The 14th meeting of the re-constituted EAC for River Valley & Hydroelectric Projects was held on 28.05.2018 with the Chairmanship Dr. S.K. Jain in the Ministry of Environment, Forest & Climate Change at Narmada Meeting Hall, Ground Floor, Jal Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi. The following members were present:

1. Dr. S.K. Jain - Chairman
2. Dr. J.A. Johnson - Representative of WII
3. Shri N.N. Rai - Representative of CWC
4. Dr. Vijay Kumar - Representative of Ministry of Earth Science
5. Dr. S.R. Yadav - Member
6. Dr. J.P. Shukla - Member
7. Dr. (Mrs.) Poonam Kumria - Member
8. Dr. S. Kerketta - Member Secretary

Shri Sharvan Kumar, Dr. D.M. More, Dr. T.P. Singh, Dr. A.K. Sahoo, Shri Chetan Pandit, Dr. R. Vasudeva and Dr. Govind Chakrapani could not present due to pre-occupation. The deliberations held and the decisions taken are as under:

**Item No. 14.0 Confirmation of minutes of 13th EAC meeting.**

The Minutes of the 13th EAC (River Valley & Hydroelectric Projects) meeting held on 27.04.2018 were confirmed.


Project Proponent submitted online application on 05.05.2018 for grant of ToR for the above proposal. The project proponent and consultant M/s. Voyants Solutions Pvt. Ltd made a detailed presentation on the project and inter alia, submitted the following:

The Amanat barrage project envisages construction of 203 m long barrage on Amanat River near Kolhua village in Palamu District of Jharkhand. It is proposed to provide irrigation facility to about 26,990 ha (CCA) of area in drought prone area of Palamu District. The Project has been proposed for irrigation and drinking water for Panki, Tarhasi, Patan and Manatu Villages of Palamu District. Total submergence area is about 76.89 ha. The catchment area of the project is 1108.50 km². Total land requirement is about 753.08 ha. Out of which 127.85 ha is forestland, 452.16 ha is private land and 172.97 ha is revenue land. Four (4) villages are likely to be submergence due to this project. The Gross Command Area (GCA) is estimated as 30,266 ha and Culturable Command Area (CCA) is 29,660 ha. The total estimated cost of the project is Rs. 34110.91 lakhs and proposed to be completed in 60 months.

The Department of Science & Technology through National Committee on Environmental Planning and Coordination (NCPEC) had examined and cleared the
Based on this Environmental Clearance, Government of Jharkhand had started the construction work. The barrage and gates is almost completed. A total of 32 km of main canal has been completed and 10 km of main canal is incomplete due to lack of forest clearance (10 km of main canal passes through forest area). The PP mentioned that due to financial crunch the construction of the project could not be completed and preliminary works were not taken up for completion. The Stage-I Forest Clearance for this project was accorded vide letter dated 05.01.2017 for diversion of 127.85 ha of forestland. It has been mentioned that while granting Stage-I forest clearance for this project, a condition was stipulated in the letter which is as follows:

“The User Agency shall obtain the Environmental Clearance as per the provisions of Environment (Protection) Act, 1986.”

The PP intimated the committee due to this condition the WRD submitted the application for grant of TOR.

After detailed deliberations and considering all the facts of the project as presented by the PP, the EAC deferred the proposal for a subsequent meeting. The following have to be submitted by the PP for reconsideration of the project in the meeting:

i. The working table for utilization of the water has been taken into account based on the rain fall data during July, 1920 which is almost 100 years old and not dependable. Therefore, the committee observed that a detailed working table depicting hydrology for the period 1981 to 2015 be prepared and presented. The annual rain fall shall also be presented to ensure availability of surplus water at the point of drawl.

ii. The environmental clearance accorded in 1979 is for the entire project i.e. Auranga Reservoir Project, encompassing a rolled earth fill dam and chute spillway across river Auranga; Amanat barrage across river Amanat near Kolhua village was completed by erstwhile Government of Bihar in 1973. Therefore, the entire project should be presented on a map clearly showing the Aurang Reservoir Project and Amanat Irrigation Project.

iii. Clearly indicating on a map of same scale along with canal network system in the existing command area and the proposed command area of the project.

iv. A detailed map showing the upstream and downstream project to be provided along with the L-Section.

v. A detailed irrigation management plan should be worked out so that at least 10% of the CCA would be covered by mixed irrigation scheme.

vi. Land acquired for the project shall be suitably compensated in accordance with the law of the land with the prevailing guidelines. Private land shall be acquired as per the provision of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.

vii. The project is likely to submerge 4 villages. The details of project affected families and persons are to be provided.

viii. The details of the total works completed in the project i.e. dam, canal networks (no. of distributaries, no. of sub-distributaries and no. of minors) and works to be completed be presented in table to get a clear idea of the project.
Item No. 14.2  Head Regulator and Indo-Nepal Link Canal at village Sailanigoth, Tanakpur, district Champavat, Uttarakhand by M/s NHPC Ltd – for Scoping/TOR.
(File No. J-12011/14/2018-IA.I(R) & Online No. IA/UK/RIV/74834/2018)

Project Proponent submitted online application on 02.05.2018 for grant of ToR for the above mentioned project and inter alia, presented the following information:

i. The proposed head regulator (35 m length) and Indo-Nepal link canal (1.15 km length) on the left bank of Mahakali River (Sharda river) and Tanakpur Barrage will transport the water of about 28.35 cumecs (1000 cusecs) and 8.5 cumecs (300 cusecs) during wet season and dry season, respectively to Nepal for irrigation purpose. The command area for which water is supplied is in Nepal.

ii. The water of 28.35 cumecs (wet season) and 8.5 cumecs (dry season) is to be supplied to Nepal as per the Mahakali Treaty, a bilateral agreement between Nepal and India which was entered in 1996.

iii. As a part of the Mahakali Treaty, India is obliged to supply 70 MU per annum of energy generated from Tanakpur Power Station to Nepal, to construct a head regulator near the left under sluice of the Tanakpur Barrage and to construct waterways of required capacity up to India-Nepal Border for supplying 28.35 cumecs and 8.5 cumecs of water during dry and wet seasons, respectively.

iv. The main component of the proposed project includes inlet waterway (11.25 m), approach channel (31.0 m), Head regulator (35.0 m), canal (1.15 km) and cross drainage work (23.0 m width).

v. Total land required for the proposed waterway is 38 ha (including 26 ha of stone quarry area, Reserve Forest) which is a forestland. Proposal for Forest Clearance is under preparation which will be submitted to State Forest Department.

vi. The quarry area is proposed downstream of Tanakpur Barrage for which 26 ha of Reserve Forestland is to be acquired. In case, Uttarakhand Forest Corporation gives permission to lift construction materials from the river bed, the forestland of 26 ha Reserve Forestland proposed for quarry sites may not be diverted in future.

vii. Cost of the project is Rs. 80 crores (which includes escalation cost of Rs.5 Crores, July, 2016 PL).

Project Proponent submitted the details of existing Tanakpur Power Station and Barrage as follows:

i. Environmental Clearance for Tanakpur Barrage and Power Station of 94.2 MW was accorded by the Ministry/DST on 20.01.1983.


iii. Forest Clearances have been accorded for Tanakpur Power Station on 05.06.1986 and 16.11.1988 for an area of 304.5 ha forestland.

iv. 350 ha of non-forest land was acquired and handed over to State Forest department as a part of the Compensatory Afforestation. Rs. 65 Lakhs was paid against cost towards compensatory afforestation.

Committee noted that PP has submitted for proposal of Indo-Nepal Link canal with a length of 1.15 km and allied facilities. As per the EIA Notification dated 25.6.2014, the following activities require prior Environmental Clearance:

<table>
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<tr>
<th>Project Activity</th>
<th>Category with threshold limit</th>
<th>Conditions if any</th>
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<td>1(c)</td>
<td>(i) ≥50 MW HEP generation;</td>
<td>(i) &lt;50 MW ≥25 MW</td>
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<td>(ii) ≥10,000 ha of CCA</td>
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Committee noted that the proposed activity has neither cultural command area nor hydroelectric power component. Accordingly, it will not require prior Environmental Clearance. However, the command area is in the Nepal area. Project Proponent submitted that the requisite clearances for canal and command area in Nepal is being obtained from the Govt. of Nepal.

After deliberations, Committee opined that the present application may be returned as the proposed activity does not require prior Environmental Clearance as per the EIA Notification and its amendments. Committee opined that as the Ministry/DST has issued the Environmental Clearance for Tanakpur barrage and power station, project proponent may apply as an amendment to the existing Environmental Clearance.


Project Proponent applied for grant of ToR on 01.05.2018 online for development of hydropower of 210 MW IC. As the Project Proponent did not attend the meeting, the proposal has been has deferred for the subsequent EAC meeting.

Item No. 14.4  1000 MW (4x250 MW) Turga Pumped Storage project on Turga Nalla in Purulia District of West Bengal by M/s West Bengal State Electricity Distribution Company Ltd.- reg. Environmental Clearance. (File No: J-12011/13/2013-IA.I(R) & Online No. IA/WB/RIV/53589/2013

Project Proponent submitted online application for grant of Environmental Clearance on 09.05.2016. Terms of Reference (ToR)/Scoping Clearance for the above mentioned project has been issued vide Ministry’s letter dated 04.11.2013. Public Hearing for the proposed project has been conducted by West Bengal Pollution Control Board, Banabitan Meeting Hall, Vill. & P.O. Baghmundi, District Purulia on 02.02.2016.

The proposed Turga Pumped Storage Project on Turga nallah is located in Purulia district of West Bengal with installed power generation of 1000 MW. The Turga Pumped Storage Scheme envisages utilization of the waters of the river Turga in Ayodhya hills for peak power generation on a Pumped storage type development. The coordinates of Upper Dam site are 23°12'47" N and 86°04'20" E. Coordinates of
the lower Dam site are 23°11'49"N and 86°04'13"E. The project site is approachable by a jeepable road taking off from Balarampur-Baghmundi state highway. The nearest railhead is located at Barabhum and nearest airport is located at Ranchi.

The project envisages construction of Upper Dam (C.A. 8.29 km²) across Turga nallah, a tributary of Subarnarekha river and a water conductor system with an underground Power House on the downstream of Upper Dam and a Lower main and saddle dams for the lower reservoir having intermediate catchment of 4.37 sq. km (total C.A. 12.66 km²). It is proposed to increase the gross storage capacity to 18 MCM (Live storage of 14.2 MCM at FRL: 316.5 m) by constructing the lower main dam just downstream of the existing Irrigation Dam and a Right Saddle Dam. The upper reservoir will have the gross storage capacity of 21.6 MCM (Live storage of 14.2 and pondage at MDDL is 3.8 MCM at FRL: 464.0 m). The Spillway for Upper Dam is proposed near the left abutment on the original course of Turga nallah. Considering the small design flood of 280 m³/s, an un-gated ogee overflow Spillway has been considered. The upper dam is a rock fill type dam with central impervious core and filter materials, rockshell material, etc. having length of 732 m maximum of height of 63.5 m. Main lower dam is a concrete gravity dam with dimensions of 872 m length and 64 m height. Further, lower saddle dam is a rock fill central impervious core with dimensions of 595 m length and 50 m height. Further, diversion tunnel, power intake, headrace tunnel, penstock, Power house (four units of pump turbine and motor-generator), tailrace tunnel will be built to cater to the installed power capacity of 4x250 MW with maximum of turbine discharge of 197 m³/s.

Land requirement for the proposed project is 292 ha out of which 234 ha is forestland. Out of remaining 58 ha non-forest land/private land, 34 ha will be transferred from I & W Directorate, Government of West Bengal to Turga Pumped Storage Project. Remaining 24 ha of land to be arranged temporarily on leased basis. No family will be losing homestead. Issues related to Resettlement and Rehabilitation are not envisaged in the proposed Project. Further, there are no national parks, wildlife sanctuaries, eco-sensitive zone/areas and other protected areas within 10 km radius of the project.

The proposal has been considered in the 94th EAC (RV and HEP) meeting held during 2-3.6.2016 and the committee has recommended for grant of Environmental Clearance with the following additional recommendations:

i. Increase the cost for Local Area Development Plan from Rs.22.04 Crores to Rs.44.12 Crores. Cost for infrastructure development and Corpus fund for maintaining the infrastructure will be Rs. 29.12 Crores and Rs. 15.0 Crores, respectively. Accordingly, the increased cost of budget for Environmental Management Plan is Rs. 68.30 Crores.

ii. Environmental Clearance for quarries shall be taken separately.

After EAC recommendations on 09.01.2016, Ministry vide letter dated 10.08.2016 requested to Project Proponent to submit the Forest Clearance (Stage-I) for diversion of forest land of 234.0 ha for the proposed project. Project Proponent has submitted online request on 08.05.2018 that In-principle approval (Stage-I FC) for diversion of 234.0 ha forest land has been accorded by the Ministry vide letter No.8-51/2017-FC dated 12.04.2018 and requested to accord Environmental Clearance.
Ministry vide Office Memoranda dated 09.09.2011 and 18.05.2012 has stipulated that for cases where EAC recommends for grant of Environmental Clearance, Project Proponent is required to submit Forest Clearance (Stage-I) within a period of 12 months for according the formal Environmental Clearance. The said period may be extended in exceptional circumstances to 18 months. In the eventuality that the Stage-I FC is submitted after prescribed limit, the project would be referred to EAC for having a relook on the proposal on case by case basis depending on the environmental merits of the project and the site. In such a situation the EAC may either reiterate its earlier recommendations or decide on the need for its reappraisal, as the case may be. In the eventuality, a reappraisal is asked for, the Committee will simultaneously decide on the requirement of documents/information for reappraisal as also the need for fresh public hearing.

In the present case, PP submitted Stage-I forest clearance after 21 months. Accordingly, the proposal has been referred to the EAC (RV&HEP) in its 14th meeting held on 28.05.2018. EAC after deliberations, reiterated the recommendations of the earlier EAC in its 94th meeting held during 2nd-3rd June, 2016 with the following additional conditions:

i. Resettlement & Rehabilitation Plan, if any, – should be implemented in collaboration with the State Govt. as approved by the State Govt.

ii. Free Fuel / Energy Conservation Plan – to be implemented as envisaged in the EIA / EMP report.

iii. Skill mapping be undertaken for the youths of the affected project area and based on the skill mapping, necessary trainings to the youths be provided for their appropriate engagements in the Project.

iv. Solid waste management should be planned in details. Land filling of plastic waste shall be avoided and instead proposal for various uses may be proposed in the revised EIA/EMP report.

v. Environmental Clearance for stone quarries shall be taken separately. After extraction of stones, the quarry void shall be reclaimed with the soil preferably muck generated from the project and properly planted with the local species.

Item No. 14. 5 Any other items with the permission of the Chair

As there being no agenda item left, the meeting ended with a vote of thanks to the Chair.
Dear Dr. Kerketta,

I am sending the approved minutes of the 14 meeting. I assume that all the data and facts mentioned in the minutes have been verified at your end.

Regards,

Sharad Jain
NIH Roorkee

On Thursday, 31 May, 2018, 12:01:28 PM IST, Dr. S. Kerketta <s.kerketta66@gov.in> wrote:

Sir,

I am enclosing the draft MoM of 14th EAC for River Valley Projects held on 28.05.2018. It is forwarded after sending to other members for their comments/suggestion. No members could offer any comments till the present mail. It is requested to kindly approve the minutes for uploading the same in the website of the Ministry.

--

regards,

Dr. S. Kerketta
Director- IA (Thermal, River Valley & HEP)
MoEF&CC, New Delhi
Phone: 011-24695314 (O), 26113096 (R)
# LIST OF MEMBERS

**14th MEETING OF RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) FOR RIVER VALLEY & HYDROELECTRIC PROJECTS**

**DATE** : 28th May 2018  
**TIME** : 10:30 am onwards  
**VENUE** : NARMADA HALL, INDIRA PARYAVARAN BHAWAN, NEW DELHI

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<td>Prof. Sharad Kumar Jain, Chairman</td>
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<td>Shri. T. P. Singh, Member</td>
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<td>Shri. Sharvan Kumar, Member</td>
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<td>Shri N. N. Rai, Member</td>
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<td>Dr. J.A. Johnson, Member</td>
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<td>Dr. B. K. Das/ Dr. AK Sahoo, Member</td>
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<td>Dr. Vijay Kumar, Member</td>
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<td>Prof. Govind Chakrapani, Member</td>
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<td>Dr. Chetan Pandit, Member</td>
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<td>Dr. Dinkar Madhavrao More, Member</td>
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<td>Dr. R. Vasudeva, Member</td>
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<td>Prof. S.R. Yadav, Member</td>
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<td>Dr. Jai Prakash Shukla, Member</td>
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<td>Dr. Poonam Kumria, Member</td>
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<td>15.</td>
<td>Dr. Keretta, Member Secretary, Director (IA-1)</td>
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