

Sub: Proposal for prospecting (Research) for 121.83 ha. Forest land under Forest (Conservation) Act-1980 for Laser Interferometer Gravitational Wave Observatory in India (LIGO) in village Dudhala, Anjanwada, Nandgaon Sawali (B), Tal-Aundha (Nagnath), District – Hingoli by taking 150 Bore Holes in 0.375 ha forest area.

The State Government of Maharashtra vide their letter no. FLD-2018/CR.204/F-10 dated 28.06.2018 submitted the above mentioned proposal seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980.

2. Details indicated in the proposal submitted by the Government of Maharashtra are as below:-

FACT SHEET

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| 1. | Name of the proposal | Proposal for prospecting (Research) for 121.83 ha. Forest land under Forest (Conservation) Act-1980 for Laser Interferometer Gravitational Wave Observatory in India (LIGO) in village Dudhala, Anjanwada, Nandgaon Sawali (B), Tal-Aundha (Nagnath), District – Hingoli by taking 150 Bore Holes in 0.375 ha forest area. |
| 2. | Location:- (i) State (ii) District | Maharashtra Hingoli |
| 3. | Particulars of Forests:- (i) Name of forest Division and Forest area involved (ii) Legal Status / Sy. No. (iii) Maps | Hingoli Forest Division 121.83 ha. Reserved Forest Pg. No. 63-68/c. |
| 4. | Vegetation Density | Dry deciduous and open type of forest 0.1 |
| 5. | Species-wise local/(Scientific names) and girth-wise enumeration of trees at FRL. | Species wise local or scientific names and girth wise trees required to be felled is given and may kindly be seen at Pg. No.24/c. |
| 6. | Brief note on vulnerability of the forest area to erosion. | Yes, forest area proposed for LIGO India project is vulnerable to soil erosion. |
| 7. | Approximate distance of the proposed site for diversion from boundary of forest | 0.5 Km. |
| 8. | Details of wildlife present in and around the forest land proposed for diversion. | Major wildlife found in area is Blue bull, wild boar, jackal, spotted deer and Indian hare etc. |
| 9. | Whether forms part of National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve, Elephant Corridor etc. (if so, the details of the area the comments of the Chief Wildlife Warden to be annexed) | No |

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| 10. | Whether any rare / endangered unique species of flora and fauna found in the area. If so, details thereof. | No |
| 11. | Whether any protected archaeological / heritage site / Defence establishment or any other important monument is located in the area. | No |
| 12. | Whether any work in violation of the Act has been carried out (Yes/No). If yes, details of the same including period of work done, action taken on erring officials. Whether work in violation is still in progress. | No |
| 13. | Whether the requirement of forest land as proposed by the user agency in col. 2 of Part-I is unavoidable and barest minimum for the project, if no recommended area item-wise with details of alternatives examined. | Yes |
| 14. | Compensatory Afforestation | Not given |
| 15. | Details of non-forest area/degraded forest area identified for CA, its distance from adjoining forest, number of patches, size of each patches. | N/A |
| 16. | Map showing non-forest/degraded forest area identified for CA and adjoining forest boundaries. | |
| 17. | Detailed CA scheme including species to be planted, implementing agency, time schedule, cost structure, etc. | |
| 18. | Total financial outlay for CA | |
| 19. | Certificate from the competent authority regarding suitability of the area identified for CA and from management point of view. | |
| 20. | Total period for which the forest land is proposed to be utilized for prospecting (in years) | 0.5 year |
| 21. | Reclamation Plan | Not applicable |
| 22. | CAT Plan | |
| 23. | Rehabilitation of Oustees | |
| 24. | Employment Potential Permanent / Temporary. | Not applicable |
| 25. | Whether clearance under the Environment (protection) Act, 1986 is required? | |
| 26. | Cost Benefit analysis. | Not Given |

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| 27. | Total Cost of the Project (Rupees in lakhs) | Rs. 240 Lakhs. |
| 28. | Site Inspection Report of the Divisional Forest Officer in compliance to the conditions stipulated. | LIGO India is a Mega Science specific project. This is first Laser Interferometer Gravitational Wave Observatory in India (LIGO). The SIR of DFO is placed in Pg. No.27-28/c |
| 29. | Recommendations: | - |
| (i) | DFO | Recommended (Pg. 70/c) |
| (ii) | CCF | Recommended. (pg.29/c). SIR of CCF may kindly see at pg. 31-32/c |
| (iii) | PCCF / Nodal Officer | Recommended with certain conditions (Pg.7/c) |
| (iv) | State Government | Recommended (pg. 8/c) |
| 30. | Compliance of Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. | The FRA certificate is given but not in the prescribed format and without documentary evidences such as DLC, Gram resolution. (Pg. 61-62/c) |
| 31. | District Profile, | Not given. |
| 32. | Total Geographical area (in Ha.) | |
| 33. | Total forest area (in Ha.) | |
| 34. | Total area diverted since 1980 | |
| 35. | Total area proposed for afforested since 1980 a. Forest land including penal Compensatory Afforestation. b. Non-forest land. | Not given. |
| 36. | Total area afforested since 1980 27.04.17 (a) forest land (b) non-forest land | Not given. |

3. In the forwarding letter dated 28.06.2018 of the State Govt. reported that the Union Cabinet chaired by Hon'ble Prime Minister has given approval on 17.02.2016 for setting up mega science project called Laser Interferometer Gravitation Wave Observatory Project [LIGO – India Project] in India. This project is under joint collaboration with Laser Interferometer Gravitational Wave Observatory (LIGO) , USA and it is funded by Department of Atomic Energy (DAE) and Department of Science & Technology (DST) of Government of India. The LIGO-India shall be a unique facility in the world along with US Detectors for unravelling some greatest mysteries of the universe called gravitational-wave. In this regard, a MoU has been signed in March, 2016 in US among the US National Science, Foundation, DAE and DST in the presence of Hon'ble, Prime Minister of India. The proposed project will bring unprecedented opportunities for Scientists and Engineers to dig deeper into the realm of gravitational wave and take global leadership in this new astronomical frontier. LIGO, India project will also bring considerable opportunities in cutting edge technology for the India Industry, which will be engaged in the construction of 8 km long beam tube at Ultra-High Vacuum on a levelled terrain. Thus, the project will motivate Indian students and young scientists to explore newer frontiers of knowledge, and will add further

impetus to scientific research in the country. **The total 150 bore holes are proposed within forest area which is required for prospecting (research) in 0.375 ha.** Reserve Forest which will temporary be affected.

4. It is further reported by the state Govt. that DFO Hingoli Division, Hingoli has certified that there is no cutting and felling of trees and the instant proposal pertains only to prospecting for affecting the area of 0.375 ha only temporarily, **the conditions of taking up CA and payment of NPV seems to be not applicable at this stage.** However, if the exploration leads to finding Laser interferometer Gravitation Wave Observatory in India (LIGO), It will necessitate submission of proposal under FCA, 1980 and these conditions shall become applicable.
5. The PCCF, Maharashtra State, Nagpur vide their letter no. 17/NC/I.I.D-/491/16-17 dated 02.06.2018 (pg. 4-6/c) has recommended the proposal subject to the following conditions.
 - a. The legal status of the forest land required will remain unchanged.
 - b. Construction of temporary dwelling/ hutments etc. For labourers will not be allowed in the forest areas.
 - c. Adequate precautions shall be taken to safeguard the adjoining areas from explosives and it shall not be stored in the forest area.
 - d. The user Agency will not dump the overburden on the forest land.
 - e. **The UA should clearly understand that this permission is being granted only for prospecting of 150 borehole. The proposal for road, building, beam tube and Laser Interferometer Gravitational Wave Observatory (LIGO) will be considered independently later on merit.**
 - f. All other conditions as may be mandatory under relevant Acts, Rules and guidelines shall be complied with by the user agency.
6. The instant proposal of prospecting for chromite has also been analyzed by the DSS Cell of this division and their report may kindly see at F/X. The major observations are as under:
 - (i) Proposed forest area for diversion of forest land falls under Hingoli district of Maharashtra State and Calculated area of prospecting lease is found 122.01 ha
 - (ii) Proposed area for diversion classified as Not-inviolate area based on Decision Rule No. 1 & 2.

In view of the above facts related to the proposal may be placed before FAC in its forthcoming meeting scheduled to be held on 26.07.2018 for examination and appropriate recommendation.
