F. No. 10-53/2017-IA-III
Government of India
Ministry of Environment, Forest & Climate Change
(I.A. Division)

Indira Paryavaran Bhawan
Aliganj, Jorbagh Road,
New Delhi -110003

Date: 13th October, 2017

To,

The Executive Director,
M/s Damodar Ropeways and Infra Limited
1/A, Vansittart Row, Kolkata – 700 001 (West Bengal)
E-mail: emd@drcc.in

Subject: Pulsated Mono cable System Passenger Ropeway at Nandankanan Zoological Park, Khorda, Odisha by M/s Damodar Ropeways and Infra Limited - Terms of Reference - reg.

Sir,

Kindly refer your online proposal No. IA/OR/MIS/67364/2017 dated 10th August, 2017 along with project documents including Form-I, Pre-feasibility Report and draft 'Terms of Reference' as per the EIA Notification, 2006 seeking Terms of Reference (ToR) for the above project under the EIA Notification, 2006.

2. The proposal for grant of Terms of Reference (ToR) to the project 'Pulsated Mono cable System Passenger Ropeway at Nandankanan Zoological Park, Khorda, Odisha by M/s Damodar Ropeways and Infra Limited, was considered by the EAC (Infra-2) in its meeting held on 11-13 September, 2017.

3. The details of the project, as per the documents submitted by the project proponent and also as informed during the above said meeting, are under:-

(i) Nandankanan Zoological Park at Bhubaneswar has decided to get installed a Passenger Ropeway in their Park to provide the tourists to have a ride enjoying the scenic beauty of the Kanjia Lake from the top. As well as for this purpose, the Nandankanan Zoological Park Authority invited tenders on B.O.T basis and Damodar Ropeways & Infra Limited (DRIL) has shown their interest submitting competitive Bid. The Authority has selected the Bid submitted by DRIL and awarded the Contract to them.

(ii) The proposed ropeway UTP area lies at the Botanical Garden and L.T.P. area at Nandankanan Zoological Park. The U.T.P is proposed in the State Botanical Garden, as the location for the upper station is fixed.

(iii) **Cost of the project:** Rs. 805 lakh.

(iv) Land requirement for the proposed ropeway is as follows: **Total area:** 0.6343 hectares
- Upper Station (U.T.P): 0.2264 hectares
- Lower Station (L.T.P): 0.3009 hectares
- Ropeway Corridor with two numbers tower - 0.1070 hectare

(v) Project Components
- **Ropeway System**: Monocable Pulsated Fixed Grip Ropeway

- **Technical Parameters:**

System	Monocable Pulsated
Length	628 mtr.(approx.)
Level Difference	15 mtrs.(approx.)
Capacity	400 PPH
No. of Group	4 Group
No. of Towers	2
No. of Cabin per Group	3 nos.
Cabin Capacity	4 Seater
Total no. of Cabin	12
Rope DIA	42 MM
Power Requirement	100 KW
D.G. Set	300 KVA & 20 KVA

(vi) Tree cutting, types, numbers, girth size etc.: 45 numbers (maximum) of trees are coming in the way of the ropeway. All efforts will be put to save a maximum number of trees and only cut those which will be necessary for the purpose.

(vii) Employment potential: The employment opportunities will increase, resulting in an increase in earning of people. It is estimated that 30 numbers of staff will be required during the construction phase and 15 numbers of staff will be required during the operational phase. Therefore the living conditions will improve in the area.

4. The EAC in its meeting held on 11-13 September, 2017, after detailed deliberations, recommended the project for grant of ToR as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following TOR in addition to Standard ToR for preparation of EIA-EMP report. As per the recommendation of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords ToR to the project 'Pulsated Mono cable System Passenger Ropeway' at Nandankanan Zoological Park, Khorda, Odisha by M/s Damodar Ropeways and Infra Limited for preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) with the following specific and general conditions in addition to Standard ToR provided at Annexure -1:-

(i) Importance and benefits of the project.

(ii) A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places).

(iii) Stage – I forest clearance to be submitted.

(iv) Status of application for NBWL clearance for the project.

(v) Toposheet map of 10 km distance indicating eco-sensitive areas dully authenticated by the Wildlife warden.

(vi) Route map of proposed ropeway project.

(vii) Layout maps of proposed project indicating location of upper station and lower station, building, food court, parking, greenbelt area, utilities etc.

(viii) Numbers of persons/projections of tourist.

(ix) Cost of project and time of completion.

(x) A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy conservation building code (ECBC) 2007 of the Bureau of Energy Efficiency, Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices. Use

(xi) Details of air emission, effluents, solid waste and hazardous waste generation and their management.

(xii) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)

(xiii) The E.I.A. should specifically address to vehicular traffic management and parking facilities.

(xiv) Examine the ground water / water body contamination from septic tank/Soak pit.

(xv) The impact of odors from the bio-toilets and its management.

(xvi) The increment in foot falls as a result of implementation of the project along with a justification on the adequacy of the existing and proposed infrastructure including toilets.

(xvii) An assessment of the impact of all activities being carried out or proposed to be carried out by the project shall be made for traffic densities and parking capabilities in a 2 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.

(xviii) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.

(xix) 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.

(xx) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included.

(xxi) Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

(xxii) A tabular chart with index for point wise compliance of above ToR.

General Guidelines

(i) The EIA document shall be printed on both sides, as for as possible.

(ii) All documents should be properly indexed, page numbered.

(iii) Period/date of data collection should be clearly indicated.

(iv) Authenticated English translation of all material provided in Regional languages.

(v) The letter/application for EC should quote the MoEF&CC File No. and also attach a copy of the letter prescribing the ToR.

(vi) The copy of the letter received from the Ministry on the ToR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.

(vii) The final EIA-EMP report submitted to the Ministry must incorporate the issues mentioned in ToR and that raised during Public Hearing. The index of the final EIA-EMP report, must indicate the specific chapter and page no. of the EIA-EMP Report where the specific ToR prescribed by the Ministry. Questionnaire related to the project (posted on MoEF&CC website) with all sections duly filled in shall also be submitted at the time of applying for EC.

(viii) Grant of ToR does not mean grant of EC.

(ix) The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.

(x) On the front page of EIA/EMP reports, the name of the consultant/consultancy firm along with their complete details including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed ToRs (ToR proposed by the project proponent and additional ToR given by the MoEF&CC) have been complied with and the data submitted is factually correct (Refer MoEF&CC Office memorandum dated 4th August, 2009).

(xi) While submitting the EIA/EMP reports, the name of the experts associated with/involved in the preparation of these reports and the laboratories through which the samples have been got analysed should be stated in the report. It shall clearly be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and the rules made there under (Please refer MoEF&CC Office Memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.

(xii) All the ToR points as presented before the Expert Appraisal Committee (EAC) shall be covered.

5. The above ToR should be considered for the project 'Pulsated Mono cable System Passenger Ropeway at Nandankanan Zoological Park, Khorda, Odisha by M/s Damodar Ropeways and Infra Limited, in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

6. A detailed draft EIA/EMP report should be prepared in terms of the above additional ToR and should be submitted to the State Pollution Control Board for conducting Public Hearing. Public Hearing to be conducted for the project in

accordance with the provisions of the EIA Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the ToR letter issued by the Ministry and not on the basis of Minutes of the Meeting available on the web-site.

7. The project proponent shall submit the detailed final EIA/EMP prepared as per ToRs to the Ministry for considering the proposal for environmental clearance within 3 years as per the MoEF&CC O.M. No.J-11013/41/2006-IA-II(I) (P) dated 08.10.2014.

8. The consultants involved in 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. vide Notification of the MoEF&CC dated 19.07.2013.

9. The prescribed ToR would be valid for a period of three years for submission of the EIA/EMP Reports.

(KUshal Vashist)
Director

Copy to:

The Member Secretary, Odisha Pollution Control Board, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII, Bhubaneswar– 751012, Odisha FAX No.:(0674) 2562822 / 2560955

Annexure - I

7(g): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR AERIAL ROPEWAYS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

(i) Examine and submit a brief description of the project-name, project site, geology, topography, nature, size, location of the project, project coverage, master plan, length of the proposed aerial rope way, details of ROW, height from MSL and its importance to the region/ State.

(ii) Any adverse impact of the works already carried out.

(iii) Submit the details of facilities viz. administration building, restaurant, toilets, waste collection and disposal etc at Lower terminal and upper terminal including parking area.

(iv) Submit the details of trees required to be cut for the project, including the type, girth size etc. Necessary permission from competent authority shall be obtained for tree cutting. Compensatory tree plantation shall be carried out and cost provision should be made for regular maintenance. Details to be submitted.

(v) Examine and submit the likely impact due to influx of people and associated developments

(vi) Submit maps of the project area and 10 km surrounding area from boundary of the proposed/existing project area, thereby delineating project areas wild life sanctuaries notified under the Wild Life (Protection) Act, 1972/critically polluted areas as identified by the CPCB from time to time/notified eco-sensitive areas/inter state boundaries and international boundaries. Any bio- diversity park or any protected site.

(vii) Submit baseline data and description of existing situation of the land at the proposed project site including description of terrain, hill slopes, inland topography, slope and elevation, rock types, regional tectonic setting (reported fractures/faulting/folding, warping), and history of any volcanic activity, seismicity and associated hazards.

(viii) Submit details of power requirement and source. Energy efficiency measures in the activity should be drawn up. PP should also submit details of D.G. Sets along with noise control measures.

(ix) Details of anticipated impact during construction stage and operation stage w.r.t. landslides, surface drainage etc., should be predicted. The existing surrounding features up to 1 km and impact on them should be addressed separately.

(x) PP should examine and submit activities associated with aerial ropeway construction and operations and likely associated hazards and accidents. It is therefore desirable that based on the categories of hazards prevailing at the project site, risk assessment may be carried out by specialists in the field and recommendations may be implemented. Risk assessment should be carried out for seismicity, slope stability, soil erosion, and flood hazard.

(xi) Any litigation pending against the proposed project and/or any direction/order passed by any court of law against the project, if so, details thereof should be provided.

(xii) Submit Certificate from the competent authorities for safety of ropeway and its monitoring.

(xiii) Public hearing to be conducted for the project in accordance with provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the ToR letter issued by the Ministry and not on the basis of Minutes of the Meeting available on the web-site.

(xiv) A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry in accordance with the Notification.

(xv) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

(xvi) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

(xvii) Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/Manual/Aerial Ropeway".

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