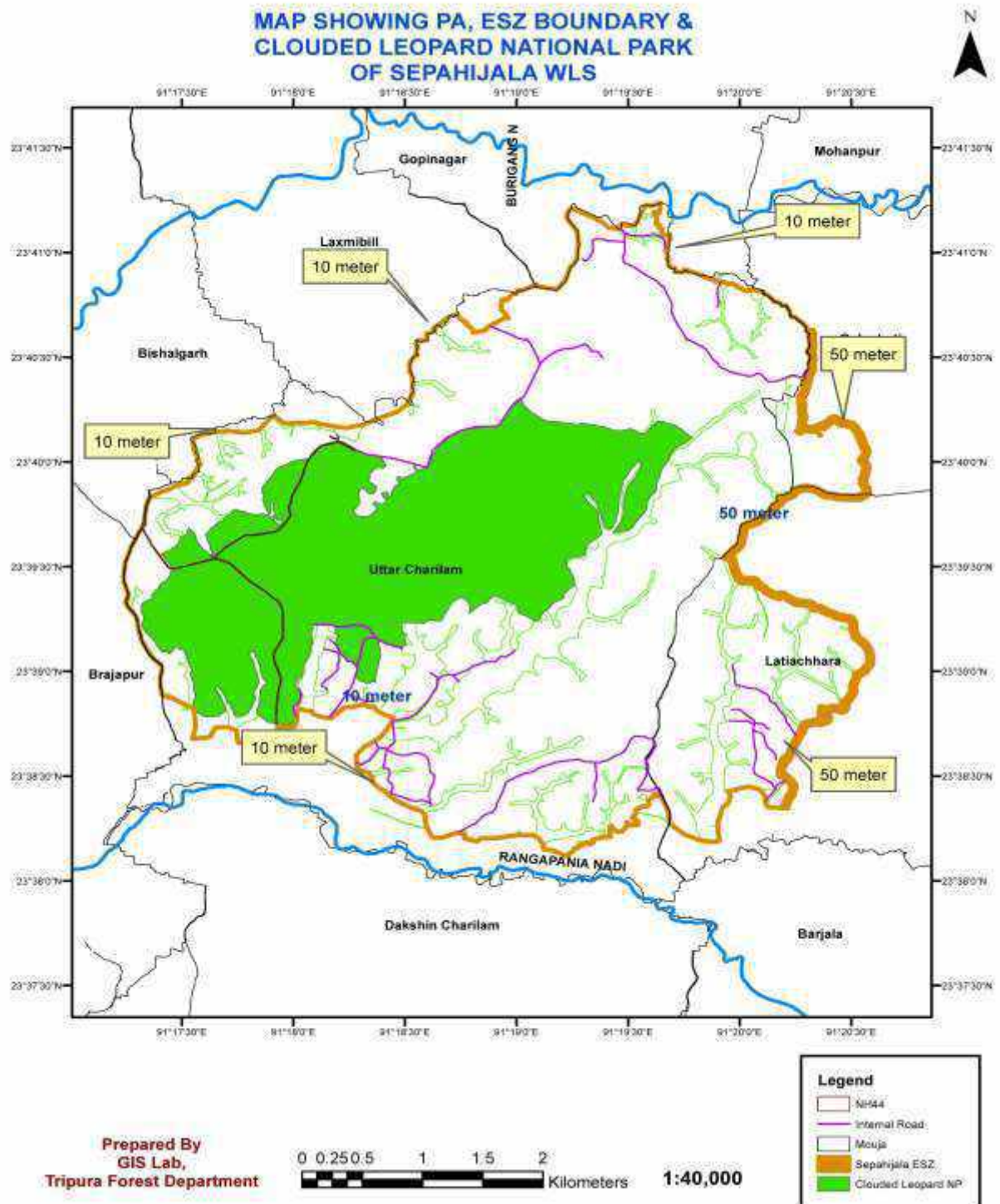
मुख्य अवस्थानों के अक्षांश और देशांतर के साथ सेपाहीजाला वन्यजीव अभयारण्य - क्लडिड लैपर्ड राष्ट्रीय उद्यान और इसके पारिस्थितिकी संवेदी जोन का मानचित्र



Wildlife Warden,  
Sepahijala Wildlife Sanctuary

उपाबंध- IIख

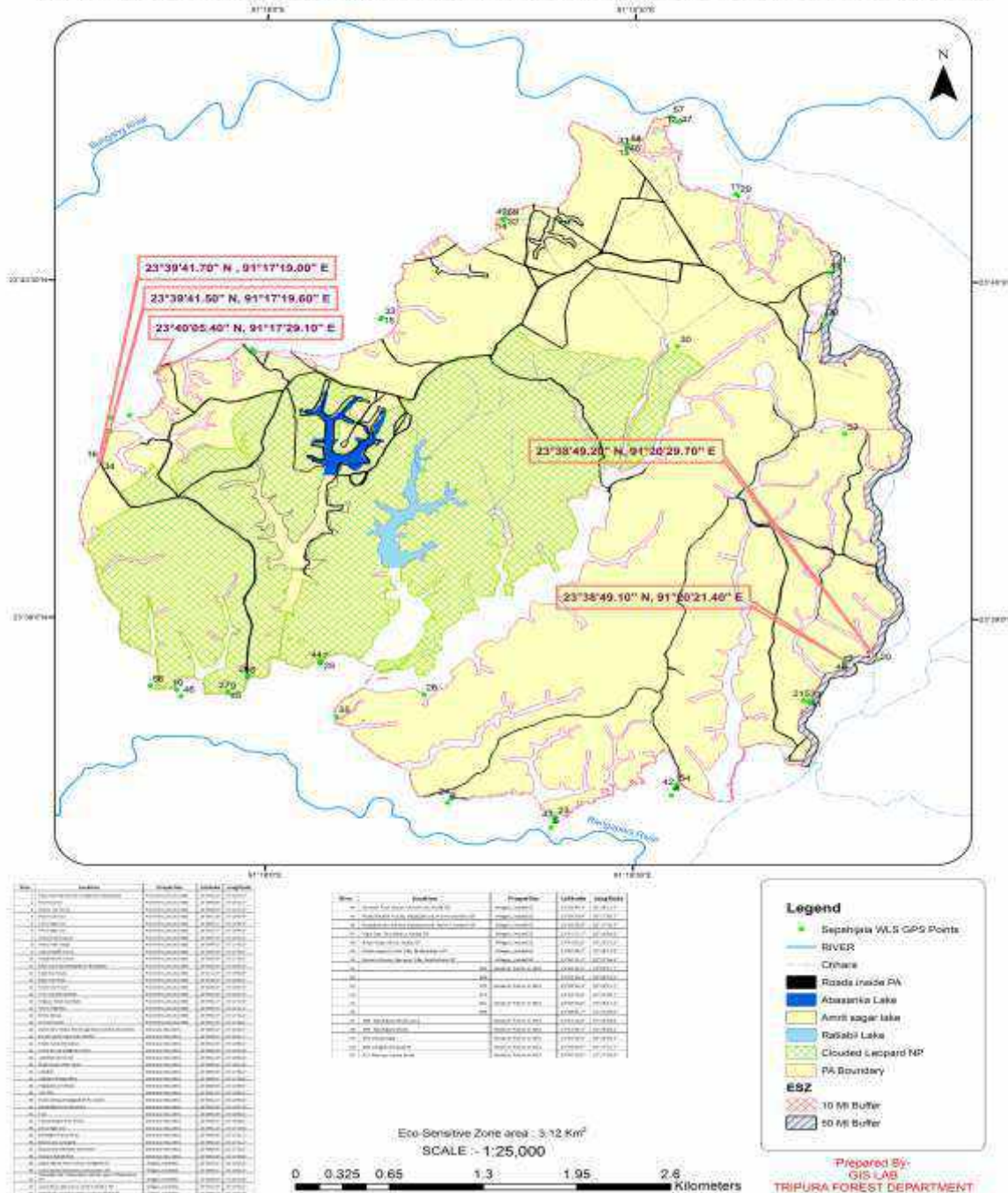
मुख्य अवस्थानों के अक्षांश और देशांतर के साथ सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के पारिस्थितिकी संवेदी जोन का मानचित्र



उपाबंध-IIग

मुख्य अवस्थानों के अक्षांश और देशांतर के साथ सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के पारिस्थितिकी संवेदी जोन का मानचित्र

MAP SHOWING SEPAHIJALA WLS AND ECO-SENSITIVE ZONE



## उपाबंध-III

सारणी क : मानचित्र पर चिन्हित सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के मुख्य अवस्थानों के भू-निर्देशांक

क्र.सं.	वन्यजीव अभयारण्य सीमा में यादृच्छिक बिंदु	जीपीएस निर्देशांक
1.	ब्रिक सोलिंग सड़क (गोलाघाटी सड़क)	उ 23.40-32.5' पू 091.20-17.7'
2.	दुखी राम ठाकुर पारा आंगनवाडी केंद्र, चीकनचेरा	उ 23.38-49.2' पू 091.20-29.7'
3.	मुसलिम पारा आंगनवाडी केंद्र	उ 23.38-38.2' पू 091-20-11.7'
4.	फकीरा मुरा एस/ बी स्कूल	उ 23.38-15.6' पू 091.19-40.7'
5.	पम्प हाउस गोलाघाटी कोलोनी	उ 23.38-06.9' पू 091.19-11.0'
6.	चारीलम XII स्कूल	उ 23.38-11.9' पू 091.18-45.5'
7.	इकवाल हाउस उत्तर मुरा	उ 23.38-48.5' पू 091.18-13.6'
8.	जुरकाबर	उ 23.38-44.4' पू 091.17-55.7'
9.	चारीलम रेंज ऑफिस	उ 23.38-40.1' पू 091.17-50.8'
10.	हापाजीयामुरा मस्जिद	उ 23.38-39.6' पू 091.18-38.7'
11.	लम्बा वृक्ष	उ 23.40-52.9' पू 091.19-55.1'
12.	ब्रीक सोलिंग, बृजागोपाल सिन्हा, कस्बा	उ 23.40-12.7' पू 091.19-40.5'
13.	धाजानगर, 4 सं. अभयारण्य	उ 23.41-05.8' पू 091.19-27.9'
14.	पोस्ट	उ 23.40-46.6' पू 091.18-58.1'
15.	चंद्रानगर पम्प हाउस	उ 23.40-20.1' पू 091.18-28.1'
16.	एन एच 44	उ 23.39-41.5' पू 091.17-19.6'
17.	बीशलगढ़ वन बिंदु	उ 23.39-49.6'

		पू 091.17-21.7'
18.	विद्युत पोस्ट, जंगलिया	उ 23.39-53.3' पू 091.17-21.7'
19.	विद्युत पोस्ट नारायण दास हाउस	उ 23.40-05.4' पू 091.17-29.1'
20.	नोरायरा कबरखाना	उ 23.40-10.9' पू 091.17-56.9'

सारणी ख : सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के मुख्य अवस्थानों के अतिरिक्त भू-निर्देशांक

अभयारण्य सीमा	
मुख्य विशेषताओं के नाम	जी पी एस निर्देशांक
ब्रीक सोलिंग सड़क (गोलाघाटी सड़क)	उ 23.40-32.5' पू 091.20-17.7'
दुखी राम ठाकुर पारा आंगनवाडी केन्द्र, चीकनचेरा	उ 23.38-49.2' पू 091.20-29.7'
मुसलिम पारा आंगनवाडी केन्द्र	उ 23.38-38.2' पू 091-20-11.7'
फकीरा मुरा एस/ बी स्कूल	उ 23.38-15.6' पू 091.19-40.7'
पम्प हाउस गोलाघाटी कालोनी	उ 23.38-06.9' पू 091.19-11.0'
चारीलम XII स्कूल	उ 23.38-11.9' पू 091.18-45.5'
इकबाल हाउस उत्तर मुरा	उ 23.38-48.5' पू 091.18-13.6'
जुरकाबर	उ 23.38-44.4' पू 091.17-55.7'
चारीलम रेंज ऑफिस	उ 23.38-40.1' पू 091.17-50.8'
हापाजीयामुरा मस्जिद	उ-23.38-39.6' पू 091.18-38.7'

## सारणी ग: पारिस्थितिकी संवेदी जोन के मुख्य अवस्थानों के भू-निर्देशांक

पारिस्थितिकी संवेदी जोन सीमा		
क्र.सं.	मुख्य विशेषताओं के नाम	जी पी एस निर्देशांक
1.	ब्लैक टॉप सड़क- (दक्षिण गोलाघाटी से सेपाहीजाला)	उ 23.40-34.0' पू 091.20-19.9'
2.	विद्युत पोस्ट	उ 23.38-48.8' पू 091.20-21.7'
3.	मंटू मिया हाउस	उ 23.38-38.0' पू 091.20-13.9'
4.	विद्युत पोस्ट(2)	उ 23.38-12.8' पू 091.19-39.4'
5.	राजमार्ग सं 44	उ 23.38-04.1' पू 091-19-09.9'
6.	राजमार्ग सं 44	उ 23.38-10.7' पू 091.18-44.6'
7.	संतुश पॉल हाउस	उ 23.38-47.9' पू 091.18-13.2'
8.	मनू फकीर दरगा	उ 23.38-44.2' पू 091.17-55.5'
9.	अब्दुल खलैक हाउस	उ 23.38-39.9' पू 091.17-50.7'
10.	हापाजीमुरा स्कूल	उ 23.38-38.9' पू 091.17-39.3'
11.	ब्लैक टॉप सड़क गोलाघाटी से बीशलगढ़	उ 23.40-53.5' पू 091.19-54.6'
12.	काजल दास हाउस	उ 23.41-12.8' पू 091.19-40.9'
13.	ब्लैक टॉप सड़क	उ 23.41-06.3' पू 091.19-28.1'
14.	रोसीद मिया हाउस	उ 23.40-46.5' पू 091.18-57.6'
15.	पम्प ऑपरेटर, क्वार्टर	उ 23.40-19.8' पू 091.18-27.8'

16.	ब्रजापुर ब्लैक टॉप सड़क	उ 23.39-41.7' पू 091.17-19.0'
17.	एन एच-44	उ 23.39-49.7' पू 091.17-21.2'
18.	ब्रीक सोलिंग	उ 23.39-53.9' पू 091.17-26.5'
19.	ब्लैक टॉप सड़क, जंगालिया कलानी	उ 23.40-05.5' पू 091.17-28.8'
20.	नूर मिया हाउस	उ 23.40-11.4' पू 091.17-56.2'

## उपाबंध-IV

भू-निर्देशांकों के साथ सेपाहीजाला वन्यजीव अभयारण्य - क्लुडिड लैपर्ड राष्ट्रीय उद्यान के पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाले ग्रामों की सूची

क्र.सं.	ग्रामों के नाम (पारिस्थितिकी संवेदी जोन के अंतर्गत)	जी.पी.एस निर्देशांक
1.	बबुल मरक, गरो कॉलोनी, गोलाघाटी - जीपी	उ 23.40-20.1' पू 091.20-16.6'
2.	रबींद्र देब्बारमा, राम कृष्णा पारा, लतियाचेर्रा - जीपी	उ 23.39-37.0' पू 091.20-09.5'
3.	कुला चंद्रा देब्बारमा, चिकनचेरा - जीपी	उ 23.38-49.1' पू 091.20-21.4'
4.	नूरानालाई मिया, चिकनचेरा, मुसलिम पारा, चिकनचेर्रा - जीपी	उ 23.38-38.0' पू 091.20-12.8'
5.	जॉयनल मिया, फकीरामुरा, उत्तर चरीलम - जीपी	उ 23.38-14.6' पू 091-19-40.2'
6.	हारालालकर, गौतम कलानी, उत्तर चरीलम - जीपी	उ 23.38-05.9' पू 091.19-10.8'
7.	संतोष पॉल हाउस, उत्तर मुरा, अरालिया- जीपी	उ 23.38-48.3' पू 091.18-13.3'

8.	अब्दुल खालक हाउस, हापाजियामुरा, उत्तर चरीलम - जीपी	उ 23.38-39.9' पू 091.17-50.7'
9.	हापाजियामुरा स्कूल, हापाजियामुरा उत्तर चरीलम - जीपी	उ 23.38-38.9' पू 091.17-39.3'
10.	काजल दास, घोषपारा, कस्बा - जीपी	उ 23.41-12.7' पू 091.19-40.6'
11.	ब्रजा गोपा सिन्हा, कस्बा - जीपी	उ 23.41-05.8' पू 091.19-27.9'
12.	धाजा नगर, पुरबो टिल्ला, बैदयरदिघी - जीपी	उ 23.40.46.7' पू 091.18-57 .9'
13.	नुरमिया हाउस, नाराउरा टिल्ला, रौथखोला - जीपी	उ 23.40-11.4' पू 091.17-56.2'

## उपाबंध V

## की गई कार्रवाई की रिपोर्ट का रूप विधान: पारिस्थितिकी संवेदी जोन मानीटरी समिति

1. बैठकों की संख्या और तारीख ।
2. बैठकों का कार्यवृत्त : (कृपया मुख्य उल्लेखनीय बिंदुओं का उल्लेख करें । बैठक के कार्यवृत्त को एक पृथक उपाबंध में उपाबद्ध करें) ।
3. आंचलिक महायोजना की तैयारी की प्रास्थिति जिसके अंतर्गत पर्यटन महायोजना भी है।
4. भू-अभिलेख में सदृश्य त्रुटियों के सुधार के लिए ब्यौहार किए गए मामलों का सार (पारिस्थितिकी संवेदी जोन वार) । ब्यौरे उपाबंध के रूप में संलग्न किए जाएं।
5. पर्यावरण समाघात निर्धारण अधिसूचना, 2006 के अधीन आने वाले क्रियाकलापों की संवीक्षा के मामलों का सार। (ब्यौरे एक पृथक् उपाबंध के रूप में संलग्न किए जाएं)।
6. पर्यावरण समाघात निर्धारण अधिसूचना, 2006 के अधीन न आने वाले क्रियाकलापों की संवीक्षा के मामलों का सार । (ब्यौरे एक पृथक् उपाबंध के रूप में संलग्न किए जाएं)।
7. पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 19 के अधीन दर्ज की गई शिकायतों का सार ।
8. कोई अन्य महत्वपूर्ण विषय ।

## MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

## NOTIFICATION

New Delhi, the 19th February, 2021

**S.O.789(E).**—WHEREAS, a draft notification was published in the Gazette of India, Extraordinary, *vide* notification of the Government of India in the Ministry of Environment, Forest and Climate Change number S.O. 2437 (E), dated the 24<sup>th</sup> July, 2020, inviting objections and suggestions from all persons likely to be affected thereby within the period of sixty days from the date on which copies of the Gazette containing the said notification were made available to the public;

**AND WHEREAS**, copies of the Gazette containing the said draft notification were made available to the public on the 24<sup>th</sup> July, 2020;

**AND WHEREAS**, no objections and suggestions were received from persons and stakeholders in response to the draft notification;

**AND WHEREAS**, the Sepahijala Wildlife Sanctuary located in Sepahijala district of Tripura was declared on 2<sup>nd</sup> February, 1987 *vide* notification No F. 8(50)/For-WL/86/55164 dated 2<sup>nd</sup> February 1987 under section 18(1) of the Wildlife (Protection) Act, 1972 covering an area of 18.54 square kilometers. Within the core area of the Sanctuary, an area of 5.08 square kilometer was declared as Clouded leopard National Park *vide* notification No F.8 (196)/For-WL-2004INP/33856-86 dated 24<sup>th</sup> January, 2008. Now all restrictions have been implied with the Sanctuary and National Park and no activities by the local public or anybody is allowed there unless permitted by the Chief Wildlife Warden, Tripura as per the provisions of the Wildlife (Protection), Act 1972 (29 of 1986);

**AND WHEREAS**, the Sepahijala Wildlife Sanctuary and Clouded leopard National Park has varieties of flora and fauna e.g. Phayre's langur and clouded leopard besides presence of Rhesus macaque, pig-tailed macaque, capped langur, barking deer, wild boar, jackal, porcupine, etc. Four species of civet, leopard cat, jungle cat, pangolin, slow loris, large Indian civet, small India civet, common palm civet, Himalayan palm civet, flying squirrel, crab eating mongoose, yellow throated marten, Indian monitor lizard etc. Apart from the above birds like imperial pigeon, kalij pheasant, dongos, red jungle fowl, pied hornbill, spotted dove, kingfisher, parakeet, Indian roller, kite, whistling teals, open bill stork, cormorant, red wattled lapwing etc. are also found;

**AND WHEREAS**, about 124 bird species have been identified at Sepahijala Wildlife Sanctuary and Clouded leopard National Park and the Protected Areas has large number of water bodies covering an area of 120.50 ha (52 nos.) out of which Amrit sagar (25.35 ha) and Ratiabill (20.75 ha) are the large sized which adds to aquatic biodiversity. The flora consists of 142 species of trees, 55 species of shrubs, 90 species of herbs, 35 species of climbers, 11 species of epiphytes, 10 species of pteridophytes, 7 species of bamboos. Some example of major species are *Shorea robusta*, *Cassia species*, *Artocarpus chaplasi*, *Schima wallichii*, *Syzygium curranii*, *Lagerstroemia species*, *Terminalia species*, *Albezia species*, *Mallotus*, *Dillenia*, *Bauhinia species*, *Ficusspeies*, *Linnea species*, *Dipterocarpus tarbinatus*, *Vitex*, *Alstonia scholaris*, *Mesua ferrea*, *Bombax ceiba*, etc;

**AND WHEREAS**, the Sepahijala Wildlife Sanctuary and Clouded leopard National Park is rich in biodiversity values including bio-geographical representatives, endemism, species richness, geo-morphological characteristics and unique land use practices including aesthetic and cultural values and the Sanctuary has rare, endangered and threatened (RET) species examples include clouded leopard (*Neofelis nebulosa*), hornbil (*Anthracoseros coronatus*), monitor lizard (*Varanus bengalensis*), porcupine (*Antherurusmecrourus assamensis*), civets (*Himalayan palm civets*), etc;

**AND WHEREAS**, it is necessary to conserve and protect the area, the extent and boundaries of the Sepahijala Wildlife Sanctuary and Clouded leopard National Park which are specified in paragraph 1 as Eco-sensitive Zone from ecological, environmental and biodiversity point of view and to prohibit industries or class of industries and their operations and processes in the said Eco-sensitive Zone;

**NOW, THEREFORE**, in exercise of the powers conferred by sub-section (1) and clauses (v) and (xiv) of sub-section (2) and sub-section (3) of section 3 of the Environment (Protection) Act 1986 (29 of 1986) (hereafter in this notification referred to as the Environment Act), read with sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby notifies an area to an extent varying from 10 metres (in North, North-western, West and South) to 50 meters (Eastern side) around the boundary of Sepahijala Wildlife Sanctuary and Clouded leopard National Park, in Sepahijala District in the State of Tripura as the Sepahijala Wildlife Sanctuary - Clouded leopard National Park Eco-sensitive Zone (hereafter in this notification referred to as the Eco-sensitive Zone) details of which are as under, namely: -

- 1. Extent and boundaries of Eco-sensitive Zone.** – (1) The Eco-sensitive Zone shall be to an extent of 10 metres to 50 metres around the boundary of Sepahijala Wildlife Sanctuary and Clouded leopard National Park and the area of the Eco-sensitive Zone is 3.12 square kilometres. State Government made a clarification on area and extent of Eco-sensitive Zone that “the area is an elevation rolling hill terrain type and adjoining areas are mostly owned by private land owners and therefore not much scope is left for extension of the Eco-sensitive Zone area. It was also stated that geographically, Tripura state is characterized by hill areas interspersed with small valley

*covering approximately 74% forest cover and there is absolute scarcity of land available for non-forestry purpose. It was further reiterated that most areas surrounding the Protected Area are under private land with large habitations and the need for local development and livelihood needs for such areas are immense considering the terrain and the 10 to 50 meters Eco-sensitive Zone extent has been proposed after public consultation.”.*

- (2) The boundary description of Sepahijala Wildlife Sanctuary and Clouded leopard National Park and its Eco-sensitive Zone is appended in **Annexure-I**.
  - (3) The maps of the Sepahijala Wildlife Sanctuary and Clouded leopard National Park demarcating Eco-sensitive Zone along with boundary details and latitudes and longitudes are appended as **Annexure-IIA, Annexure-IIB** and **Annexure-IIC**.
  - (4) The list of geo-coordinates of the boundary of Sepahijala Wildlife Sanctuary and Clouded leopard National Park and Eco-sensitive Zone are given in Table A, Table B and Table C of **Annexure III**.
  - (5) The list of villages falling in the proposed Eco-sensitive Zone along with their geo co-ordinates at prominent points is appended as **Annexure-IV**.
- 2. Zonal Master Plan for Eco-sensitive Zone.**-(1) The State Government shall, for the purposes of the Eco-sensitive Zone prepare a Zonal Master Plan within a period of two years from the date of publication of this notification in the Official Gazette, in consultation with local people and adhering to the stipulations given in this notification for approval of the competent authority in the State.
- (2) The Zonal Master Plan for the Eco-sensitive Zone shall be prepared by the State Government in such manner as is specified in this notification and also in consonance with the relevant Central and State laws and the guidelines issued by the Central Government, if any.
  - (3) The Zonal Master Plan shall be prepared in consultation with the following Departments of the State Government, for integrating the ecological and environmental considerations into the said plan:-
    - (i) Environment;
    - (ii) Forest and Wildlife;
    - (iii) Agriculture;
    - (iv) Revenue;
    - (v) Urban Development;
    - (vi) Tourism;
    - (vii) Rural Development;
    - (viii) Irrigation and Flood Control;
    - (ix) Municipal;
    - (x) Panchayati Raj;
    - (xi) Highways;
    - (xii) Tripura State Pollution Control Board; and
    - (xiii) Public Works Department.
  - (4) The Zonal Master Plan shall not impose any restriction on the approved existing land use, infrastructure and activities, unless so specified in this notification and the Zonal Master Plan shall factor in improvement of all infrastructure and activities to be more efficient and eco-friendly.
  - (5) The Zonal Master Plan shall provide for restoration of denuded areas, conservation of existing water bodies, management of catchment areas, watershed management, groundwater management, soil and moisture conservation, needs of local community and such other aspects of the ecology and environment that need attention.
  - (6) The Zonal Master Plan shall demarcate all the existing worshipping places, villages and urban settlements, types and kinds of forests, agricultural areas, fertile lands, green area, such as, parks and like places, horticultural areas, orchards, lakes and other water bodies with supporting maps giving details of existing and proposed land use features.
  - (7) The Zonal Master Plan shall regulate development in Eco-sensitive Zone and adhere to prohibited and regulated activities listed in the Table in paragraph 4 and also ensure and promote eco-friendly development for security of local communities' livelihood.

- (8) The Zonal Master Plan shall be co-terminus with the Regional Development Plan.
- (9) The Zonal Master Plan so approved shall be the reference document for the Monitoring Committee for carrying out its functions of monitoring in accordance with the provisions of this notification.

**3. Measures to be taken by the State Government.-** The State Government shall take the following measures for giving effect to the provisions of this notification, namely:-

- (1) **Land use.-** (a) Forests, horticulture areas, agricultural areas, parks and open spaces earmarked for recreational purposes in the Eco-sensitive Zone shall not be used or converted into areas for commercial or residential or industrial activities:

Provided that the conversion of agricultural and other lands, for the purposes other than that specified at part (a) above, within the Eco-sensitive Zone may be permitted on the recommendation of the Monitoring Committee, and with the prior approval of the competent authority under the Regional Town Planning Act and other rules and regulations of the Central Government or State Government as applicable and *vide* provisions of this notification, to meet the residential needs of the local residents and for activities such as-

- (i) widening and strengthening of existing roads and construction of new roads;
- (ii) construction and renovation of infrastructure and civic amenities;
- (iii) small scale industries not causing pollution;
- (iv) cottage industries including village industries; convenience stores and local amenities supporting eco-tourism including home stay; and
- (v) promoted activities given in paragraph 4:

Provided further that no use of tribal land shall be permitted for commercial and industrial development activities without the prior approval of the competent authority under the Regional Town Planning Act and other rules and regulations of the State Government and without compliance of the provisions of article 244 of the Constitution or the law for the time being in force, including the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (2 of 2007):

Provided also that any error appearing in the land records within the Eco-sensitive Zone shall be corrected by the State Government, after obtaining the views of Monitoring Committee, once in each case and the correction of said error shall be intimated to the Central Government in the Ministry of Environment, Forest and Climate Change:

Provided also that the correction of error shall not include change of land use in any case except as provided under this sub-paragraph.

- (b) Efforts shall be made to reforest the unused or unproductive agricultural areas with afforestation and habitat restoration activities.

- (2) **Natural water bodies.-**The catchment areas of all natural springs shall be identified and plans for their conservation and rejuvenation shall be incorporated in the Zonal Master Plan and the guidelines shall be drawn up by the State Government in such a manner so as to prohibit development activities at or near these areas which are detrimental to such areas.

- (3) **Tourism or eco-tourism.-** (a) All new eco-tourism activities or expansion of existing tourism activities within the Eco-sensitive Zone shall be as per the Tourism Master Plan for the Eco-sensitive Zone.

(b) The Tourism Master Plan shall be prepared by the State Department of Tourism in consultation with the State Departments of Environment and Forests.

(c) The Tourism Master Plan shall form a component of the Zonal Master Plan.

(d) The Tourism Master Plan shall be drawn based on the study of carrying capacity of the Eco-sensitive Zone.

(e) The activities of eco-tourism shall be regulated as under, namely:-

- (i) new construction of hotels and resorts shall not be allowed within one kilometre from the boundary of the protected area or upto the extent of the Eco-sensitive Zone, whichever is nearer:

Provided that beyond the distance of one kilometre from the boundary of the protected area till the extent of the Eco-sensitive Zone, the establishment of new hotels and resorts shall be allowed only in pre-defined and designated areas for eco-tourism facilities as per Tourism Master Plan;

- (ii) all new tourism activities or expansion of existing tourism activities within the Eco-sensitive Zone shall be in accordance with the guidelines issued by the Central Government in the Ministry of

Environment, Forest and Climate Change and the eco-tourism guidelines issued by National Tiger Conservation Authority (as amended from time to time) with emphasis on eco-tourism, eco-education and eco-development;

- (iii) until the Zonal Master Plan is approved, development for tourism and expansion of existing tourism activities shall be permitted by the concerned regulatory authorities based on the actual site specific scrutiny and recommendation of the Monitoring Committee and no new hotel, resort or commercial establishment construction shall be permitted within Eco-sensitive Zone area.
- (4) **Natural heritage.**- All sites of valuable natural heritage in the Eco-sensitive Zone, such as the gene pool reserve areas, rock formations, waterfalls, springs, gorges, groves, caves, points, walks, rides, cliffs, etc. shall be identified and a heritage conservation plan shall be drawn up for their preservation and conservation as a part of the Zonal Master Plan.
- (5) **Man-made heritage sites.**- Buildings, structures, artefacts, areas and precincts of historical, architectural, aesthetic, and cultural significance shall be identified in the Eco-sensitive Zone and heritage conservation plan for their conservation shall be prepared as part of the Zonal Master Plan.
- (6) **Noise pollution.** - Prevention and control of noise pollution in the Eco-sensitive Zone shall be carried out in accordance with the provisions of the Noise Pollution (Regulation and Control) Rules, 2000 under the Environment Act.
- (7) **Air pollution.**- Prevention and control of air pollution in the Eco-sensitive Zone shall be carried out in accordance with the provisions of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and the rules made thereunder.
- (8) **Discharge of effluents.**- Discharge of treated effluent in Eco-sensitive Zone shall be in accordance with the provisions of the General Standards for Discharge of Environmental Pollutants covered under the Environment Act and the rules made thereunder or standards stipulated by the State Government, whichever is more stringent.
- (9) **Solid wastes.**- Disposal and Management of solid wastes shall be as under:-
- (a) the solid wastes disposal and management in the Eco-sensitive Zone shall be carried out in accordance with the Solid Waste Management Rules, 2016, published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number S.O. 1357 (E), dated the 8<sup>th</sup> April, 2016; the inorganic material may be disposed in an environmental acceptable manner at site identified outside the Eco-sensitive Zone;
- (b) safe and Environmentally Sound Management of Solid wastes in conformity with the existing rules and regulations using identified technologies may be allowed within Eco-sensitive Zone.
- (10) **Bio-Medical Wastes.**- Bio-Medical Wastes Management shall be as under:-
- (a) the Bio-Medical Wastes disposal in the Eco-sensitive Zone shall be carried out in accordance with the Bio-Medical Waste Management Rules, 2016, published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R. 343 (E), dated the 28<sup>th</sup> March, 2016.
- (b) safe and Environmentally Sound Management of Bio-Medical Wastes in conformity with the existing rules and regulations using identified technologies may be allowed within the Eco-sensitive Zone.
- (11) **Plastic wastes management.**- The plastic wastes management in the Eco-sensitive Zone shall be carried out as per the provisions of the Plastic Wastes Management Rules, 2016, published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R. 340(E), dated the 18<sup>th</sup> March, 2016, as amended from time to time.
- (12) **Construction and demolition wastes management.**- The construction and demolition wastes management in the Eco-sensitive Zone shall be carried out as per the provisions of the Construction and Demolition Wastes Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R. 317(E), dated the 29<sup>th</sup> March, 2016, as amended from time to time.

- (13) **E-wastes.**— The e - wastes management in the Eco-sensitive Zone shall be carried out as per the provisions of the E-Wastes Management Rules, 2016, published by the Government of India in the Ministry of Environment, Forest and Climate Change, as amended from time to time.
- (14) **Vehicular traffic.**— The vehicular movement of traffic shall be regulated in a habitat friendly manner and specific provisions in this regard shall be incorporated in the Zonal Master Plan and till such time as the Zonal Master plan is prepared and approved by the competent authority in the State Government, the Monitoring Committee shall monitor compliance of vehicular movement under the relevant Acts and the rules and regulations made thereunder.
- (15) **Vehicular pollution.**— Prevention and control of vehicular pollution shall be in compliance with applicable laws and efforts shall be made for use of cleaner fuels.
- (16) **Industrial units.**— (a) On or after the publication of this notification in the Official Gazette, no new polluting industries shall be permitted to be set up within the Eco-sensitive Zone.
- (b) Only non-polluting industries shall be allowed within the Eco-sensitive Zone as per the classification of Industries in the guidelines issued by the Central Pollution Control Board in February, 2016, as amended from time to time, unless so specified in this notification, and in addition, the non-polluting cottage industries shall be promoted.
- (17) **Protection of hill slopes.**— The protection of hill slopes shall be as under:-
- (a) the Zonal Master Plan shall indicate areas on hill slopes where no construction shall be permitted;
- (b) construction on existing steep hill slopes or slopes with a high degree of erosion shall not be permitted.
4. **List of activities prohibited or to be regulated within Eco-sensitive Zone.**— All activities in the Eco-sensitive Zone shall be governed by the provisions of the Environment Act and the rules made there under including the Coastal Regulation Zone, 2011 and the Environmental Impact Assessment Notification, 2006 and other applicable laws including the Forest (Conservation) Act, 1980 (69 of 1980), the Indian Forest Act, 1927 (16 of 1927), the Wildlife (Protection) Act, 1972 (53 of 1972), and amendments made thereto and be regulated in the manner specified in the Table below, namely:-

TABLE

S. No. (1)	Activity (2)	Description (3)
<b>A. Prohibited Activities</b>		
1.	Commercial mining, stone quarrying and crushing units.	(a) All new and existing mining (minor and major minerals), stone quarrying and crushing units shall be prohibited with immediate effect except for meeting the domestic needs of bona fide local residents including digging of earth for construction or repair of houses within the Eco-sensitive Zone;  (b) The mining operations shall be carried out in accordance with the order of the Hon'ble Supreme Court dated the 4 <sup>th</sup> August, 2006 in the matter of T.N. Godavarman Thirumulpad Vs. UOI in W.P.(C) No.202 of 1995 and dated the 21 <sup>st</sup> April, 2014 in the matter of Goa Foundation Vs. UOI in W.P.(C) No.435 of 2012.
2.	Setting of industries causing pollution (Water, Air, Soil, Noise, etc.).	New industries and expansion of existing polluting industries in the Eco-sensitive Zone shall not be permitted:  Provided that non-polluting industries shall be allowed within Eco-sensitive Zone as per the classification of the Industries in the guidelines issued by the Central Pollution Control Board in February, 2016, as amended from time to time, unless so specified in this notification and in addition the non-polluting cottage industries shall be promoted.
3.	Establishment of major hydro-electric	Prohibited.

S. No. (1)	Activity (2)	Description (3)
	project.	
4.	Use or production or processing of any hazardous substances.	Prohibited.
5.	Discharge of untreated effluents in natural water bodies or land area.	Prohibited.
6.	Setting up of new saw mills.	New or expansion of existing saw mills shall not be permitted within the Eco-sensitive Zone.
7.	Setting up of brick kilns.	Prohibited.
<b>B. Regulated Activities</b>		
8.	Commercial establishment of hotels and resorts.	No new commercial hotels and resorts shall be permitted within one kilometer of the boundary of the protected area or upto the extent of Eco-sensitive Zone, whichever is nearer, except for small temporary structures for eco-tourism activities:  Provided that, beyond one kilometer from the boundary of the protected area or upto the extent of Eco-sensitive Zone, whichever is nearer, all new tourist activities or expansion of existing activities shall be in conformity with the Tourism Master Plan and guidelines as applicable.
9.	Construction activities.	(a) New commercial construction of any kind shall not be permitted within one kilometer from the boundary of the protected area or upto extent of the Eco-sensitive Zone, whichever is nearer:  Provided that, local people shall be permitted to undertake construction in their land for their use including the activities mentioned in sub-paragraph (1) of paragraph 3 as per building bye-laws to meet the residential needs of the local residents:  Provided further that the construction activity related to small scale industries not causing pollution shall be regulated and kept at the minimum, with the prior permission from the competent authority as per applicable rules and regulations, if any.  (b) Beyond one kilometer it shall be regulated as per the Zonal Master Plan.
10.	Small scale non polluting industries.	Non polluting industries as per the classification of industries issued by the Central Pollution Control Board in February, 2016 as amended from time to time, and non-hazardous, small-scale and service industry, agriculture, floriculture, horticulture or agro-based industry producing products from indigenous materials from the Eco-sensitive Zone shall be permitted by the competent Authority.
11.	Felling of trees.	(a) There shall be no felling of trees in the forest or Government or revenue or private lands without prior permission of the competent authority in the State Government.  (b) The felling of trees shall be regulated in accordance with the provisions of the concerned Central or State Act and the rules made thereunder.
12.	Collection of Forest produce or Non-	Regulated as per the applicable laws.

S. No. (1)	Activity (2)	Description (3)
	Timber Forest produce.	
13.	Erection of electrical and communication towers and laying of cables and other infrastructures.	Regulated under applicable laws (underground cabling may be promoted).
14.	Infrastructure including civic amenities.	Taking measures of mitigation as per the applicable laws, rules, regulations and available guidelines.
15.	Widening and strengthening of existing roads and construction of new roads.	Taking measures of mitigation as per the applicable laws, rules and regulation and available guidelines.
16.	Undertaking other activities related to tourism like flying over the Eco-sensitive Zone area by hot air balloon, helicopter, drones, microlites, etc.	Regulated as per the applicable laws.
17.	Protection of hill slopes and river banks.	Regulated as per the applicable laws.
18.	Movement of vehicular traffic at night.	Regulated for commercial purpose under applicable laws.
19.	Ongoing agriculture and horticulture practices by local communities along with dairies, dairy farming, aquaculture and fisheries.	Permitted as per the applicable laws for use of locals.
20.	Establishment of large-scale commercial livestock and poultry farms by firms, corporate and companies.	Regulated (except otherwise provided) as per the applicable laws except for meeting local needs.
21.	Discharge of treated waste water or effluents in natural water bodies or land area.	The discharge of treated waste water or effluents shall be avoided to enter into the water bodies and efforts shall be made for recycle and reuse of treated waste water. Otherwise the discharge of treated waste water or effluent shall be regulated as per the applicable laws.
22.	Commercial extraction of surface and ground water.	Regulated as per the applicable laws.
23.	Solid waste management.	Regulated as per the applicable laws.
24.	Introduction of exotic species.	Regulated as per the applicable laws.
25.	Eco-tourism.	Regulated as per the applicable laws.
26.	Use of polythene bags.	Regulated as per the applicable laws.
27.	Commercial sign boards and hoardings.	Regulated as per the applicable laws.
<b>C. Promoted Activities</b>		
28.	Rain water harvesting.	Shall be actively promoted.
29.	Organic farming.	Shall be actively promoted.
30.	Adoption of green technology for all activities.	Shall be actively promoted.
31.	Cottage industries including village artisans, etc.	Shall be actively promoted.
32.	Use of renewable energy and fuels.	Bio-gas, solar light, etc. shall be actively promoted.
33.	Agro-Forestry.	Shall be actively promoted.
34.	Plantation of Horticulture and Herbals.	Shall be actively promoted.
35.	Use of eco-friendly transport.	Shall be actively promoted.

S. No. (1)	Activity (2)	Description (3)
36.	Skill Development.	Shall be actively promoted.
37.	Restoration of degraded land or forests or habitat.	Shall be actively promoted.
38.	Environmental awareness.	Shall be actively promoted.

**5. Monitoring Committee for Monitoring the Eco-sensitive Zone Notification.-** For effective monitoring of the provisions of this notification under sub-section (3) of section 3 of the Environment Act, the Central Government hereby constitutes a Monitoring Committee, comprising of the following, namely:-

Sl. No.	Constituent of the Monitoring Committee	Designation
(i)	Concerned District Collector, Bishalgarh	Chairman, ex officio;
(ii)	An Ecologist in the field to be nominated by State Government	Member;
(iii)	A representative of Animal Resource Development Department Bishalgarh	Member;
(iv)	A representative of Non-government Organisation working in the field of wildlife conservation to be nominated by State Government	Member;
(v)	An expert in Biodiversity nominated by the State Government	Member;
(vi)	A representative from State Public Works Department	Member;
(vii)	A representative from State Pollution Control Board	Member;
(viii)	Wildlife Warden, Sepahijala Wildlife Sanctuary	Member-Secretary.

**6. Terms of reference.** – (1) The Monitoring Committee shall monitor the compliance of the provisions of this notification.

- (2) The tenure of the Monitoring committee shall be till further orders, provided that the non-official members of the Committee shall be nominated by the State Government from time to time.
- (3) The activities that are covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forests number, S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006, and are falling in the Eco-sensitive Zone, except for the prohibited activities as specified in the Table under paragraph 4 thereof, shall be scrutinised by the Monitoring Committee based on the actual site-specific conditions and referred to the Central Government in the Ministry of Environment, Forest and Climate Change for prior environmental clearances under the provisions of the said notification.
- (4) The activities that are not covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006 and are falling in the Eco-sensitive Zone, except for the prohibited activities as specified in the Table under paragraph 4 thereof, shall be scrutinised by the Monitoring Committee based on the actual site-specific conditions and referred to the concerned regulatory authorities.
- (5) The Member-Secretary of the Monitoring Committee or the concerned Deputy Commissioner(s) shall be competent to file complaints under section 19 of the Environment Act, against any person who contravenes the provisions of this notification.
- (6) The Monitoring Committee may invite representatives or experts from concerned Departments, representatives from industry associations or concerned stakeholders to assist in its deliberations depending on the requirements on issue to issue basis.
- (7) The Monitoring Committee shall submit the annual action taken report of its activities as on the 31<sup>st</sup> March of every year by the 30<sup>th</sup> June of that year to the Chief Wildlife Warden in the State as per proforma appended at Annexure V.

- (8) The Central Government in the Ministry of Environment, Forest and Climate Change may give such directions, as it deems fit, to the Monitoring Committee for effective discharge of its functions.

**7. Additional measures.-** The Central Government and State Government may specify additional measures, if any, for giving effect to provisions of this notification.

**8. Supreme Court, etc. orders.-** The provisions of this notification shall be subject to the orders, if any, passed or to be passed by the Hon'ble Supreme Court of India or High Court or the National Green Tribunal.

[F. No. 25/37/2018-ESZ]

Dr. SATISH C. GARKOTI, Scientist 'G'

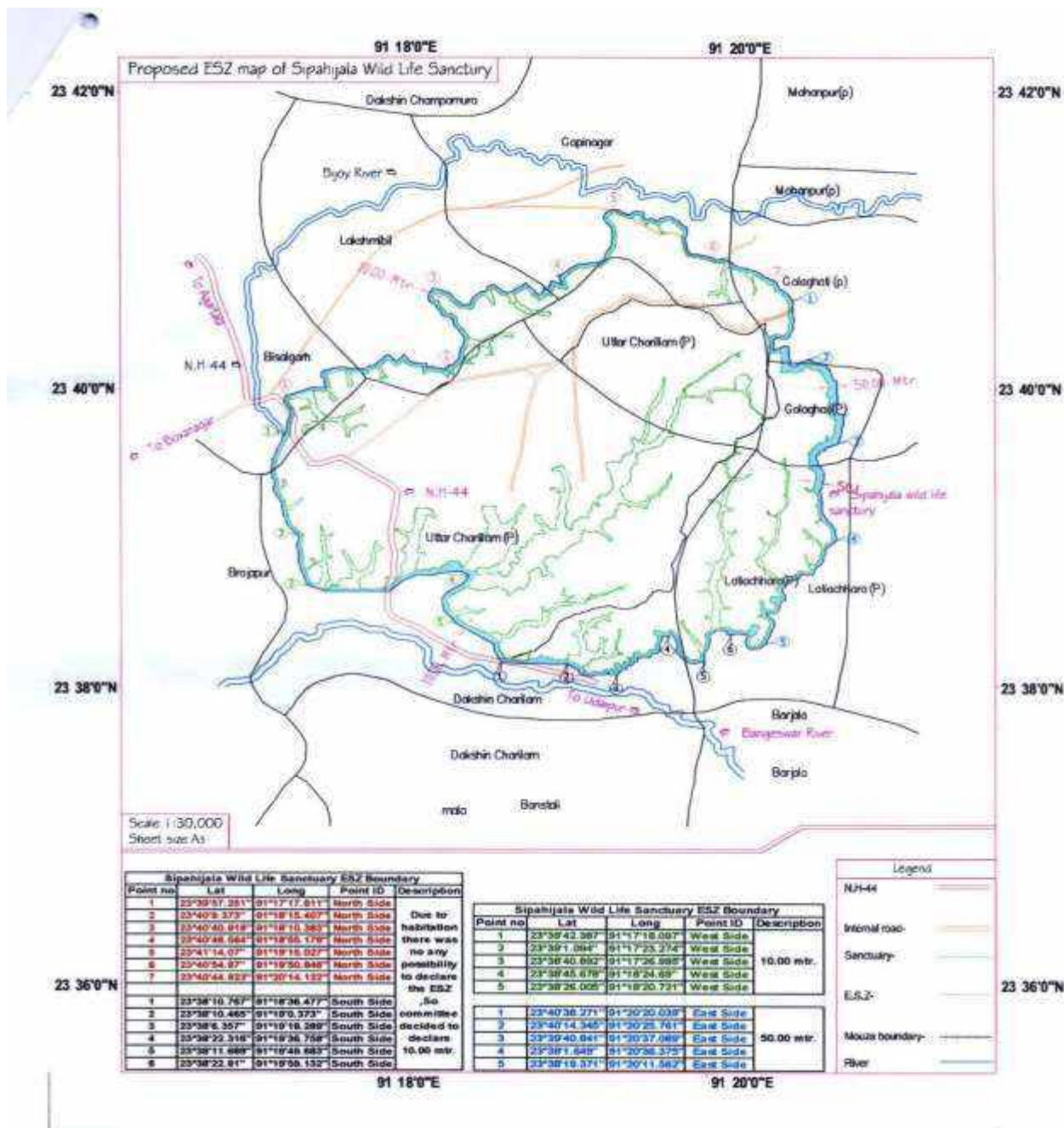
#### ANNEXURE- I

#### BOUNDARY DESCRIPTION OF SEPAHIJALA WILDLIFE SANCTUARY - CLOUDED LEOPARD NATIONAL PARK AND ITS ECO-SENSITIVE ZONE IN THE STATE TRIPURA

<b>North</b>	Northern side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park falls under Gopinagar mouja and under Chandra nagar and Kasba Gao Panchayat. River Bijoy flows in the northern side which has been 'shown in the Map of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park. Population in Northern side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park are densely populated. Here it is kept <b>10 meters</b> from sanctuary boundary for proposed Eco-sensitive Zone.
<b>North Western Boundary</b>	North Western side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park falls under Bishalgarh Nagar Panchayat and Routkhalagao panchayat. Population in North western side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park is highly dense populated. Here it is kept <b>10 meters</b> from sanctuary boundary for proposed Eco-sensitive Zone. The area is falls under Bishalgarh Mouja.
<b>Western boundary</b>	Western side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park falls under Brajapur and part of North Charilam Gao Panchayat. Population in Western side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park is densely populated. Here it is kept <b>10 meters</b> from sanctuary boundary for proposed Eco-sensitive Zone. The area is falls under Brajapur and part of North Chari lam mouja. Railway track has been laid which is about 500meters from the nearest western boundary of Sepahijala Wildlife Sanctuary - Clouded leopard National Park.
<b>Southern boundary</b>	Southern side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park falls under Latiacherra, and Chickan ADC village and North Charilam Gram Panchayat and Latiacherra mouja and North Charilam mouja. Population in Southern side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park is densely populated. Here it is kept <b>10 meters</b> from sanctuary boundary for proposed Eco-sensitive Zone. There is a market called chari lam bazaar which is about 100 meters from the nearest Protected Areas boundary.
<b>Eastern boundary</b>	Eastern side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park falls under part of Golagaghathi and part of Latiacherramouja and under Latiacherra and Chickan ADC village. Population in Eastern side of proposed Eco-sensitive Zone of Sepahijala Wildlife Sanctuary - Clouded leopard National Park are sparsely populated. Here it is kept <b>50 meters</b> from Sanctuary boundary for proposed Eco-sensitive Zone.

ANNEXURE- IIA

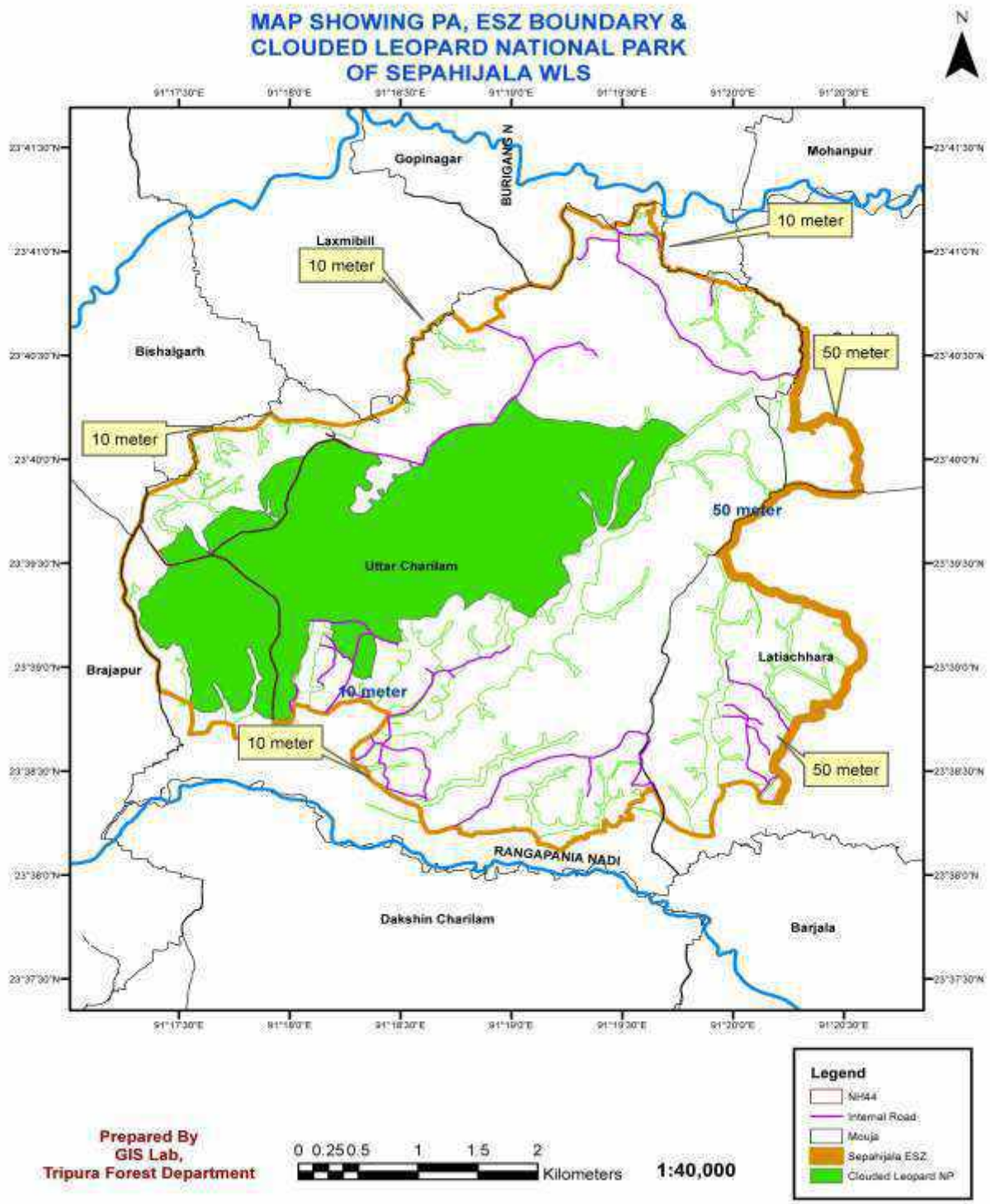
MAP OF SEPAHIJALA WILDLIFE SANCTUARY - CLOUDED LEOPARD NATIONAL PARK AND ITS ECO-SENSITIVE ZONE ALONG WITH LATITUDE AND LONGITUDE OF PROMINENT LOCATIONS



Wildlife Warden,  
Sepahijala Wildlife Sanctuary

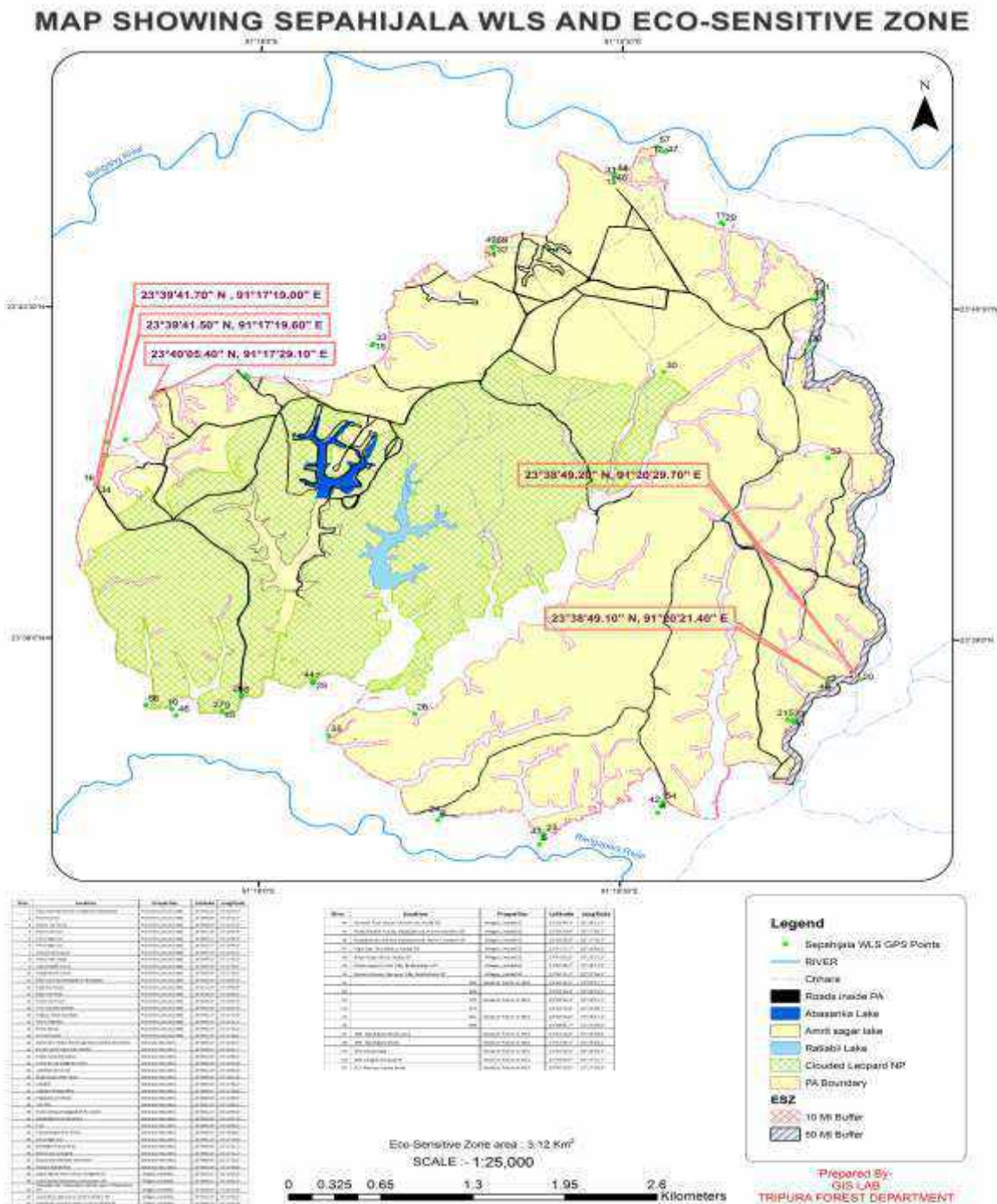
ANNEXURE- IIB

MAP OF ECO-SENSITIVE ZONE OF SEPAHIJALA WILDLIFE SANCTUARY - CLOUDED LEOPARD NATIONAL PARK ALONG WITH LATITUDE AND LONGITUDE OF PROMINENT LOCATIONS



ANNEXURE- IIC

MAP OF ECO-SENSITIVE ZONE OF SEPAHIJALA WILDLIFE SANCTUARY - CLOUDED LEOPARD NATIONAL PARK ALONG WITH LATITUDE AND LONGITUDE OF PROMINENT LOCATIONS



ANNEXURE-III

TABLE A: GEO- COORDINATES OF PROMINENT LOCATIONS OF SEPAHIJALA WILDLIFE SANCTUARY - CLOUDED LEOPARD NATIONAL PARK MARKED ON MAP

SI No	Random Points in Wildlife Sanctuary Boundary	GPS Reading
1.	Bricks soling Road (Golaghati Road)	N 23.40-32.5' E 091.20-17.7'
2.	Dukhi Ram Thakur Para Anganwary Kendra, Cikanchera	N 23.38-49.2'

		E 091.20-29.7'
3.	Muslim para Anganwary Kendra	N 23.38-38.2' E 091.20-11.7'
4.	Fakira mura S/B School	N 23.38-15.6' E 091.19-40.7'
5.	Pump House Golaghati Koloni	N 23.38-06.9' E 091.19-11.0'
6.	Charilam XII School	N 23.38-11.9' E 091.18-45.5'
7.	Ekbal House Uttar mura	N 23.38-48.5' E 091.18-13.6'
8.	Jurkabar	N 23.38-44.4' E 091.17-55.7'
9.	Charilam Range Office	N 23.38-40.1' E 091.17-50.8'
10.	Hapajiamura Masjid	N 23.38-39.6' E 091.18-38.7'
11.	Tall Tree	N 23.40-52.9' E 091.19-55.1'
12.	Bricks Soling, Brajagopal Sinha, Kasba	N 23.40-12.7' E 091.19-40.5'
13.	Dhajanagar, 4 no Sanctuary	N 23.41-05.8' E 091.19-27.9'
14.	Post	N 23.40-46.6' E 091.18-58.1'
15.	Chandranagar Pump House	N 23.40-20.1' E 091.18-28.1'
16.	NH44	N 23.39-41.5' E 091.17-19.6'
17.	Bishalgarh Forest Drop	N 23.39-49.6' E 091.17-21.7'
18.	Electric Post, jangalia	N 23.39-53.3' E 091.17-21.7'
19.	Electric Post Narayan Das's House	N 23.40-05.4' E 091.17-29.1'
20.	Norayra Kabarkhala	N 23.40-10.9' E 091.17-56.9'

**TABLE B: ADDITIONAL GEO- COORDINATES OF PROMINENT LOCATIONS OF SEPAHIJALA WILDLIFE SANCTUARY - CLOUDED LEOPARD NATIONAL PARK**

Sanctuary Boundary	
Name of Prominent Features	GPS Reading
Bricks soling Road (Golaghati Road)	N 23.40-32.5' E 091.20-17.7'
Dukhi Ram Thakur Para Anganwary Kendra, Cikanchera	N 23.38-49.2' E 091.20-29.7'
Muslim para Anganwary Kendra	N 23.38-38.2' E 091.20-11.7'
Fakira mura S/B School	N 23.38-15.6' E 091.19-40.7'
Pump House Golaghati Koloni	N 23.38-06.9' E 091.19-11.0'
Charilam XII School	N 23.38-11.9' E 091.18-45.5'
Ekbal House Uttar mura	N 23.38-48.5' E 091.18-13.6'

Jurkabar	N 23.38-44.4' E 091.17-55.7'
Charilam Range Office	N 23.38-40.1' E 091.17-50.8'
Hapajiamura Masjid	N-23.38-39.6' E 091.18-38.7'

**TABLE C: GEO-COORDINATES OF PROMINENT LOCATIONS OF ECO-SENSITIVE ZONE**

<b>Eco-sensitive Zone Boundary</b>		
<b>SL No</b>	<b>Name of Prominent features</b>	<b>GPS Reading</b>
1.	Black Top Road- (South Golaghati to Sepahijala)	N 23.40-34.0' E 091.20-19.9'
2.	Electric Post	N 23.38-48.8' E 091.20-21.7'
3.	Mantu Mia's House	N 23.38-38.0' E 091.20-13.9'
4.	Electric Post (2)	N 23.38-12.8' E 091.19-39.4'
5.	44 no High way	N 23.38-04.1' E 091.19-09.9'
6.	44 no High way	N 23.38-10.7' E 091.18-44.6'
7.	Santush Paul House	N 23.38-47.9' E 091.18-13.2'
8.	Manu Fakir Darga	N 23.38-44.2' E 091.17-55.5'
9.	Abdul Khalek House	N 23.38-39.9' E 091.17-50.7'
10.	Hapajiamura School	N 23.38-38.9' E 091.17-39.3'
11.	Black Top Road Golaghati to Bishalgarh	N 23.40-53.5' E 091.19-54.6'
12.	Kajal Das House	N 23.41-12.8' E 091.19-40.9'
13.	Black Top Road	N 23.41-06.3' E 091.19-28.1'
14.	Rosid mia House	N 23.40-46.5' E 091.18-57.6'
15.	Pump Operator, Quarter	N 23.40-19.8' E 091.18-27.8'
16.	Brajapur black top Road	N 23.39-41.7' E 091.17-19.0'
17.	NH-44	N 23.39-49.7' E 091.17-21.2'
18.	Brick Soling	N 23.39-53.9' E 091.17-26.5'
19.	Black Top Road, Jangalia Kalani	N 23.40-05.5' E 091.17-28.8'
20.	Nur Mia's House	N 23.40-11.4' E 091.17-56.2'

## ANNEXURE IV

**LIST OF VILLAGES COMING UNDER ECO-SENSITIVE ZONE OF SEPAHIJALA WILDLIFE  
SANCTUARY - CLOUDED LEOPARD NATIONAL PARK ALONG WITH GEO-COORDINATES**

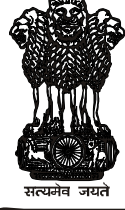
SL No	Name of Villages (Inside Eco-sensitive Zone)	GPS Reading
1.	Babul Marak, Garo Colony, Golaghati - GP	N 23.40-20.1' E 091.20-16.6'
2.	Rabindra Debbarma, Ram Krishna Para, Latiacherra - GP	N 23.39-37.0' E 091.20-09.5'
3.	Kula Chandra Debbarma, Chikanchera - GP	N 23.38-49.1' E 091.20-21.4'
4.	Nuralalai Mia, Chikanchera, Muslim Para, Chikanchera - GP	N 23.38-38.0' E 091.20-12.8'
5.	Joynal Mia, Fakiramura, North Charilam - GP	N 23.38-14.6' E 091-19-40.2'
6.	Haralal Kar, Goutam Kalani, North Charilam -GP	N 23.38-05.9' E 091.19-10.8'
7.	Santosh Paul House, Uttarmura, Aralia - GP	N 23.38-48.3' E 091.18-13.3'
8.	Abdul Khalak House, Hapajiamura, North Charilam - GP	N 23.38-39.9' E 091.17-50.7'
9.	Hapajiamura School, Hapajiamura, North Charilam - GP	N 23.38-38.9' E 091.17-39.3'
10.	Kajal Das, Ghoshpara, Kasba - GP	N 23.41-12.7' E 091.19-40.6'
11.	Braja Gopa Sinha, Kasba - GP	N 23.41-05.8' E 091.19-27.9'
12.	Dhaja Nagar, Purbo Tilla, Baidyardighi - GP	N 23.40.46.7' E 091.18-57.9'
13.	Nurmia House, Naraura Tilla, Rauthkhola - GP	N 23.40-11.4' E 091.17-56.2'

## ANNEXURE –V

**Performa of Action Taken Report: Eco-sensitive Zone Monitoring Committee**

1. Number and date of meetings.
2. Minutes of the meetings: (mention noteworthy points. Attach minutes of the meeting as separate Annexure).
3. Status of preparation of Zonal Master Plan including Tourism Master Plan.
4. Summary of cases dealt with rectification of error apparent on face of land record (Eco-sensitive Zone wise). Details may be attached as Annexure.

5. Summary of cases scrutinised for activities covered under the Environment Impact Assessment Notification, 2006 (Details may be attached as separate Annexure).
6. Summary of cases scrutinised for activities not covered under the Environment Impact Assessment Notification, 2006 (Details may be attached as separate Annexure).
7. Summary of complaints lodged under section 19 of the Environment (Protection) Act, 1986.
8. Any other matter of importance.



# भारत का राजपत्र The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

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## पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

### अधिसूचना

नई दिल्ली, 8 नवम्बर, 2019

**का०आ० 4077(अ).**—प्रारूप अधिसूचना भारत के राजपत्र, असाधारण में भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन, मंत्रालय की अधिसूचना सं. का.आ. 4776(अ), तारीख 10 सितम्बर, 2018, द्वारा प्रकाशित की गई थी जिसमें ऐसे सभी व्यक्तियों से, जिनकी उससे प्रभावित होने की संभावना थी, उस तारीख से, जिसको उक्त अधिसूचना को अन्तर्विष्ट करने वाले राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थीं, साठ दिन की अवधि के भीतर आक्षेप और सुझाव आमंत्रित किए गए थे;

**और,** उक्त प्रारूप अधिसूचना को अन्तर्विष्ट करने वाले राजपत्र की प्रतियां जनता को तारीख 11 सितम्बर, 2018 को उपलब्ध करा दी गई थी;

**और,** प्रारूप अधिसूचना के उत्तर में व्यक्तियों और पणधारियों से कोई भी आक्षेप और सुझाव प्राप्त नहीं हुए;

**और,** तृष्णा वन्यजीव अभयारण्य को 194.708 वर्ग किलोमीटर क्षेत्र के साथ त्रिपुरा सरकार की राजपत्र अधिसूचना सं.एफ.8 (58/1)एफ ओ आर-डब्ल्यूएल/88/ वीओएल II/39253, द्वारा तारीख 18 नवम्बर, 1988 को घोषित किया गया। अभयारण्य को भू-सर्वेक्षण भूखंडों के संदर्भ में और न कि बाहरी सीमाओं के संदर्भ में अधिसूचित किया गया था। कोर जोन में अभयारण्य में उपलब्ध सबसे अच्छा वन है और यह विशेष रूप से वन्यजीवों के लिए है और लोगों की आवश्यकताओं को पूरा करने के लिए नहीं है। कोर जोन का कुल क्षेत्रफल लगभग 50 वर्ग किलोमीटर होगा जिसमें से 31.63 वर्ग किलोमीटर क्षेत्र को बिसोन राष्ट्रीय उद्यान के रूप में सं.एफ.8 (196)/ एफओआर-डब्ल्यूएल/204/एनपी/वी-2/5503, तारीख 9 जून, 2009 द्वारा अधिसूचित किया गया जिसका एकमात्र उद्देश्य क्रियाकलापों को नियंत्रित करना और संरक्षित क्षेत्र में भंगुर पारिस्थितिकी प्रणाली पर ऐसे क्रियाकलापों के नकारात्मक प्रभाव को कम करना है;

**और**, अभयारण्य के चारों ओर जोन को शामिल करना उचित होगा जिसमें वनस्पति और जीवजंतु विविधता विद्यमान है और यह भी स्पष्ट है कि अभयारण्य के तीनों तरफ से भारत-बांग्लादेश सीमा से घिरा हुआ है और अभयारण्य के समीप विद्यमान वास है;

**और**, तृष्णा वन्यजीव अभयारण्य में वनस्पति और जीवजंतु जैव-विविधता की समृद्धि के कारण इसका रूपात्मक महत्व है। इस क्षेत्र में प्रमुख प्रजातियों की एक जीवक्षम संख्या है, जैसे गौर, प्राइमेट्स लाइक, हुल्लाक गिबबन, स्पेक्टेकल बंदर कुल छह प्रजातियों में शानदार बंदर, बड़ी संख्या में जीवजंतु, जो अभयारण्य के उच्च वर्षा वन पारिस्थितिकी तंत्र के भाग से हैं और आमतौर पर स्थानीय रूप से या राज्य या देश के स्तर पर लुप्तप्राय होते हैं। अभयारण्य के पारिस्थितिकी कार्य में लाभप्रद मृदा और जल व्यवस्था को बनाए रखने में भी शामिल किया है, जिससे इस क्षेत्र में कृषि और मत्स्य पालन आदि में अधिकतम उत्पादन सुनिश्चित किया जा सकेगा। क्षेत्र में पारिस्थितिकी पर्यटन को बढ़ावा देने के लिए उच्च क्षमता है;

**और**, अभयारण्य में जंगली भैंसों की संख्या की अच्छी संख्या है और यह राज्य में इस तरह की संख्या वाला एकमात्र अभयारण्य है। इसके अलावा, यह अभयारण्य अनुसूचित प्रजातियों से संबंधित छः प्राइमेट प्रजातियों को भी आश्रय प्रदान करता है। अभयारण्य सरीसृपों की अन्य महत्वपूर्ण प्रजातियों की संख्या को पूरा करता है और यह प्रवासी पक्षियों के लिए भी अद्वितीय स्थान है। त्रिपुरा विश्वविद्यालय के वनस्पति-विज्ञान विभाग द्वारा वनस्पति की खोज में एक शोध किया गया था और इसके निष्कर्षों के अनुसार यहां 400 प्रजातियों हैं। इनमें से 160 प्रजातियों का उपयोग औषधीय रूप में किया जाता है, 140 प्रजातियों का उपयोग इमारती लकड़ी के लिए किया जाता है, 30 प्रजातियों का उपयोग टैनिन और डाई उपज के रूप में, 20 प्रजातियों का फल के लिए, 17 प्रजातियों का सजावटी और हैं, 15 प्रजातियों का उपयोग चारे के रूप में किया जाता है, 10 प्रजातियां मसालेदार और मसालों के लिए हैं, तृष्णा वन्यजीव अभयारण्य भी एक दुर्लभ *जिमिनोस्पर्म*, *जनेरम मोनाटेनस* को सम्पोषित करता है;

**और**, वन्यजीव की गणना वर्ष 2010 में 18 से 20 फरवरी के दौरान की गई थी। कुल 86 मुख्य प्रजातियों की संख्या अभिलिखित की गई है जिसमें मुंजक, मलिन तेंदुआ, बनबिलार, पिगेटेड लंगूर, स्पेक्ट्रल बंदर, लजीला वानर, क्रैब ईटिंग नेवला, सांप ईगल, कठफोड़वा, जंगली मैना, रेड वेंट बुलबुल, स्पेक्ट्रल कोबरा, ग्रे बगुला, ग्रेट बगुला, फेयरी ब्लू बर्ड आदि शामिल हैं;

**और**, तृष्णा वन्यजीव अभयारण्य के चारों ओर के क्षेत्र को, जिसका विस्तार और सीमाएं पारिस्थितिकी पर्यावरणीय से पारिस्थितिकी संवेदी जोन के रूप में पैरा 1 में विनिर्दिष्ट हैं, जैव विविधता की दृष्टि सुरक्षित और संरक्षित करना और उक्त पारिस्थितिकी संवेदी जोन में उद्योगों या उद्योगों के वर्गों के प्रचालन और प्रसंस्करण करने को प्रतिषिद्ध करना आवश्यक है;

**अतः**, अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) (जिसे इसके पश्चात् इस अधिसूचना में पर्यावरण अधिनियम कहा गया है) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) और खंड (xiv) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, त्रिपुरा राज्य के दक्षिण त्रिपुरा जिला में तृष्णा वन्यजीव अभयारण्य की सीमा के चारों ओर 0 (शून्य) से 500 मीटर तक विस्तारित क्षेत्र को पारिस्थितिकी संवेदी जोन (जिसे इसके पश्चात् इस अधिसूचना में पारिस्थितिकी संवेदी जोन कहा गया है), के रूप में अधिसूचित करती है, जिसके विवरण निम्नानुसार है, अर्थात् :-

**1. पारिस्थितिकी संवेदी जोन का विस्तार और उसकी सीमाएं.**-(1) पारिस्थितिकी संवेदी जोन का विस्तार तृष्णा वन्यजीव अभयारण्य की सीमा के चारों ओर 0 (शून्य) से 500 मीटर तक फैला हुआ है और पारिस्थितिकी संवेदी जोन का क्षेत्रफल 91.83 वर्ग किलोमीटर है। (इंडो-बांग्लादेश अंतर्राष्ट्रीय सीमा के कारण पारिस्थितिकी संवेदी जोन का विस्तार शून्य है)।

(2) तृष्णा वन्यजीव अभयारण्य तथा इसके पारिस्थितिकी संवेदी जोन की सीमा का विवरण **उपाबंध I** के रूप में उपाबद्ध है।

(3) सीमा विवरण और अक्षांश और देशांतर के साथ पारिस्थितिकी संवेदी जोन के तृष्णा वन्यजीव अभयारण्य के मानचित्र **उपाबंध-III** और **उपाबंध-III** के रूप में उपाबद्ध है।

(4) पारिस्थितिकी संवेदी जोन और तृष्णा वन्यजीव अभयारण्य की सीमा के भू-निर्देशांकों की सूची **उपाबंध III** की सारणी **क** और सारणी **ख** में दी गई है।

(5) मुख्य बिंदुओं के भू-निर्देशांकों के साथ पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाले ग्रामों की सूची **उपाबंध IV** के रूप में उपाबद्ध है।

**2. पारिस्थितिकी संवेदी जोन के लिए आंचलिक महायोजना-** (1) राज्य सरकार, पारिस्थितिकी संवेदी जोन के प्रयोजनों के लिए राजपत्र में इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष की अवधि के भीतर, स्थानीय व्यक्तियों के परामर्श से और राज्य के सक्षम प्राधिकारी के अनुमोदन के लिए इस अधिसूचना में दिए गए अनुबंधों का पालन करते हुए आंचलिक महायोजना तैयार करेगी।

(2) राज्य सरकार द्वारा पारिस्थितिकी संवेदी जोन के लिए आंचलिक महायोजना ऐसी रीति से जो इस अधिसूचना में विनिर्दिष्ट किए गए हैं के अनुसार तथा सुसंगत केंद्रीय और राज्य विधियों के अनुरूप और केंद्रीय सरकार द्वारा जारी मार्गनिर्देशों, यदि कोई हों, द्वारा तैयार होगी।

(3) आंचलिक महायोजना, उक्त योजना में पारिस्थितिकी और पर्यावरणीय बातों को समाकलित करने के लिए राज्य सरकार के निम्नलिखित विभागों के परामर्श से तैयार होगी, अर्थात्:-

- (i) पर्यावरण;
- (ii) वन और वन्यजीव;
- (iii) कृषि;
- (iv) राजस्व;
- (v) नगर विकास;
- (vi) पर्यटन;
- (vii) ग्रामीण विकास;
- (viii) सिंचाई और बाढ़ नियंत्रण;
- (ix) नगरपालिका;
- (x) पंचायती राज;
- (xi) लोक निर्माण विभाग;
- (xii) राजमार्ग; और
- (xiii) त्रिपुरा राज्य प्रदूषण नियंत्रण बोर्ड।

(4) आंचलिक महायोजना अनुमोदित विद्यमान भू-उपयोग, अवसंरचना और क्रियाकलापों पर कोई निर्वंधन अधिरोपित नहीं करेगी जब तक कि इस अधिसूचना में इस प्रकार विनिर्दिष्ट न हो और आंचलिक महायोजना सभी अवसंरचना और क्रियाकलापों में जो अधिक दक्षता और पारिस्थितिकी अनुकूल हों का संवर्धन करेगी।

(5) आंचलिक महायोजना में अनाच्छादित क्षेत्रों के जीर्णोद्धार, विद्यमान जल निकायों के संरक्षण, आवाह क्षेत्रों के प्रबंधन, जल-संभरों के प्रबंधन, जल संभर प्रबंधन, मृदा और नमी संरक्षण, स्थानीय समुदायों की आवश्यकताओं तथा पारिस्थितिकी और पर्यावरण से संबंधित ऐसे अन्य पहलुओं, जिन पर ध्यान देना आवश्यक है, के लिए उपबंध होंगे।

(6) आंचलिक महायोजना विद्यमान और प्रस्तावित भूमि उपयोग विशेषताओं के ब्यौरों से अनुसमर्थित मानचित्र के साथ सभी विद्यमान पूजा स्थलों, ग्रामों और नगरीय बस्तियों, वनों के प्रकार और किस्मों, कृषि क्षेत्रों, ऊपजाऊ भूमि, हरित क्षेत्र जैसे उद्यान और उसी प्रकार के स्थान, उद्यान कृषि क्षेत्र, फलोउद्यान, झीलों और अन्य जल निकायों का अभ्यंकन करेगी।

(7) आंचलिक महायोजना पारिस्थितिकी संवेदी जोन में विकास को विनियमित करेगी और सारणी में सूचीबद्ध पैरा-4 में प्रतिषिद्ध और विनियमित क्रियाकलापों का अनुपालन करेगी और स्थानीय समुदायों की जीविका को सुरक्षित करने के लिए पारिस्थितिकी अनुकूल विकास को सुनिश्चित और उसकी अभिवृद्धि भी करेगी।

(8) आंचलिक महायोजना प्रादेशिक विकास योजना की सह-विस्तारी होगी।

(9) इस प्रकार अनुमोदित आंचलिक महायोजना इस अधिसूचना के उपबंधों के अनुसार मानीटरी के अपने कार्यों को करने के लिए मानीटर समिति के लिए एक संदर्भ दस्तावेज तैयार करेगी।

**3. राज्य सरकार द्वारा किए जाने वाले उपाय.-** राज्य सरकार इस अधिसूचना के उपबंधों को प्रभावी करने के लिए निम्नलिखित उपाय करेगी, अर्थात्:-

(1) **भू-उपयोग.-** (क) पारिस्थितिकी संवेदी जोन में वनों, उद्यान कृषि क्षेत्रों, कृषि क्षेत्रों, मनोरंजन के प्रयोजनों के लिए चिन्हित किए गए पार्कों और खुले स्थानों का वाणिज्यिक या आवासीय या औद्योगिक संबद्ध विकास क्रियाकलापों के लिए उपयोग या संपरिवर्तन नहीं होगा:

परंतु यह कि पारिस्थितिकी संवेदी जोन के भीतर भाग (क) में विनिर्दिष्ट प्रयोजनों से भिन्न प्रयोजन के लिए कृषि और अन्य भूमि का संपरिवर्तन मानीटरी समिति की सिफारिश पर और यथा लागू और क्षेत्रीय नगर योजना अधिनियम और केन्द्रीय सरकार या राज्य सरकार के अन्य नियमों तथा विनियमों के अधीन सक्षम प्राधिकारी के पूर्व अनुमोदन से, और इस अधिसूचना के उपबंधों द्वारा स्थानीय निवासियों की निम्नलिखित आवासीय आवश्यकताओं को पूरा करने के लिए अनुज्ञात किया जाएगा, जैसे:-

(i) विद्यमान सड़कों को चौड़ा करना और उन्हें सुदृढ़ करना तथा नई सड़कों का संनिर्माण;

(ii) बुनियादी ढांचों और नागरिक सुविधाओं का संनिर्माण और नवीकरण;

(iii) प्रदूषण उत्पन्न न करने वाले लघु उद्योग;

(iv) कुटीर उद्योगों जिनके अंतर्गत ग्रामीण उद्योग भी हैं; सुविधाजनक भण्डार और स्थानीय सुविधाएं सहायक पारिस्थितिकी पर्यटन जिसके अन्तर्गत ग्रह वास सम्मिलित है; और

(v) पैरा 4 के अधीन दिए गए संबर्धित क्रियाकलाप:

परंतु यह और कि प्रादेशिक नगर योजना अधिनियम और राज्य सरकार के अन्य नियमों और विनियमों के अधीन सक्षम प्राधिकारी के पूर्व अनुमोदन और संविधान के अनुच्छेद 244 के उपबंधों या तत्समय प्रवृत्त विधि के उपबंधों के अनुपालन के बिना, जिसके अन्तर्गत अनुसूचित जनजाति और अन्य परंपरागत वन निवासी (वन अधिकारों की मान्यता) अधिनियम, 2006 (2007 का 2) भी है, वाणिज्यिक या औद्योगिक विकास क्रियाकलापों के लिए जनजातीय भूमि का उपयोग अनुज्ञात नहीं होगा:

परंतु यह और भी कि पारिस्थितिकी संवेदी जोन के भीतर भू-अभिलेखों में उपसंजात कोई गलती, मानीटरी समिति के विचार प्राप्त करने के पश्चात् राज्य सरकार द्वारा प्रत्येक मामले में एक बार ठीक होगी और उक्त गलती के सुधार की सूचना केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को दी जाएगी:

परंतु यह और भी कि गलती के संशोधन में इस उप पैरा के अधीन यथा उपबंधित के सिवाय किसी भी दशा में भू-उपयोग का परिवर्तन सम्मिलित नहीं होगा;

(ख) वनीकरण और वास जीर्णोद्धार क्रियाकलापों सहित अनप्रयुक्त या अनुत्पादक कृषि क्षेत्रों में पुनः वनीकरण करने के प्रयास किए जाएंगे।

(2) **प्राकृतिक जल स्रोतों-** आंचलिक महायोजना में सभी प्राकृतिक जल स्रोतों नदियों और जलमार्गों के आवाह क्षेत्रों की पहचान की जाएगी और उनके संरक्षण और नवीकरण के लिए योजना सम्मिलित होगी और राज्य सरकार द्वारा ऐसे क्षेत्रों पर या उनके निकट विकास क्रियाकलाप प्रतिषिद्ध करने के बारे में जो ऐसे क्षेत्रों के लिए अहितकर हो ऐसी रीति से मार्गदर्शक सिद्धांत तैयार किए जाएंगे।

(3) **पर्यटन या पारिस्थितिकी पर्यटन-** (क) पारिस्थितिकी संवेदी जोन के भीतर सभी नए पारिस्थितिकी पर्यटन क्रियाकलाप या विद्यमान पर्यटन क्रियाकलापों का विस्तार पर्यटन महायोजना के अनुसार पारिस्थितिकी संवेदी जोन के लिए होगा।

(ख) पर्यटन महायोजना राज्य पर्यटन विभाग द्वारा राज्य पर्यावरण और वन विभाग के परामर्श से तैयार होगी।

(ग) पर्यटन महायोजना आंचलिक महायोजना के एक घटक के रूप में होगी।

(घ) पर्यटन महायोजना पारिस्थितिकी संवेदी जोन की वहन क्षमता के आधार पर तैयार की जाएगी।

(ङ) पारिस्थितिकी पर्यटन संबंधी क्रियाकलाप निम्नानुसार विनियमित होंगे:-

(i) संरक्षित क्षेत्र की सीमा से एक किलोमीटर के भीतर या पारिस्थितिकी संवेदी जोन के विस्तार तक, इनमें जो भी निकट है, नये वाणिज्यिक होटल और सैरगाह के सन्निर्माण अनुज्ञात नहीं होंगे:

परंतु, यह कि संरक्षित क्षेत्र की सीमा से एक किलोमीटर की दूरी से परे पारिस्थितिकी संवेदी जोन के विस्तार तक होटलों और रिजॉर्ट का स्थापना केवल पूर्व परिभाषित और नामनिर्दिष्ट क्षेत्रों में पर्यटन महायोजना के अनुसार पारिस्थितिकी पर्यटन सुविधाओं के लिए ही अनुज्ञात होगा;

(ii) पारिस्थितिकी संवेदी जोन के भीतर नए पर्यटन क्रियाकलापों या विद्यमान पर्यटन क्रियाकलापों का विस्तार केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के मार्गदर्शक सिद्धांतों के द्वारा तथा राष्ट्रीय व्याघ्र संरक्षण प्राधिकरण, द्वारा जारी पारिस्थितिकी-पर्यटन, पारिस्थितिकी-शिक्षा और पारिस्थितिकी-विकास पर बल देते हुए (समय-समय पर यथा संशोधित) जारी मार्गदर्शक सिद्धांतों के अनुसार होगा;

(iii) आंचलिक महायोजना का अनुमोदन किए जाने तक, पर्यटन के लिए विकास और विद्यमान पर्यटन क्रियाकलापों के विस्तार को वास्तविक स्थल विनिर्दिष्ट संवीक्षा और मानीटरी समिति की सिफारिश पर आधारित संबंधित विनियामक प्राधिकरणों द्वारा अनुज्ञात किया जाएगा और पारिस्थितिकी संवेदी जोन के भीतर किसी नये होटल या रिसोर्ट या वाणिज्यिक स्थापना का सन्निर्माण अनुज्ञात नहीं किया जायेगा।

(4) **नैसर्गिक विरासत-** पारिस्थितिकी संवेदी जोन में महत्वपूर्ण नैसर्गिक विरासत के सभी स्थलों जैसे जीन कोश आरक्षित क्षेत्र, शैल विरचनाएं, जल प्रपातों, झरनों, घाटी मार्गों, उपवनों, गुफाएं, स्थलों, भ्रमण, अश्वरोहण, प्रपातों आदि की पहचान की जाएगी और विरासत संरक्षण योजना आंचलिक महायोजना के भाग के रूप में परिरक्षण और संरक्षण के लिए तैयार की जाएगी।

(5) **मानव निर्मित विरासत स्थल.**- पारिस्थितिकी संवेदी जोन में भवनों, संरचनाओं, शिल्प-तथ्य, ऐतिहासिक, स्थापत्य, सौंदर्यपूरक और सांस्कृतिक महत्व के क्षेत्रों की और उपक्षेत्रों की पहचान और उनके संरक्षण के लिए विरासत योजना आंचलिक महायोजना के भाग के रूप में तैयार की जाएगी।

(6) **ध्वनि प्रदूषण.**- पर्यावरण अधिनियम के अधीन ध्वनि प्रदूषण (विनियमन और नियंत्रण) नियम, 2000 में नियत उपबंधों के अनुसार पारिस्थितिकी संवेदी जोन में ध्वनि प्रदूषण के नियंत्रण और निवारण का अनुपालन किया जाएगा।

(7) **वायु प्रदूषण.**- पारिस्थितिकी संवेदी जोन में, वायु प्रदूषण के निवारण और नियंत्रण का वायु (प्रदूषण निवारण और नियंत्रण) अधिनियम, 1981 (1981 का 14) और उसके अधीन बनाए गए नियमों के उपबंधों के अनुसार अनुपालन किया जाएगा।

(8) **बहिस्त्राव का निस्सारण.**- पारिस्थितिकी संवेदी जोन में उपचारित बहिस्त्राव का निस्सारण, साधारण मानकों के उपबंधों के अनुसार पर्यावरणीय अधिनियम और उसके अधीन बनाए गए नियमों के अधीन आने वाले पर्यावरणीय प्रदूषण के निस्सारण के लिए साधारण मानकों या राज्य सरकार द्वारा नियत मानकों, जो भी अधिक कठोर हो, के उपबंधों के अनुसार होगा।

(9) **ठोस अपशिष्ट.**- ठोस अपशिष्ट का निपटान और प्रबंधन निम्नानुसार किया जाएगा:-

(क) पारिस्थितिकी संवेदी जोन में ठोस अपशिष्ट का निपटान और प्रबंधन भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं. का.आ. 1357(अ), तारीख 8 अप्रैल, 2016 द्वारा प्रकाशित ठोस अपशिष्ट प्रबंधन नियम, 2016, के उपबंधों के अनुसार किया जाएगा। अकार्बनिक पदार्थों का निपटान पारिस्थितिकी संवेदी जोन से बाहर चिन्हित किए गए स्थानों पर पर्यावरण-अनुकूल रीति से किया जाएगा;

(ख) पारिस्थितिकी संवेदी जोन में मान्य प्रौद्योगिकियों (ईएसएम) का उपयोग करते हुए विद्यमान नियमों और विनियमों के अनुरूप ठोस अपशिष्ट का सुरक्षित और पर्यावरण-अनुकूल प्रबंधन अनुज्ञात किया जा सकेगा।

(10) **जैव चिकित्सा अपशिष्ट.**- जैव चिकित्सा अपशिष्ट का प्रबंधन निम्नानुसार किया जाएगा:-

(क) पारिस्थितिकी संवेदी जोन में जैव चिकित्सा अपशिष्ट का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं.सा.का.नि 343 (अ), तारीख 28 मार्च, 2016, द्वारा प्रकाशित जैव चिकित्सा अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(ख) पारिस्थितिकी संवेदी जोन में मान्य प्रौद्योगिकियों का उपयोग करते हुए विद्यमान नियमों और विनियमों के अनुरूप जैव-चिकित्सा अपशिष्ट का सुरक्षित और पर्यावरण-अनुकूल प्रबंधन अनुज्ञात किया जा सकेगा।

(11) **प्लास्टिक अपशिष्ट प्रबंधन.**- पारिस्थितिकी संवेदी जोन में प्लास्टिक अपशिष्ट प्रबंधन का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथासंशोधित अधिसूचना सं.सा.का.नि 340(अ), तारीख 18 मार्च, 2016, द्वारा प्रकाशित प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(12) **निर्माण और विध्वंस अपशिष्ट प्रबंधन.**- पारिस्थितिकी संवेदी जोन में संनिर्माण और विध्वंस अपशिष्ट प्रबंधन का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथासंशोधित अधिसूचना सं.सां.का.नि 317(अ), तारीख 29 मार्च, 2016, द्वारा प्रकाशित संनिर्माण और विध्वंस प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(13) **ई-अपशिष्ट.**- पारिस्थितिकी संवेदी जोन में ई-अपशिष्ट प्रबंधन का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा, समय-समय पर यथासंशोधित, प्रकाशित ई-अपशिष्ट प्रबंधन नियम, 2016, के उपबंधों के अनुसार किया जाएगा।

(14) **यानीय यातायात.**- यातायात की यानीय गतिविधियां आवास के अनुकूल विनियमित होंगी और इस संबंध में आंचलिक महायोजना में विशेष उपबंध सम्मिलित किए जाएंगे और आंचलिक महायोजना के तैयार होने और राज्य सरकार के सक्षम

प्राधिकारी द्वारा अनुमोदित होने तक, मानीटरी समिति सुसंगत अधिनियमों और उसके अधीन बनाए गए नियमों और विनियमों के अनुसार यानीय क्रियाकलापों के अनुपालन को मानीटर करेगी।

(15) **यानीय प्रदूषण.-** लागू विधियों के अनुपालन में यानीय प्रदूषण का निवारण और नियंत्रण किया जाएगा और स्वच्छक ईंधन के उपयोग के लिए प्रयास किए जाएंगे।

(16) **औद्योगिक ईकाइयां.-** (i) राजपत्र में इस अधिसूचना के प्रकाशन पर या उसके पश्चात पारिस्थितिकी संवेदी जोन के भीतर किसी नए प्रदूषण करने वाले उद्योगों की स्थापना अनुज्ञात नहीं की जाएगी।

(ii) केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा फरवरी, 2016 में जारी मार्गदर्शक सिद्धान्तों में उद्योगों के वर्गीकरण के अनुसार, जब तक कि अधिसूचना में इस प्रकार विनिर्दिष्ट न हो; पारिस्थितिकी संवेदी जोन के भीतर केवल गैर- प्रदूषणकारी उद्योगों को अनुज्ञात किया जाएगा और इसके अतिरिक्त, गैर प्रदूषणकारी उद्योगों को बढ़ावा दिया जाएगा।

(17) **पहाड़ी ढलानों को संरक्षण.-** पहाड़ी ढलानों का संरक्षण निम्नानुसार होगा:-

(क) आंचलिक महायोजना पहाड़ी ढलानों पर क्षेत्रों का संकेत होगा जहां किसी भी संनिर्माण की अनुमति नहीं दी जाएगी;

(ख) कटाव के एक उच्च डिग्री के साथ विद्यमान खड़ी पहाड़ी ढलानों या ढलानों पर किसी भी संनिर्माण की अनुमति नहीं दी जाएगी।

**4. पारिस्थितिकी संवेदी जोन में प्रतिषिद्ध और विनियमित किए जाने वाले क्रियाकलापों की सूची.-** पारिस्थितिकी संवेदी जोन में सभी क्रियाकलाप पर्यावरण अधिनियम के उपबंधों और उसके अधीन बनाए गए नियमों जिसके अन्तर्गत तटीय विनियमन जोन अधिसूचना 2011 और पर्यावरणीय समाघात निर्धारण अधिसूचना, 2006 और अन्य लागू विधियां के जिसमें वन (संरक्षण) अधिनियम, 1980 (1980 का 69), भारतीय वन अधिनियम, 1927 (1927 का 16), वन्यजीव (संरक्षण) अधिनियम, 1972 (1972 का 53) सम्मिलित हैं और किये गये संशोधनों द्वारा शासित होंगे और नीचे दी गई सारणी में विनिर्दिष्ट रीति में विनियमित होंगे, अर्थात् :-

#### सारणी

क्रम सं.	क्रियाकलाप	वर्णन
(1)	(2)	(3)
<b>क. प्रतिषिद्ध क्रियाकलाप</b>		
1.	वाणिज्यिक खनन, पत्थर उत्खनन और अपघर्षण इकाइयां।	(क) सभी प्रकार के नए और विद्यमान खनन (लघु और वृहत खनिज), पत्थर की खानों और उनको तोड़ने की इकाइयां वास्तविक स्थानीय निवासियों की घरेलू आवश्यकताओं जिसमें निजी उपयोग के लिए मकानों के संनिर्माण या मरम्मत के लिए धरती को खोदना और मकान बनाने के लिए देशी टाइल्स या ईंटों का निर्माण करना भी सम्मिलित है, के सिवाय नहीं होगी।  (ख) खनन प्रचालन, माननीय उच्चतम न्यायालय की रिट याचिका (सिविल) सं. 1995 का 202 टी.एन. गौडाबर्मन थिरुमूलपाद बनाम भारत संघ के मामले में आदेश तारीख 4 अगस्त, 2006 और रिट याचिका (सी) सं. 2012 का 435 गोवा फाउंडेशन बनाम भारत संघ के मामले में तारीख 21 अप्रैल, 2014 के आदेश के अनुसरण में प्रचालित होगी।
2.	नई आरा मिलों की स्थापना।	पारिस्थितिकी संवेदी जोन के भीतर नई और विद्यमान आरा मिलों का विस्तार अनुज्ञात नहीं होगा।
3.	प्रदूषण (जल, वायु, मृदा, ध्वनि आदि) उत्पन्न करने वाले उद्योगों की स्थापना।	पारिस्थितिकी संवेदी जोन में कोई नया उद्योग लगाने और वर्तमान प्रदूषणकारी उद्योगों का विस्तार करने की अनुज्ञा नहीं होगी।

		परन्तु केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा फरवरी, 2016 में जारी मार्ग दर्शक सिद्धान्तों में उद्योगों के वर्गीकरण के अनुसार जब तक कि अधिसूचना में ऐसा विनिर्दिष्ट न हों, पारिस्थितिकी संवेदी जोन के भीतर गैर-प्रदूषणकारी उद्योगों को अनुज्ञात किया जाएगा और इसके अतिरिक्त गैर-प्रदूषणकारी कुटीर उद्योगों को बढ़ावा दिया जाएगा।
4.	बृहत जल विद्युत परियोजना की स्थापना।	लागू विधियों के अनुसार प्रतिषिद्ध (अन्यथा उपबंधित के सिवाय) होंगे।
5.	किसी परिसंकटमय पदार्थों का उपयोग या उत्पादन या प्रसंस्करण।	लागू विधियों के अनुसार प्रतिषिद्ध (अन्यथा उपबंधित के सिवाय) होंगे।
6.	प्राकृतिक जल निकायों या क्षेत्र भूमि में अनुपचारित बहिर्स्राव का निस्सारण।	लागू विधियों के अनुसार प्रतिषिद्ध (अन्यथा उपबंधित के सिवाय) होंगे।
7.	ईट भट्टों की स्थापना करना।	लागू विधियों के अनुसार प्रतिषिद्ध (अन्यथा उपबंधित के सिवाय) होंगे।
<b>ख. विनियमित क्रियाकलाप</b>		
8.	वाणिज्यिक होटलों और रिसोर्टों की स्थापना।	पारिस्थितिकी पर्यटन क्रियाकलापों के लिए लघु अस्थायी संरचनाओं के सिवाय संरक्षित क्षेत्र की सीमा से एक किलोमीटर के भीतर या पारिस्थितिकी संवेदी जोन के विस्तार तक, इनमें जो भी निकट है, नए वाणिज्यिक होटल और रिसोर्टों को अनुज्ञात नहीं किया जाएगा: परन्तु संरक्षित क्षेत्र की सीमा से एक किलोमीटर के परे या पारिस्थितिकी संवेदी जोन के विस्तार तक इनमें से जो भी निकट हो सभी नए पर्यटन क्रियाकलाप या विद्यमान क्रियाकलाप का विस्तार पर्यटन महायोजना और यथा लागू मार्गदर्शी सिद्धान्तों के अनुरूप होगा।
9.	संनिर्माण क्रियाकलाप।	(क) संरक्षित क्षेत्र की सीमा से एक किलोमीटर के भीतर या पारिस्थितिकी संवेदी जोन के विस्तार तक, इनमें जो भी निकट हो, किसी भी प्रकार के नये वाणिज्यिक संनिर्माण की अनुज्ञा नहीं होगी: परन्तु स्थानीय लोगों को अपनी आवास सम्बन्धी निम्नलिखित आवश्यकताओं को पूरा करने के लिए, पैराग्राफ 3 के उप पैराग्राफ (1) में सूचीबद्ध क्रियाकलापों सहित अपने प्रयोग के लिए, अपनी भूमि में भवन उप-विधियों के अनुसार, संनिर्माण करने की अनुज्ञा होगी, जैसे:- परन्तु यह कि गैर-प्रदूषणकारी लघु उद्योगों से संबंधित संनिर्माण क्रियाकलाप लागू नियमों और विनियमों, यदि कोई हों, के अनुसार सक्षम प्राधिकारी की पूर्व अनुमति से विनियमित किए जाएंगे और वे न्यूनतम होंगे। (ख) एक किलोमीटर क्षेत्र से परे ये आंचलिक महायोजना के अनुसार विनियमित होंगे।
10.	वृक्षों की कटाई।	(क) राज्य सरकार में सक्षम प्राधिकारी की पूर्व अनुमति के बिना वन, सरकारी या राजस्व या निजी भूमि पर या वनों में वृक्षों की कटाई नहीं होगी। (ख) वृक्षों की कटाई संबंधित केंद्रीय या राज्य अधिनियम या उसके अधीन बनाए गए नियमों के उपबंध के अनुसार विनियमित होंगे।
11.	प्राकृतिक जल निकायों या सतही क्षेत्र में उपचारित बहिर्स्राव का निस्सारण।	जल निकायों में उपचारित अपशिष्ट जल या बहिर्स्राव के निस्सारण से बचा जाएगा और उपचारित अपशिष्ट जल के पुनःचक्रण और पुनःउपयोग के लिए प्रयास किए जाएंगे, अन्यथा लागू विधियों के अनुसार उपचारित बहिर्स्राव के पुनर्चक्रण या प्रवाह के निर्वहन को विनियमित किया जाएगा।
12.	जलावन लकड़ी का वाणिज्यिक उपयोग।	लागू विधियों के अधीन विनियमित होंगे।

13.	कृषि प्रणालियों में आमूल परिवर्तन।	लागू विधियों के अधीन विनियमित होंगे।
14.	विदेशी प्रजातियों को लाना।	लागू विधियों के अधीन विनियमित होंगे।
15.	सतह और भूजल का वाणिज्यिक निष्कर्षण।	लागू विधियों के अधीन विनियमित होंगे।
16.	विद्युत और संचार टावरों का परिनिर्माण और केबलों के बिछाए जाने और अन्य बुनियादी ढांचे।	लागू विधियों के अधीन विनियमित होंगे। (भूमिगत केबल के बिछाए जाने को बढ़ावा दिया जाएगा)।
17.	होटलों और लॉज के विद्यमान परिसरों में बाड़ लगाना।	लागू विधियों के अधीन विनियमित होंगे।
18.	पोलिथीन थैलों का प्रयोग।	लागू विधियों के अधीन विनियमित होंगे।
19.	विद्यमान सड़कों को चौड़ा करना और उन्हें सुदृढ़ करना तथा नवीन सड़कों का संनिर्माण।	न्यूनीकरण उपायों को लागू विधियों, नियमों और विनियमनों तथा उपलब्ध मार्गदर्शक सिद्धांतों के अनुसार किया जाना।
20.	पहाड़ी ढालों और नदी तटों का संरक्षण।	लागू विधियों के अधीन विनियमित होंगे।
21.	वाणिज्यिक साइनबोर्ड और होर्डिंग।	लागू विधियों के अधीन विनियमित होंगे।
22.	प्रदूषण उत्पन्न न करने वाले लघु उद्योग।	फरवरी, 2016 में केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी उद्योगों में वर्गीकरण के अनुसार गैर-प्रदूषणकारी उद्योग और अपरिसंकटमय में, लघु और सेवा उद्योग, कृषि, पुष्प कृषि, उद्यान कृषि या पारिस्थितिकी संवेदी जोन से देशी सामग्री से उत्पादों को उत्पन्न करने वाले कृषि आधारित उद्योग सक्षम प्राधिकारी द्वारा अनुज्ञात होंगे।
23.	वन उत्पादों या गैर काष्ठ वन उत्पादों का संग्रहण।	लागू विधियों के अनुसार विनियमित होंगे।
24.	नागरिक सुख सुविधाओं सहित अवसंरचनाएं।	न्यूनीकरण उपायों को लागू विधियों, नियमों और विनियमनों और उपलब्ध मार्गदर्शक सिद्धांतों के अनुसार किया जाना।
25.	रात्रि में यानिक यातायात का संचलन।	लागू विधियों के अधीन वाणिज्यिक प्रयोजन के लिए विनियमित होंगे।
26.	स्थानीय समुदायों द्वारा चल रही कृषि और बागवानी प्रथाओं के साथ दुग्धशाला, दुग्ध उद्योग, कृषि और मछली पालन।	स्थानीय लोगों के उपयोग के लिए लागू विधियों के अधीन अनुज्ञात होंगे।
27.	फार्मों, कंपनियों द्वारा बड़े पैमाने पर वाणिज्यिक पशुओं और पोल्ट्री फार्मों की स्थापना।	स्थानीय आवश्यकताओं को पूरा करने के लिए लागू विधियों के अधीन विनियमित (अन्यथा प्रदान किए गए) होंगे।
28.	ठोस अपशिष्ट एवं प्रबन्धन।	लागू विधियों के अधीन विनियमित होंगे।
29.	पारिस्थितिकी-पर्यटन	लागू विधियों के अनुसार विनियमित होंगे।
30.	वायु, और ध्वनि प्रदूषण।	लागू विधियों के अधीन विनियमित होंगे।
31.	पर्यटन से संबंधित अन्य क्रियाकलाप जैसे गर्म वायु गुब्बारे, हेलीकाप्टर, ड्रोन, माइक्रोलाइट्स आदि द्वारा पारिस्थितिकी संवेदी जोन क्षेत्र के ऊपर से उड़ना जैसे क्रियाकलाप करना।	लागू विधियों के अनुसार विनियमित होंगे।
<b>ग. संबंधित क्रियाकलाप</b>		
32.	वर्षा जल संचयन।	सक्रिय रूप से बढ़ावा दिया जाएगा।
33.	जैविक खेती।	सक्रिय रूप से बढ़ावा दिया जाएगा।
34.	नवीकरणीय ऊर्जा और ईंधन का उपयोग।	बायोगैस, सौर प्रकाश इत्यादि को बढ़ावा दिया जाना है।
35.	सभी गतिविधियों के लिए हरित प्रौद्योगिकी को ग्रहण करना।	सक्रिय रूप से बढ़ावा दिया जाएगा।

36.	कुटीर उद्योगों जिसके अंतर्गत ग्रामीण कारीगर भी हैं।	सक्रिय रूप से बढ़ावा दिया जाएगा।
37.	कृषि वानिकी।	सक्रिय रूप से बढ़ावा दिया जाएगा।
38.	बागान लगाना और जड़ी बूटियों का रोपण।	सक्रिय रूप से बढ़ावा दिया जाएगा।
39.	पारिस्थितिकी अनुकूल परिवहन का उपयोग।	सक्रिय रूप से बढ़ावा दिया जाएगा।
40.	कौशल विकास।	सक्रिय रूप से बढ़ावा दिया जाएगा।
41.	निम्नीकृत भूमि/ वन / वास की बहाली।	सक्रिय रूप से बढ़ावा दिया जाएगा।
42.	पर्यावरणीय जागरूकता।	सक्रिय रूप से बढ़ावा दिया जाएगा।

**5. पारिस्थितिकी संवेदी जोन की अधिसूचना की मानीटरी के लिए मानीटरी समिति-** केंद्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (3) के अधीन इस अधिसूचना के उपबंधों की प्रभावी मानीटरी के लिए मानीटरी समिति का गठन करती है, जो निम्नलिखित से मिलकर बनेगी, अर्थात्:-

क्र.सं.	मानीटरी समिति का संघटक	पदनाम
(i)	माननीय सभापति, दक्षिण त्रिपुरा जिला परिषद, उदयपुर	अध्यक्ष, पदेन;
(ii)	राज्य सरकार द्वारा नामित किए जाने वाले वन्यजीव संरक्षण के क्षेत्र में काम करने वाले गैर-सरकारी संगठन का प्रतिनिधि	सदस्य;
(iii)	राज्य सरकार द्वारा नामित जैव विविधता में एक विशेषज्ञ	सदस्य;
(iv)	पारिस्थितिकी और पर्यावरण में एक विशेषज्ञ राज्य सरकार द्वारा नामित किया जाएगा	सदस्य;
(v)	राज्य लोक निर्माण विभाग का एक प्रतिनिधि	सदस्य;
(vi)	राज्य प्रदूषण नियंत्रण बोर्ड का एक प्रतिनिधि	सदस्य;
(vii)	वन्यजीव वार्डन, तृष्णा वन्यजीव अभयारण्य	सदस्य सचिव।

**6. निर्देश-निबंधन:-** (1) मानीटरी समिति इस अधिसूचना के उपबंधों के अनुपालन को मानीटर करेगी।

(2) मानीटरी समिति का कार्यकाल तीन वर्ष तक या राज्य सरकार द्वारा नई समिति के पुनः गठन तक के लिए होगा और तत्पश्चात मानीटरी समिति राज्य सरकार द्वारा गठित की जाएगी।

(3) ऐसे क्रियाकलापों की, जो भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना संख्यांक का.आ. 1533 (अ), तारीख 14 सितम्बर, 2006 की अनुसूची में सम्मिलित हैं, और जो पारिस्थितिकी संवेदी जोन में आते हैं, सिवाय इसके जो पैरा 4 के अधीन सारणी में यथा विनिर्दिष्ट प्रतिषिद्ध क्रियाकलापों के, मानीटरी समिति द्वारा वास्तविक विनिर्दिष्ट स्थलीय दशाओं के आधार पर संवीक्षा की जाएगी और उक्त अधिसूचना के उपबंधों के अधीन पूर्व पर्यावरण अनापत्ति के लिए केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को निर्दिष्ट किया जाएगा।

(4) इस अधिसूचना के पैरा 4 के अधीन सारणी में यथा विनिर्दिष्ट प्रतिषिद्ध क्रियाकलापों के सिवाय, भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना संख्यांक का.आ. 1533(अ), तारीख 14 सितंबर, 2006 की अधिसूचना के अनुसूची के अधीन ऐसे अनुसूची में क्रियाकलापों, जिन्हें सम्मिलित नहीं किया गया है, परंतु पारिस्थितिकी संवेदी जोन में आते हैं, ऐसे क्रियाकलापों की वास्तविक विनिर्दिष्ट स्थलीय दशाओं पर आधारित निगरानी समिति द्वारा संवीक्षा की जाएगी और उसे संबद्ध विनियामक प्राधिकरणों को निर्दिष्ट किया जाएगा।

(5) मानीटरी समिति का सदस्य-सचिव या संबद्ध उपायुक्त ऐसे व्यक्ति के विरुद्ध, जो इस अधिसूचना के किसी उपबंध का उल्लंघन करता है, पर्यावरण अधिनियम, की धारा 19 के अधीन परिवाद फाइल करने के लिए सक्षम होगा।

(6) मानीटरी समिति मुद्दा दर मुद्दा के आधार पर अपेक्षाओं पर निर्भर रहते हुए संबद्ध विभागों के प्रतिनिधियों या विशेषज्ञों, औद्योगिक संगमों या संबद्ध पणधारियों के प्रतिनिधियों को अपने विचार-विमर्श में सहायता के लिए आमंत्रित कर सकेगी।

(7) मानीटरी समिति प्रत्येक वर्ष की 31 मार्च तक के अपने क्रियाकलापों की वार्षिक कार्रवाई रिपोर्ट राज्य के मुख्य वन्यजीव वार्डन को **उपाबंध V** के अनुसार प्रोफार्मा उक्त वर्ष के 30 जून तक प्रस्तुत करेगी।

(8) केन्द्रीय सरकार का पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय मानीटरी समिति को अपने कृत्यों के प्रभावी निर्वहन के लिए समय-समय पर ऐसे निर्देश दे सकेगा, जो वह ठीक समझे।

7. इस अधिसूचना के उपबंधों को प्रभाव देने के लिए केन्द्रीय सरकार और राज्य सरकार अतिरिक्त उपाय, यदि कोई हों, विनिर्दिष्ट कर सकेंगी।

8. इस अधिसूचना के उपबंध, भारत के माननीय उच्चतम न्यायालय या उच्च न्यायालय या राष्ट्रीय हरित अधिकरण द्वारा पारित किसी आदेश या पारित होने वाले किसी आदेश, यदि कोई हों, के अधीन होंगे।

[फा0सं0 25/44/2017-ईएसजेड]

डॉ. सतीश चन्द्र गड्ढकोटी, वैज्ञानिक 'जी'

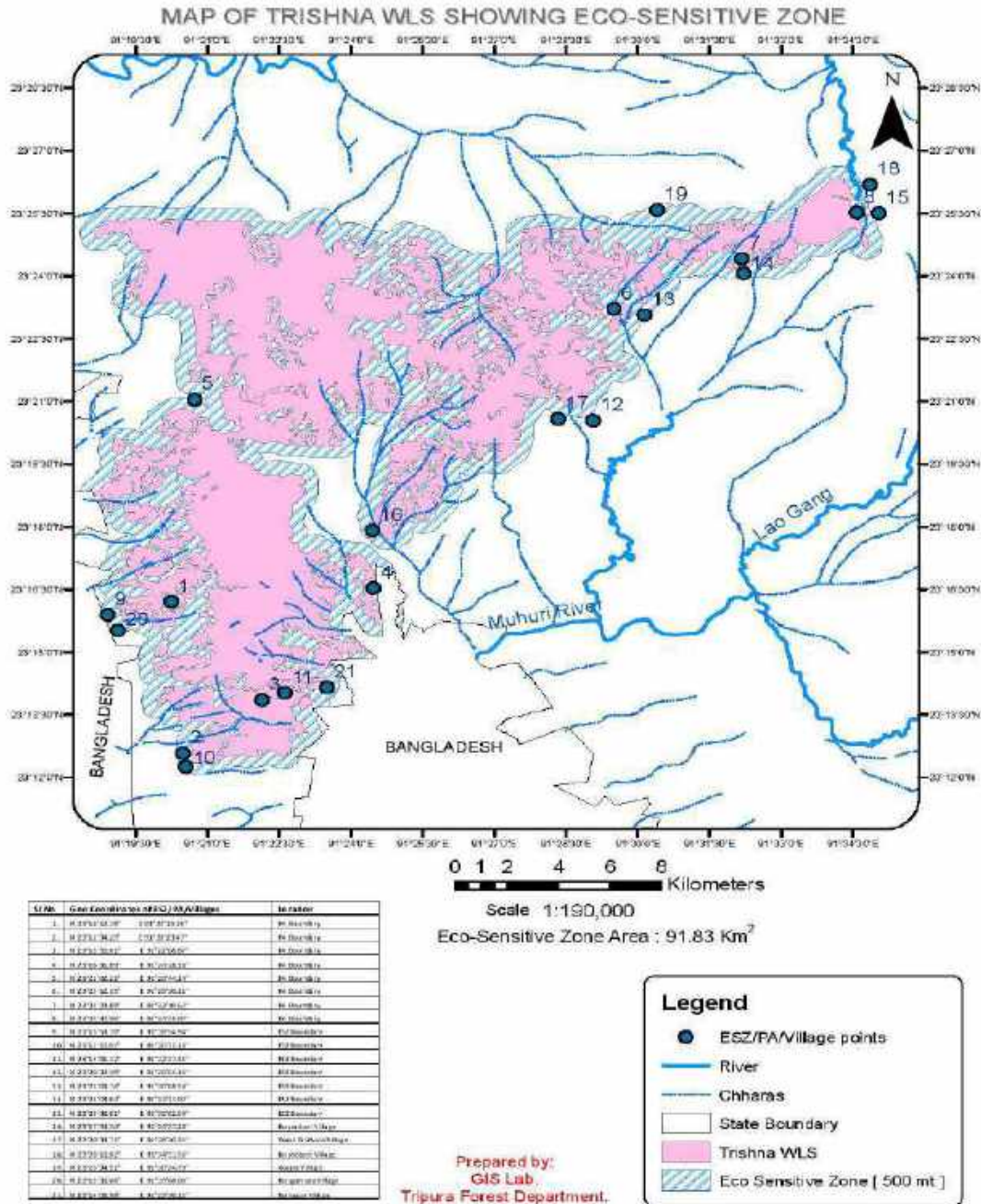
**उपाबंध- I**

**त्रिपुरा राज्य में पारिस्थितिकी संवेदी जोन और तृष्णा वन्यजीव अभयारण्य की सीमा का विवरण**

<b>उत्तर</b>	पारिस्थितिकी संवेदी जोन के उत्तरी भाग में तृष्णा वन्यजीव अभयारण्य में समूखचेररा एवं गरजी आर.एफ. होते हैं। क्षेत्र में बारहमासी धाराओं और प्राकृतिक वनों के साथ छोटी है।
<b>उत्तर पूर्व</b>	तृष्णा वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन उत्तरी पूर्वी सीमा चंद्रपुर आर एफ और उदयपुर सिविल उप-संभाग में है। क्षेत्र में बारहमासी धाराओं और प्राकृतिक वनों के साथ अधिक एवं न्यून नम्र तरंगण होती है।
<b>दक्षिण पूर्व</b>	तृष्णा वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन की दक्षिणी सीमा पूरबा पीपराईखोला एवं काशरी मौजा के गैर- वन भूमि में है। क्षेत्र में प्रचुर जैवविविधता में बारहमासी के साथ अधिक तरंगण है।
<b>दक्षिण</b>	तृष्णा वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन की दक्षिणी सीमा जगनाथ धींगी आर एफ में है और क्रमशः पूरबा आनंदपुर, दक्षिण कृष्णापुर, दक्षिण कृष्णापुर और पूरबा आनंदपुर में गैर-वन भूमि का भाग विद्यमान है। क्षेत्र में बारहमासी धाराओं और प्राकृतिक वनों के साथ छोटी तरंगित है। यहां क्षेत्र में कई धान खेती विद्यमान है।
<b>दक्षिण पश्चिम</b>	तृष्णा वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन का दक्षिण पश्चिमी भाग इंडो-बांग्लादेश सीमा तक विस्तृत है।
<b>उत्तर पश्चिम</b>	तृष्णा वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन का उत्तर पश्चिमी भाग सोनामूरा सिविल उप-संभाग के खेदरबरी, कथालिया एवं दक्षिण ताईबनदई में है और क्रमशः गैर वन भूमि के साथ ही साथ तूलातालीबरी और कोपरचहोला आर.एफ में है। क्षेत्र में बारहमासी धाराओं और प्राकृतिक वनों के साथ नम्र तरंगण है। क्षेत्र में धान खेती आवर्तक विद्यमान है।

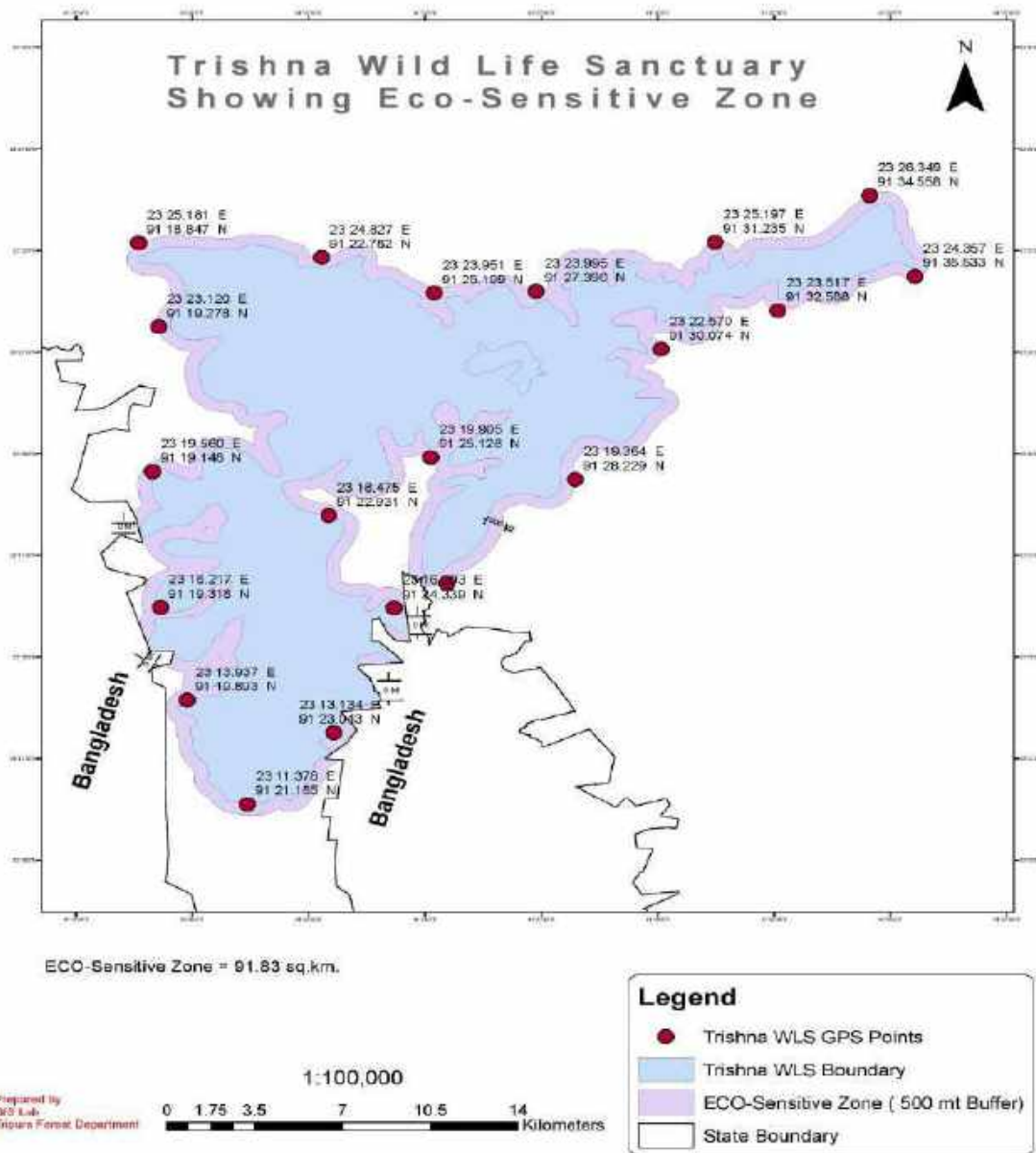
उपाबंध- Iक

मुख्य अवस्थानों के ग्राम बिंदुओं और अक्षांश-देशांतर के साथ पारिस्थितिकी संवेदी जोन और तृष्णा वन्यजीव अभयारण्य का मानचित्र



उपाबंध- II, ख

मुख्य अवस्थानों के अक्षांश और देशांतर के साथ तृष्णा वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन का मानचित्र



## उपाबंध-III

## सारणी क: तृष्णा वन्यजीव अभयारण्य के प्रमुख अवस्थानों के भू-निर्देशांक

क्र.सं.	अक्षांश (उ)	देशांतर (पू)
1	उ 23°16'12.18"	पू१1°20'15.16"
2	उ 23°12'34.25"	पू१1°20'29.47"
3	उ 23°13'50.81"	पू१1°22'08.87"
4	उ 23°16'31.89"	पू१1°24'28.38"
5	उ 23°21'02.21"	पू१1°20'44.14"
6	उ 23°23'12.35"	पू१1°29'30.21"
7	उ 23°24'24.89"	पू१1°32'10.62"
8	उ 23°25'30.96"	पू१1°34'35.07"
9	उ 23°26'11.19"	पू१1°21'43.85"
10	उ 23°26'14.95"	पू१1°18'56.37"

## सारणी ख: पारिस्थितिकी संवेदी जोन के प्रमुख अवस्थानों के भू-निर्देशांक

क्र.सं.	अक्षांश (उ)	देशांतर (पू)
1	उ 23°15'53.19"	पू१1°18'54.94"
2	उ 23°12'15.07"	पू१1°20'33.16"
3	उ 23°14'01.12"	पू१1°22'37.41"
4	उ 23°16'29.99"	पू१1°25'23.91"
5	उ 23°20'32.39"	पू१1°29'04.16"
6	उ 23°23'03.74"	पू१1°30'08.58"
7	उ 23°24'03.64"	पू१1°32'13.02"
8	उ 23°25'30.01"	पू१1°35'02.59"
9	उ 23°26'19.63"	पू१1°21'45.02"
10	उ 23°26'24.15"	पू१1°18'43.37"

## उपाबंध -IV

## भू-निर्देशांकों के साथ तृष्णा वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाले ग्रामों की सूची

क्र.सं.	ग्राम का नाम	अक्षांश (उ)	देशांतर (पू)
1	बरपथरी	उ 23°17'54.34"	पू91°24'27.28"
2	पश्चिम पड़खोला	उ 23°20'34.71"	पू91°28'20.35"
3	राजपुर	उ 23°21'59.52"	पू91°30'10.79"
4	बइसावरी	उ 23°26'10.82"	पू91°34'51.56"
5	गरजी	उ 23°25'34.51"	पू91°30'24.70"
6	महेशपुर	उ 23°21'59.51"	पू91°19'19.31"
7	कलीकृष्णानगर	उ 23°19'39.89"	पू91°17'55.54"
8	रंगामुरा	उ 23°15'30.66"	पू91°19'08.06"
9	बतीशा	उ 23°12'01.74"	पू91°19'47.16"
10	राजनगर	उ 23°17'54.34"	पू91°24'27.28"

## उपाबंध V

## पारिस्थितिकी संवेदी जोन मानीटरी समिति: की गई कार्रवाई की रिपोर्ट का रूप विधान

1. बैठकों की संख्या और तारीख ।
2. बैठकों का कार्यवृत्त: (कृपया मुख्य उल्लेखनीय बिंदुओं का उल्लेख करें । बैठक के कार्यवृत्त को एक पृथक् उपाबंध में संलग्न करें) ।
3. आंचलिक महायोजना की तैयारी की प्रास्थिति जिसके अंतर्गत पर्यटन महायोजना भी है।
4. भू-अभिलेख में सदृश्य त्रुटियों के सुधार के लिए ब्यौहार किए गए मामलों का सारांश (पारिस्थितिकी संवेदी जोन वार) । ब्यौरे उपाबंध के रूप में संलग्न किए जाएं।
5. पर्यावरण समाघात निर्धारण अधिसूचना, 2006 के अधीन आने वाले क्रियाकलापों की संवीक्षा के मामलों का सारांश। (ब्यौरे एक पृथक् उपाबंध के रूप में संलग्न किए जाएं)।
6. पर्यावरण समाघात निर्धारण अधिसूचना, 2006 के अधीन न आने वाली गतिविधियों की संवीक्षा के मामलों का सारांश । (ब्यौरे एक पृथक् उपाबंध के रूप में संलग्न किए जाएं)।
7. पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 19 के अधीन दर्ज की गई शिकायतों का सारांश ।
8. कोई अन्य महत्वपूर्ण विषय ।

**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE****NOTIFICATION**

New Delhi the 8th November, 2019

**S.O. 4077(E).**—WHEREAS, a draft notification was published in the Gazette of India, Extraordinary, *vide* notification of the Government of India in the Ministry of Environment, Forest and Climate Change number S.O. 4776 (E) dated the 10<sup>th</sup> September, 2018, inviting objections and suggestions from all persons likely to be affected thereby within the period of sixty days from the date on which copies of the Gazette containing the said notification were made available to the public;

**AND WHEREAS**, copies of the Gazette containing the said draft notification were made available to the public on the 11<sup>th</sup> September, 2018;

**AND WHEREAS**, no objections and suggestions were received from persons and stakeholders in response to the draft notification;

**AND WHEREAS**, Trishna Wildlife Sanctuary was declared *vide* Government of Tripura Gazette Notification No. F. 8(58)/For-WL/88/Vol-II/39253, dated the 18<sup>th</sup> November, 1988 with an area of 194.708 square kilometers. The Sanctuary was notified in terms of cadastral survey plots and not in terms of outer boundaries. The core zone has the best forest available in the Sanctuary and is exclusively for the wildlife and would not have to shoulder the burden of meeting the requirements of the people. The total area of the core zone would be about 50 square kilometers, out of which 31.63 square kilometers has been notified as Bison National Park *vide* number F.8 (196)/For-WL/204/NP/V-2/5503, dated the 9<sup>th</sup> June, 2009 with a sole objective to regulate certain activities and also to minimize the negative impacts of such activities on fragile eco-system encompassing the protected area;

**AND WHEREAS**, it would be appropriate to include a zone around the Sanctuary subject to the existence of floral and faunal diversity and also realizing the fact that the Sanctuary is surrounded by Indo-Bangla border on three sides and also the existing habitation adjacent to the Sanctuary;

**AND WHEREAS**, the Trishna Wildlife Sanctuary has morphological importance due to its richness in floral and faunal bio-diversity. The area has a viable population of key species viz, gaur, primates like, hollok gibbon, spectacle monkey in total six species, a large number of fauna which form part of high rainfall forest eco-system of the Sanctuary and are generally endangered either locally or at the level of state or country. Ecological function of the Sanctuary also includes maintaining a healthy soil and water regime, thereby ensuring higher level of production in agriculture and fisheries etc. in this area. The area has high potential for promoting eco-tourism;

**AND WHEREAS**, the Sanctuary possesses a good number of bison population and is the only Sanctuary in the state having such population. Beside this, the Sanctuary also supports six primate species belonging mostly from the scheduled species. The Sanctuary also caters the population of other important species of reptiles and is also the unique place for migratory birds. A research in exploration of flora was conducted by the Botany Department of the Tripura University and as per findings the abstract is there for 400 species. Out of which, 160 species is used as medicinal, 140 species used as timber, 30 species as tannin and dye yielding, 20 species is fruit bearing, 17 species are ornamental and avenue, 15 species used as fodder, 10 species are condiment and spices, Trishna Wildlife Sanctuary also harbor one rare gymnosperm, *Gnetum monatanum*;

**AND WHEREAS**, the census of wildlife was carried out during 18<sup>th</sup> February, 2010 to 20<sup>th</sup> February, 2010. A total of 86 number of major species was recorded which includes barking deer, clouded leopard, jungle cat, pigtailed macaque, spectacle monkey, slow lorries, crab eating mongos, serpent eagle, wood pecker, jungle myna, red vent bulbul, spectacle cobra, grey heron, great egret, fairy blue bird, etc;

**AND WHEREAS**, it is necessary to conserve and protect the area, the extent and boundaries of Trishna Wildlife Sanctuary which are specified in paragraph 1 as Eco-sensitive Zone from ecological, environmental and biodiversity point of view and to prohibit industries or class of industries and their operations and processes in the said Eco-sensitive Zone;

**NOW, THEREFORE**, in exercise of the powers conferred by sub-section (1) and clauses (v) and (xiv) of sub-section (2) and sub-section (3) of section 3 of the Environment (Protection) Act 1986 (29 of 1986) (hereafter in this notification referred to as the Environment Act) read with sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby notifies an area to an extent varying from 0 (zero) to 500 metre around the boundary of Trishna Wildlife Sanctuary, in South Tripura district in the State of Tripura as the Eco-sensitive Zone (hereafter in this notification referred to as the Eco-sensitive Zone) details of which are as under, namely: -

- 2. Extent and boundaries of Eco-sensitive Zone.** – (1) The Eco-sensitive Zone shall be to an extent of 0 (zero) metre to 500 metre around the boundary of Trishna Wildlife Sanctuary and the area of the Eco-sensitive Zone is 91.83 square kilometres. (*Zero extent of Eco-sensitive Zone is due to Indo-Bangladesh International Border*).
- (2) The extent and boundary description of Trishna Wildlife Sanctuary and its Eco-sensitive Zone is appended in **Annexure-I**.
- (3) The maps of the Trishna Wildlife Sanctuary demarcating Eco-sensitive Zone along with boundary details and latitudes and longitudes are appended as **Annexure-IIA** and **Annexure-IIB**.
- (4) List of geo-coordinates of the boundary of Trishna Wildlife Sanctuary and Eco-sensitive Zone are given in Table **A** and Table **B** of **Annexure-III**.
- (5) The list of villages falling in the Eco-sensitive Zone along with their geo co-ordinates at prominent points is appended as **Annexure-IV**.
- 2. Zonal Master Plan for Eco-sensitive Zone.-** (1) The State Government shall, for the purposes of the Eco-sensitive Zone prepare a Zonal Master Plan within a period of two years from the date of publication of this notification in the Official Gazette, in consultation with local people and adhering to the stipulations given in this notification for approval of the competent authority of State.
- (2) The Zonal Master Plan for the Eco-sensitive Zone shall be prepared by the State Government in such manner as is specified in this notification and also in consonance with the relevant Central and State laws and the guidelines issued by the Central Government, if any.
- (3) The Zonal Master Plan shall be prepared in consultation with the following Departments of the State Government, for integrating the ecological and environmental considerations into the said plan:-
- (i) Environment;
  - (ii) Forest and Wildlife;
  - (iii) Agriculture;
  - (iv) Revenue;
  - (v) Urban Development;
  - (vi) Tourism;
  - (vii) Rural Development;
  - (viii) Irrigation and Flood Control;
  - (ix) Municipal;
  - (x) Panjayati Raj;
  - (xi) Public Works Department;
  - (xii) Highways; and
  - (xiii) Tripura State Pollution Control Board.
- (4) The Zonal Master Plan shall not impose any restriction on the approved existing land use, infrastructure and activities, unless so specified in this notification and the Zonal Master Plan shall factor in improvement of all infrastructure and activities to be more efficient and eco-friendly.
- (5) The Zonal Master Plan shall provide for restoration of denuded areas, conservation of existing water bodies, management of catchment areas, watershed management, groundwater management, soil and moisture conservation, needs of local community and such other aspects of the ecology and environment that need attention.
- (6) The Zonal Master Plan shall demarcate all the existing worshipping places, villages and urban settlements, types and kinds of forests, agricultural areas, fertile lands, green area, such as, parks and like places, horticultural areas, orchards, lakes and other water bodies and also with supporting maps giving details of existing and proposed land use features.
- (7) The Zonal Master Plan shall regulate development in Eco-sensitive Zone and adhere to prohibited, regulated activities listed in the Table in paragraph 4 and also ensure and promote eco-friendly development for security of local communities' livelihood.
- (8) The Zonal Master Plan shall be co-terminus with the Regional Development Plan.
- (9) The Zonal Master Plan so approved shall be the reference document for the Monitoring Committee for carrying out its functions of monitoring in accordance with the provisions of this notification.

**3. Measures to be taken by the State Government.-** The State Government shall take the following measures for giving effect to the provisions of this notification, namely:-

(1) **Land use.-** (a) Forests, horticulture areas, agricultural areas, parks and open spaces earmarked for recreational purposes in the Eco-sensitive Zone shall not be used or converted into areas for commercial or residential or industrial activities:

Provided that the conversion of agricultural and other lands, for the purposes other than that specified at part (a), within the Eco-sensitive Zone may be permitted on the recommendation of the Monitoring Committee, and with the prior approval of the competent authority under Regional Town Planning Act and other rules and regulations of Central Government or State Government as applicable and *vide* provisions of this Notification, to meet the residential needs of the local residents such as:-

- (i) widening and strengthening of existing roads and construction of new roads;
- (ii) construction and renovation of infrastructure and civic amenities;
- (iii) small scale industries not causing pollution;
- (iv) cottage industries including village industries; convenience stores and local amenities supporting eco-tourism including home stay; and
- (v) promoted activities given under paragraph 4:

Provided further that no use of tribal land shall be permitted for commercial and industrial development activities without the prior approval of the competent authority under Regional Town Planning Act and other rules and regulations of the State Government and without compliance of the provisions of article 244 of the Constitution or the law for the time being in force, including the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (2 of 2007):

Provided also that any error appearing in the land records within the Eco-sensitive Zone shall be corrected by the State Government, after obtaining the views of Monitoring Committee, once in each case and the correction of said error shall be intimated to the Central Government in the Ministry of Environment, Forest and Climate Change:

Provided also that the correction of error shall not include change of land use in any case except as provided under this sub-paragraph.

(b) Efforts shall be made to reforest the unused or unproductive agricultural areas with afforestation and habitat restoration activities.

(2) **Natural water bodies.-**The catchment areas of all natural springs shall be identified and plans for their conservation and rejuvenation shall be incorporated in the Zonal Master Plan and the guidelines shall be drawn up by the State Government in such a manner as to prohibit development activities at or near these areas which are detrimental to such areas.

(3) **Tourism or Eco-tourism.-** (a) All new eco-tourism activities or expansion of existing tourism activities within the Eco-sensitive Zone shall be as per the Tourism Master Plan for the Eco-sensitive Zone.

(b) The Eco-Tourism Master Plan shall be prepared by the State Department of Tourism in consultation with State Departments of Environment and Forests.

(c) The Tourism Master Plan shall form a component of the Zonal Master Plan.

(d) The Tourism Master Plan shall be drawn based on the study of carrying capacity of the Eco-sensitive Zone.

(e) The activities of eco-tourism shall be regulated as under, namely:-

- (i) new construction of hotels and resorts shall not be allowed within one kilometre from the boundary of the protected area or upto the extent of the Eco-sensitive Zone whichever is nearer:

Provided that beyond the distance of one kilometre from the boundary of the protected area till the extent of the Eco-sensitive Zone, the establishment of new hotels and resorts shall be allowed only in pre-defined and designated areas for Eco-tourism facilities as per Tourism Master Plan;

- (ii) all new tourism activities or expansion of existing tourism activities within the Eco-sensitive Zone shall be in accordance with the guidelines issued by the Central Government in the Ministry of Environment, Forest and Climate Change and the eco-tourism guidelines issued by National Tiger Conservation Authority (as amended from time to time) with emphasis on eco-tourism, eco-education and eco-development;
- (iii) until the Zonal Master Plan is approved, development for tourism and expansion of existing tourism activities shall be permitted by the concerned regulatory authorities based on the actual site specific scrutiny and recommendation of the Monitoring Committee and no new hotel/resort or commercial establishment construction shall be permitted within Eco-sensitive Zone area.
- (4) **Natural heritage.**- All sites of valuable natural heritage in the Eco-sensitive Zone, such as the gene pool reserve areas, rock formations, waterfalls, springs, gorges, groves, caves, points, walks, rides, cliffs, etc. shall be identified and a heritage conservation plan shall be drawn up for their preservation and conservation as a part of the Zonal Master Plan.
- (5) **Man-made heritage sites.**- Buildings, structures, artefacts, areas and precincts of historical, architectural, aesthetic, and cultural significance shall be identified in the Eco-sensitive Zone and heritage conservation plan for their conservation shall be prepared as part of the Zonal Master Plan.
- (6) **Noise pollution.** - Prevention and control of noise pollution in the Eco-sensitive Zone shall be complied in accordance with the provisions of the Noise Pollution (Regulation and Control) Rules, 2000 under the Environment Act.
- (7) **Air pollution.**- Prevention and control of air pollution in the Eco-sensitive Zone shall be compiled in accordance with the provisions of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and the rules made thereunder.
- (8) **Discharge of effluents.**- Discharge of treated effluent in Eco-sensitive Zone shall be in accordance with the provisions of the General Standards for Discharge of Environmental Pollutants covered under the Environment Act and the rules made thereunder or standards stipulated by State Government whichever is more stringent.
- (9) **Solid wastes.**- Disposal and Management of solid wastes shall be as under:-
- (a) the solid waste disposal and management in the Eco-sensitive Zone shall be carried out in accordance with the Solid Waste Management Rules, 2016, published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number S.O. 1357 (E), dated the 8<sup>th</sup> April, 2016; the inorganic material may be disposed in an environmental acceptable manner at site identified outside the Eco-sensitive Zone;
- (b) safe and Environmentally Sound Management of Solid wastes in conformity with the existing rules and regulations using identified technologies may be allowed within Eco-sensitive Zone.
- (10) **Bio-Medical Waste.**- Bio Medical Waste Management shall be as under:-
- (a) the Bio-Medical Waste disposal in the Eco-sensitive Zone shall be carried out in accordance with the Bio-Medical Waste Management, Rules, 2016 published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R 343 (E), dated the 28<sup>th</sup> March, 2016.
- (b) safe and Environmentally Sound Management of Bio-Medical Wastes in conformity with the existing rules and regulations using identified technologies may be allowed within the Eco-sensitive Zone.
- (11) **Plastic Waste Management.**- The Plastic Waste Management in the Eco-sensitive Zone shall be carried out as per the provisions of the Plastic Waste Management Rules, 2016, published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R. 340(E), dated the 18<sup>th</sup> March, 2016, as amended from time to time.
- (12) **Construction and Demolition Waste Management.**- The Construction and Demolition Waste Management in the Eco-sensitive Zone shall be carried out as per the provisions of the Construction and Demolition Waste Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R. 317(E), dated the 29<sup>th</sup> March, 2016, as amended from time to time.

- (13) **E-waste.-** The E-waste management in the Eco-sensitive Zone shall be carried out as per the provisions of the E-Waste Management Rules, 2016, published by the Government of India in the Ministry of Environment, Forest and Climate Change and as amended from time to time.
- (14) **Vehicular Traffic.-** The vehicular movement of traffic shall be regulated in a habitat friendly manner and specific provisions in this regard shall be incorporated in the Zonal Master Plan and till such time as the Zonal Master plan is prepared and approved by the Competent Authority in the State Government, the Monitoring Committee shall monitor compliance of vehicular movement under the relevant Acts and the rules and regulations made thereunder.
- (15) **Vehicular Pollution.-** Prevention and control of vehicular pollution shall be in compliance with applicable laws and efforts shall be made for use of cleaner fuels.
- (16) **Industrial units.-** (i) On or after the publication of this notification in the Official Gazette, no new polluting industries shall be permitted to be set up within the Eco-sensitive Zone.
- (ii) Only non-polluting industries shall be allowed within Eco-sensitive Zone as per the classification of Industries in the guidelines issued by the Central Pollution Control Board in February, 2016, unless so specified in this notification, and in addition, the non-polluting cottage industries shall be promoted.
- (17) **Protection of hill slopes.-** The protection of hill slopes shall be as under:-
- (a) the Zonal Master Plan shall indicate areas on hill slopes where no construction shall be permitted;
- (b) construction shall not be permitted on existing steep hill slopes or slopes with a high degree of erosion.
- 4. List of activities prohibited or to be regulated within Eco-sensitive Zone.-** All activities in the Eco sensitive Zone shall be governed by the provisions of the Environment Act and the rules made thereunder including the Coastal Regulation Zone, 2011 and the Environmental Impact Assessment Notification, 2006 and other applicable laws including the Forest (Conservation) Act, 1980 (69 of 1980), the Indian Forest Act, 1927 (16 of 1927), the Wildlife (Protection) Act, 1972 (53 of 1972), and amendments made thereto and be regulated in the manner specified in the Table below, namely:-

TABLE

S. No. (1)	Activity (2)	Description (3)
<b>A. Prohibited Activities</b>		
1.	Commercial mining, stone quarrying and crushing units.	(a) All new and existing mining (minor and major minerals), stone quarrying and crushing units are prohibited with immediate effect except for meeting the domestic needs of bona fide local residents including digging of earth for construction or repair of houses and for manufacture of country tiles or bricks for housing and for personal consumption;  (b) The mining operations shall be carried out in accordance with the order of the Hon'ble Supreme Court dated the 4 <sup>th</sup> August, 2006 in the matter of T.N. Godavarman Thirumulpad Vs. UOI in W.P.(C) No.202 of 1995 and dated 21 <sup>st</sup> April, 2014 in the matter of Goa Foundation Vs. UOI in W.P.(C) No.435 of 2012.
2.	Setting up of new saw mills.	New or expansion of existing saw mills shall not be permitted within the Eco-sensitive Zone.
3.	Setting of industries causing pollution (Water, Air, Soil, Noise, etc.).	New industries and expansion of existing polluting industries in the Eco-sensitive Zone shall not be permitted:  Provided that non-polluting industries shall be allowed

S. No. (1)	Activity (2)	Description (3)
		within Eco-sensitive Zone as per classification of Industries in the guidelines issued by the Central Pollution Control Board in February, 2016, unless so specified in this notification and in addition the non-polluting cottage industries shall be promoted.
4.	Establishment of major hydro-electric project.	Prohibited (except as otherwise provided) as per the applicable laws.
5.	Use or production or processing of any hazardous substances.	Prohibited (except as otherwise provided) as per the applicable laws.
6.	Discharge of untreated effluents in natural water bodies or land area.	Prohibited (except as otherwise provided) as per the applicable laws.
7.	Setting up of brick kilns.	Prohibited (except as otherwise provided) as per the applicable laws.
<b>B. Regulated Activities</b>		
8.	Commercial establishment of hotels and resorts.	No new commercial hotels and resorts shall be permitted within one kilometer of the boundary of the protected area or upto the extent of Eco-sensitive Zone, whichever is nearer, except for small temporary structures for eco-tourism activities:  Provided that, beyond one kilometer from the boundary of the protected area or upto the extent of Eco-sensitive Zone whichever is nearer, all new tourist activities or expansion of existing activities shall be in conformity with the Tourism Master Plan and guidelines as applicable.
9.	Construction activities.	(a) New commercial construction of any kind shall not be permitted within one kilometer from the boundary of the protected area or upto extent of the Eco-sensitive Zone, whichever is nearer:  Provided that, local people shall be permitted to undertake construction in their land for their use including the activities mentioned in sub-paragraph (1) of paragraph 3 as per building bye-laws to meet the residential needs of the local residents:  Provided further that the construction activity related to small scale industries not causing pollution shall be regulated and kept at the minimum, with the prior permission from the competent authority as per applicable rules and regulations, if any.  (b) Beyond one kilometer it shall be regulated as per the Zonal Master Plan.
10.	Felling of trees.	(a) There shall be no felling of trees in the forest or Government or revenue or private lands without prior permission of the competent authority in the State Government.  (b) The felling of trees shall be regulated in accordance with the provisions of the concerned Central or State Act and the rules made thereunder.
11.	Discharge of treated waste water or effluents in natural water bodies or land area.	The discharge of treated waste water or effluents shall be avoided to enter into the water bodies and efforts shall be made for recycle and reuse of treated waste water. Otherwise the discharge of treated waste water or effluent shall be regulated

S. No. (1)	Activity (2)	Description (3)
		as per the applicable laws.
12.	Commercial use of firewood.	Regulated as per the applicable law.
13.	Drastic change of agriculture systems.	Regulated under applicable law.
14.	Introduction of exotic species.	Regulated as per the applicable laws.
15.	Commercial extraction of surface and ground water.	Regulated as per the applicable laws.
16.	Erection of electrical and communication towers and laying of cables and other infrastructures.	Regulated under applicable laws. Underground cabling may be promoted.
17.	Fencing of premises of hotels and lodges.	Regulated under applicable laws.
18.	Use of polythene bags.	Regulated as per the applicable laws.
19.	Widening and strengthening of existing roads and construction of new roads.	Taking measures of mitigation as per the applicable laws, rules and regulation and available guidelines.
20.	Protection of hill slopes and river banks.	Regulated as per the applicable laws.
21.	Commercial sign boards and hoardings.	Regulated as per the applicable laws.
22.	Small scale non polluting industries.	Non polluting industries as per classification of industries issued by the Central Pollution Control Board in February, 2016 and non-hazardous, small-scale and service industry, agriculture, floriculture, horticulture or agro-based industry producing products from indigenous materials from the Eco-sensitive Zone shall be permitted by the competent authority.
23.	Collection of Forest produce or Non-Timber Forest produce.	Regulated as per the applicable laws.
24.	Infrastructure including civic amenities.	Taking measures of mitigation as per the applicable laws, rules and regulations and available guidelines.
25.	Movement of vehicular traffic at night.	Regulated for commercial purpose under applicable laws.
26.	Ongoing agriculture and horticulture practices by local communities along with dairies, dairy farming, aquaculture and fisheries.	Permitted as per the applicable laws for use of locals.
27.	Establishment of large-scale commercial livestock and poultry farms by firms, corporate and companies.	Regulated (except as otherwise provided) as per the applicable laws except for meeting local needs.
28.	Solid waste management.	Regulated as per the applicable laws.
29.	Eco-tourism.	Regulated as per the applicable laws.
30.	Air and vehicular pollution.	Regulated as per the applicable laws.
31.	Undertaking other activities related to tourism like flying over the Eco-sensitive Zone area by hot air balloon, helicopter, drones, Microlites, etc.	Regulated as per the applicable laws.
<b>C. Promoted Activities</b>		
32.	Rain water harvesting.	Shall be actively promoted.
33.	Organic farming.	Shall be actively promoted.

S. No. (1)	Activity (2)	Description (3)
34.	Use of renewable energy and fuels.	Bio-gas, solar light, etc. shall be actively promoted.
35.	Adoption of green technology for all activities.	Shall be actively promoted.
36.	Cottage industries including village artisans, etc.	Shall be actively promoted.
37.	Agro-Forestry.	Shall be actively promoted.
38.	Plantation of Horticulture and Herbals.	Shall be actively promoted.
39.	Use of eco-friendly transport.	Shall be actively promoted.
40.	Skill Development.	Shall be actively promoted.
41.	Restoration of degraded land/ forests/ habitat.	Shall be actively promoted.
42.	Environmental awareness.	Shall be actively promoted.

- 5. Monitoring Committee for Monitoring the Eco-sensitive Zone Notification.-** For effective monitoring of the provisions of this notification under sub-section (3) of section 3 of the Environment (Protection) Act, 1986, the Central Government hereby constitutes a Monitoring Committee, comprising of the following, namely:-

S. No.	Constituent of the Monitoring Committee	Designation
(i)	Hon'ble Sabhapati, Dakhsin Tripura Zilla Parisad, Udaipur	Chairman, ex officio
(ii)	A representative of non-government organization working in the field of wildlife conservation to be nominated by the State Government	Member;
(iii)	An expert in Biodiversity nominated by the State Government	Member;
(iv)	An expert in Ecology and Environment to be nominated by the State Government	Member;
(v)	A representative from State Public Works Department	Member;
(vi)	A representative from State Pollution Control Board	Member;
(vii)	Wildlife Warden, Trishna Wildlife Sanctuary	Member-Secretary.

- 6. Terms of Reference. –** (1) The Monitoring Committee shall monitor the compliance of the provisions of this notification.

- (2) The tenure of the Monitoring committee shall be for three years or till the re-constitution of the new Committee by the State Government and subsequently the Monitoring Committee shall be constituted by the State Government.
- (3) The activities that are covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006, and are falling in the Eco-sensitive Zone, except for the prohibited activities as specified in the Table under paragraph 4 thereof, shall be scrutinised by the Monitoring Committee based on the actual site-specific conditions and referred to the Central Government in the Ministry of Environment, Forest and Climate Change for prior environmental clearances under the provisions of the said notification.
- (4) The activities that are not covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forest number S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006 and are falling in the Eco-sensitive Zone, except for the prohibited activities as specified in the Table under paragraph 4 thereof, shall be scrutinised by the Monitoring Committee based on the actual site-specific conditions and referred to the concerned regulatory authorities.

- (5) The Member-Secretary of the Monitoring Committee or the concerned Deputy Commissioner(s) shall be competent to file complaints under section 19 of the Environment Act, against any person who contravenes the provisions of this notification.
- (6) The Monitoring Committee may invite representatives or experts from concerned Departments, representatives from industry associations or concerned stakeholders to assist in its deliberations depending on the requirements on issue to issue basis.
- (7) The Monitoring Committee shall submit the annual action taken report of its activities as on the 31<sup>st</sup> March of every year by the 30<sup>th</sup> June of that year to the Chief Wildlife Warden in the State as per proforma appended at **Annexure V**.
- (8) The Central Government in the Ministry of Environment, Forest and Climate Change may give such directions, as it deems fit, to the Monitoring Committee for effective discharge of its functions.
7. The Central Government and State Government may specify additional measures, if any, for giving effect to provisions of this notification.
8. The provisions of this notification shall be subject to the orders, if any passed or to be passed by the Hon'ble Supreme Court of India or the High Court or the National Green Tribunal.

[F. No. 25/44/2017-ESZ]

**DR SATISH C. GARKOTI**, Scientist 'G

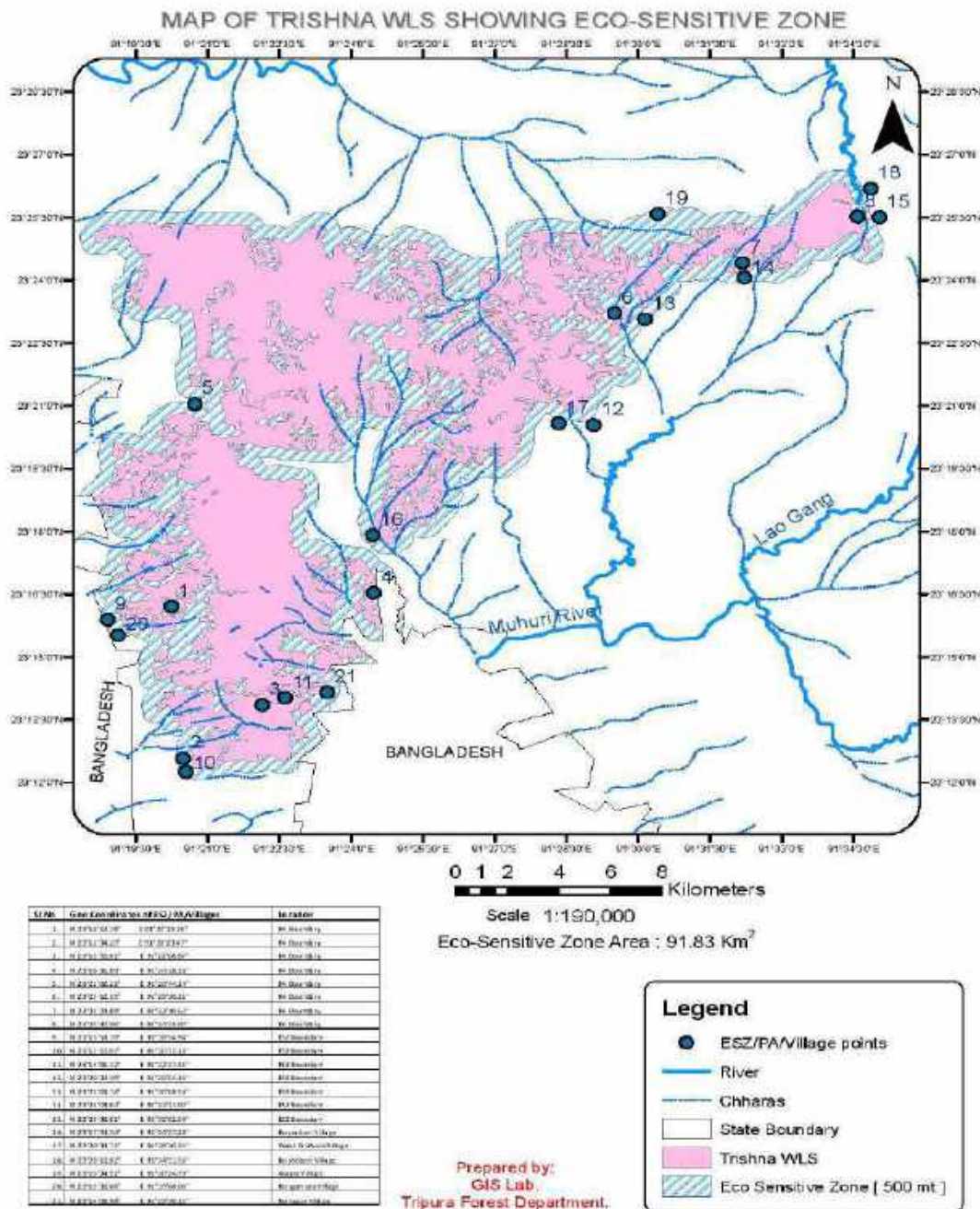
**ANNEXURE- I**

**BOUNDARY DESCRIPTION OF TRISHNA WILDLIFE SANCTUARY AND ITS ECO-SENSITIVE ZONE IN  
THE STATE TRIPURA**

<b>North</b>	Northern side of proposal Eco-sensitive Zone of Trishna Wildlife Sanctuary consists of Samukhcherra and Garjee Reserve Forest. The area is little undulating with perennial streams and natural forests.
<b>North East</b>	North Eastern boundary of proposed Eco-Sensitive Zone of the Trishna Wildlife Sanctuary consists of Chandrapur Reserve Forest of Udaipur Civil Sub-Division. The area is more or less having gentle undulation with perennial streams and natural forests.
<b>South East</b>	South Eastern boundary of proposed Eco-Sensitive Zone of the Trishna Wildlife Sanctuary consists of Purba Pipariakhola and Kashari Mouja of non-forest land. The area is having more undulation with perennial streams and rich in biodiversity.
<b>South</b>	Southern boundary of proposed Eco-Sensitive Zone of the Trishna Wildlife Sanctuary consists of Jaganath Dhigi Reserve Forest and falls under Purba Anandapur, Dakshin Krishnapur & Radhanagar mouja respectively. A portion of non forest land also exists in Uttar Krishnapur, Dakshin Krishnapur and Purba Anandapur. The area is little undulating with perennial streams and natural forests. There are many paddy fields existing in the area.
<b>South West</b>	South Western side of proposed Eco-sensitive Zone of the Trishna Wildlife Sanctuary extended up to Indo-Bangladesh Border.
<b>North West</b>	North Western side of proposed Eco-sensitive Zone of the Trishna Wildlife Sanctuary consists Khedarbari, Kathalia & Dakshin Taibandai of Sonamura Civil Sub-Division and consists of Tulatalibari and Koparchahola Reserve Forest as well as non forest land respectively. The area is having gentle undulation with perennial streams and natural forests. Paddy fields intermittently exist in the area.

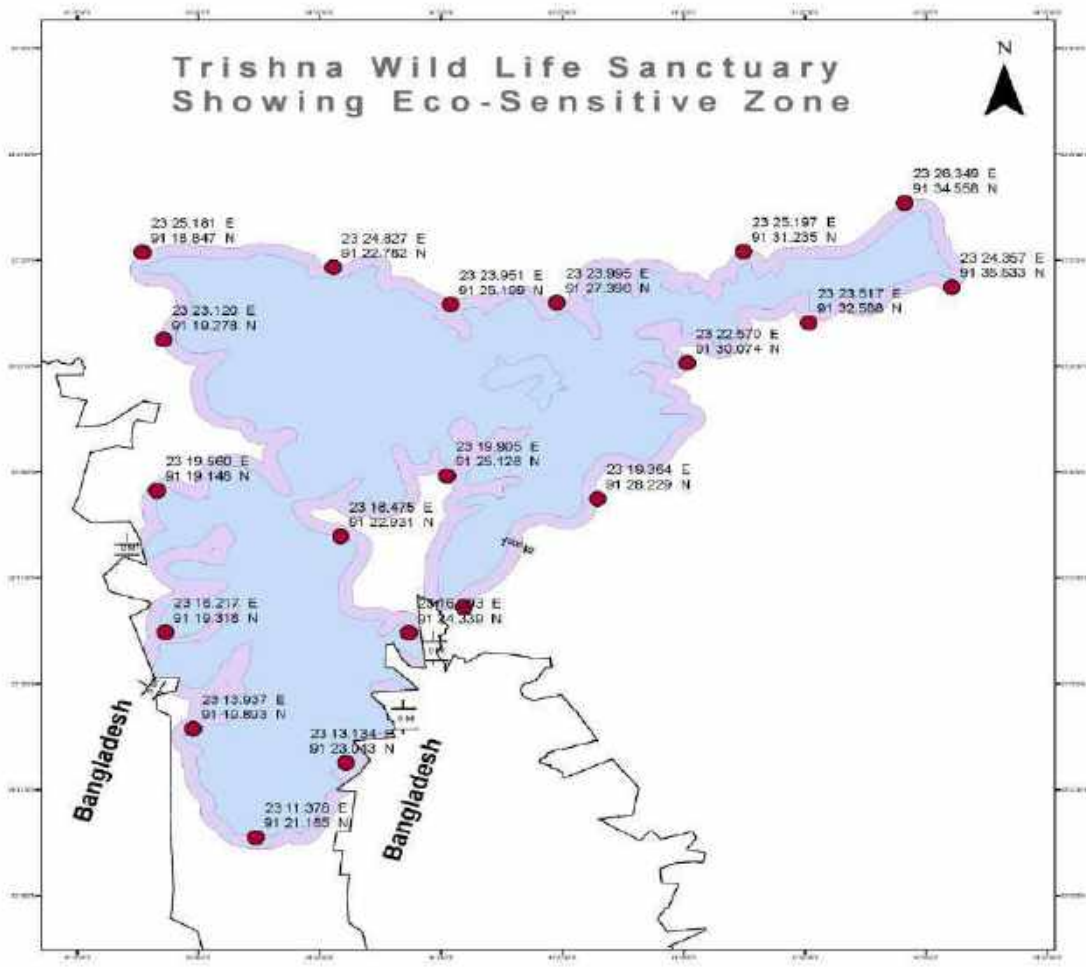
ANNEXURE- IIA

MAP OF TRISHNA WILDLIFE SANCTUARY AND ITS ECO-SENSITIVE ZONE ALONG WITH VILLAGES POINT AND LATITUDE - LONGITUDE OF PROMINENT LOCATIONS



ANNEXURE- IIB

MAP OF ECO-SENSITIVE ZONE OF TRISHNA WILDLIFE SANCTUARY ALONG WITH LATITUDE AND LONGITUDE OF PROMINENT LOCATIONS



ECO-Sensitive Zone = 91.83 sq.km.

**Legend**

- Trishna WLS GPS Points
- Trishna WLS Boundary
- ECO-Sensitive Zone ( 500 mt Buffer)
- State Boundary

Prepared by  
GIS Lab  
Trishna Forest Department

1:100,000

0 1.75 3.5 7 10.5 14 Kilometers

## ANNEXURE-III

TABLE A: GEO- COORDINATES OF PROMINENT LOCATIONS OF TRISHNA WILDLIFE SANCTUARY

S. No.	Latitude (N)	Longitude (E)
1	N 23°16'12.18"	E 91°20'15.16"
2	N 23°12'34.25"	E 91°20'29.47"
3	N 23°13'50.81"	E 91°22'08.87"
4	N 23°16'31.89"	E 91°24'28.38"
5	N 23°21'02.21"	E 91°20'44.14"
6	N 23°23'12.35"	E 91°29'30.21"
7	N 23°24'24.89"	E 91°32'10.62"
8	N 23°25'30.96"	E 91°34'35.07"
9	N 23°26'11.19"	E 91°21'43.85"
10	N 23°26'14.95"	E 91°18'56.37"

TABLE B: GEO-COORDINATES OF PROMINENT LOCATIONS OF ECO-SENSITIVE ZONE

S. No.	Latitude (N)	Longitude (E)
1	N 23°15'53.19"	E 91°18'54.94"
2	N 23°12'15.07"	E 91°20'33.16"
3	N 23°14'01.12"	E 91°22'37.41"
4	N 23°16'29.99"	E 91°25'23.91"
5	N 23°20'32.39"	E 91°29'04.16"
6	N 23°23'03.74"	E 91°30'08.58"
7	N 23°24'03.64"	E 91°32'13.02"
8	N 23°25'30.01"	E 91°35'02.59"
9	N 23°26'19.63"	E 91°21'45.02"
10	N 23°26'24.15"	E 91°18'43.37"

**ANNEXURE-IV**  
**LIST OF VILLAGES COMING UNDER ECO-SENSITIVE ZONE OF TRISHNA WILDLIFE SANCTUARY**  
**ALONG WITH GEO-COORDINATES**

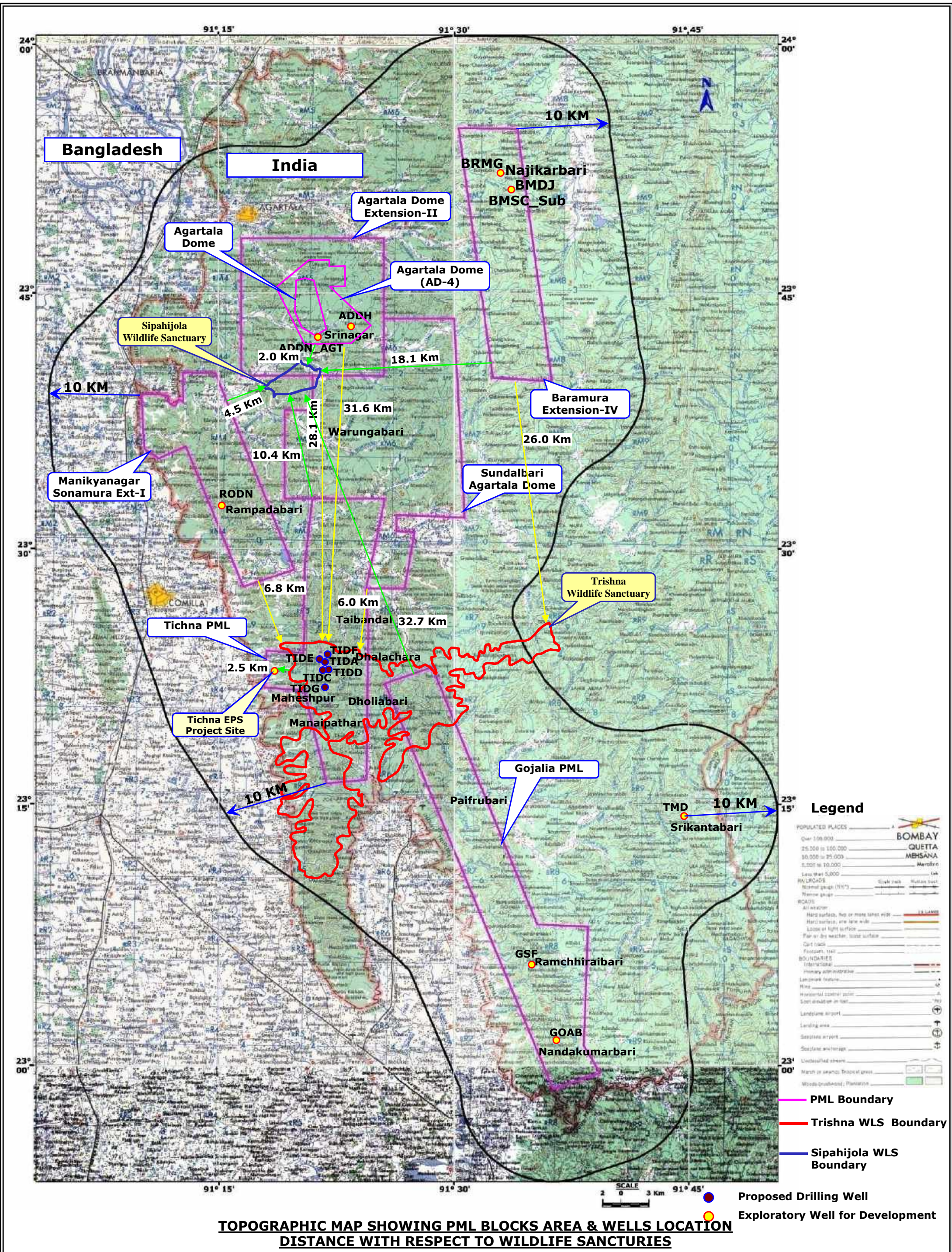
S. No.	Village Name	Latitude (N)	Longitude (E)
1	Barpathari	N 23 <sup>0</sup> 17'54.34"	E 91 <sup>0</sup> 24'27.28"
2	West Paikhola	N 23 <sup>0</sup> 20'34.71"	E 91 <sup>0</sup> 28'20.35"
3	Rajapur	N 23 <sup>0</sup> 21'59.52"	E 91 <sup>0</sup> 30'10.79"
4	Baishabari	N 23 <sup>0</sup> 26'10.82"	E 91 <sup>0</sup> 34'51.56"
5	Garjee	N 23 <sup>0</sup> 25'34.51"	E 91 <sup>0</sup> 30'24.70"
6	Maheshpur	N 23 <sup>0</sup> 21'59.51"	E 91 <sup>0</sup> 19'19.31"
7	Kalikrishnanagar	N 23 <sup>0</sup> 19'39.89"	E 91 <sup>0</sup> 17'55.54"
8	Rangamura	N 23 <sup>0</sup> 15'30.66"	E 91 <sup>0</sup> 19'08.06"
9	Batisha	N 23 <sup>0</sup> 12'01.74"	E 91 <sup>0</sup> 19'47.16"
10	Rajnagar	N 23 <sup>0</sup> 17'54.34"	E 91 <sup>0</sup> 24'27.28"

**ANNEXURE –V**

**Proforma of Action Taken Report:- Eco-sensitive Zone Monitoring Committee.**

1. Number and date of meetings.
2. Minutes of the meetings: (mention noteworthy points. Attach minutes of the meeting as separate Annexure).
3. Status of preparation of Zonal Master Plan including Tourism Master Plan.
4. Summary of cases dealt with rectification of error apparent on face of land record (Eco-sensitive Zone wise). Details may be attached as Annexure.
5. Summary of cases scrutinised for activities covered under the Environment Impact Assessment Notification, 2006 (Details may be attached as separate Annexure).
6. Summary of cases scrutinised for activities not covered under the Environment Impact Assessment Notification, 2006 (Details may be attached as separate Annexure).
7. Summary of complaints lodged under section 19 of the Environment (Protection) Act, 1986.
8. Any other matter of importance.

**Annexure-6**



**TOPOGRAPHIC MAP SHOWING PML BLOCKS AREA & WELLS LOCATION  
DISTANCE WITH RESPECT TO WILDLIFE SANCTUARIES**

**Annexure-7**

**TENTATIVE WELL LOCATIONS OF DEVELOPMENT DRILLING OF 9 WELLS IN TICHNA GAS FIELD**

Sr. No.	Well Code	Well Coordinates (WGS-84)		Distance w.r.t Trishna Wild Life Sanctuary	Distance w.r.t Sepahijala Wild Life Sanctuary	Remarks
		Latitude	Longitude			
1	TIDC	23° 23' 10.64" N	91° 21' 51.16" E	All wells are falling within Trishna WLS	30.0 Km, N	NBWL applicable and under process
2	TIDA	23° 23' 32.57" N	91° 21' 53.20" E		29.1 Km, N	NBWL applicable and Cleared by NBWL in 52 <sup>nd</sup> and 65 <sup>nd</sup> Meeting
3	TIDD	23° 23' 12.57" N	91° 22' 07.26" E		30.0 Km, N	
4	TIDE	23° 23' 45.80" N	91° 24' 48.06" E		28.8 Km, N	
5	TIDF	23° 23' 58.15" N	91° 24' 01.46" E		28.4 km, N	
6	TIDG	23° 23' 12.62" N	91° 24' 00.75" E		31.9 Km, N	NBWL applicable and under process
7	TIAC					TIAC & TIAG are exploratory wells (Category B2). Hence not considered
8	TIAG					
9	TIAF					Rejected
10	Tichna EPS	23° 23' 20.62" N	91° 18' 23.04" E	2.5 Km, W	29.5 Km, N	NBWL not applicable

**CONVERSION OF 9 EXPLORATION WELLS IN TO DEVELOPMENT WELLS AND ASSOCIATE FLOW LINE LENGTH DETAILS**

Sr. No	Well Code	PML Block Name	Well Coordinates (WGS-84)		Distance w.r.t Trishna Wild Life Sanctuary	Distance w.r.t Sepahijala Wild Life Sanctuary	Remarks
			Latitude	Longitude			
1	ADDH	Agartala Dome (AD4)	23° 43' 21.00" N	91° 23' 31.61" E	33.6 Km, S	6.1 Km, SW	-
2	ADDN_AGT	Agartala Dome	23° 42' 47.71" N	91° 21' 21.19" E	32.3 Km, S	3.3 Km, SSW	-
3	BMSC_Sub	Baramura	23° 51' 26.19" N	91° 33' 36.42 E	46.6 Km, S	28.9 Km, SW	-
4	BMDJ	Baramura	23° 51' 26.19" N	91° 33' 36.42" E	48.5 Km, S	28.9 Km, SW	BMDJ is not economically feasible and therefore it is dropped from the proposal.
5	BRMG	Baramura Ext -IV	23° 52' 20.87" N	91° 33' 00.00" E	46.6 Km, S	29.2 Km, SW	-
6	RODN	Manikya Nagar Sonamura Ext I	23° 32' 53.61" N	91° 15' 13.07" E	15.9 Km, NNW	12.9 Km, NNE	-
7	GSF	Gojalia	23° 05' 50.72" N	91° 34' 39.90" E	23.6 Km, NW	66.8 Km, NNW	-

*Development Drilling of 9 wells in Tichna Gas Field, Construction of Tichna Well Manifold & Conversion of 9 Exploration Wells in to Development Wells & Laying of Associated Flow Line in Tripura*

Sr. No	Well Code	PML Block Name	Well Coordinates (WGS-84)		Distance w.r.t Trishna Wild Life Sanctuary	Distance w.r.t Sepahijala Wild Life Sanctuary	Remarks
			Latitude	Longitude			
8	GOAB	Gojalia	23° 01' 33.03" N	91° 36' 15.52" E	30.2 Km, NW	75.4 Km, NNW	-
9	TMD	Tulamura	23° 14' 38.155" N	91° 44' 28.93" E	26.3 Km, NW	62.1 Km, NW	TMD is dropped from the proposal as it has already been transferred to M/s OIL.

**Annexure-8**



Government of India  
Ministry of Environment, Forest and Climate Change  
(Wildlife Division)

6<sup>th</sup> Floor, Vayu Wing  
Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj  
New Delhi 110 003  
Date: 22.01.2019

F.No.6-181/2018 WL

To

All Members  
Standing Committee of NBWL

**Sub:** Minutes of 52<sup>nd</sup> Meeting of the Standing Committee of National Board for Wildlife- reg.

Sir / Madam,

Kindly find enclosed copy of the Minutes of 52<sup>nd</sup> Meeting of the Standing Committee of National Board for Wildlife held on 10<sup>th</sup> January 2019 through Video Conference under the chairmanship of Hon'ble Union Minister of Environment, Forest and Climate Change.

Yours faithfully,

(Dr Pasupala Ravi)  
Scientist C

**Encl:** As above

**Distribution**

- (1) Secretary, MoEF&CC
- (2) DGF&SS, MoEF&CC
- (3) Member Secretary, NTCA
- (4) ADGF(FC), MoEF&CC
- (5) ADGF(WL), MoEF&CC
- (6) Director, WII, Dehradun
- (7) Director, GEER Foundation, Gandhinagar, Gujarat
- (8) Prof. R. Sukumar, Member, NBWL
- (9) Dr. H.S. Singh, Member, NBWL
- (10) Pr. Secretary (Dept. of Envi., Forest, Science & Tech.), Govt. of Andhra Pradesh
- (11) Shri Noyal Thomas, IGF & Director (PE)

**Copy to**

- (1) PS to Hon'ble MoEF&CC
- (2) PPS to DGF&SS, MoEF&CC
- (3) PPS to Addl.DGF(WL), PPS to IGF(WL)
- (4) CWLW, Karnataka / CWLW, Jharkhand / CWLW, Rajasthan / CWLW, Uttarakhand / CWLW, Tripura, CWLW, Maharashtra

**52.3.11 Diversion of 1.112 ha of forestland and 0.404 ha of non-forestland for construction of drill site, waste pit and approach road for the location TIDD project falling within Trishna Wildlife Sanctuary**

The IGF(WL) briefed the Standing Committee on the proposal and stated that the proposal involves diversion of 1.112 ha of forestland and 0.404 ha of non-forestland from the Trishna Wildlife Sanctuary for construction of drill site, waste pit and approach road. He added that the State Chief Wildlife Warden has recommended the proposal with the following conditions:

- (1) Rs.60 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.
- (2) Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.
- (3) Alternative grazing land for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- (4) Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC embedding at bottom and 3 (three) strands of barbed wire on top around Sanctuary and the project site for restriction of entry of wild animals specially bison.
- (5) Alternative grazing land for bison i.e., plantation of Congo signa grass, fruit bearing species, Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- (6) Eco-tourism amenities and awareness activities in different locations.
- (7) Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioral effect in wild animals specially bison.

After discussions the Standing Committee decided to recommend the project tentatively subject to the conditions that

- (a) The State Government shall obtain legal opinion from the Advocate General on that extraction of natural gas / oil cannot be considered as mining in terms of Hon'ble Supreme Court order dated 4.8.2006 in IA-1000 in WPC-202/1995 (Godavarman vs. Union of India). The Ministry shall also seek the legal opinion from the Solicitor General of India on similar lines.
- (b) The project proponent will comply with all the conditions imposed by the State Chief Wildlife Warden.

Union of India). The Ministry shall also seek the legal opinion from the Solicitor General of India on similar lines.

- (b) The project proponent will comply with all the conditions imposed by the State Chief Wildlife Warden.
- (c) The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wildlife Warden and an annual compliance certificate shall be submitted by the State Chief Wildlife Warden to Gol.

### **52.3.13 Diversion of 1.76 ha of forestland from Trishna Wildlife Sanctuary for construction of drill site, waste pit and approach road**

The IGF(WL) briefed the Standing Committee on the proposal and stated that the proposal involves diversion of 1.76 ha of forestland from Trishna Wildlife Sanctuary for construction of drill site, waste pit and approach road. He added that the State Chief Wildlife Warden has recommended the proposal with the following conditions:

- (1) Rs.70 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.
- (2) Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.
- (3) Development of alternative grazing area for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- (4) Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC embedding at bottom and 3 (three) strands of barbed wire on top around Sanctuary and the project site for restriction of entry of wild animals specially bison.
- (5) Development of alternative grazing area for Bison i.e. plantation of Congo signa grass, fruit bearing species & Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- (6) Tourist amenities and awareness activities in different locations.
- (7) Procurement of one battery operated mini bus for the tourist fully equipped with tranquilizing gun and other equipments.
- (8) Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioral effect in wild animals specially bison.

After discussions the Standing Committee decided to recommend the project tentatively subject to the conditions that

- (a) The State Government shall obtain legal opinion from the Advocate General on that extraction of natural gas / oil cannot be considered as mining in terms of Hon'ble Supreme Court order dated 4.8.2006 in IA-1000 in WPC-202/1995 (Godavarman vs. Union of India). The Ministry shall also seek the legal opinion from the Solicitor General of India on similar lines.
- (b) The project proponent will comply with all the conditions imposed by the State Chief Wildlife Warden.
- (c) The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wildlife Warden and an annual compliance certificate shall be submitted by the State Chief Wildlife Warden to GoI.

**52.3.14 Diversion of 1.96 ha of forestland for construction of drill site, waste pit and approach road for the location TIDF project falling within Trishna Wildlife Sanctuary**

The IGF(WL) briefed the Standing Committee on the proposal and stated that the proposal involves diversion of 1.96 ha of forestland from the Trishna Wildlife Sanctuary for construction of drill site, waste pit and approach road. He added that the State Chief Wildlife Warden has recommended the proposal with the following conditions:

- (1) Rs.80 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.
- (2) Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.
- (3) Development of alternative grazing area for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- (4) Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC pillars embedding at bottom and 3 (three) strands of barbed wire on top around Sanctuary and the project site for restriction of entry of wild animals specially Bison.
- (5) Development of alternative grazing area for Bison i.e., plantation of Congo signa grass, fruit bearing species, Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- (6) Tourist amenities and awareness activities in different locations.

- (7) Procurement of one battery operated mini bus for the tourist fully equipped with tranquilizing gun and other equipments.
- (8) Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioral effect in wild animals specially bison.

After discussions the Standing Committee decided to recommend the project tentatively subject to the conditions that

- (a) The State Government shall obtain legal opinion from the Advocate General on that extraction of natural gas / oil cannot be considered as mining in terms of Hon'ble Supreme Court order dated 4.8.2006 in IA-1000 in WPC-202/1995 (Godavarman vs. Union of India). The Ministry shall also seek the legal opinion from the Solicitor General of India on similar lines.
- (b) The project proponent will comply with all the conditions imposed by the State Chief Wildlife Warden.
- (c) The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wildlife Warden and an annual compliance certificate shall be submitted by the State Chief Wildlife Warden to Gol.

**52.3.15 Diversion of 1.496 ha of forestland for construction of drill site, waste pit and approach road for the location TIDE project falling within Trishna Wildlife Sanctuary**

The IGF(WL) briefed the Standing Committee on the proposal and stated that the proposal involves diversion of 1.496 ha of forestland from the Trishna Wildlife Sanctuary for construction of drill site, waste pit and approach road for TIDE project. He added that the State Chief Wildlife Warden has recommended the proposal with the following conditions:

- (1) Rs.60 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.
- (2) Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.
- (3) Development of alternative grazing area for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- (4) Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC pillars embedding at bottom and 3 (three) strands of barbed wire on

top around Sanctuary and the project site for restriction of entry of wild animals specially Bison.

- (5) Development of alternative grazing area for Bison i.e., plantation of Congo signa grass, fruit bearing species, Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- (6) Tourist amenities and awareness activities in different locations.
- (7) Procurement of one battery operated mini bus for the tourist fully equipped with tranquilizing gun and other equipments.
- (8) Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioral effect in wild animals specially bison.

After discussions the Standing Committee decided to recommend the project tentatively subject to the conditions that

- (a) The State Government shall obtain legal opinion from the Advocate General on that extraction of natural gas / oil cannot be considered as mining in terms of Hon'ble Supreme Court order dated 4.8.2006 in IA-1000 in WPC-202/1995 (Godavarman vs. Union of India). The Ministry shall also seek the legal opinion from the Solicitor General of India on similar lines.
- (b) The project proponent will comply with all the conditions imposed by the State Chief Wildlife Warden.
- (c) The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wildlife Warden and an annual compliance certificate shall be submitted by the State Chief Wildlife Warden to Gol.

**52.3.16 Wildlife Clearance for Banjarewala sand, bajri and boulder mining project (Khasra No.121 Ma, 122 Ma and 124/1 Ma) over total area: 1.4473 ha from River Mohanrao located at Village Banjarewala Grunt, Parangana Bhagwanpur, Tehsil Roorkee, District Haridwar**

The IGF(WL) briefed the Standing Committee on the proposal and stated that the proposal involves collection of sand, bajri and boulder from an area 1.4473 ha located in Yamuna riverbed at 1.40 km away from the Rajaji National Park. He added that the State Chief Wildlife Warden has recommended the proposal with the condition that only hand picking should be allowed.



F.No.6-82/2021 WL  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Wildlife Division)

6<sup>th</sup> Floor, Vayu Wing  
Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj  
New Delhi 110003

Date: 08.10.2021

To  
All Members  
Standing Committee of NBWL

Sub: Minutes of 65<sup>th</sup> Meeting of the Standing Committee of National Board for Wild Life- reg.

Sir / Madam,

Kindly find enclosed copy of the Minutes of 65<sup>th</sup> Meeting of the Standing Committee of National Board for Wild Life held on 24<sup>th</sup> September 2021 under the chairmanship of Hon'ble Minister of Environment, Forest and Climate Change, Government of India.

Yours faithfully,

(Sunil Sharma)

Assistant Inspector General of Forests (WL)

Email: [jd-wl@nic.in](mailto:jd-wl@nic.in)

Encl: As above

**Distribution**

1. Secretary, MoEF&CC
2. DGF&SS, MoEF&CC
3. ADGF(WL), MoEF&CC
4. ADGF(FC), MoEF&CC
5. Member Secretary, NTCA
6. Director/IGF, PE Division, MoEF&CC
7. Director, WII, Dehradun
8. Director, GEER Foundation, Gandhinagar, Gujarat
9. Prof. R. Sukumar, Member, NBWL
10. Dr. H.S. Singh, Member, NBWL
11. Fr. Secretary, Forest Department, Government of Andhra Pradesh

**Copy to**

- (1) PS to Hon'ble MoEF&CC
- (2) PS to Hon'ble MoSEF&CC
- (3) PPS to DGF&SS, MoEF&CC
- (4) PSO to Addl.DGF(WL), Sr.PPS to IGF(WL)
- (5) Additional Chief Secretary/Principal Secretary/Secretary, Forest Department, Government of Arunachal Pradesh, Karnataka, Kerala, Jammu and Kashmir, Ladakh, Maharashtra, Uttar Pradesh, Uttarakhand, Odisha, Punjab and Tripura.
- (6) PCCF and HoFF, Government of Government of Arunachal Pradesh, Karnataka, Kerala, Jammu and Kashmir, Ladakh, Maharashtra, Uttar Pradesh, Uttarakhand, Odisha, Punjab and Tripura.
- (7) CWLW, Government of Arunachal Pradesh, Karnataka, Kerala, Jammu and Kashmir, Ladakh, Maharashtra, Uttar Pradesh, Uttarakhand, Odisha, Punjab and Tripura.

**Copy also to:**

Sr.Technical Director, NIC with a request to upload the minutes of the meeting on PARIVESH Portal.

## AGENDA ITEM No.2

### (Action Taken Report)

#### 65.2.1 Clarification on whether extraction of oil / natural gas is mining

The Standing Committee, in its 52<sup>nd</sup> meeting held on 10<sup>th</sup> January, 2019, tentatively recommended six proposals for diversion of forest land from Trishna Wildlife Sanctuary in Tripura subject to the condition that the State Government shall obtain legal opinion from the Advocate General on whether extraction of natural gas / oil can be considered as mining in terms of Hon'ble Supreme Court order dated 4.8.2006 in IA-1000 in WPC-202/1995 (Godavarman vs. Union of India).

The Ministry of Petroleum and Natural Gas was also requested by the Ministry to seek the opinion of Ld. Solicitor General on the matter.

The Government of Tripura sought the opinion of the Advocate General of Tripura on the matter. The Advocate General has opined that extraction of natural gas/oil is not a mining activity under the provisions of Mines and Minerals (Development & Regulation) Act, 1957.

The opinion of Ld. Solicitor General on the matter was sought by ONGC. Ld. Solicitor General has opined that extraction of natural gas and oil (which includes exploration and development) is not a mining activity when compared to a traditional open cast mining carried out upon large tract of land and that it cannot be considered as mining in terms of Hon'ble Supreme Court order dated 4.8.2006 in IA 1000 in WP (C) No. 202/1995.

The matter was placed before the Standing Committee for taking a view.

**Decision Taken:** After discussion, the Standing Committee noted the legal opinions given by the Advocate General of Tripura and the Solicitor General of India and decided to recommend the proposals.

## AGENDA ITEM No. 3

### (Policy Matters, Court Orders)

65.3.1	<p><b>Cost of mitigation measures due to impact of developmental activities in National Parks, Sanctuaries, their Eco-Sensitive Zones, Tiger Reserves and Tiger Corridors</b></p> <p>In the 64<sup>th</sup> meeting, the Standing Committee recommended that 2% of the proportionate cost of projects falling inside protected areas and ESZ may be imposed on user agencies for impact mitigation measures, wherever required in future. It was</p>
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**Annexure-9**



कार्यालय : उप-तल प्रबंधक  
Office of Sub-Surface Manager

ऑयल एण्ड नेचुरल गैस कॉर्पोरेशन लिमिटेड  
त्रिपुरा परिसम्पत्ति, अगरतला- ७९९ ०१४  
Oil and Natural Gas Corporation Limited  
Tripura Asset, Agartala- 799 014 (India)

Date :- 31.03.2022

To,  
PCCF & HoFF,  
Aranya Bhawan, Pt. Nehru Complex,  
Agartala, Tripura (West).

**Subject: Submission of Conservation plan for Schedule-I species.**

**Proposal No: IA/TR/IND2/62643/2017 dtd 20.02.2017**

Sir,

M/s Oil and Natural Gas Corporation Limited has proposed for “ Development drilling of 9 wells in Tichna gas field, construction of Tichna well manifold & conversion of 9 exploration wells in to development wells & laying of associated flow line at South Tripura District, Tripura” .

Enclosed herewith please find copy of the Conservation plan. Soft Copy of the Conservation plan is also being sent through mail to your good office.

We request you to kindly provide us the acknowledgement receipt.

Thanking you,

*Awadhes Prasad*  
31.03.2022  
(For Project Proponent)  
ONGC Tripura Asset

अवधेश प्रसाद/AWADHESH PRASAD  
महाप्रबंधक (आगत)/GM (Reservoir)  
उप तल तल, ऑ.एन.जी.सी., त्रिपुरा परिसम्पत्ति, अगरतला  
SST, ONGC, Tripura Asset, Agartala.

**Copy to:**

1. Additional PCCF (Protection & NO FCA), IFS CCF (Planning, Development & Budget)
2. CCF (IT and Statistics, Territorial), FHQ



*e/c*

**1. INTRODUCTION:**

Primary survey of Ecology and biodiversity of the project site and its buffer zone was carried out during 2018. Based on the primary survey and on the basis of the reports and records, list of fauna was documented. But the status of the rare or endangered or threatened (RET) species and Schedule I was not known in the case of RET category. The list of RET and Schedule I species has been cross-checked with the most recent data and reports in order to prepare the site-specific wildlife conservation plan.

The study area is covered by several rivers/ streams and rivulets. There are also lakes and ponds within the Wildlife Sanctuaries. A list of Rivers, forests and Wildlife sanctuaries present in the study area is shown in Table 1. There are no biosphere reserves, Nature heritage sites, Tiger or elephant Reserves or corridors, within the study area, which includes both the core area and the buffer zone as stated more clearly in Chapter I of the EIA report. As the area is covered by evergreen open to dense forests; grasslands and plantations of Coffee, Tea and Rubber, the area is rich in primates.

<b>Table 1. Rivers, Forests and Wildlife Sanctuaries found in the study area</b>		
1	Rivers passing through the study area (There are many perennial streams and lakes within the Sepahijola Wildlife Sanctuary and Trishna Wildlife Sanctuary)	Sonal Nadi
		Buwi gary
		Haora River
		Dakdu River
		Dondra River
		Buri Gang river
		Sardu River
		Gomati River
		Amrit Sagar
		Sipahi Jale Lake
		Khowai River
Birang River		
2	Protected areas as per Wildlife Protection Act,1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	Sepahijola Wildlife Sanctuary
		Trishna Wildlife Sanctuary
3	Reserved Forests (RFs) found in the study area.	Trishna R.F
		Teliamum R.F
		Uttar Baramura Deotamura R.F
		Baramura Detamura R.F
		Paschim Kalagari R.F
		Chandrapur R.F
		Garjj R.F
		Kashari R.F
Tekka R.F		

**Wildlife Conservation Plan for 9 Wells of ONGC Tripura Project**

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		Bataga R.F •
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Topo map of the study area is shown in Fig 1.

**Wildlife Conservation Plan for 9 Wells of ONGC Tripura Project**

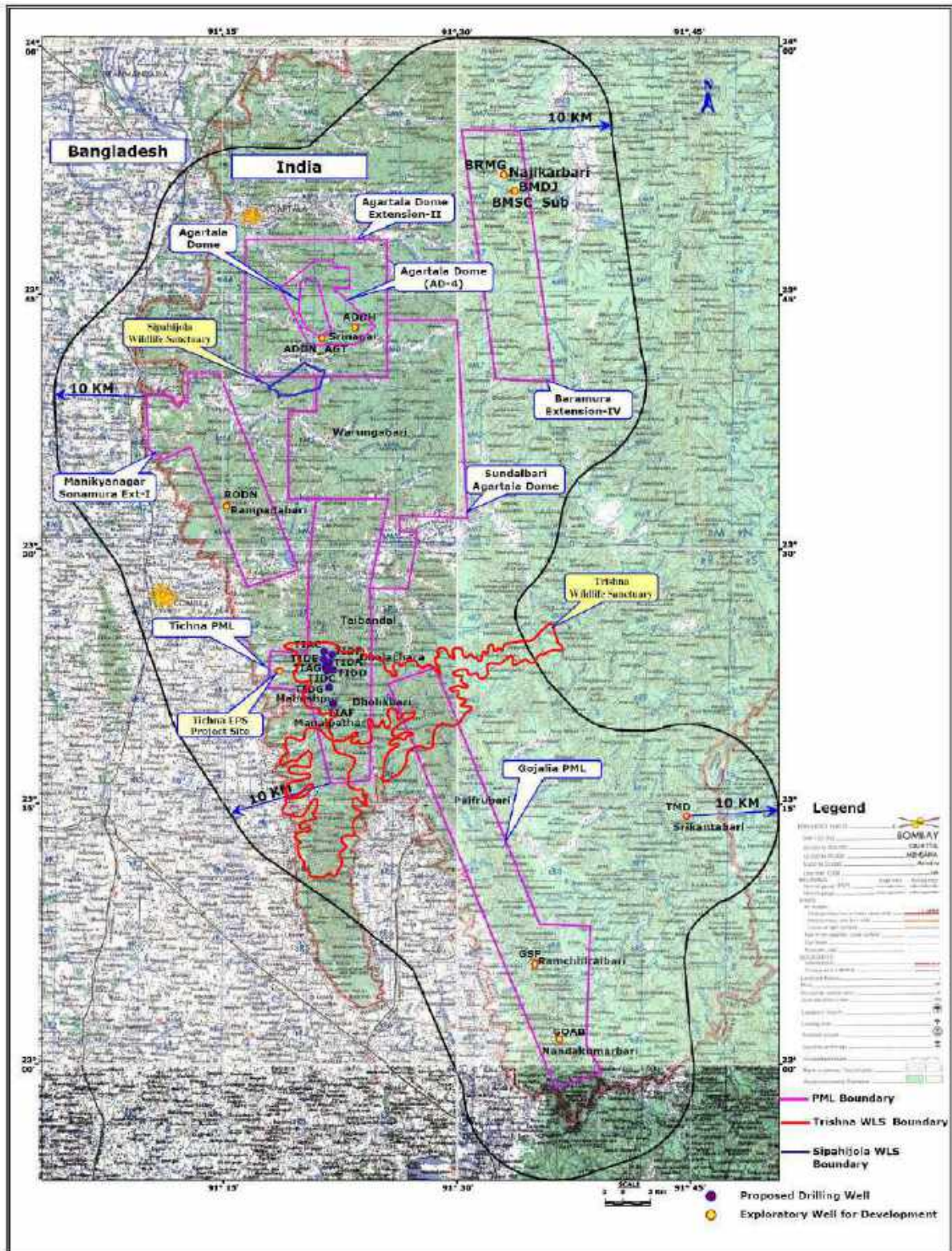


Fig 1: Study area map

**2 RET / Schedule I species Reported from the study area:**

## Wildlife Conservation Plan for 9 Wells of ONGC Tripura Project

A list of Mammals, birds, reptiles and butterflies recorded or reported from the study area during 2018 is shown in Table 2.

<b>Table 2. List of Rare or endangered or threatened (RET) and Schedule I species reported from the study area: EN= Endangered ; LC=Least Concern; VU=Vulnerable; and NT = Near threatened. Yes denotes the most probable occurrence and No denotes that they were not spotted during the past 4 years.</b>					
S.No	Scientific Name	Common Name	IUCN	WPA Schedule	Whether present?
	Mammals				
1	Elephant	<i>Elephas maximus</i>	EN	I	Yes
2	Sloth Bear	<i>Melursus ursinus</i>	VU	I	Yes
3	Indian Bison	<i>Bos gaurus</i>	VU	I	Yes
4	Binturong	<i>Arctictis binturong</i>	VU	I	Yes
5	Capped Langur	<i>Presbytis pileatus</i>	VU	I	Yes
6	Chinese Pangolin	<i>Manis pentadactyla</i>	EN	I	No
7	Leaf Monkey / Chasma Banar	<i>Trachypithecus phayrei</i>	EN	I	Yes
8	Gee's Golden Langur	<i>Trachypithecus geei</i>	EN	I	Yes
9	Leopard	<i>Panthera pardus</i>	VU	I	Yes
10	Clouded Leopard	<i>Neofelis nebulosa</i>	VU	I	Yes
11	Hoolock Gibbon	<i>Hoolock hoolock/ Hylobates hoolock</i>	EN	I	Yes
12	Slow Loris	<i>Nycticebus couceang</i>	EN	I	Yes
13	Indian Pangolin	<i>Manis crassicaudata</i>	EN	I	Yes
14	Wolf	<i>Canis lupus</i>	VU	I	Yes
	Birds				
15	Himalayan Griffon Vulture	<i>Gyps himalayensis</i>	EN	I	No
16	White Rumped Vulture	<i>Gyps bengalensis</i>	EN	I	No
17	Indian Peafowl	<i>Pavo cristatus</i>	LC	I	Yes
18	Great Pied Hornbill	<i>Buceros bicornis</i>	LC	I	Yes
19	Slender Billed Vulture	<i>Gyps indicus</i>	EN	I	No
	Reptiles				
20	Spotted Pond Turtle	<i>Geoclemys hamiltonii</i>	VU	I	Yes
21	Asian Leaf Turtle	<i>Cyclemys gemeli</i>	NE	I	Yes
22	Gangetic Softshell Turtle	<i>Aspideretes gangeticus (=Nilssonia gangetica)</i>	VU	I	Yes
23	River Terrapin	<i>Batagur baska</i>	CR	I	No
24	Indian Monitor Lizard	<i>Varanus bengalensis</i>	LC	I	Yes
25	Indian Python	<i>Python molurus</i>	NT	I	Yes
	Butterfly				
26	Common Pierrot	<i>Castalius rosimon</i>	NE	I	Yes

### 3 Wildlife Sanctuaries Found in the Study area:

#### 3.i Sipahijola or Sepahijala Wildlife Sanctuary

Sipahijola or Sepahijala Wildlife Sanctuary is a wildlife sanctuary in Tripura, India was initiated in 1972. The sanctuary has five sections: carnivores, primates, ungulates, reptiles and aviary. The aviary has 150 species of birds and in the primates section there are four species of primates. The sanctuary covers about 18.53 square kilometres (7.15 sq mi), about 25 kilometres (16 mi) from the city

centre, located in Bishalgarh. It is a woodland with an artificial lake and natural botanical and zoological gardens. It is famous for its clouded leopard enclosures. The sanctuary contains a variety of birds, primates, and other animals. The terrain is green throughout the year. It gives shelter to about 150 species of birds and the unique bespectacled monkey, Phayre's langur. The primate section consists of four species (rhesus macaque, pig-tailed macaque, capped langur and spectacled langur). The crab-eating mongoose (last sighted in the 1930s) has been resuscitated. The sanctuary has been developed both as a wildlife sanctuary and as an academic and research centre. About 150 species of birds live in the sanctuary, and migratory birds visit in winter. There are several lakes; among which Amrit Sagar named lake have boating facility.

### **3.ii: Trishna Wildlife Sanctuary**

Trishna Wildlife Sanctuary located in Tripura covers an area of about 163.08 square kilometres (62.97 sq mi). This sanctuary is situated in South Tripura District. It is 18 kilometres away from the sub divisional town of Belonia and is connected with Agartala by state highway. It can be approached either from Belonia in the south or Sonamura in the northern side. The sanctuary has an area of 194.708 square kilometers. This sanctuary has a number of perennial water rivulets, water bodies, and grasslands. In this sanctuary, there are patches of virgin forests which are rich in rare vegetation. Indian Gaur (Bison) is an attraction of this sanctuary. Apart from it, there are varieties of Birds, Deers, Hollock Gibbon, Golden Langur, Capped Langur, Pheasant and many other animals and reptiles.

Some of the major attractions of the sanctuary are the Indian Gaur (Bison), Deer, Hooklock Gibbon, Golden langur, Pheasants, Lalmukh Bandar, Wild Boar, Wild Cat, Leopard. It is also a home to a great variety of reptiles and different species of resident and migratory birds hayre's Langur or Leaf Monkey *Trachypithecus phayrei* is the State Animal of Tripura. It is confined to the three states of the Northeast, but the largest population survives in Tripura in the Trishna Wildlife Sanctuary as one of its strongholds. Binturong *Arctictis binturong*, a highly endangered and rarely encountered carnivore belonging to family Viverridae is found in this sanctuary. Not much is known about the other fauna of this site.

## **4 Principles of Wildlife Conservation:**

Any wildlife conservation plan should be in line with the following legislations.

- i. The Wildlife (Protection) Act, 1972
- ii. The Indian Forest Act, 1927
- iii. The Biological Diversity Act, 2002
- iv. The Environmental (Protection) Act, 1986
- v. The Forest (Conservation) Act, 1980
- vi. The National Forest Policy, 1988

vii. The Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act, 2006

viii. The Directives Issued from time to time by the Honourable Supreme Court of India

3.i: Wildlife Conservation Plan or Plan for conservation of Schedule I species?

According to Cambridge Dictionary, wildlife simply means "Animals and plants that grow independently of people, usually in natural conditions".

Merriam -Webster defines *wildlife as* : living things and especially mammals, birds, and fishes that are neither human nor domesticated.

If we simply apply these definitions, we realize that we are dealing with Schedule I species only but not wildlife.

But as per the standard terms of reference, it is about conservation of rare or endangered or threatened (RET) species. RET species, according to the MOEF&CC includes all those rare or endangered or threatened species listed as such by the BSI or ZSI or IUCN or Wildlife (Protection) Act, 1972. Hence, in the list of Schedule I species, the IUCN conservation status of the species is also shown besides the Wildlife Schedule number.

**4.i. Practical, Technical, logical and legal issues involved in conservation of Schedule I species:**

1. When a schedule I species is found in any wildlife habitat like a forest or in the buffer zone of an industry which is not under the jurisdiction of the project proponent (PP), the role and responsibility of the PP shall be limited to intimate the concerned authorities and to initiate relief and rescue based on the instructions from the wildlife authorities and to extend full support to the State Forest and wildlife department in wildlife conservation.

2. In fact, the forest and wildlife department doesn't need any conservation plan for any Schedule I species since it is neither new nor unknown to the State Forest and wildlife department. The plan is mainly intended to document a legally binding plan about the preparedness of the PP to support the State Forest and wildlife department, which is entrusted and empowered with the sacred task.

3. Apart from State Forest and Wildlife Department, the M.o.E.F&C.C., Wildlife Institute of India (WII), National Board for Wildlife (NBWL), ZSI, National Elephant Authority, National Tiger Authority, National Crocodile Authority, National Turtle Authority, National Zoo Authority and others are equipped with the plans for conservation of any species including trapping, rescue and release. From all such organisations, we have clearly defined plans for conservation, rescue and release of Schedule I species.

4. As per the wildlife Conservation Plans, it may not be possible or feasible to conserve a casual visitor at the place where it was sighted or spotted without taking in to account whether it is a resident or just a casual visitor? Whether the given environment capable of supporting them?

5. A workable conservation plan takes in to account the population size, age structure, sex ratio; habitat suitability, habitat carrying capacity, perception of threats etc before a plan for their conservation is prepared.
6. Every wildlife conservation plan emphasizes the need for habitat conservation which includes other living organisms and abiotic setting.
7. Fragmentary solutions are not going to conserve a biological species and hence an integrated holistic approach is essential.
8. When a schedule I species is found in a buffer zone which is shared by a dozen industries and if each industry gives a separate and different conservation plan on its own perception; without any authority to implement their plan of action; such reports or plans shall remain on paper only.
9. The State Forest and Wildlife department is ultimately responsible for the choice of action plan and its implementation. It is the only department which has more information and practical experience in the field of wildlife conservation.

From the above account, it is clear that the PP as polluter has to pay for conservation and the State Forest and wildlife department as the custodian is responsible for wildlife conservation. Any plan given by the PP is superfluous and redundant. It has no practical utility except for extending financial support to the agreed line items of expenditure.

#### **5. Integrated site-specific wildlife Conservation Plan**

1. We need a holistic and integrated wildlife conservation based on sound Ecological principles. It has to be site specific and inclusive of all species which are interlinked to each other by innumerable invisible links. It should be absolutely desirable, feasible and sustainable.
2. The scientific approach and principles of conservation are same and they are not new to the Forest and Wildlife department. However, the habitat conditions can be different but the species may be same. Because of that we need a site-specific integrated wildlife conservation plan. In fact, it should be described as Wildlife Management plan, since the word conservation is inappropriate.
3. Conservation is not preservation but it is sustainable development. It is not ex-situ conservation, like putting them in a zoo. We are referring to in-situ conservation only.
4. Any plan for Wildlife management should be practically feasible, essential and sustainable.

#### **5.i What should be done for Wildlife Management?**

1. Habitat or ecosystem manipulation to drive away disorder and to restore order.
2. Habitat improvement especially by augmentation of essential wildlife needs like water, food and fodder resources. There should be enough to meet the bare minimum needs. Otherwise, it might result in population explosion beyond the carrying capacity
3. Management of Invasive weeds like *Lantana* and to promote fodder resources.
4. Forest fire control

5. Prevention of encroachments, poaching / hunting / killing etc
6. Creation of safe migratory corridors or under passages where railway lines or highways exist.
7. Monitoring and data generation for future plans.

**5.ii Roles of the Project proponent and the Forest and wildlife Department:**

According to the CSIR-NEERI Report (2016, 2018) which was approved by the M.o.E.F&CC, the PP is required to submit wildlife conservation plan for schedule I species if such species are found in the core area in consultation with the State Forest and Wildlife Department. On the other hand, if such species are found in the forest areas or wildlife habitats outside the core area, it is the responsibility of the State Forest and Wildlife department to take measures for conservation of such species. Further, the forest and wildlife department is required to record and document the annual status of wildlife in the region and should identify the need for wildlife management on regional level. According to the report, maintenance of Ecology of the region is the prime responsibility of the State Forest and Wildlife Department. They need to periodically review the status and identify the need for further improvement in the region. The required expenditure may be met from the funds already collected in the form of Compensatory Afforestation and Wildlife Management. Further, additional fund if required can be sought from DMF.

It is obvious that the forest and wildlife department is equipped and empowered to deal with wildlife management, whether in the forest or outside in any community property. However, the forest and wildlife department alone can't fully enforce any action plan with limited resources including man-power and financial resources. This is where the ONGC can extend full support and strengthen the hands of the forest and wildlife department in implementing their plan of action for in-situ sustainable management of Wildlife.

**6 Whether there is any additional threat to the wildlife on account of the proposed ONGC Activity:**

**Brief procedure and protocols for identification and quantification of Impacts on Ecology and Biodiversity:**

Environmental impact matrices take in to account the actions or activities and their impacts on the receptors. In most cases, both are qualitative and hence subjective. Attempts have been made from time to time to measure or quantify the impacts. The result is the development of Impact matrices such as the Check lists, Leopold Matrix, Composite matrices etc. During the recent years, many changes have been made by different investigators in order to minimize subjectivity and to increase objectivity. Not all impacts are same. Loss of 100 Ha of barren area on account of mining and loss of 100 Ha of dense forest due to mining can't be the same. The impacts of an activity on Eco sensitive areas such as Wildlife Sanctuaries, National Parks, Biosphere reserves or other life supporting systems can't be the same. It should also be noted that the impacts depend on the carrying capacity of the ecosystem or receptors. For instance, even a mild increase of atmospheric pollution in a critically polluted area will have greater adverse impact. Thus, the baseline information should also be taken in to account while preparing the impact statement.

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The matrix approach is reasonably flexible. The total number of specified actions

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and environmental items may increase or decrease depending on the nature and scope of the study and the specific T.o.R for which the environmental impact study is undertaken. After an extensive review of literature and vast practical experience in the field of survey and study of impacts of various projects on Ecology and Biodiversity, the following procedure and protocols have been developed by the author.

- Impact identification: Positive (+) or negative (-) or neutral (0).
- Magnitude of the impact (mi): It may be measured based on Spatial (area involved) and Temporal (duration of impacts) aspects: In this connection, it is suggested that if the impacts extend over an area of 100 Ha or more or the impacts are repetitive or the time taken for recovery or reclamation or restoration extends over 25 years or more, the impact shall be considered as 5 in the 0 to 5 scale. Between 0 and 5, depending on spatial and temporal aspects, impact can be indicated by a number between 0 and 5. Magnitude of the impact (mi) does not carry any + or - sign .
- Sensitivity of the impact (si): In case of negative impacts, the si value is indicated by - (minus). Sensitivity is judged based on the importance of the structure or function and its relevance to the sustainability of the Ecosystems, its functions and services. In case of si, if the impact is going to severely disrupt ecosystem services and or pose a serious threat to 10 or more rare or endangered or threatened species or keystone species, the si shall be -5. Thus, the si values can range from 0 to 5 and -0 to -5.
- The combined impact of mi and si is considered as the product of mi and si. If mi is 5 and si is 5, the combined impact is 25 and if mi is 5 and si is -5, the combined impact is -25. Thus, each impact is measured in terms of mi and si and the combined impact is calculated.
- The overall impact is calculated as the sum of the impacts. If we use the similar process and calculate the overall impacts on air, water, soil, socioeconomic aspects along with Ecology and biodiversity, we can get the grand sum of impacts. If the grand sum of impacts is negative, the project may not be permitted.

Impact statement for the 9 Hydrocarbon Exploratory wells of the ONGC in Tripura is given in Table 3.

Impact and recipient	Without EMP			With EMP		
	mi	si	mi x si	mi	si	mi x si
Impact on National Parks	0	-3	0	0	3	0
Impact on Wildlife Sanctuaries	0	-3	0	0	3	0
Impact on Biosphere Reserves	0	-3	0	0	3	0
Impact on wetlands	0	-3	0	0	3	0
Impact on forest reserves	0	-2	0	0	2	0
Impact on RET / Schedule I species	0	-5	0	0	5	0
Impact on local vegetation and flora	1	-1	-1	1	1	1
Loss of fodder	1	-1	-1	1	1	1
Loss of firewood	0	-1	0	0	1	0
Disruption of ecosystem services and functions	0	-5	0	0	5	0

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Fragmentation of habitat	0	-3	0	0	3	0
Loss of breeding grounds of wildlife	0	-3	0	0	3	0
Loss of productivity	1	-1	-1	1	1	1
Loss of carbon sequestration	0	-1	0	0	1	0
Indirect impacts due to air pollution	1	-1	-1	1	1	1
Net total impact after EMP will come to Zero. It means that the negative impacts are manageable .						0 (Zero)

The proposed activity has mild and temporary or short-term negative impacts on local vegetation, fodder or grazing resources and crop productivity. The area under consideration has large assimilative capacity on account of large areas under forests, wetlands, low population and vehicle density besides the absence of large polluting industries. Thus, it may be concluded that the proposed activity is fully compatible with the environment.

### 7 Issues to be considered in conservation of the RET / Schedule I species that are reported from the study area:

#### 7.i Elephant (*Elephas maximus*)

Elephants: According to an official survey conducted in 2020, the number of elephants in Tripura has gone up from 38 to 47 as per the latest census report. Elephants are mostly found in Khowai and Gomati districts of the state, according to the Chief Wildlife Warden Dr D K Sharma. In 2002 Tripura had 38 elephants but the latest survey 2020 found 47 elephants. In the latest survey this year it was found ... that the number in elephants in Khowai district is 22 while it is 25 in Gomati district. Elephants are mostly found in these two districts, Migration of these elephants from Tripura to the neighbouring Bangladesh has been stopped by the erection of barbed wire fencing along the 856 km long I border. Thus, according to the latest official records, there are elephants in the study area since the Khowai and Gomati districts are located in the project site.

#### Conservation of Elephant (*Elephas maximus indicus*): Project Elephant:

##### Habit and Habitat Requirements of Indian Elephant: (*Elephas maximus indicus*):

Elephants are social animals and may form herds of 20-30 individuals led by the oldest female. Herds usually break into stable family groups of 4-7 animals for foraging and may rejoin. The large matriarchal groups' movement is coordinated by the older female for optimal sites of food and water. The different groups maintain long distance contact through sub sonic vocalizations. Males usually remain away from herds at a distance but join in when a female comes to oestrous. Generally, one dominant and super virile male mates with females in oestrous (polygamy). Old males, past prime reproductive life usually lead solitary life and so are sub-adult males. Sometimes, 2-4 sub-adult males form their own groups. During mating, it is common to see the dominant male escorting the oestrous female away from the family group. Elephant is intolerant of hot summer and retreats into a shady spot during noon. In the past, when forest ranges were continuous, elephants used to migrate seasonally in search of better pastures alternating with forests. Human activities like cultivation, highways,

township, railways, dams, industries and mines have now fragmented their habitat and made seasonal migrations virtually impossible. Individual temperaments vary from gentle natured to ill tempered, believed to be due to imprint of normal living or harassed living during juvenile period. An elephant may run at 45 km / hour for short distance for two or three minutes. Elephants live for 70 years. The oestrous cycle of the cow is about 22 days, out of which she is receptive for copulation on the first day only. There is no seasonality in copulation. The gestation period is 18-22 months and period of suckling of about an year and half though 6 months onwards soft grass diet is initiated. In good quality habitats, the inter birth interval may be 3-4 years while in poor ones; it may be prolonged to five. Mothers continue to bestow maternal care to their offspring for several years after weaning. The senses of touch and hearing are acute but their eye sight is poor.

Only males have prominent tusks and cows, one or two rudimentary tusks known as tushes, which is hardly visible to outside. Elephants have a genetic aberration single tusked, right or left, usually known as Ganesh. Tusk less males are known as Makhna. An elephant develops 6 molars in each jaw, on either side during its life time. But at any one time, there is one exposed molar and one partly exposed molar on either side of each jaw. The first molar is shed at 2, the second at 6, the third at 9, the fourth between 20-25 years, the fifth at 60 and the sixth lasts for rest of the life. The nature of elephant dentition suggests that it is primarily meant to masticate rough siliceous grass. The trunk of the elephant is an organ of versatile utility, which is used in eating, drinking, smelling, and breathing, touching, vocalizing, washing, dusting and fighting. The sensitive finger like tip of the trunk is used in manipulation of objects.

Though there are reports of invasion of 2 to 6 elephants in to croplands of the buffer zone, no elephant was found residing in the study area at any time. They are usually driven back in to the adjacent forest areas. But there is no elephant corridor or Elephant Sanctuary around the buffer zone. The whole area is under extensive opencast bauxite mining, including illegal mining. For the conservation of Elephants, Project Elephant stipulates the following procedures and protocols.

Project elephant is a centrally sponsored scheme launched in February 1992. The scheme helps and assists in the management and protection of elephants to the States having free-ranging populations of wild elephants, in order to ensure the survival of elephant population in the wild and protection of elephant habitat and elephant corridor.

.i: Objectives of project elephant

- Protection of elephants, their habitats and elephant corridors.
- Mitigation and prevention of man-elephant conflict.
- To ensure the Welfare of domesticated elephants.

ii The aim of this project

- To ensure the protection of elephants from hunters and poachers, and prevent illegal trade of ivory. It also includes the strategy to prevent unnatural causes of death of elephants in India.
- To develop and promote scientific and planned management strategies for the conservation of elephants.
- To mitigate and prevent the increasing conflict between humans and elephants in elephant habitats. It also aims to reduce and remove the pressure of human and domestic livestock grazing and other activities in important elephant habitat.
- To ensure ecological restoration of the natural elephant habitats and their migratory routes.
- To promote scientific research on issues related to conservation of elephants and promotion of public awareness and education on these issues.

To ensure the proper health care and breeding of domesticated elephants. To facilitate veterinary care and Eco-development for the elephants

.iii: Major threats to Elephant Corridors

- Problems such as elephant habitat loss which is leading to fragmentation and destruction primarily due to developmental activities such as the construction of roads, railways, buildings, holiday resorts and electric fencing etc.
- Mining activities such as coal mining and iron ore mining have been described as single biggest threats to elephant corridor in Central India. States like Jharkhand, Chhattisgarh and Orissa are mineral rich but also have the highest number of elephant corridors which is leading to elephant man conflict.
- As elephants require extensive grazing ground for food, lack of such grazing grounds can force elephants to search for food elsewhere. Most of the elephant reserves unable to accommodate all the elephants, which results in man-elephant conflict due to the destruction of crops by elephants.

.iv: Mitigation strategies

- Fusion of elephant corridors with the nearby protected areas and reserved forest wherever possible. In other areas, to provide protection to the elephant corridors, there is a need for the declaration of ecologically sensitive areas or conservation reserves.
- Securing the elephant corridors would require awareness generation and sensitizing the local population to promote voluntary relocation outside the conflict zones. This would prevent the problem of further fragmentation of

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continuous forest habitats from encroachment by human beings. It would also provide refuge for other wild animals such as tiger, Sambar, crocodile, bird species etc.

- During the process of securing the elephant corridor, there is a need to monitor the animal movements along with habitat restoration as per the requirements.

v: Elephant as the national heritage animal of India

- The elephant has been declared as the national heritage animal by the government of India in 2010 after the recommendations of the standing committee on national board for wildlife. This was to ensure sufficient protection for elephants before it's numbered fall to panic levels as it had happened in case of tigers.
- A proposed National elephant conservation authority (NECA) on the lines with NTCA has been proposed to be constituted by amending the Wildlife Protection Act 1972.

vi: Monitoring of illegal killing of elephants (MIKE) programme

- MIKE program was started in South Asia and in 2003 after the conference of parties a resolution of CITES. It aims to provide information which is required by the elephant range countries to make proper management and enforcement decisions and to promote institutional capacity in those States for long-term protection and management of their elephant populations.

vii: Main objectives of MIKE programme

1. To measure the levels and trends in the illegal poaching of elephants. To ensure changes in the trends for protection of elephant population.
2. To determine the factors which are responsible for such changes, and to assess in particular about the impact of decisions of the conference of parties to CITES responsible for such changes.
3. Under this programme, data are collected on a monthly basis from all the sites in specified MIKE patrol form and it is submitted to the sub-regional support office for South Asia programme located in Delhi.

viii: Hathi Mere Sathi

- Ministry of environment and forests (MOEF) in partnership with Wildlife Trust of India (WTI) has launched a campaign called Hathi Mere Sathi. The campaign aims to improve the conservation, protection and welfare of elephants in India. It was launched at Elephant- 8 ministerial meeting which was held in Delhi on 24th may 2011.

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- The countries who are the part of the Elephant-8 ministerial meeting are Botswana, Kenya, Srilanka, Republic of Congo, Indonesia, Tanzania, Thailand and India.
- The Hathi Mere Sathi campaign aims at increasing public awareness and developing friendship and companionship between local population and elephants.

ix: The campaign mascot Gaju

- The campaign Mascot Gaju focuses on various groups which include local people near elephant habitats, youth, policymakers and others. The scheme envisions to set up elephant centres all over the country in the elephant landscapes. It aims to spread awareness about the plight of elephants and promote people's participation in addressing these issues.
- The campaign plans to ensure capacity building of law enforcement agencies at the ground level to enhance protection of elephants, and to advocate for the policies in favour of elephants.
- The elephant task force (ETF) which was constituted by the Ministry of Environment and Forest has recommended the campaign to Take Gajah (the elephant) to the Prajah (the people) in order to increase public awareness and their participation in the conservation and welfare of elephants.
- India has around 25000 - 29000 elephants in the wild. However, the tuskers (male) in India are as threatened as the Tigers as there are only around 1200 tuskier elephants left in India.
- The Asian elephants are threatened by the habitat degradation, man-elephant conflict and poaching for the Ivory. This problem is more intense in India which has around 50% of the total population of world's Asian elephants.

### **7.ii Conservation of Sloth Bear (*Melursus ursinus*):**

It is endemic to Indian sub-continent and it has discontinuous distribution. Sloth Bear populations have declined and its range has shrunk over the past century, primarily due to habitat loss. However, even fundamental information on distribution and present status is lacking for most of its range. We collated recent information from literature and by distributing questionnaires to wildlife researchers, managers and naturalists in India.

Though it is in the lower risk category of the IUCN, its numbers are declining mainly due to loss of habitat. Efforts are going of mapping the sloth bear habitats and to sustain the healthy populations. Wildlife Conservation Society-India Program and the Centre for Wildlife Studies are working on developing distribution maps of the endangered species in India. Daroji Sloth Bear Sanctuary near Hampi in Karnataka, Agra Bear Rescue Facility in U.P and the Jessore Sloth Bear Sanctuary are the three main sanctuaries with special facilities for rescue

and rehabilitation established in India. Babu et al (2015) have identified the critical habits of Sloth bear and suggested linking critical patches of sloth bear *Melursus ursinus* for their conservation in Meghamalai hills, Western Ghats, India. A preliminary survey of literature reveals that it is not possible to conserve them in isolation Hence, an integrated wildlife management plan needs to be put in place by the Wildlife department and the project proponent should be directed to share the cost based on some scientific criteria such as scale of project. The same principle applies to every other animal in the list.

### **7.iii: Conservation of Indian grey wolf (*Canis lupus pallipes*)**

Jhala (2003) states that the Indian grey wolf (*Canis lupus pallipes*) is mainly restricted to the semi-arid grasslands and scrub forests, with their territories ranging between 150 and 300 km<sup>2</sup>. It is estimated that around 2000-3000 individuals of the Indian grey wolves are likely to be present in India. Wolves mostly depend on medium and small mammals, such as hare or rabbit. Indian wolves in Central India consumed mostly rodents and hares with little contribution of medium sized. Centuries of persecution because of attacks on livestock, especially sheep, goats, Chicken and, less commonly, children have made it very difficult to reconstruct the natural predatory behaviour of lowland Indian wolves. Most wolves in human-dominated landscapes combine scavenging and predation on livestock. Most wolves in human-dominated landscapes combine scavenging and predation on livestock. They also frequently kill domestic dogs and even show a preference for this form of cannibalism on the outskirts of mountain villages. Wolves are persecuted by shooting, poisoning and smoking den sites in retaliation of depredation on goats and sheep decreasing their populations. The habitat destruction due to high human population, expansion of agriculture practices, urbanization, grazing pressure, forest clearing and poor wild prey availability. The wolves have a strong social system. They form groups known as packs, which is normally a family unit which comprises dominant male pair "alpha pair". Their offspring include up to 30 individuals, but smaller sizes of 8-12 individuals are more common.

The above account summarizes why and how the Indian Wolf is threatened. In the study area under consideration, there were no cases of attacks on livestock and none claimed that he had seen a wolf in the study area. Since wolves go for hunting during night time and as there is no power supply in the area, the chances of finding them is not easy. Their presence in the study area is matter of doubt.

### **7.iv CONSERVATION PLAN FOR BISON (*Bos gaurus*)**

The Indian bison, is a bovine native to South and Southeast Asia. It is the largest species among the wild cattle and the Bovidae. It has declined by more than 70% during the last three generations, and is extirpated from Sri Lanka and most likely Bangladesh.

Classification: Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Artiodactyla Family: Bovidae Sub-family: Bovinae Genus: *Bos* Species: *Bos*

gaurus Common Name: Indian bison Conservation Status: Vulnerable & Schedule I:

**PHYSICAL DESCRIPTION:** It is a strong and massively built bovine with a high convex ridge on the forehead between the horns, which protrudes anteriorly, causing a deep hollow in the profile of the upper part of the head. There is a prominent ridge on the back. The ears are very large. The adult male is dark brown, approaching black in very old individuals. The upper part of the head, from above the eyes to the nape of the neck, is ashy grey, or occasionally dirty white. The muzzle is pale coloured, and the lower part of the legs are pure white or tan. The gaur has a head-and-body length of 250 to 330 cm (8 ft 2 in to 10 ft 10 in) with a 70 to 105 cm (28 to 41 in) long tail, and is 142 to 220 cm (4 ft 8 in to 7 ft 3 in) high at the shoulder, averaging about 168 cm (5 ft 6 in) in females and 188 cm (6 ft 2 in) in males. At the top of its muscular hump just behind its shoulder, an average adult male is just under 200 cm (6 ft 7 in) tall and the male's girth at its midsection (behind its shoulders) averages about 277 cm (9 ft 1 in). Males are about one-fourth larger and heavier than females. Body mass ranges widely from 440 to 1,000 kg (970 to 2,200 lb) in adult females and 588 to 1,500 kg (1,296 to 3,307 lb) in adult males.

**HABITAT:** Gaur are largely confined to evergreen forests or semi-evergreen and moist deciduous forests, but also occur in deciduous forest areas at the periphery of their range. Gaur habitat is characterized by large, relatively undisturbed forest tracts, hilly terrain below an altitude of 1,500 to 1,800 m (4,900 to 5,900 ft), availability of water, and an abundance of forage in the form of grasses, bamboo, shrubs, and trees. Their apparent preference for hilly terrain may be partly due to the earlier conversion of most of the plains and other low-lying areas to croplands and pastures.

**BEHAVIOUR:** They are basically diurnal. They have become largely nocturnal due to human impact on the forest. In central India, they are most active at night, and are rarely seen in the open after 8 o'clock in the morning. Gaur herds are led by an old adult female, the matriarch. Adult males may be solitary. During the peak of the breeding season, unattached males wander widely in search of receptive females. No serious fighting between males has been recorded, with size being the major factor in determining dominance. Males make a mating call of clear, resonant tones which may carry for more than 1.6 km (0.99 mi). Gaur have also been known to make a whistling snort as an alarm call, and a low, cow-like moo.

**FOOD HABITS:** The gaur grazes and browses mostly the upper portions of plants, such as leaf blades, stems, seeds and flowers of grass species, including kadam. Gaur spent most of their daily time feeding. Peak feeding activity was observed between 6:30 and 8:30 in the mornings and between 17:30 and 18:45 in the evenings. During the hottest hours of the day, they rest in the shade of big trees.

**REPRODUCTION:** Sexual maturity occurs in the gaur's second or third year. Breeding takes place year-round, but typically peaks between December and June. Females have one calf, rarely two, after a gestation period of about 275

days, a few days less than domestic cattle. Calves are typically weaned after seven to 12 months. The lifespan of a gaur in captivity is up to 30 years.

**THREATS FOR INDIAN BISON:** Due to the destruction in the grasslands, planting of commercially important trees, invasive plant species and indiscriminate grazing of domestic animals. • Due to deforestation and commercial plantations. • Gaurs are highly threatened by poaching for commercial trade in meat and trophies.

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Indian bison habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF INDIAN BISON:** • Creation of awareness programme among working personnel involved in the project activity as well as local people on its ecological importance. • Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Indian bison during awareness programs like rally, student competition, community meeting, training workshop. • Create awareness among local people, villagers, district administrative staff through forest personnel, NGOs and educational institutes for the protection, research and monitoring of Indian bison

#### **7.v CONSERVATION PLAN FOR CLOUDED LEOPARD (*Neofelis nebulosa*):**

The Clouded leopard (*Neofelis nebulosa*) is a wild cat inhabiting dense forests from the foothills of the Himalayas through mainland Southeast Asia into southern China.

Classification: Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Carnivora Suborder: Feliformia Family: Felidae Subfamily: Pantherinae Genus: *Neofelis* Species: *Neofelis nebulosa* Common Name: CLOUDED LEOPARD Conservation Status: Vulnerable & Schedule I.

**PHYSICAL DESCRIPTION** The distinctive cloud-shaped markings of their coats make clouded leopards unmistakable. The fur is marked with elliptical blotches of a darker colour than the background and the posterior edge of each blotch is partially framed in black. The blotches sit on a background field that varies from yellowish brown to dark grey. The muzzle is white and solid black spots mark the forehead and cheeks. The ventral side and limbs are marked with large, black ovals. Two solid black bars run from behind the ears along the back of the neck down to the shoulder blades and the bushy, thick tail is ringed in black. In juveniles, lateral spots are solid, not clouded. These will change by the time the animal is approximately six months old. Adults usually weigh between 18 and 22 kilograms and stand at 50 to 60 centimetres at the shoulder. The head-body length is between 75 and 105 centimetres, and the tail length is between 79 and 90 centimetres, which is nearly as long as the body itself. There is no marked sexual dimorphism in clouded leopards, although females are slightly smaller. The legs are relatively short compared to other felids, with the hind limbs being longer than the fore limbs. The ankles have a wide range of motion and the feet are large and padded with retractile claws. As in other members of the family Felidae,

the radius and the ulna are not used, which allows for greater independence of motion. Clouded leopards have a digitigrade stance. The skull is long and narrow compared to other felids and has well-developed crests to support the jaw muscles. Clouded leopards have the longest canine teeth relative to head and body size of any of the felids; canines can reach four centimetres or longer. A wide diastema lies between the premolars and canines, and individuals are often missing their first premolar. The nose pad is pink and sometimes has small black spots, and the ears are short and round. The iris of the eye is usually brownish yellow or greyish green, and the pupils contract into vertical slits.

**HABITAT** Clouded leopards occupy tropical forests at elevations up to 3000 meters. They are highly arboreal, using trees primarily for resting and also for hunting. However, they spend more time hunting on the ground than was originally believed. Sightings of clouded leopards occur most often in primary evergreen tropical forest but they have also been sighted in other habitats, such as secondary forest, logged forest, mangrove swamp, grassland, scrub land, dry tropical forest, and coastal hardwood forest.

**BEHAVIOUR** Little is known about the behaviour of clouded leopards in the wild, although conjectures are made based upon observations of animals in captivity. They are regarded as secretive and rarely seen arboreal hunters that are most active at night, although these characteristics vary. Large feet, short legs, and a long tail make clouded leopards well-adapted for arboreal living. They are extremely adept in trees, and they have been observed engaging in acrobatics such as climbing slowly head first down tree trunks, hanging upside down while moving along horizontal branches, and hanging from branches using only their hind feet. Clouded leopards are able to hunt in the trees, preying on birds, monkeys, and rodents. Clouded leopards are not strictly arboreal hunters, they may spend more time resting in trees than hunting. Using trees as refuges is thought to be a means of escaping the terrestrial leeches found in tropical forests in Asia; they also protect these cats from larger predators, such as leopards and tigers. The amount of time clouded leopards spend in trees may vary between different habitats. They pursue prey, both in trees and on the ground, by stalking quietly and then pouncing quickly. Diurnal activity has been observed in both wild and captive cats; therefore, clouded leopards may not be solely nocturnal. Daily activity patterns probably vary with activity patterns of prey in different regions, as well as the amount of human activity in particular areas. Nothing is known about the social systems of wild clouded leopards, they are probably solitary animals. A male and female found together probably make up a mating pair, coming together only to breed. A female may also be seen with her cubs.

**FOOD HABITS** Little is known about the feeding behaviour of clouded leopards. Like other felids, they are strict carnivores. They are also solitary hunters, preying on birds, fish, monkeys, deer, and rodents. They have also been known to kill domestic animals, including calves, pigs, goats, and poultry. Fish remains have been found in the excrement of wild clouded leopards **PREDATION** The main predators of clouded leopards are humans, who use dogs to track and corner them. Tigers and leopards kill clouded leopards to eliminate competition.

Therefore, clouded leopards are more active at night and spend more time in trees to avoid these large predators.

**REPRODUCTION** All that is known about the mating behaviour of clouded leopards comes from observations of captive animals. This lack of knowledge concerning wild mating behaviour has made it extremely difficult to breed these animals in captivity. Arranged mating encounters at zoos often conclude with aggression between the two individuals, and the male often kills the female with a bite to the back of the neck. For this reason, many experts believe that compatibility between a male and female is important for productive mating. In zoos, mating usually occurs between December and March, but it can occur at any time throughout the year. Because clouded leopards occupy tropical habitats, breeding may be less seasonal in the wild. Females most often give birth to two kittens per pregnancy, but litters of one to five kittens have been documented as well. Kittens are born with the large spots that are characteristic of their adult counterparts, but these spots are solid black until approximately six months of age. A new born kitten weighs between 140 and 280 grams, depending on the size of the litter. Clouded leopards in captivity arrive at sexual maturity between 20 and 30 months of age, with the average being 23 to 24 months.

**THREATS FOR CLOUDED LEOPARDS** • The chief threat for clouded leopard populations is habitat loss due to deforestation for agricultural purposes. • Humans hunt clouded leopards for their pelts and teeth, as well as for use in traditional medicine and culinary trades.

**STUDY APPROACH** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Clouded leopard habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF CLOUDED LEOPARDS** • Fencing will be developed around the well area to stop any encounter with wild animals. • Fencing will be developed around the farm area to avoid persecution by farmers. • Assisting local residents to rebuild the forests to develop their habitat by planting the trees and supplying the tree saplings. • Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Clouded leopards during awareness programs like rally, student competition, community meeting, training workshop. • Create awareness among local people, villagers, district administrative staff through forest personnel, NGOs and educational institutes for the protection, research and monitoring of Clouded leopards

## **7.vi CONSERVATION PLAN FOR LEOPARD ( *Panthera pardus* )**

Compared to other carnivores, the leopard has been able to survive better in an increasingly human-dominated landscape. A 60% rise in India's leopard population has been recorded in 2018, compared to 2014, but there is one area in the country, the northeaster landscape, where its population is facing "major

threat" due to land-use changes triggered by agriculture, tea gardens and linear infrastructure projects.

According to the Indian government's *Status of Leopard in India, 2018* report published on December 21, the north-eastern landscape has 141 leopards out of 12,852 estimated across the country while the Shivalik Hills and Gangetic Plains range has recorded 1,253 leopards, Central India and the Eastern Ghats range has 8,071 leopards and Western Ghats range has 3,386.

The report said leopards are distributed widely in the north-eastern landscape from the high altitude of the eastern Himalayas to the forests adjacent to tea gardens in the flood plains but due to sampling inadequacy, the leopard population was estimated only from the camera trapped sites of northern West Bengal, Manas and Nameri tiger reserves of Assam and the southern valley of the Pakke Tiger Reserve of Arunachal Pradesh.

In fact, the actual number of leopards could be more than recorded in the report. "Few photographs were obtained from Kaziranga, and Namdapha tiger reserves but due to low detection and low sample size, the population was not estimated from these tiger reserves," said the report.

Besides land use factors such as linear infrastructure projects, the report revealed that poaching and human-wildlife conflict are other major factors impacting the species in the north-eastern landscape.

Similarly in the Uttarakhand region, the actual population of leopards could be more than recorded. Vaibhav Singh, who is divisional forest officer, Rudraprayag (Uttarakhand) said, the report underestimates the number of leopards in the state as it is only looking at the tiger areas in the state.

The actual number of leopards in Uttarakhand alone can easily be three times to four times (3,000-4,000) than what is in the report (839)," Singh explained to *Mongabay-India*. "Moreover, one concern for middle Himalayan regions like Uttarakhand is that a lot of land is diverted for infrastructural projects as the population is scattered across the hills. However, this leads to an increase in the interface of urban and forest habitations...this would ultimately lead to an increase in human-wildlife conflict."

During the all India tiger estimation 2018 (released in July 2019), which pegged the population of the country's national animal at 2,967, leopard population was also estimated within the forested habitats in tiger occupied states. But the other leopard occupied areas such as non-forested habitats (coffee and tea plantations and other land uses from where leopards are known to occur), higher elevations in the Himalayas, arid landscapes and the majority of the northeast landscape were not sampled.

"Therefore, the population estimation should be considered as the minimum number of leopards in each of the landscapes," the report said.

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Now, according to the latest report, the national estimation of 12,852 leopards is 60% higher than the 2014 estimation of 7,910. Of the 12,852 leopards, Madhya Pradesh tops the list with 3,421 leopards and is followed by Karnataka with 1,783 leopards and Maharashtra with 1,690.

According to the report, leopards were found in prey-rich protected areas as well as multi-use forests. It said that a total of 5,240 adult individual leopards were identified from a total of 51,337 leopard photographs using pattern recognition software.

India's Minister for Environment, Forest and Climate Change Prakash Javadekar said during the launch that the increase in tiger, lion and leopard numbers over the last few years is a testimony to the conservation efforts of the wildlife and biodiversity of the country.

The report also noted that the global range of leopards is dwindling and the population is declining and the species probably demands similar conservation attention as that of tigers in India. Besides the leopard report, the National Tiger Conservation Authority and the Wildlife Institute of India are also expected to come out with reports on population estimation of several other species.

In case of the study of the area, there is no information about the status of leopard though there were stray cases of emergence of Leopards out of woods. Leopards are a threat to the endangered primates of the Tripura. Hence, it is desirable to trap and relocate the Leopards from the Sipahijola and Trishna Wildlife Sanctuaries which shelter the endangered monkeys.

### **7.vii CONSERVATION PLAN FOR GEE'S GOLDEN LANGUR (*Trachypithecus geei*)**

Golden Langurs are named after the colour of their fur. The fur colour ranges from dark golden to creamy buff. Their faces are hairless (except for a pale beard) and black. Fur colour is a darker red dorsally and laterally and is of a lighter hue ventrally. Overall the Golden Langur is slim, has long limbs and a long tail. The tail has a tassel in the end and is more prominent in males than in females. Classification: Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Primates Family: Cercopithecidae Genus: *Trachypithecus* Species: *Trachypithecus geei* Common Name: Golden langur Conservation Status: Endangered and Schedule I

PHYSICAL DESCRIPTION: Golden langurs can be most easily recognized by the colour of their fur, after which they are named. Their hair ranges from dark golden to creamy buff and their faces are black and hairless except for a long pale beard. The colour of their fur differs across their bodies with a slightly darker red on the top and sides and a lighter colour underneath. It has been noted that their fur changes colours according to the seasons. In the winter it is dark golden chestnut and in the summer it is more cream coloured. The colour of the young also differs from adults in that they are almost pure white. Colour varies geographically. Golden langurs in the south tend to be more uniform in colour and smaller than those in the northern regions. The overall shape of this monkey is slim, with long limbs and tail. The tail has a tassel on the end and is notably

larger in males than in females. Males also tend to be slightly larger than females, although no weights have been recorded. The head and body measures from 50 to 75 cm and the tail ranges from 70 to 100 cm.

**HABITAT:** Golden langurs occupy moist evergreen and tropical deciduous forests as well as some riverine areas and savannas in Assam and Bhutan. They are very much dependent on trees, living in the upper canopy of sub-tropical forests in the south and in more temperate forests in the north. The elevations they inhabit also vary according to their geographic range. They may be found at elevations close to sea level in the south and up to 3000 m at the foothills of Bhutan in the north. Aside from their natural habitats, Golden langurs can also be found in wildlife reserves in both India and Bhutan.

**BEHAVIOUR:** Unlike hanuman langurs that are not afraid to live among humans, Golden langurs tend to be a shy species that avoids humans. This makes it difficult to observe many of their behaviours and what can be noted may be unnaturally influenced by the presence of humans. It is known that they are diurnal and mostly active in the early morning and afternoon, which is when they feed. They spend most of their time in the canopy of trees and move around by leaping from branches by pushing off with their hind limbs and landing with all four limbs. They may also move along quadrupedally, both when they descend and on larger branches of trees. Golden langurs tend to live in groups that range anywhere from 4 to 40 members, with an average group size of 8. Although not much is known about the social structure of the groups, it has been noted that social grooming is a very important group activity. Golden langurs use social grooming as a way to strengthen the bonds between members of their group.

**FOOD HABITS** Golden langurs are both folivores and frugivores. Their diets consist of ripe and unripe fruits, young and mature leaves, leaf buds, flower buds, seeds, twigs, and flowers. Although they eat a variety of food, they mostly prefer to eat young leaves. The most popular vegetation among golden langurs are *Ficus racemosa*, *Salmalia malabarica*, and *Adenantha peunina*. Most langurs, *Trachypithecus geei* included, are also known as leaf monkeys; a name derived from their exclusively vegetarian diet. Due to the large amounts of leafy material that the golden langurs consume, they have a sacculated stomach, which is a common characteristic in the subfamily Colobinae. A sacculated stomach is made up of different compartments and helps to break down the cellulose in the leaves. It is a very important feature that is necessary to obtain the maximum possible nutrition from innutritious leaves.

**PREDATION:** Predation by other animals is negligible, most likely due to the highly arboreal lifestyle of golden langurs. Their numbers are mainly threatened by humans through fragmentation and the eventual degradation of their habitats.

**REPRODUCTION:** There is little known information on the reproduction of Golden langurs because they have been studied relatively little. Scientists believe that their reproduction is similar to a close relative of Golden langurs, Hanuman langurs. Although not much is known about the reproduction of golden langurs, it has been observed that births occur almost year-round. There may be a period of a few months where more births are concentrated, corresponding to a change in

the climate and vegetation. Golden langurs give birth to a single offspring at a time

**THREATS FOR GOLDEN LANGURS:** They mainly threatened by humans through fragmentation and the eventual degradation of their habitats. **STUDY APPROACH** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. **Sightings and Habitat Use:** Direct Golden Langurs habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF GOLDEN LANGURS**

- Assisting local residents to rebuild the forests to develop their habitat by planting the trees and supplying the tree saplings.
- Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Golden Langurs during awareness programs like rally, student competition, community meeting, training workshop.
- Create awareness among local people, villagers, district administrative staff through forest personnel, NGOs and educational institutes for the protection, research and monitoring of Golden Langurs

**7.viii: CONSERVATION PLAN FOR CAPPED LANGUR (*Trachypithecus pileatus*):**

The capped langur is native to Bangladesh, Bhutan, India, and Myanmar. They are herbivorous, ingesting leaves, twigs, buds and fruits. A herd of capped langur consists of 2 to 14 langurs led by a brawny male langur. Classification: Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Primates Suborder: Haplorhini Family: Cercopithecidae Genus: *Trachypithecus* Species: *Trachypithecus pileatus* Common Name: Capped Langur Conservation Status: Vulnerable and Schedule I.

**PHYSICAL DESCRIPTION** Capped langurs can vary in appearance. The species is named for the thick hair on the top of their head that is usually black or grey. Their dorsal side is usually covered in gray, brown, or black hair. Their bellies can be anywhere from vivid orange to pale yellow. As with most langurs, babies have wildly different coloration from adults, although the differences in capped langurs are less dramatic compared to most of their relatives. Adult capped langurs have black skin, while babies have pink skin. The baby's hair is usually a light orange, similar to the colour of an adult's chest.

**HABITAT** Found in subtropical evergreen, broadleaf, deciduous, and bamboo forests.

**BEHAVIOUR** Langurs spend half of the day foraging and traveling between foraging spots. About 40% of their day is spent resting and the remaining 10% is spent on play and social grooming. On a typical day, all of these activities will occur in the trees, generally in the upper canopy of the forest Capped langurs are not known to be territorial animals. Groups will hold control over about 45 acres of territory, but these ranges often overlap with multiple groups and they do very little to defend it from intruders. The one exception to this is when a rogue male tries to steal a female from a group to start a group of his own. Dominant males

are highly protective of their mating partners and offspring—much more so than their food sources.

**FOOD HABITS** Over half of the Capped langur's diet is made up of leaves. Because leaves are so hard to digest, Capped langurs, along with all of their relatives in the colobine subfamily, have evolved sacculated stomachs. These multi-chambered stomachs contain special bacteria and enzymes that help break down cellulose. Langurs also have enlarged salivary glands to aid in digestion. In addition to leaves, fruits make up a quarter of the Capped langur's diet. The rest of their diet features seeds, flowers, and tree bark.

**PREDATION:** Predation on capped langurs has not been observed, researchers assume that jackals as well as birds of prey may be potential predators.

**REPRODUCTION:** Most mating for capped langurs occurs during the dry season between September and January, although there is sometimes mating in April and May. With a gestation period of about 200 days (or 6 to 7 months), babies are born around the beginning of the rainy season, when food is most plentiful and competition is less fierce. These langurs reach sexual maturity around the ages of 3 or 4, with first-time mothers giving birth between 48 and 52 months of age.

**THREATS FOR CAPPED LANGUR'S** • Slash and burn agriculture, locally referred to as jhum cultivation, is responsible for much of the destruction of the capped langurs habitat. • Human hunting them for food (bushmeat) and the pet trade.

**STUDY APPROACH** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Capped langurs habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF CAPPED LANGURS** • Assisting local residents to rebuild the forests to develop their habitat by planting the trees and supplying the tree saplings. • Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Capped langurs during awareness programs like rally, student competition, community meeting, training workshop. 15 • Create awareness among local people, villagers, district administrative staff through forest personnel, NGOs and educational institutes for the protection, research and monitoring of Capped langurs.

#### **7.ix: CONSERVATION PLAN FOR HOOLOCK GIBBON (*Hoolock hoolock*)**

Hoolock Gibbons were once found in thick evergreen, mixed evergreen, and scrub forest from eastern India and Bangladesh to Myanmar and southern China. Classification: Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Primates Suborder: Haplorhini Family: Hylobatidae Genus: *Hoolock* Species: *Hoolock hoolock* Common Name: Hoolock Gibbon Conservation Status: Endangered and Schedule I.

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**PHYSICAL DESCRIPTION:** Hoolocks are the second-largest of the gibbons, after the siamang. They reach a size of 60 to 90 cm and weigh 6 to 9 kg. The sexes are about the same size, but they differ considerably in coloration; males are black-coloured with remarkable white brows, while females have a grey brown fur, which is darker at the chest and neck. White rings around their eyes and mouths give their faces a mask-like appearance.

**HABITAT:** It is found where the canopy is contiguous, broad-leaved, wet evergreen and mixed evergreen forests, including dipterocarp forests and often in mountainous terrain.

**BEHAVIOUR:** Like the other gibbons, they are diurnal and arboreal, brachiating through the trees with their long arms. They live together in monogamous pairs, which stake out a territory. Their calls serve to locate family members and ward off other gibbons from their territory.

**FOOD HABITS:** Diet consists mainly of fruits, insects and leaves.

**REPRODUCTION:** Young hoolocks are born after a 7-month gestation, with milky white or buff-coloured hair. After about 6 months, the hair of males darkens and turns black, while the females' hair remains buff-coloured throughout their lives. After 8-9 years, they are fully mature and their fur reaches its final coloration. Their life expectancy in the wild is about 25 years.

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Hoolock Gibbon habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF HOOLOCK GIBBONS:**

- Conduction of awareness programme for project personnel associated with transportation, to ensure that he follows the rules properly and drive slowly in the Hoolock Gibbon habitat area particularly during night-time.
- Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Hoolock Gibbon during awareness programs like rally, student competition, community meeting, training workshop.
- Create awareness among local people, villagers and forest dwellers on Hoolock Gibbon.

### **7.x CONSERVATION PLAN FOR SLOW LORIS (*Nycticebus bengalensis*)**

Bengal slow lorises are endemic to the forested areas of south-eastern Asia, including the seven north-eastern states of India (Assam, Arunachal Pradesh, Mizoram, Nagaland, Meghalaya, Manipur, and Tripura) as well as areas of Cambodia, Burma, Thailand, Vietnam, and southern regions of China. The greatest densities of this species are found in eastern Thailand. Classification: Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Primates Suborder: Strepsirrhini Family: Cercopithecidae Genus: *Nycticebus* Species: *Nycticebus bengalensis* Common Name: Bengal Slow loris Conservation Status: Endangered and Schedule I

**PHYSICAL DESCRIPTION:** Bengal slow lorises are the largest of all of the slow lorises, with a skull length of 65.25 mm, larger than any other species of loris. They are heavier than all other loris species with a mass between one and two kg and a length of 26 to 38 cm, being more than three times the weight of the smallest loris, *Nycticebus pygmaeus*. Bengal slow loris fur patterns differ from other slow lorises which allow for visual differentiation from other species. They have thick, woolly fur with a white head, neck, and underside and a brown-grey dorsal side accompanied by a slight darker brown dorsal stripe running down the back. They have a round head with short ears and rostrum and very large, stereoscopic eyes that have an orange-red eyeshine. They have very short, almost vestigial tails. There is no sexual dimorphism in Bengal slow lorises. Their hands are specifically designed for climbing and they have opposable thumbs that are significantly different from their other four phalanges, giving them a pincer-like grip. This strong grip makes up for their lack of a tail. Males and females look alike and can only be differentiated by looking at the gonads. Male Bengal slow loris testicles have an average weight of 1.2 grams, with a vas deferens length of 85.5 mm

**HABITAT** Bengal slow lorises are nocturnal and arboreal strepsirrhines. They prefer areas of high canopy cover and forest edges, where insects are more abundant. They inhabit tropical and sub-tropical rainforests as well as semi-evergreen rainforests in south eastern Asia year round. Bengal slow lorises prefer larger and taller trees with deeper crowns that are associated with higher food abundance as well as a dense micro-habitat that provides protection from predators. They prefer older and younger plantation forests to primary forests and avoid habitats with shallow tree crowns.

**BEHAVIOUR:** Lorises rarely exhibit aggression towards one another and usually live in family groups. Although some individuals are solitary, most live in a social setting. There is no dominance hierarchy in social groups. They travel 20 to 30 meters each night, either alone or in pairs. They often sleep in tree holes or dense vegetation, sometimes with other lorises, and may occupy up to 60 tree holes throughout their lifetime. They are tolerant of other loris species as they have been observed foraging on the same tree within meters of pygmy slow lorises which is sympatric with Bengal slow lorises.

**FOOD HABITS:** Bengal slow lorises are generalized feeders consuming a diet of plant exudates, nectar, fruit, invertebrates, bark, and bird eggs. Their preferred food is dominated by plant exudates such as resins and gums from 6 species of plants which make up 94.3% of the diet in the winter, and 67.3% of their diet in the summer. Terminalia is also commonly consumed. Lorises obtain exudates using their procumbent incisors to gouge or scrape holes into the bark of trees. They then use their long, narrow tongues to scoop the exudates into their mouth. Nectar is the second preferred food with it consisting of 22.3% of their summer diet.

**PREDATION:** Known predators of Bengal slow lorises include Pythons, Hawk-eagles and Orangutans.

**REPRODUCTION:** Slow lorises, breed throughout the year. Once females conceive, they don't breed for the next two years as they invest highly in the maternal care of their young. They usually have one offspring; however, twins have been reported. Mothers gestate for 176 to 198 days and give birth to precocial young that are covered in fur with their eyes open. Males and females are reproductively mature at around 1 to 1.5 years of age, however generally do not successfully conceive as soon as they are sexually mature. The mean age for first offspring birth in female slow lorises is 38.8 months, while males successfully produce offspring at a mean age of 50.6 months. Immediate postpartum oestrus has been observed in slow loris mothers that have lost their young. When previous offspring survive at least six months and are mother-reared, the interbirth interval is 209 days.

**THREATS FOR SLOW LORISES:** • Increasing habitat destruction due to deforestation • Hunting/poaching pressures, • Road kills from increased traffic, • Bengal Slow Loris is also a large commodity in illegal animal trade markets for medicinal purposes, bush meat, and as pets

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Slow Loris habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF SLOW LORIS:** • Fencing will be developed around the well area to stop any encounter with wild animals. • Installation of road signage along the road side depicting the maximum speed limit near the project site. • Creation of awareness programme among working personnel involved in the project activity. • Wildlife protection display boards/signage's will be displayed along the road side. Sign board with better night time vision will be installed in corridor roads. • Conduction of awareness programme for project personnel associated with transportation, to ensure that he follows the rules properly and drive slowly in the Slow Loris habitat area particularly during night-time. • Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Slow Loris during awareness programs like rally, student competition, community meeting, training workshop. • Create awareness among local people, villagers, district administrative staff on Slow Loris

#### **7.xi CONSERVATION PLAN FOR INDIAN PANGOLIN (*Manis crassicaudata*)**

Indian pangolins (*Manis crassicaudata*) populations range across southern Asia. Their habitat ranges from the eastern portions of the Punjab and Sindh regions of Pakistan, through almost all of India and Bangladesh, to northern Burma and the southern portion of the Yunnan province in China. They live as far south as Sri Lanka and as far north as the southern reaches of Nepal. Classification: Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Pholidota Family: Manidae Genus: *Manis* Species: *Manis crassicaudata* Common Name: Indian pangolin Conservation Status: Endangered and Schedule I

**PHYSICAL DESCRIPTION:** The total body length of fully grown Indian pangolins ranges from 45 to 147 cm. Their tails can be 33 to 45 cm long. Adult Indian pangolins weigh anywhere from 8 to 17 kg, with the highest recorded weight at 20 kg. New born generally weigh around 0.23 kg and measure at 30 to 43 cm in total length. A unique feature of this species is their blonde striated scales, with 11 to 13 rows of 280 to 305 scales covering their dorsal sides and their fore and hind limbs. These scales are composed of keratin and make up 1/4 to 1/3 of the body mass of Indian pangolins. The scales gradually increase in size and decrease in number when moving from the head along the body to the tail. These scales are used as a defence mechanism against predators and harsh environmental conditions. While they do not have any teeth, they do have a long tongue, which they use to capture prey. Their tongues extend an average of 25 cm from their mouths and measure 42.5 cm in total length – around 37% of the body length of an average adult. This is relatively short when compared to other Manis species. Males are typically larger and weigh more than females, but this can be highly variable. Each of their four limbs have soft, spongy pads on the palmar sides of their feet with strong claws on each of their digits - five on each limb. Three of these digits are specialized for digging burrows. **HABITAT** Indian pangolins are well adapted to desert regions and prefer barren, hilly areas. They reside in subtropical thorn forests as well as the Salt Range. Their habitat extends up to 2,500 ft above sea level. Overall, they prefer soil that is soft and semi-sandy – suitable for digging burrows. Indian pangolins have also been shown to survive in various types of tropical forests, open land, grasslands, and in close proximity to villages. They tolerate this range of habitats so long as they have a proper supply of ants, termites, and freshwater nearby.

**BEHAVIOUR:** Indian pangolins are mostly nocturnal and a majority of their activity occurs during the night. During the day they are most often hiding deep within their den or in a dark corner or tree to rest. While resting, they curl up into a ball with their ventral sides facing down and their limbs tucked under their bodies. During the night, when Indian pangolins are active, they spend their time foraging for food or digging their burrows. In order to defend themselves, Indian pangolins will curl into an armoured ball with their limbs tucked into the centre of the ball. Only the scales of the body and tail are exposed. When in this position they are extremely difficult to attack, as their scales are extremely keratinous. They may also produce bad-smelling secretions from their anal glands to scare off predators. They also give off hissing noises when stressed or attacked. Indian pangolins, like other pangolin species, are generally solitary and will not share burrows with others of their species. However, during mating there is an exception where they briefly share their burrows with their mate. This continues until shortly after offspring are born, after which males take a much less active role in raising their young. Females continue to take care of their young until they are independent. **FOOD HABITS** They are myrmecophagous, meaning their diet consists mainly of ants and termites, but they will also eat beetles. Indian pangolins consume all life stages of their prey, although they prefer eggs. They also consume small amounts of plant material as well as sand, clay, and stone, to form gastroliths in their gizzards.

**PREDATION:** There aren't many known predators of Indian pangolins due to this defence mechanism, although tigers and humans are known to eat them.

**REPRODUCTION:** There is limited information about the mating patterns of Indian pangolins, but it is believed that their mating period is between July and October. Males have been observed to compete with other males over female pangolins. This mating period lasts from 3 to 5 days. During this time, males occupy the same burrow as the females with which they are breeding - this is in contrast to the normal solitary behaviour of pangolins. Female Indian pangolins have five oestrous cycles lasting 11 to 26 days each. They have relatively short gestation periods compared to other pangolin species, gestating young for an average of 65 to 70 days, but sometimes upwards of 80 days. Other closely-related *Manis* species have gestation periods of over 100 days. Indian pangolins usually give birth in late November and December.

**THREATS FOR INDIAN PANGOLINS:** Deforestation and hunting for their various body parts due to high demand.

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Indian pangolins habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF INDIAN PANGOLINS:** • Conduction of awareness programme for project personnel associated with transportation, to ensure that he follows the rules properly and drive slowly in the Indian pangolins habitat area particularly during night-time. • Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Indian pangolins during awareness programs like rally, student competition, community meeting, training workshop. • Create awareness among local people and villagers, on Indian pangolins.

#### **7.xii CONSERVATION OF BINTURONG (*Arctictis binturong*)**

Binturongs are found in Southeast Asia, specifically Bangladesh, Bhutan, Cambodia, China, India, Laos, Malaysia, Nepal, Philippines, Thailand, and Vietnam. They are also found more rarely on the Indonesian islands of Java, Sumatra, Nias, Raiu, and the Bangka islands.

**HABITAT:** Binturongs are primarily arboreal and live in the canopies of tall, dense, tropical forests. In Lao, they inhabit extensive evergreen forests and in the Philippines they dwell in primary and secondary lowland forests with grasslands. They spend most of their time climbing in trees and they even sleep in the branches

**PHYSICAL DESCRIPTION:** Binturonga are the largest species in the Viverridae family, weighing 9 to 20 kg. Their body length is 61 to 96 cm with an almost equal tail length of 56 to 89 cm. Females are 20% larger than males. Long, coarse, black fur covers their bodies and sometimes has grey tips. Their faces have slightly lighter fur and white whiskers. Long ear tufts protrude from small

rounded ears. Their eyes are small and reddish brown. Binturongs are one of two carnivorous species that have a prehensile tail. Their third and fourth digits are

REPRODUCTION: Little research has been done regarding the mating systems of binturongs. Michael Zwirn reported in 2011 that the father of a mated pair remained with the mother and young after birth, so a monogamous system is most likely. However, the male doesn't always stay and help the female raise the young. Groups of binturongs usually only include the mother with immature females. Binturongs are generally solitary unless females are in oestrus, in which case they make a call that attracts males. Males often act defensively towards females unless they are in oestrus. There doesn't seem to be a reproductive season for binturongs, because they mate throughout the year. There is, however, an increase in births from January to March, which could be a result of delayed implantation. Females reach sexual maturity at about 30 months and males reach sexual maturity at about 28 months

**7.xiii Conservation of Vultures:**

Nine species of vulture can be found living in India, but most are now in danger of extinction. Till 1980s there were up to 80 million white-rumped vultures (*Gyps bengalensis*) in India, but today the population numbers only several thousand. Population of three *Gyps* vultures in South Asia decreased by about 95% in the 1990s. A major contributing factor in declining populations of vultures is believed to be widespread use of drugs such as diclofenac, once commonly used as a livestock anti-inflammatory drug. Veterinary usage of diclofenac has been banned in India since 2006.

*Gyps indicus*, *Gyps bengalensis* and *Gyps himalayensis* were reported from the study area but hence they were included in the baseline data collected during 2018. But subsequent surveys and cross verification revealed that they have totally disappeared from the area under consideration. Hence, there is no conservation plan for them.

**7.xiv CONSERVATION PLAN FOR INDIAN PEAFOWL (*Pavo cristatus*):**

Peafowl is a common name for three species of birds in the genera *Pavo* and *Afropavo* of the Phasianidae family, the pheasants and their allies. Male peafowl are referred to as peacocks, and female peafowl as peahens, though peafowl of either sex are often referred to colloquially as "peacocks". The Indian peacock has iridescent blue and green plumage, mostly metallic blue and green, but the green peacock has green and bronze body feathers. In both species, females are as big as males, but lack the train and the head ornament. The peacock "tail", known as a "train", consists not of tail quill feathers, but highly elongated upper tail coverts. These feathers are marked with eyespots, best seen when a peacock fans his tail. Both sexes of all species have a crest atop the head. The Indian peahen has a mixture of dull grey, brown, and green in her plumage. The female also displays her plumage to ward off female competition or signal danger to her young.

Classification:

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Kingdom: Animalia Phylum: Chordata Class: Aves Order: Galliformes Family: Phasianidae Genus: Pavo Species: Pavo cristatus Common Name: Peacock or Mor

Conservation Status: Least Concern or LC (IUCN) & Wildlife (Protection) Act Schedule I

**PHYSICAL DESCRIPTION:** Indian blue peafowl are known best for their exquisite train and plumage. If the length of the tail and wing span is included, the peafowl is considered one of the largest flying birds. They weigh in between 2.7-6 kg and have a wingspan of 1.4-1.6 m. They vary widely in length from 0.86-2.12 m. This species has long, strong, greyish-brown legs equipped for running away into brush for safety. Both sexes are equipped with spurs that are around 2.5 cm long; males will use them during the breeding season to ward off other competing males. Females are brown, grey, and cream-colored. Chicks are usually a light yellow to brown colour. The males have a long train, about 1.2 m in length on average, from June to December. The train is discarded in January but is grown again at a rapid pace when breeding season approaches. Their necks and breasts are a bright blue, golden feathers line their sides and backs, and their trains are an iridescent arrangement of multiple colours featuring ocelli (eyespot). When displayed, the male's train spreads out in a wide fan, showing off gold, brown, green, and black feathers. Around 30 to 40 of the ocelli around the outer edges of the fan are not round but v-shaped. This complicated pattern is thought to be an advantage in mating, and even though it might seem like this bright pattern would make peafowl stand out, they can very easily disappear into foliage, making it extremely hard to spot.

**HABITAT:** Peafowls are most common in deciduous, open forest habitats. Indian blue peafowl do not migrate or travel widely. Areas that had enough water sources and were relatively distant from any human presence were also preferred if given the choice. Their basic requirements include a suitable roost tree, a small territory, and enough food. In their native range, peafowl are only found from 900 to 1200 m above sea level in areas with appropriate forest habitat to support them. Peafowl can adapt to colder climates than their native range.

**BEHAVIOUR:** Peafowl are forest birds that nest on the ground, but roost in trees. They are terrestrial feeders. All species of peafowl are believed to be polygamous. In common with other members of the Galliformes, the males possess metatarsal spurs or "thorns" on their legs used during intra specific territorial fights with other members of their kind.

**FOOD HABITS:** Peafowl are omnivores. They eat mostly plant parts, flower petals, seed heads, insects as well as arthropods, reptiles, and amphibians. Wild peafowl look for their food scratching around in leaf litter either early in the morning or at dusk. They retreat to the shade and security of the woods for the hottest portion of the day. These birds are not picky and will eat almost anything they can fit in their beak and digest. They actively hunt insects like ants, crickets and termites; millipedes; and other arthropods snakes, frogs and small mammals.

**PREDATION:** Spotting Indian peacocks remotely is often a piece of cake for their predators. Peacocks have several natural predators in the wild that include wild

dogs, cats, raccoons, tigers, leopards, civets, and mongooses. The train is extremely problematic for Indian peacocks, as it sometimes blocks them from being able to see dangerous predators that might be coming up to them from the back. When predators try to tug on their trains, the fowl sometimes get lucky. Their feathers often simply drop to the ground -- enabling the peacocks to bolt the scene immediately. People are prominent predators are both sexes of Indian peafowl, and they hunt them for various reasons. They sometimes consume their eggs and flesh, for example. Some people even go after them for recreational hunting. Despite that, Indian peafowl are not endangered, thanks to their steady population growth.

**REPRODUCTION:** There is a significant positive correlation between a peafowl's mating success and its train. Males spend a great deal of energy to produce and maintain good tail conditions, resulting in a trade-off between a longer train and avoiding predators or searching for food. Mating success is usually more successful for the males with the highest number of eyespots (also called ocelli) on their train. There is also a positive correlation between the number of eyespots, the amount of time a male display to a female during the breeding season, and the overall health of the individual. Peahens choose the peacocks with the most eyespots because her chicks will hopefully inherit the male's superior immune system and have a greater chance at survival. Male peacocks use the sun at different angles when performing visual displays such as —train-rattling or —wing-shaking. Visual genetic traits and behaviour of the male allow the peahen to determine the health of a mate and the benefits it would confer to their offspring. This species becomes sexually mature at three years, though some males can breed at age 2. Females will lay 3-5 brownish oval eggs, but in some cases have laid up to 12. The eggs are laid one at a time every other day. Their glossy shells have deep, small pores that let in water to keep it moist. The incubation period lasts up to 28 days. The nest is made up of dry sticks and leaves, and is located on the ground, under shrubs. Naturally, a peahen will only lay one clutch per breeding season. If raised in captivity and a clutch is taken away from the female, she will mate again and can lay up to three clutches in a breeding season. The clutches removed from the mother can be given to a foster parent such as a turkey hen. Peafowl can live up to 25 years in the wild, but the average is around 20 years due to predation, diseases, electrocution from flying into power lines, pesticide poisoning, and destruction of their natural habitat.

**THREATS TO PEAFAWL:** • Increase the population of feral dogs, which are the primary predator of Peafowl, in the village area. • Poaching of peafowl for its eggs, flesh and feathers. • Habitat loss/ alteration and tree cutting as increase in agricultural activities in previously uncultivated land. • Peafowl are also victims of the pet trade and animal entertainment industry.

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Peacock habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF PEA FOWLS:** Conversion of existing 9 wells into developmental wells is a temporary activity and continued maximum up to 90 days for each well. Execution of Conservation Plan within this time period is not feasible. After commercially viable discovery of hydrocarbon in the 9 wells and further full-fledged development & production, ONGC will implement the conservation plan along with budgetary allocation. All above activities will be carried out with the consultation of local forest department and Gram Panchayat of respective villages. The following conservation measures will be undertaken during the conversion of wells –

- Fencing will be developed around the well area to stop any encounter with wild animals.
- Installation of road signage along the road side depicting the maximum speed limit near the project site.
- Creation of awareness programme among working personnel involved in the project activity.
- Wildlife protection display boards/signage's will be displayed along the road side. Sign board with better night time vision will be installed in corridor roads.
- Conduction of awareness programme for project personnel associated with transportation, to ensure that he follows the rules properly and drive slowly in the Peafowl habitat area particularly during night-time
- Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Peafowl during awareness programs like rally, student competition, community meeting, training workshop.
- Create awareness among local people, villagers, district administrative staff and forest personnel, NGOs and educational institutes for the protection, research and monitoring of Peafowl

#### **7.xv CONSERVATION PLAN FOR PIED HORNBILL (*Anthracoceros albirostris*)**

The pied hornbill (*Anthracoceros albirostris*) is an Indo-Malayan pied hornbill, a large canopy-dwelling bird. It has the largest distribution in the genus and is found in the Indian Subcontinent and throughout Southeast Asia. Classification: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Bucerotiformes Family: Bucerotidae Genus: *Anthracoceros* Species: *Anthracoceros albirostris* Common Name: Pied hornbill Conservation Status: Least Concern and Schedule I

**PHYSICAL DESCRIPTION:** The oriental pied hornbill is a medium size frugivore with a head-to-tail length of 55–60 cm and a wingspan of 23–36 cm. The bill measures 19 cm for males and 16 cm for females. It can weigh between 600 g and 1,050 g, averaging 900 g for males and 875 g for females. The plumage of the head, neck, back, wings and upper breast is black with a slight green sheen. The tail is black with white tips on all the feathers except the central feathers (rectories). The plumage of their lower breast, lower abdomen, thighs, underwing and all the tips of the wings except the three basal secondaries and two outer primaries is white, as is the circumorbital skin around the eyes and on the throat skin. A blue tinge can sometimes be noticed on the throat of adults. Males and females are similar in coloration. Males can be distinguished from females by their larger body size, yellow bill, which has a black base, and bright red eyes. Females have a slightly smaller body size, a yellow bill and casque with a partly black, browned patched mandible, and greyish-brown eyes. The calls of the oriental pied hornbill have been described as crow like sounds, braying sounds or harsh crackles and screeches.

**HABITAT:** Its natural habitat is subtropical or tropical moist lowland forests. Within these regions, *A. albirostris* occupies various habitat types, which include dry and semi-evergreen forests, dry and moist deciduous forests, subtropical broadleaf forests, secondary forests, plantations and woodlands and they are native to Singapore.

**BEHAVIOUR:** Hornbills select nest sites based on the availability and type of fruiting trees, as well as on the availability and quality of nest site cavities in their particular habitat. Because oriental pied hornbills inhabit various habitats, nest structural characteristics may vary from one habitat to another, and may also vary between hornbill species, which have overlapping habitats. Habitat overlap among hornbill species may lead to intra & inter specific competition, whereby hornbills compete for limited nest-sites. Competition for nest-sites with other species such as squirrels, lizard and other cavity nesting birds can also have critical impacts on breeding success.

**FOOD HABITS:** Hornbills are predominantly frugivores. The oriental pied hornbill's diet consists of wild fruits such as figs (*Ficus* spp.), melanoxylon berries, rambutans, palm fruit, papaya and fruits of liana plants. It will also take large insects (grasshoppers), small birds (finches) small reptiles (lizards and snakes), amphibians such as frogs, and fish.

**REPRODUCTION:** Hornbills are generally monogamous and breed between January and June; oriental pied hornbills typically commence breeding in February. Hornbills are secondary cavity nesters, meaning that they typically do not excavate their own nesting sites but use those created by other birds or by branches breaking off.

**THREATS TO PIED HORNBILL:** High rate of deforestation. Hornbills used to be hunted for their casques, upper beak and feathers for adorning headgear.

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Pied Hornbill habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF PIED HORNBILL:**

- Initiating Reforestation programme.
- Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Pied Hornbill during awareness programs like rally, student competition, community meeting, training workshop.
- Create awareness among local people, villagers, district administrative staff through forest personnel, NGOs and educational institutes for the protection, research and monitoring of Pied Hornbill

## **7.xvi Conservation of freshwater Turtles:**

Based on secondary data, *Geoclemys hamiltonii*, *Cyclemys gemelli*, *Aspideretes gangeticus* (= *Nilssonina gangetica*) and *Batagur baska* are the four turtles included in the baseline data of 2018. *Batagur baska* was classified as critically endangered in 2003 and it is believed to be extinct. With regard to the other

three, there is very information about their status since they are aquatic. There is no direct or indirect threats to their habitat in the study area and hence no management intervention is required.

**7.xvii CONSERVATION PLAN FOR INDIAN PYTHON (*Python molurus*):**

*Python molurus* is a large, nonvenomous python species native to tropical and subtropical regions of the Indian subcontinent and Southeast Asia. It is generally lighter coloured than the Burmese python and reaches usually 3 m (9.8 ft). Classification: Kingdom: Animalia Phylum: Chordata Class: Reptilia Order: Squamata Sub-Order: Serpentes Family: Pythonidae Genus: Python Species: *Python molurus* Common Name: Indian Python

Conservation Status: Near Threatened (NT) and Schedule I.

**PHYSICAL DESCRIPTION:** Indian pythons are divided into two recognized subspecies, which can be distinguished by physical characteristics. Burmese pythons, *P. molurus bivittatus*, can grow to lengths of about 7.6 m (25 ft), and can weigh as much as 137 kg (300 lbs.). Indian pythons, *P. molurus molurus*, stays smaller, reaching a maximum of about 6.4 m (21 ft) in length, and weighing as much as 91 kg (200 lbs.). The hides of both subspecies are marked with a rectangular mosaic type pattern that runs the full length of the animal. *P. molurus bivittatus* is more darkly coloured, with shades of brown and dark cream rectangles that lay over a black background. This subspecies is also characterized by an arrow-shaped marking present on the top of the head, which begins the pattern. *P. molurus molurus* has similar markings with light brown and tan rectangles placed over a typically cream background. *P. molurus molurus* only has a partial arrow-shaped marking on the top of the head. Each scale of *P. molurus molurus* is a single colour. Indian pythons are dimorphic with females of both subspecies being longer and heavier than males. Males have larger cloacal spurs, or vestigial limbs, than do females. The cloacal spurs are two projections, one on either side of the anal vent, that are thought to be extensions of posterior limbs

**HABITAT:** Indian pythons are found in a variety of habitats including rainforests, river valleys, woodlands, scrublands, grassy marshes, and semi rocky foothills. They are usually found in habitats with areas that can provide sufficient cover. This species is never found very far from water sources, and seems to prefer very damp terrain.

**BEHAVIOUR:** *Python molurus* is a solitary species. Mating is the only time that these snakes are commonly found in pairs. Indian pythons will generally move only when food is scarce or when threatened. They may stalk prey, first locating it by scent or by sensing the body heat of the prey with their heat pits, and then following the trail. These snakes are primarily found on the ground, but will sometimes climb trees. Indian pythons are also very often found in or near water. They are expert swimmers, and can stay submerged without breathing for up to thirty minutes at a time. During colder months, starting in October and ending in February, Indian pythons stay hidden and will usually enter a brief period of hibernation until the temperature rises again.

**FOOD HABITS:** *Python molurus* is a carnivorous. Its diet consists mostly of live prey. Its staples are rodents and other mammals. A small portion of its diet consists of birds, amphibians, and reptiles. When looking for food *P. molurus* will either stalk prey, ambush, or scavenge for carrion. These snakes have very poor eyesight. To compensate for this, the species has a highly developed sense of smell, and heat pits within each scale along the upper lip, which sense the warmth of nearby prey. Indian pythons kill prey by biting and constricting until the prey suffocates. Prey items are then swallowed whole. To accomplish the feat of swallowing the prey, *P. molurus molurus* dislocates its jaw and stretches its highly elastic skin around the prey. This allows these snakes to swallow food items many times larger than their own heads.

**REPRODUCTION:** *Python molurus* reaches sexual maturity between 2-3 years of age provided the proper body weight is met. At this time courting behaviour may begin. During courtship, the male wraps his body around the female and repeatedly flicks his tongue across her head and body. Once they align their cloacas, the male uses his vestigial legs to massage the female and stimulate her. Copulation ensues, with the female raising her tail to allow the male to insert one hemipenis (he has two) into the female's cloaca. This process lasts between 5-30 minutes. Approximately 3-4 months later, the female will lay up to 100 eggs, each weighing as much as 207 g. At this time the female generally coils around the eggs in preparation for an incubation period. Incubation lasts between 2-3 months.

**THREATS TO PYTHON MOLURUS:** • There is a high amount of exportation for the pet trade. • The skin of Indian pythons is highly valued in the fashion industry due to its exotic look. • In its native range it is also hunted as a source of food.

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct *Python molurus* habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF INDIAN PYTHON:** • Creation of awareness programme among working personnel involved in the project activity as well as local people on its ecological importance. • Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the *Python molurus* during awareness programs like rally, student competition, community meeting, training workshop. • Create awareness among local people, villagers, district administrative staff through forest personnel, NGOs and educational institutes for the protection, research and monitoring of *Python molurus*

#### **7.xviii: CONSERVATION PLAN FOR MONITOR LIZARD (*Varanus bengalensis*):**

Bengal monitors or common Indian monitors (*Varanus bengalensis*) occur across much of southern Asia. Compared to other varanid lizards, Bengal monitors have a much larger geographic range, where they are considered less restricted both geographically and environmentally. This species is widely distributed from Afghanistan to Java, including south-eastern Iraq, Iran, and Afghanistan, Pakistan

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and India, southern Nepal, Bhutan, and China, North and South Vietnam, Laos, and islands in the Strait of Malacca and the Greater Sunda Islands.

Classification: Kingdom: Animalia Phylum: Chordata Class: Reptilia Order: Squamata Family: Varanidae Species: *Varanus bengalensis* Common Name: Bengal monitor Conservation Status: Least Concern and Schedule I.

**PHYSICAL DESCRIPTION:** Adult Bengal monitors are generally grey or greenish-grey in colour, with a ventral pattern of grey to black crossbars from the chin to the tail. These markings are generally darkest in the western parts and lightest in the eastern parts of the geographic range. These ventral markings typically become lighter, and the ground colour darker, with age. Thus, adults display a less pronounced, less contrasting pattern than younger Bengal monitors. In the wild, the heaviest recorded male Bengal monitor weighed 7.18 kg, though captive individuals have been reported to reach 10.2 kg. In the wild, males generally weigh 42% more than females. Males of the same snout to vent length (SVL) as females are typically 9.2% heavier. Young Bengal monitors, on average, weigh 0.078 kg.

**HABITAT:** Bengal monitors have the ability to cope with a broad range of environments, from deserts to rainforests to habitats having seasonally snowy winters. However, generally they are found in areas with continuously warm climates, with mean annual air temperatures of approximately 24 C. The most common tropical forest habitats for Bengal monitors are deciduous, semi-deciduous, evergreen tropical forests, and thorn brush.

**BEHAVIOUR:** Bengal monitors are almost completely solitary. Much of the daytime is spent in constant movement, searching for food. Bengal monitors are more likely to interact with one another during the peak breeding season, when males compete for mates.

**FOOD HABITS:** The diet of Bengal monitors is almost strictly carnivorous. Common prey include: annelids, insects, amphibians, smaller reptiles, birds, small mammals, and eggs. At smaller body sizes for Bengal monitors, various beetle species represent the largest portion of their diet, averaging 52.8%. The second largest component of their diet is made up of orthopteran insects at 9.5%. The remainder of their diet is made up of other insects, crabs, rodents, reptiles, spiders, birds and almost any other animal they can reasonably consume. **PREDATION:** Predation on *V. bengalensis* does occur despite the fact that they themselves are predators. Species that prey upon *V. bengalensis* include other Bengal monitors, pythons and other large snakes, eagles, mongooses, wild and domesticated dogs, feral cats, and even humans. Most predation occurs early in life as eggs, hatchlings, and juveniles, while only a small portion of predation involves fully grown adults.

**REPRODUCTION:** Females show the greatest chances of successful copulation by mating with only one or two individual males in successive years, though they still may be courted by several other males.

**THREATS TO BENGAL MONITOR:** • Poaching due to commercial exploitation of their skins for leather products. • Hunting due to various parts of their bodies are used in some village medicines.

**STUDY APPROACH:** Study has been done in order to do biological survey of core and buffer zone of the study area around the wells. Sightings and Habitat Use: Direct Bengal monitor habitat has not been sighted in the well locations as well as in some of villages near wells. The area was found human occupied and associated surround habitats i.e. near agricultural fields, wood land and water bodies.

**ACTION PLAN FOR THE CONSERVATION OF BENGAL MONITOR:** • Distribution of pamphlets, booklet, T-Shirts, Hats containing information, picture and conservation message about the Bengal monitor during awareness programs like rally, student competition, community meeting, training workshop. • Create awareness among local people, villagers, district administrative staff through forest personnel, NGOs and educational institutes for the protection, research and monitoring of Bengal monitor

## **8. SITE-SPECIFIC WILDLIFE MANAGEMENT PLAN**

In order to assess the impacts on the Conversion of 9 existing Exploration Wells into production wells & laying of Associated Flowlines, Involving Construction of Well Manifold in Tripura State by Oil and Natural Gas Corporation Limited on the existing faunal population, a detailed study has been carried out. Government of India enacted wildlife (protection) Act, 1972 with the objective of effectively protecting the wild life of this country and to control poaching, smuggling and illegal trade in wildlife and its derivatives.

**OBJECTIVE OF THE STUDY** The assessment of faunal diversity considers the probable impacts due to proposed onshore development wells activities the existing faunal population in compliance to the approved ToR provide by MoEF&CC. The scope of the faunal study includes following: } To establish the prevailing ecological environment in the study area; } To assess environmental impacts on faunal population arising out of the proposed onshore development activities; } Assessment of faunal diversity in the study area with special reference to Schedule-I faunal species as per Wildlife (protection) Act, 1972. } Recommendation of appropriate mitigation measures to eliminate impacts on existing faunal population and incorporation of the same in Environment Management Plan (EMP). } To prepare Wildlife conservation Plan for Schedule -I species observed in the study area.

**SCHEDULED FAUNA IN THE STUDY AREA:** To, prepare the ecological report under EIA study field visits of the project area have been done within 10 km surrounding of the wells. From this study a detail report on biodiversity status have been prepared. All the direct sightings were recorded at the study period. Also, we have noted the species name after consultation with local villagers and secondary sources. As per Wildlife Protection Act, 1972 following Schedule-I species are present in the area. List of Schedule -I Faunal species in the study area is given in Table 2. It may be noted from Table 2, that a total of 26 Schedule

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I species have been reported. The list includes LC (least concern) to CR (Critically endangered) fauna. Majority of the species in Table 2, have been reported from the two wildlife sanctuaries. Though Elephant, Leopard, Sloth bear, Wolf, Monitor Lizard, Python, Peacock have been found outside the wildlife sanctuaries but very rarely. There is no latest and reliable record of Schedule species and their status in the study area with the exception of Elephant and Leopard.

### **8.i: Existing on-site facilities and infrastructure for Management of Wildlife:**

As stated earlier, the Sipahijola or Sepahijala Wildlife Sanctuary has five sections: carnivores, primates, ungulates, reptiles and aviary. Sipahijola or Sepahijala Wildlife Sanctuary. The sanctuary has been developed both as a wildlife sanctuary and as an academic and research centre. It is a woodland with an artificial lake and natural botanical and zoological gardens. Trishna Wildlife Sanctuary is another important wildlife sanctuary located in the study area that can be considered for further development. These are the major strengths for implementation of integrated wildlife management plan.

Based on the review of information and data, the following are clear:

- The ONGC proposal is for development drilling of 9 wells in Tichna gas field, construction of Tichna well manifold & conversion of 9 exploration wells in to development wells & laying of associated flow line at South Tripura district of Tripura. It covers a total area of 87,132 ha but the major impacts involving changes in land use and land cover shall be about 20 ha.
- Because of large coverage of the area including two Wildlife sanctuaries, a large number of Schedule I have been reported and included in the EIA report.
- But the magnitude and sensitivity of the impacts are very mild, temporary and easily maintainable. Even in worst case like blow out, this is not going to be a threat to wildlife.
- As a responsible public sector undertaking, ONGC proposes the following wildlife management plan and offers financial support as outlined in Table 4.

As per the 52<sup>nd</sup> minutes of NBWL, wild life clearance was recommended with the budget as per the Minutes of Meeting (MoM) for the 4 development wells (TIDA, TIDF, TIDD, TIDE) which are briefed below:

#### **TIDD**

- Rs.60 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.

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- Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.
- Alternative grazing land for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC embedding at bottom and 3 (three) strands of barbed wire on top around Sanctuary and the project site for restriction of entry of wild animals specially bison.
- Alternative grazing land for bison i.e., plantation of Congo signa grass, fruit bearing species, Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- Eco-tourism amenities and awareness activities in different locations.
- Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioural effect in wild animals specially bison.

#### **TIDA**

- Rs.70 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.
- Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.
- Alternative grazing area for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC pillars embedding at bottom and 3 (three) strands of barbed wire on top around Sanctuary and the project site for restriction of entry of wild animals specially bison.
- Alternative grazing area for Bison i.e., plantation of Congo signa grass, fruit bearing species, Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- Eco-tourism amenities and awareness activities in different locations.
- Procurement of one battery operated mini bus for the tourist fully equipped with tranquilizing gun and other equipments.
- Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioural effect in wild animals specially bison.

#### **TIDF**

- Rs.80 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.
- Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.

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- Development of alternative grazing area for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC pillars embedding at bottom and 3 (three) strands of barbed wire on top around Sanctuary and the project site for restriction of entry of wild animals specially Bison.
- Development of alternative grazing area for Bison i.e., plantation of Congo signa grass, fruit bearing species, Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- Tourist amenities and awareness activities in different locations.
- Procurement of one battery operated mini bus for the tourist fully equipped with tranquilizing gun and other equipments.
- Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioural effect in wild animals specially bison.

### **TIDE**

- Rs.60 lakhs should be paid to the Wildlife Warden for following works & development of Sanctuary.
- Construction of artificial water holes and salt licks for wild animals needs to be development of wildlife habitat.
- Development of alternative grazing area for wild animals i.e., plantation of Napier grass & fruit bearing species needs to be created for development of wildlife habitat.
- Construction of double chain link wire mesh fencing with RCC pillars (height 7 feet) along with RCC pillars embedding at bottom and 3 (three) strands of barbed wire on top around Sanctuary and the project site for restriction of entry of wild animals specially Bison.
- Development of alternative grazing area for Bison i.e., plantation of Congo signa grass, fruit bearing species, Kallai bamboo (*Oxytenethera nigrociliata*) needs to be created for development of wildlife habitat.
- Tourist amenities and awareness activities in different locations.
- Procurement of one battery operated mini bus for the tourist fully equipped with tranquilizing gun and other equipments.
- Eco-friendly project operation with minimum noise level is required to be undertaken at work site and movement of vehicles needs to be restricted to avoid any adverse behavioural effect in wild animals specially bison.

<b>Table 4: Activities identified and the roles of the ONGC and the State Forest &amp; Wildlife department.</b>		
<b>Activity and program</b>	<b>Role of the ONGC</b>	<b>Role of forest &amp; Wildlife department</b>
Wildlife monitoring	Funding	Monitoring
Wildlife resource monitoring	Funding	Monitoring

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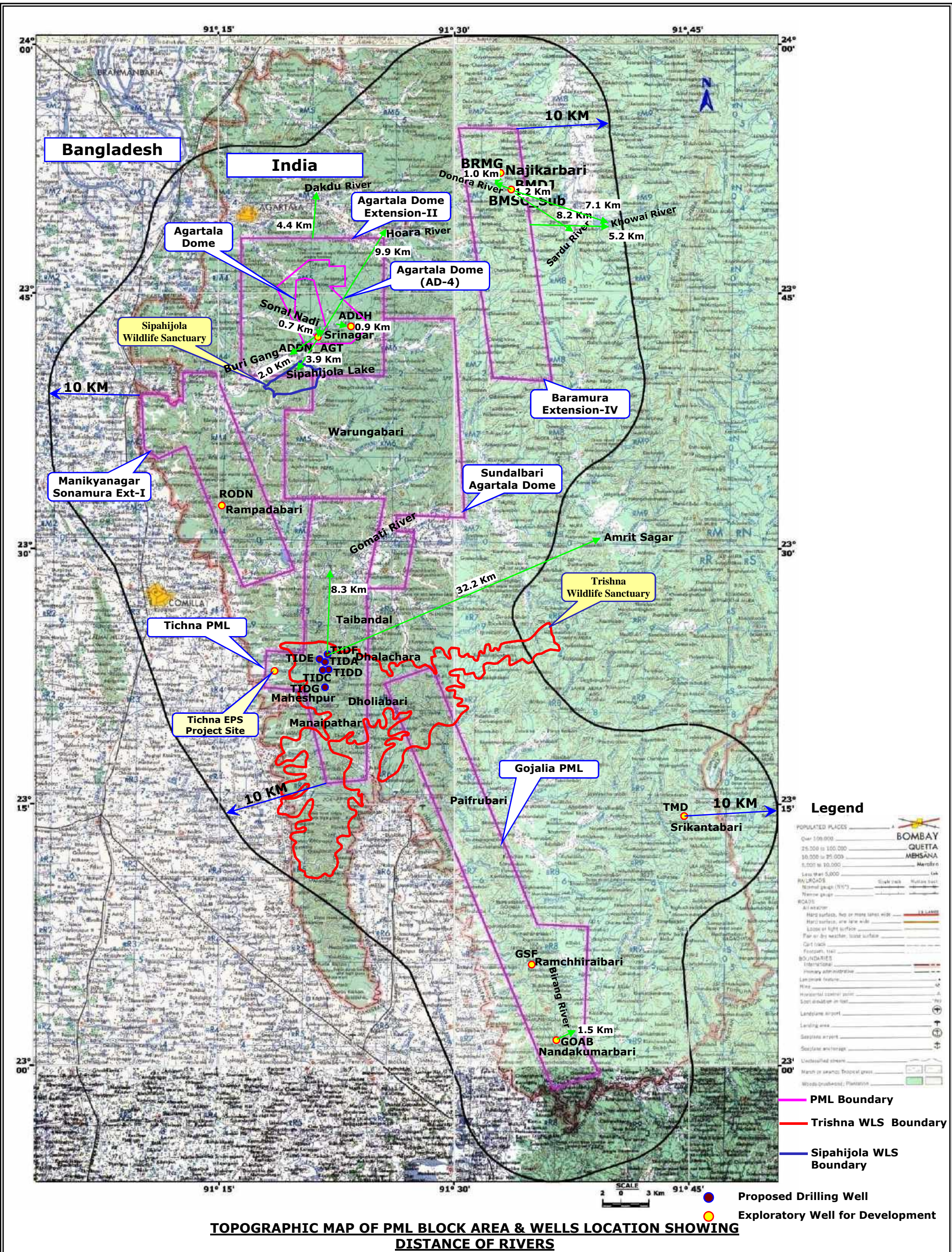
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Habitat improvement	Funding		Implementation
Resource augmentation	Funding		Implementation
Rescue / relief, rehabilitation and restoration	Funding	Within the project area	Implementation
Trapping and relocation	Funding		Implementation
Protective measures	Funding	Within the project area	Implementation

ONGC proposes a budget of Rs 50 lakhs for taking up the above activities for the TIDC, TIDG wells.

During the first 5 years, the ONGC is prepared to spend Rs. 3.7 crore for 6 wells within the sanctuaries.

**Annexure-10**



**TOPOGRAPHIC MAP OF PML BLOCK AREA & WELLS LOCATION SHOWING DISTANCE OF RIVERS**

- Legend**
- POPULATED PLACES
    - Over 100,000
    - 25,000 to 100,000
    - 10,000 to 25,000
    - 5,000 to 10,000
    - Less than 5,000
  - RAILROADS
    - Normal gauge (N/G)
    - Narrow gauge
  - ROADS
    - All weather
    - Hard surface, two or more lanes wide
    - Hard surface, one lane wide
    - Loose or light surface
    - Pan or dry weather, loose surface
    - Cart track
    - Footpath, trail
  - BOUNDARIES
    - International
    - Primary administrative
    - Landmark feature
    - River
    - Horizontal control point
    - Spot elevation or spot
    - Landing airport
    - Landing area
    - Seaplane airport
    - Seaplane anchorage
    - Unclassified stream
    - Marsh or swamp; Tropical grass
    - Woods/scrubland; Plantation
  - PML Boundary**
  - Trishna WLS Boundary**
  - Sipahijola WLS Boundary**
  - Proposed Drilling Well**
  - Exploratory Well for Development**

**TABLE**  
**DISTANCE OF ALL THE RIVERS FROM WELLS AND BLOCKS**

<b>Sr.No</b>	<b>Name of River</b>	<b>Distance and Direction from wells and blocks</b>
1	Sonal Nadi	<p>Sonal Nadi is located within Agarthala Extension-II PML block, Agarthala dome and AD-4 PML areas.</p> <p>ADDN-AGT well is located at distance of 0.7 km from Sonal Nadi in N direction.</p> <p>ADDH well is located at a distance of 0.9 km from Sonal Nadi in NNW direction.</p>
2	Haora River	<p>Haora river is located within Agarthala dome Extension-II PML area.</p> <p>ADDH_AGT well is located at a distance of 9.9 Km from Haora river in NNE direction.</p>
3	Dakdu river	<p>Dakdu river is located at a distance of 4.4 Km, NW from Agarthala Dome extension-II PML area</p>
4	Dondra River	<p>Dondra river is located within Baramura Extension-IV PML area.</p> <p>BRMG well is located at a distance of 1 Km from Dondra River in SW direction</p> <p>BMDC_Sub and BMDJ wells are located at a distance of 1.2, Km from Dondra River in NW direction.</p>
5	Buri gang river	<p>Buri gang river is located within Agarthala dome Extension-II PML area.</p> <p>ADDN_AGT well is located at a distance of 2 Km, from Buri gang river in S direction.</p>
6	Sardu river	<p>Sardu river is located within Baramura Extension-IV PML area.</p> <p>BMDJ and BMSC_sub well is located at a distance of 8.2 Km from Sardu river in SE direction.</p>
7	Gomati River	<p>Gomati river is located within Sundalbari Agarthala Dome PML area and Tichna block area.</p> <p>TIDF well is located at a distance of 8.3, Km from Gomati River in N direction.</p>
8	Amrit sagar	<p>TIDF well is located at a distance of 32.2, Km from Amrit sagar in NE direction.</p>

*Development Drilling of 9 wells in Tichna Gas Field, Construction of Tichna Well Manifold & Conversion of 9 Exploration Wells in to Development Wells & Laying of Associated Flow Line Tripura*

9	Sipahi Jale lake	<p>Sipahi Jale lake is located within Agarthala dome Extension-II PML area.</p> <p>ADDN_AGT is located at a distance of 3.9,Km from Sipahi Jale lake in SW direction.</p>
10	Khowai river	<p>Khowai river is located at a distance of 5.2 Km in E direction from Baramura Extension-IV PML area.</p> <p>BMDC_Sub and BMDJ well is located at a distance of 7.1, Km Khowai river in ESE direction.</p>
11	Birang river	<p>Birang river is located within Gojalia PML area.</p> <p>GOAB well is located at a distance of 1.5,Km from Birang river in ENE direction.</p>