

No. J-12011/20/2013-IA-I
Government of India
Ministry of Environment, Forest & Climate Change
(IA-I Division)

Indira Paryavaran Bhawan
3rd Floor, Vayu Wing
JorBagh Road
New Delhi-110 003

Dated: 25.8.2017

To

The Chief Engineer

M/s. National Water Development Agency
Ministry of Water Resources, RD & GR
18-20, Community Centre, Saket
New Delhi -110 066

Subject: Ken-Betwa Link Project Phase-I in Panna&Chhatarpur District of Madhya Pradesh M/s Water Resources Department, Government of Madhya Pradesh and M/s. National Water Development Agency - Environmental Clearance (EC)-regarding.

Sir,

This is with reference to your letter No. NWDA/SE-II/152/22/2015/Vol-I/10409 dated 20.7.2015, 7.10.2015, 14.10.2015, 9.2.2016, 2.6.2016, 17.11.2016, 8.12.2016, 26.12.2016 and 30.6.2017 on the above mentioned subject.

2. The above referred proposal was appraised by the Expert Appraisal Committee (EAC) for River Valley and Hydro Electric Power Projects (RV&HEP) in its meetings held on 24-25th August, 2015; 26-27th October, 2015; 8-9th February, 2016; 2-3rd June, 2016 and 30th December, 2016. The comments and observations of EAC of this project may be seen in the Minutes of these Meetings which are available on the web-site of this Ministry.

3. The project envisages construction of 77 m high & 2,031 m long composite dam across Ken river near village Daudhan in Chhatarpur District of Madhya Pradesh to provide irrigation facility to 6.35 lakh ha area, drinking water facility and generation of 78 MW hydropower. Two (2) powerhouses, viz., (i) 2 units of 30 MW capacity each, and (ii) 3 units of 6 MW capacity each are proposed to be constructed. Two (2) tunnels of 1.9 km long upper level and 1.1 km long lower level tunnel and 221 km long Ken-Betwa link Canal Phase-I on the left bank of the river are proposed to be constructed. Total submergence area is 9,000 ha, out of which 5,258 ha is forestland (includes 4,141 ha in Panna Tiger Reserve). A total of 10 villages consisting of 1,585 families are likely to be affected by this project. Panna Tiger Reserve falls within the 10 km radius of the project. The total cost of the project is about Rs.9,393 Crores and it is likely to be completed in 9 years.

4. The Public Hearing for the project was conducted on 23.12.2014 at Government School Ground, Silone Village in Chhattarpur District and on 27.12.2014 at Forest Guest House, Hinnota Village in Panna District of Madhya Pradesh.

5. The Expert Appraisal Committee (EAC), after due consideration of the relevant documents submitted by the project proponent and clarifications furnished in response to its observations, have recommended for grant of Environmental Clearance for this project. Accordingly, the Ministry of Environment, Forest and Climate Change hereby accords necessary Environmental Clearance for the above project as per the provisions of Environmental Impact Assessment Notification, 2006 and its amendments thereof, subject to compliance of the following conditions:

Part A: Specific Conditions

- i. The proposed Catchment Area Treatment (CAT) Plan as proposed in EIA/EMP (May, 2015) for 8 years with biological and engineering measures shall be implemented in consultation with Madhya Pradesh Forest Department. The CAT proposed is 2413.67 Sq. km. Allocated amount of Rs. 272.58 crores for this purpose be fully utilized and not to be diverted for any other purpose.

Measures	I Year	II Year	III Year	IV Year	V Year	VI Year	VII Year	VIII Year	Total
Biological Measures									
Afforestation/ Reforestation (ha)	--	1249	1874	2498	2498	2498	1249	625	12490
Pasture Improvement (ha)	--	345	517	690	690	690	345	172	3448
Social forestry (ha)	--	225	338	450	450	450	225	113	2250
Engineering Measures									
Stone wall check dams (Nos)	32	61	61	61	20	20	20	15	292
Loose Boulder check dams (Nos)	46	88	88	88	29	29	29	21	419
Stone Contour Bunds (ha)	2395	4573	4573	4573	1524	1524	1524	1089	21776
Mini Percolation tanks (Nos)	1	2	2	1	--	--	--	--	6
Staggered Contour Trenches with plantation (ha)	994	1898	1898	1898	633	633	633	452	9036

- i. The R&R benefits for the land losing will have to comply with "The Right to fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013" which has come in force on 1.1.2014. Adequate publicity of the compensation package should be circulated in the affected villages. All R&R issues shall be completed before commissioning of the project.
- ii. A monitoring Committee for R&R shall be constituted which shall include representatives of project affected persons including representative from SC/ST category and a woman beneficiary.

- iii. All commitment made during the public hearing should be fulfilled completely by the project proponent and record maintained.
- iv. The Command Area Development (CAD) plan as proposed in EIA/EMP report (May, 2015) shall be strictly implemented.
- v. The Water User Association's (WUAs)/ Co-operative shall be formed and involvement of the whole community for disciplined use of available water shall be ensured.
- vi. Conjunctive use of surface water shall be planned to check water logging as well as to increase productivity.
- vii. Consolidation and compaction of the generated muck should be carried out at the muck dumping sites. As proposed in the muck disposal plan, out of 12.3 Mm³ generated. Out of which, 7.38 Mm³ is to be utilized for construction purpose and remaining should be dumped in designated disposal sites. The muck disposal sites should be reclaimed/restored with vegetative cover once capacity is utilized and it should be strictly adhered to.
- viii. The proposed compensatory afforestation programme in 10,856 ha shall be developed in consultation with State Forest Department. An amount of Rs.3061 Crores have been allocated for this purpose. A part of the Panna Tiger Reserve is coming under submergence, proposed Biodiversity Conservation and Management Plan in consultation with State Forest Department shall be implemented in toto. Allocated amount of Rs. 27.47 Crores for this purpose should be fully used and not to divert for any other purpose.
- ix. The equipment likely to generate high noise levels during the construction period or otherwise shall meet the Ambient Noise level standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000, as amended in 2010 under the Environment Protection Act (EPA), 1986.
- x. The On Farm Development (OFD) works shall be completed and WUAs (Water User Associations) shall be made functional before commencement of irrigation.
- xi. The Fishery Development and Management Plan shall be developed in consultation with the State Fishery Department. Under the fisheries management plan, stocking of fish seed in Daudhan & Rangwan reservoirs, upstream/downstream of the river should be implemented strictly. The proposed Mahsheer hatchery taken-up strictly. The allocated grant Rs.14.09 crores for this purpose shall be fully utilized and shall not be diverted for any other purposes.
- xii. Six monthly compliance reports shall be submitted to the Regional Office of the Ministry located at Bhopal without fail until completion of the project along with the monitoring data. It should also be uploaded in the own website of the project as a part of information to the General Public.
- xiii. Periodical soil health shall be verified in command area during operation phase to ensure maintenance of soil fertility.

- xiv. Occurrence of stagnant pools/slow moving water channels during construction and operation of the project providing breeding source for vector mosquitoes and other parasites. The river should be properly channelized so that no small pools and puddles are allowed to be formed. Even after taking precaution, due to unforeseen situations, breeding of mosquito and resultant malaria or mosquito borne diseases can increase. If such a situation arises, it will be the responsibility of project proponent to take all steps i.e. residual insecticidal spray in all the project area and its surrounding 3 km area keeping the flight range of mosquitoes in consideration.
- xv. Any other clearance from other organization/department, if required, should be obtained as and when necessary.
- xvi. Solid waste generated especially plastic waste should not be disposed of as landfill material. It should be treated with scientific approach and recycled.
- xvii. As the submergence area is very large (about 9,000 ha), micro-climatic change conditions in the project area during construction/post-construction period to be brought-out/reported at regular intervals.
- xviii. Impact due to habitat change having effect like corridor and loss of migratory path for wildlife including birds and impact on the breeding ground of species should be recorded during pre-construction/post - construction stages.
- xix. Plans for greenbelt development and reservoir rim treatment plan have to be made in consultation with State Forest Department. Preference shall also be given to plant local indigenous species. If possible, transplantation of trees from the submergence area of the project be taken up and these may be re-planted in the affected area of the project as a part of LMP.
- xx. The Panna Tiger Reserve is facing acute shortage of water and due to creation of reservoir; the water regime will improve to a great extent. The extent of creation of pasture land due to receding of submergence, increase of herbivorous population, growth in vulture population as well as increase in Tiger population be recorded in the project area.
- xxi. While implementing the LMP for PTR, as and when the Land Management Plan, etc. are taken up in the affected areas of the Ken-Betwa Link Project Phase-I, status of implementation of the same shall be submitted to the Ministry and Regional Office, MoEF & CC, Bhopal for its monitoring on six monthly basis.
- xxii. All conditions stipulated in the NBWL Clearance letter No. 6-109/2016-WL (39th Meeting) dated 21.9.2016 should be strictly adhered-to including the resultant reservoir area shall be retained as core area with minimum activities for management purpose under close consultation with Tiger Reserve Management.
- xxiii. Six monthly compliance reports shall be submitted to Regional Office, MoEF& CC, Bhopal without fail until completion of the modernization works.

Part B: General Conditions

- i. Adequate arrangements for providing free fuel like LPG/kerosene shall be made at the project cost for the labour force engaged during the construction work so that indiscriminate felling of trees is prevented that is located adjacent to the proposed project site
 - ii. Medical facilities as well as recreational facilities shall also be provided to the labourers at the construction sites. First aid facility at the project site shall also be provided with proper signage.
 - iii. The labourers to be engaged for construction works shall be thoroughly examined by health personnel and adequately treated before issuing them work permit to avoid contraction of any disease to the local people.
 - iv. Water sprinkling arrangements shall be made to control the fugitive dust and fugitive dust, ambient air quality etc. be monitored during the period of construction according to the CPCB guidelines to meet the NAAQ standards.
 - v. Potable drinking water and proper sanitary facilities shall be provided for the labour force. Any solid waste generated at the colony of the labour force shall be collected and suitably disposed of.
 - vi. Restoration of construction area including muck dumping sites of excavated materials shall be ensured by leveling, filling up of borrow pits, landscaping, etc. The area should be properly treated with suitable plant species preferable local indigenous species for better survival of plants and also to enrich the local habitat.
 - vii. Environmental parameters shall be monitored and "six monthly monitoring reports" shall be submitted to the Regional office of the Ministry located at Bhopal as per guidelines.
6. The Project Proponent shall provide full cooperation and all required documents / data to the Officer (s) of the Regional Office of the Ministry located at Bhopal who would be monitoring the implementation of environmental safeguards.
7. The responsibility of implementation of environmental safeguards and carrying out environmental monitoring rests fully with the Water Resources Department, Government of Madhya Pradesh and M/s. NWDA.
8. Besides the above stated conditions, the Project Proponent shall also implement all environmental safeguards, as proposed in the EIA/EMP report and other reports from time to time. The Regional Office, MoEF & CC, Bhopal shall monitor implementation of EMP at regular intervals.
9. The Environmental Management Plan (EMP) shall be strictly adhered to. The total cost of implementation of mitigation measures as per EMP is Rs 5073 crores. In case of revision of the project cost or due to price level change, the cost of EMP shall also be updated proportionately.

10. In case of change in the scope of the project, the same shall be intimated to the Ministry and fresh approval, if required, shall be taken from the Ministry accordingly.

11. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time-bound and satisfactory manner.

12. The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board / Committee and may also be seen at the Website of the Ministry of Environment, Forest & Climate Change at <http://www.moef.nic.in>.

13. A copy of the clearance letter shall be marked to concerned Panchayat/ZillaParishad/Municipal Corporation, Urban local body and local NGO, if any, from whom any suggestion/representations were received while processing the proposal. The clearance letter shall also be put in the website by the project proponent. Compliance to the condition shall be ensured by the project and intimated to the state accordingly.

14. State Pollution Control Board / Committee shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's / Tehsildar's Office for 30 days.

15. This clearance letter is valid for a period of 10 years from the date of issue of this letter for commissioning of the project.

16. After 5 years of the commissioning of the Project, a study shall be undertaken regarding impact of the project on the environment and downstream ecology. The study shall be undertaken by an independent agency, decided in consultation with the Ministry.

17. The project proponent shall also submit six monthly reports on the status of compliance of stipulated EC conditions including the results of monthly monitored data (both in hard copies as well as by email) to the Regional Office of MoEF & CC, Bhopal.

18. Any appeal against this environmental clearance shall lie solely with the National Green Tribunal, if preferred, within a period of 30 days from the date of issue, as prescribed under Section-16 of the National Green Tribunal Act, 2010.

Yours faithfully,


(Dr. S. Kerketta)
Director

Copy to:

1. The Secretary, Ministry of Water Resources, RD & GR, Shram Shakti, Bhawan, Rafi Marg, New Delhi 110 001.
2. The Principal Secretary (Water Resources Department), Government of Madhya Pradesh, Secretariat, Bhopal -462 016.
3. The Secretary, Department of Environment, Government of Madhya Pradesh, Secretariat, Bhopal -462 016.
4. The Chief Engineer, Project Appraisal Directorate, Central Water Commission, SewaBhawan, R.K. Puram, New Delhi-110 066.
5. The Chief Engineer, National Water Development Agency, 18-20 Community Centre, Saket, New Delhi – 110017.
6. Shri. O. P. S. Kushwah, Superintending Engineer, National Water Development Agency, 205 – PalikaBhavan, RK Puram, New Delhi – 110066.
7. The Additional PCCF (Central), Regional Office (WR), Ministry of Environment, Forest & Climate Change, KendriyaParyavaranBhavan, Link Road No-3, Ravi ShankerNager, Bhopal -462 016..
8. The Member Secretary, Madhya Pradesh State Pollution Control Board, ParyavaranParisar, E-5, Arera Colony, Bhopal -462 016.
9. NIC Cell - uploading in MoEF&CC's website.
10. PPS to JS (GB)/Director (SKK)/ DD (NS).
11. Guard file.



(Dr. S. Kerketta)
Director