

Minutes of the 33rd Meeting of the Expert Appraisal Committee for River Valley and Hydroelectric Projects held on 24th June, 2020 from 11 a.m.-04 p.m. through video conference.

The 33rd meeting of the re-constituted EAC for River Valley & Hydroelectric Projects was held on 24.06.2020 with the Chairmanship of Dr. S.K. Jain in the Ministry of Environment, Forest & Climate Change through video conference (VC). The following members participated in the video conference:

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| 1. Dr. S.K. Jain | - Chairman |
| 2. Shri Sharvan Kumar | - Representative of CEA |
| 3. Dr. Vijay Kumar | - Rep. of Ministry of Earth Sciences |
| 4. Dr. J.A. Johnson | - Rep. of WII |
| 5. Dr. A.K. Sahoo | - Representative of CIFRI |
| 6. Dr. D.M. More | - Member |
| 7. Shri Chetan Pandit | - Member |
| 8. Dr. (Mrs.) Poonam Kumria | - Member |
| 9. Dr. J.P. Shukla | - Member |
| 10. Dr. S.R. Yadav | - Member |
| 11. Dr. S. Kerketta | - Member Secretary |

Shri N.N. Rai, Prof. R.K. Kohli and Dr. Govind Chakrapani could not attend the VC due to pre-occupation. The deliberations held and the decisions taken are as under:

Item No. 33.0: Confirmation of 32nd minutes of meeting

The minutes of the 32nd EAC (River Valley Hydroelectric Project) meeting held on 15th May, 2020 were confirmed

Item No. 33.1: Dugar Hydroelectric Project (449 MW) in Chamba District of Himachal Pradesh, NHPC Ltd – ToR-regarding

[Proposal No. IA/HP/RIV/155974/2020, File No. J-12011/08/2020-IA1(R)]

Project Proponent along with the Consultant made the detailed presentation on the project and inter alia provided the following information:

Dugar HEP is located on Chenab River near Killar village in Chamba district of Himachal Pradesh. The latitude and longitude of project site are N 33°07'05" and E 76°21' 20.7" respectively. The Dugar Hydro Electric Project (449 MW) is envisaged as a run-of-river scheme for utilizing the flows of Chenab River to harness the head created by constructing a 128 m high (from deepest foundation) dam and Length of Dam at Top is 210.65m near Luj village with FRL of EL 2114.00 m a.s.l. It is a medium head scheme with rated net head of 91.21 m having Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) as 2114.00 m a.s.l. and 2102.35 m a.s.l., respectively. The main components of the project are: A 128 m high concrete gravity dam (from the deepest foundation level); 2 nos. main intakes and 1 no. intake for auxiliary units located at the left bank; 2 nos. pressure tunnels/shafts and 1 no. pressure tunnel/shaft for auxiliary units; Underground Power house cavern housing 4 no. main units of 95 MW each and 2 nos. unit of 34.5 MW for auxiliary plant; 1 no. main TRT having tailrace surge chamber located downstream of power house cavern and 1 no. TRT for auxiliary units. The tail race tunnel, located on the left bank of the Chenab River, is discharging back

into Chenab River at a distance of about 780 m downstream of dam axis with normal tail water level as 2015.00 m a.s.l. (under normal operating condition).

To harness the environmental flow during lean season, non-lean non-monsoon season and monsoon season, two units each of 34.5 MW are housed in the powerhouse cavern. Therefore, the total capacity of plant shall be 449 MW (380 + 69 MW). The catchment area of Project at Dam site: 7823 km². The total land requirement for Dugar HEP is estimated as 223.63 ha. Out of which 11.79 ha is private land and remaining 211.84 ha is forest land. The submergence area will cover 160.45 ha which is completely forest land. CIA study of Chenab basin was recommended by EAC during July 2016 and approved by MoEF&CC in March 2018. All the recommendation w.r.t. to Dugar HEP, including that on environment flow, will be adopted in Project design.

In 2011, Government of Himachal Pradesh had allotted the Dugar HEP to M/S Dugar Hydropower Limited (a JV of Tata Power & SN Power). In 2012, MOEF&CC had accorded TOR to M/S DHPL for conducting EIA&EMP. In 2017, the validity of TOR was extended for the 5th year, which has expired on 31.12.2017. Draft EIA & EMP Report was prepared by M/s DHPL but Public hearing could not be conducted. In Sept 2017, Govt. of H.P cancelled the allotment of Project. NHPC entered into an MoU with Govt. of HP on 25/09/2019 to execute Dugar HEP. NHPC has taken over the DPR and other investigation data from M/S Dugar HPL (a JV of Tata Power & SN Power). As the earlier TOR has expired, a fresh TOR is requested in the name of NHPC Limited.

Project benefit: Dugar HEP is proposed to be constructed in very remote area in Pangi valley. The construction of hydropower projects is known to accelerate overall socio-economic upliftment of local population in remote area. Some of the likely positive aspects due to construction of the project are as follows:

- generation of power will meet the energy shortages of the northern region;
- generation of work opportunities, expansion of communication facilities;
- infrastructural development;
- improvement in local economic activities, medical and education facilities;
- road networks; improved communication facilities.
- Local area development scheme/CSR scheme shall also be implemented for overall socio-economic development of the project area.

Status of other statutory clearances: Total forest land required for the project is 211.842 ha, application for diversion of forest land was submitted on 31/12/2014. **State Secretary, HP has recommended the case on 16/11/2016.** Due to cancellation of the project, forest diversion proposal got stalled and shall be reinitiated shortly. As the project is located on Chenab River, this shall be governed by the relevant provisions of the Indus Water Treaty (IWT).

Detail of court case, if any : Nil

Observation and recommendation of the EAC in the present meeting (33rd)

EAC in the present meeting (33rd) deliberated on the information submitted (Form 1, PFR, kml file, etc.) and as presented in the meeting and observed that project is located on Chenab River near Killar village in Chamba district of Himachal Pradesh and shall be governed by the relevant provisions of the Indus Water Treaty (IWT). EAC also observed that as per DSS analysis of kml file, the instant project is not located within 10 km distance from any wildlife sanctuary, national park, tiger reserve etc. EAC further observed that the earlier developer had projected cost of the project as Rs. 3390.74 Cr. at completion level in the DPR submitted in Central Electricity Authority (CEA) which was considered for concurrence in 341st meeting of the Authority held on 20.12.2016, while NHPC has

projected project cost of as Rs 5415.60 Cr at present day price level. Reasons for such drastic increase in the cost may be justified in the proposal of final EC. EAC after detailed deliberation on the information submitted and as presented, **recommended** for grant of Standard ToR to the proposed project with the following Additional ToR conditions:

1. 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 provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
2. The project involves diversion of about 211.842 ha of forestland. Forest clearance shall be obtained as per the prevailing norms of Forest (Conservation) Act, 1980.
3. Application to obtain prior approval of Central Government under the Forest (Conservation) Act, 1980 for diversion of forest land required should be submitted as soon as the actual extent of forest land required for the project is known, and in any case, within six months of issuance of this letter.
4. All the tasks including conducting public hearing shall be done as per the provisions of EIA Notification, 2006 and as amended from time to time. Public hearing issues raised and compliance of the same shall be incorporated in the EIA/EMP report in the relevant chapter.
5. An undertaking as part of the EIA report from Project proponent, owning the contents (information and data) of the EIA report with the declaration about the contents of the EIA report pertaining to a project have not been copied from other EIA reports.
6. Funds allocation for Corporate Environment Responsibility (CER) shall be made as per O.M. No. 22-65/2017-IA.III dated 01.05.2018 for various activities therein. The details of funds allocation and activities for CER shall be incorporated in EIA/EMP report.
7. Consolidated EIA/EMP report is to be submitted as per the generic structure (Appendix III & IIIA) given in the EIA Notification, 2006.
8. Conservation plan for the Scheduled I species, if any, in the project study area shall be prepared and submitted to the Competent Authority for approval.
9. Pre-DPR Chapters viz., Hydrology and Layout Map and Power Potential Studies duly approved by CWC/CEA shall be submitted.
10. Dam break analysis, Disaster Management Plan and Fisheries Management Plan be prepared and submitted in the EIA/EMP report.
11. Environmental matrix during construction and operational phase needs to be submitted.
12. Both capital and recurring expenditure under EMP shall be submitted.
13. Impact of developmental activity/project on the wildlife habitat, if any, within 10 km of the project boundary shall be studied.
14. NOC from the earlier project proponent i.e. Dugar Hydroelectric Project Ltd. be obtained and submitted during appraisal of EIA/EMP.

Item No. 33.2: Integrated Kashang HEP (243 MW) in the district Kinnaur, Himachal Pradesh by M/s Himachal Pradesh Power Corporation Ltd.- Extension of validity of EC-regarding.

[Proposal No. IA/HP/RIV/137739/2020, File No. J-12011/81/2007-IAI (R)]

Project Proponent in the present meeting made the detailed presentation on the project and inter alia provided the following information:

Integrated Kashang Hydroelectric Project is proposed for development using waters of Kashang and Kerang streams, right bank tributaries of river Sutlej. The project is located in Kinnaur district of Himachal Pradesh and is owned by HPPCL, Shimla. Integrated Kashang Hydroelectric Project is envisaged as run of the river type hydroelectric project with no open reservoir or water impoundment within the river banks. It will use water from two tributaries of Satluj namely Kashand and Kerang khads.

Kashang Hydro-Electric Project (HEP) was earlier envisaged as a run of the river type scheme on Kashang Khad - a tributary of Satluj river in Distt Kinnaur (HP) to generate 66 MW of power in an underground powerhouse located on right bank of Satluj river. This scheme had been accorded Environmental Clearance by Ministry of Environment & Forest (MoEF) vide its letter No. I/2011/13/2002-IAZ dated 15.11.2002 and Forest Clearance vide No. 8-8/2001 -FC dated 23rd June 2004).

Kerang Khad is located adjacent to Kashang Khad and a scheme was envisaged to harness its hydropower potential. During studies it was observed that this scheme can be integrated with Kashang Hydro Electric Project, thus Reservoir, Penstock, Powerhouse and allied structures can be integrated to avoid large scale damage to forests, environment and pressure on common lands besides reducing quantum of excavation and use of materials. Thus, Integrated Kashang HEP (243 MW) has been conceived by optimizing civil structures with lesser environmental impacts. The proposed Integrated Kashang HEP, now comprises of 4 stages as described below:

Stage-I (65 MW): Comprising diversion of Kashang stream (near Dollo Dogri, village at EL \pm 2829 m) to an underground powerhouse (located on the right bank of Satluj near village Powari) developing a head of approximately \pm 830 m and generating power of 65 MW. In fact, by integrating it with other scheme, its scope is changed. After integration of the Scheme and obtaining all statutory clearances, including Forest and Environment clearances, the construction of Stage-I has been completed/commissioned in September 2016.

Stage-II: Comprises of diversion of tail water of Stage-IV, from Kerang stream (near Lippa village at El \pm 2872 m) to an underground water conductor system leading into the reservoir of Stage-I. Until the Stage-IV is completed, water to Stage-II would be fed directly from the Kerang Stream.

Stage-III (130 MW): Consists of augmentation of generating capacity of Stage-I powerhouse using additional water of Kerang (brought by Stage-II) over \pm 820 m head already available in Kashang Stage-I powerhouse for generating additional power of 130 MW, which has also been completed/commissioned in September 2016.

Stage-IV (48 MW): It is more or less an independent scheme harnessing the power potential of Kerang stream well above (upstream) the diversion site of stage-II. Diversion structure will be located near village Toktu at El \pm 3150 m. In this scheme, a head of approximately 300 m would be utilized to generate power to the tune of 48 MW in an underground powerhouse located near village Lippa on the right bank of Kerang khad.

The project is being executed in the State by Himachal Pradesh Power Corporation Ltd, a unit owned jointly by Government of HP and HP State Electricity Board Ltd. This scheme accorded Environmental Clearance by Ministry of Environment & Forests (MoEF), Govt. vide its letter No. J-12011/81/2007-1A) dated 16.04.2010. Principle approval for the diversion of forest land for construction of Integrated Kashang, Stage-II & III (130 MW) Hydro Electric project in favour of Himachal Pradesh Power Corporation Ltd. (HPPCL) in Kinnaur district of HP has already been accorded vide MoEF (FC division), G.O.I. letter No. F No. 9HPC 366/09-CHA dated 14-06-2011, after following the due procedure vested in Forest Conservation Act 1980, and consequent upon approval of MoEF, Govt. of India, Govt. of H.P. accorded the sanction under Para 2 of Act, 1980 vide its letter No. Ft. 481712/2008(FCA) dated 15.01.2013.

PP informed that Stage-I, has been completed/commissioned in the year September, 2016 however work on other Stages could not be taken up due to pending litigation by the local inhabitants in the Hon'ble NGT, which is now disposed off by the Hon'ble Court on 17.01.2018. Physical progress could be achieved till date is 30%. Total land requirement for the project is 88.54 ha, out of which 61.89 ha (Stage I: 18.71 ha diverted; Stage II and III: 17.68 ha, diverted; Stage IV: 25.50 ha to be diverted) is forestland. PP informed that as per EC letter dated 16.04.2010, Environmental Clearance is valid for ten years and therefore for completion of project extension of validity of EC for another 8 years is requested.

Observation and recommendation of the EAC in the present meeting (33rd)

EAC in the present meeting (33rd) deliberated on the information as presented and submitted to the Ministry. EAC observed that EC to the instant integrated project for 243 MW was accorded on **16.04.2010** but the Stage I forest clearance for 25.50 ha is not yet granted to the Stage IV HEP (48 MW) in fact Forest clearance process yet to be initiated by the PP.

EAC observed that delayed caused in completion of the project was due to the litigation in the Hon'ble NGT which has been disposed off on 17.01.2018. EAC also observed that PP in their submission mentioned about a fresh application (Appeal No. 17 of 2011) which has been filed by the residents of village Lippa against Forest Clearance under Section 2 of FCA, 1980. EAC noted that PP did not submit a final order dated 17.01.2018 and details on pending litigation.

EAC noted that PP request for extension of validity of EC further for 8 years cannot be considered as per the extant regulatory provision, which permits only further three years, i.e. outer limit for the validity of EC for RIV projects is 13 years (10 +03 years). However, in case of Mauda Thermal Power Project of NTPC Ltd. clarified that date of commissioning of both units is to be reckoned with the date on which the first unit was commissioned and there is no necessity of re-validation of EC for subsequent units. Further, EAC (RIV & HEP sector) in another irrigation project (Kelo Major Irrigation Project) also recommended that as irrigation facility has already been started on trial to the agricultural fields within the validity period of existing EC and resulted in the additional production of crops, therefore, extension of validity of EC is not required.

In the instant case, as all the four stages are integrated and the project is treated as single project and the stage-1 has been completed and commissioned in 2016. In such case EC becomes *perpetual*. Therefore, extension of the validity, now, is to be reckoned with the date on which the first unit was commissioned and there is no necessity of re-validation of EC for subsequent units.

EAC also took note on the representation received vide dated 13.05.2020 from the residents of the affected areas, residents of different parts of the Kinnaur and other Social and environment organization, etc. who made an appeal on issues on Non-compliance of Safety and environmental laws by HPPCL in Stage-I, Hazards and Risks of large scale construction, Threats to local ecology, floral and faunal biodiversity, Violation of Forest Rights Act and tribal laws etc. In view of the representation received, EAC opined to constitute Multi-Disciplinary Committee (MDC) to oversee

implementation of various environmental safeguards proposed in EIA/EMP. EAC further observed that in case all these stages are integrated then the project should be treated as single project and approval of the DPR should have been sought from Central Electricity Authority (CEA) for integrated project however, this has not been done. PP has to approach CEA to resolve this issue. EAC after detailed deliberation on the information submitted by the PP and representation received, the committee recommended that extension of validity in the instant case is not required and clarification as earlier issued for Mauda Thermal Power Project of NTPC Ltd may be issued by the Ministry in the instant case as well. Committee also recommended that, environmental conditions as stipulated in the Environmental Clearance letter dated 16.04.2010, shall be followed in toto during construction of balance work and operation phase to safeguard the environment. The EAC also sought the following information to be submitted to Ministry:

- i. As instant project is an integrated, Stage I FC for total forest land involved in the project, i.e. 61.89 ha to be submitted.
- ii. Details of pending litigation and Order dated 17.1.2018 by the Hon'ble NGT.
- iii. Point wise reply to the concern raised in the representation received by the EAC members.
- iv. Multi-Disciplinary Committee (MDC) shall include experts from Ecology, Forestry, Wildlife, Sociology, Soil Conservation, Fisheries, NGO, etc. to oversee implementation of various environmental safeguards proposed in EIA/EMP report during construction of the project.
- v. Undertaking by way of affidavit that there is no change in the project configuration and physical progress which has been done so far is in accordance with Environmental Clearance dated 16.04.2010.
- vi. NBWL Clearance for Lippa Asrang Wildlife sanctuary to be obtained including details on Schedule I Species (as per Indian Wildlife Protection Act-1972) reported in the EIA and spotted recently in the project area.

Item No. 33.3: Brutang Irrigation Project in Village- Manjari, Tehsil-Dasapalla, Dist. Nayagarh, Odisha –ToR-regarding

[Proposal No. IA/OR/RIV/152878/2020, File No. J-12011/09/2020-IA-1 (R)]

Project Proponent along with the Consultant (**Centre for Envotech & Management Consultancy Pvt. Ltd.** Sl. No. 26, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 88, June 10, 2020) made the detailed presentation on the project and inter alia provided the following information:

Brutang Irrigation Project is proposed across River Brutang, The Head works of the project is located near village Manjari in Dasapalla Block under Nayagarh District, Odisha. The latitude and longitude of project site at 20^o22'57.83" N Longitude and 84^o41'00.22" E. The project envisages construction of an earth dam of 552 m long and 42 m height; an ogee type spillway of 140 m length with 8 nos. of gates each having size 13 m x 9 m with crest level at 156 m and having flood discharge capacity of 5683 cumec; a 12 km long link canal leading from Head Regulator of Brutang reservoir to nearby Kuanria reservoir will be constructed to effect sub-basin water transfer; Two Head Regulators, One at Brutang reservoir for link canal from Brutang reservoir to nearby Kuanria reservoir and another will be provided on the right side of Kuanria dam from where Brutang Main Canal will off-take to irrigate cultivable land (Gross Command Area: 31110 ha; Culturable Command Area; 23300 ha). Irrigation has been proposed for 23300 ha (CCA) with Kharif irrigation to 20970 Ha (90%) and Rabi irrigation 9320 ha (40%).

Present proposal was appraised for ToR by the EAC as Category A because Baisipalli Wildlife sanctuary is located within 1.5 km away from the Brutang reservoir. Total Land requirement for the project is 3552.06 ha out of which forestland in the project is 1524.17 ha. Stage 1 approval for the diversion of 1524.17 ha Forest land was accorded vide letter No. F.No.8-23/2010-FC of MoEF (Forest Division) dated 31.08.2010. The cost of the project is Rs 1014.66Crores (2013 price level)

Earlier Environmental Clearance (EC) was issued to this project vide letter No. J-12011/87/2005-IA-I dated 02.06.2006 for a period of five years. The validity of EC expired in June, 2011. Further, extension of validity of EC was given for five years i.e. from 02.06.2011 to 01.06.2016. The PP requested MoEF & CC through online application dated 01.01.2019 for further extension of validity of EC up to 02.06.2021. Proposal for extension of validity of EC was considered in the 21st meeting. EAC as per the guidelines of EIA Notification, 2006 and amendment thereof, deliberated the issue and recommended for taking of the proposal afresh as PP did not submit the application for extension within the stipulated time as prescribed in the EIA Notification 2006 and as amended thereof.

Status of other statutory clearances:

- **Techno-Economic Clearances (TEC)** from C.W.C. (MoWR) for Brutang project was discussed in the 75th meeting of CWC held on 18.12.2000 and accept the project techno economically viable.
- **Forest Clearance:** Stage 1 approval for the diversion of 1524.17 ha Forest land was accorded vide letter No. F.No.8-23/2010-FC of MoEF (Forest Division) dated 31.08.2010.
- **Environmental Clearance** accorded to this project earlier vide letter no. J-12011/87/2005-IA-I dated 02.06.2006.
- **1st extension of validity of EC** accorded for additional five years i.e. up to 02.06.2016 vide letter No. J-12011/87/2005-IA-I dated 10.06.2013.
- The project was not given further extension because of delay in submitting application for grant of extension of validity, the construction works at the site is yet to be taken up by the PP, which are reflected in minutes of the 21st meeting of the EAC for River Valley and Hydroelectric Projects held on 28.01.2019.
- **R&R Clearance:** The Ministry of Tribal Affairs (MoTA) has communicated for clearance of R&R plan vide letter No. 20011/8/2003-CP&R/NGO dated 09.06.2008.

Project benefit: Due to irregular rainfall and uneven distribution, the rainfed agriculture, the Kharif Paddy cultivation has adversely suffered with poor yield rate. It results into food scarcity inter-alia increasing trend of poverty level. Brutang Irrigation Project has been proposed to be implemented with the objective for the benefit of inhabitants of 309 villages of Daspalla, Khandapada, Nayagarh, Nuagaon and Odogaon blocks of Nayagarh district will avail the enhanced crop benefit due to the irrigated agriculture. It is proposed to draw 180 Ham of water from the reservoir through appropriate drawl arrangements and treatment. The work would be entrusted to Public Health Engineering Department (PHED) to prepare scheme under Rural Water Supply Scheme. The drinking water supply would benefit about 50,000 people of the command area.

Detail of court case, if any: No

Observation and recommendation of the EAC in the present meeting (33rd)

EAC in the present meeting (33rd) deliberated on the information as presented and submitted (Form 1, PFR, etc.). EAC observed that project was earlier granted Environmental Clearance (EC) vide letter No. J-12011/87/2005-IA-I dated 02.06.2006 and project proposal is submitted afresh as PP did not submit the application for extension within the stipulated time as prescribed in the EIA

Notification 2006 and as amended thereof. EAC also observed that total forestland involved in the project is 1524.17 ha and Stage 1 approval for the diversion of 1524.17 ha forest land was accorded vide letter No. F.No.8-23/2010-FC of MoEF (Forest Division) dated 31.08.2010. EAC also noted that Baisipalli wildlife sanctuary is located within 1.5 km away from the Brutang reservoir and the Standing committee recommended the proposal in their 39th meeting held on 23rd August 2016. EAC after detailed deliberation on the information submitted and as presented, **recommended** for grant of Standard ToR to the proposed project with the following Additional ToR conditions:

1. 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 provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
2. The project involves diversion of about 1524.17 ha of forestland. Forest clearance shall be obtained as per the prevailing norms of Forest (Conservation) Act, 1980.
3. All the tasks including conducting public hearing shall be done as per the provisions of EIA Notification, 2006 and as amended from time to time. Public hearing issues raised and compliance of the same shall be incorporated in the EIA/EMP report in the relevant chapter.
4. An undertaking as part of the EIA report from Project proponent, owning the contents (information and data) of the EIA report with the declaration about the contents of the EIA report pertaining to a project have not been copied from other EIA reports.
5. Funds allocation for Corporate Environment Responsibility (CER) shall be made as per O.M. No. 22-65/2017-IA.III dated 01.05.2018 for various activities therein.
6. The details of funds allocation and activities for CER shall be incorporated in EIA/EMP report.
7. Consolidated EIA/EMP report is to be submitted as per the generic structure (Appendix III & IIIA) given in the EIA Notification, 2006.
8. Conservation plan for the Scheduled I species, if any, in the project study area shall be prepared and submitted to the Competent Authority for approval.
9. Pre-DPR Chapters viz., Hydrology and Layout Map duly approved by CWC shall be submitted.
10. Dam break analysis, Disaster Management Plan and Fisheries Management Plan be prepared and submitted in the EIA/EMP report.
11. Environmental matrix during construction and operational phase needs to be submitted.
12. Both capital and recurring expenditure under EMP shall be submitted.
13. If proposed project is inside the notified ESZ of Baisipalli wildlife sanctuary, application for Wildlife clearance shall be submitted to the concerned department.
14. Impact of developmental activity/project on the wildlife habitat Baisipalli wildlife sanctuary and other within 10 km of the project boundary shall be studied.

Item No. 33.4: Expansion of Tubachi - Bableshwar Lift Irrigation Scheme (CCA:52,700 ha) in Bagalkot District of Karnataka by M/s Karnataka Neeravari Nigam Ltd., Government of Karnataka–reconsideration of EC-regarding

[Proposal No. IA/KA/RIV/70372/2017, File No. J-12011/05/2015-IA-I]

The project proponent along with Consultant M/s Environmental Health and Safety Consultants Pvt. Ltd (QCI/NABET/EIA/1821/RA 0107 dated 19.11.2018) presented the proposal in the 30th meeting held on 27.1.2020 and *inter-alia* provided the following information:

Tubachi-Bableshwara Lift Irrigation Scheme was accorded Environmental Clearance by the Ministry of Environment, Forest and Climate Change, New Delhi on 31.07.2017 to irrigate 42,000 ha of command area by utilizing 3.8 TMC of water from Krishna River to benefit 36 villages of Vijayapura, Bagalkot and Belagavi Districts. The expansion proposal of Tubachi-Bableshwara Lift Irrigation Scheme involves expansion of command area from 42,500 ha to 52,700 ha with an additional water allocation of 2.473 TMC of water (totalling to 6.273 TMC) benefitting 31 more villages. The benefit cost ratio of the project is 1.29. An intake canal of length 1800 m will be used to convey water to Pump house. The water will be lifting upto Delivery Chamber through Raising Main. Thereafter, water will be conveyed to fields through canal and distributary network. The estimated project cost is Rs. 3572 Crores.

The Scoping/TOR clearance for the project was accorded on 29.11.2017. In order to assess the baseline environmental status, command area, 10 Km radius from the lift component and command area were considered and the data was collected for three seasons namely Post monsoon (Dec, 2017-Feb, 2018), Pre monsoon (March, 2018-May, 2018) and monsoon (June, 2018-Aug, 2018).

As per the ToRs issued from MoEF&CC, New Delhi, the EIA/EMP report of the expansion project has been uploaded in the Karnataka State Pollution Control Board website for one month for receiving comments from common public. However, during this period i.e., from 21.02.2019 to 20.03.2019, no comments were received from the public.

Tubachi-Bableshwar Lift Irrigation Scheme was accorded Environmental Clearance by the Ministry of Environment, Forest and Climate Change, New Delhi on 31.07.2017 to irrigate 42,000 ha of command area. Application for according CWC clearance has been submitted on 09.05.2019. Diversion of 0.73 ha of forest land is required and Stage-I Forest Clearance has been accorded by the Ministry on 15.06.2017.

Based on the recommendation of Master Plan Committee, Govt. of Karnataka vide Government Order no. WRD 20 KBN 2016 dated 31.08.2017 allocated the 21 TMC of water reserved for the state of Karnataka under Indira – Sagar Polavaram for various projects. Of this, 6.273 TMC of water has been allocated for the proposed project.

Ambient Air Quality Monitoring was carried out at 2 locations as per NAAQ guidelines. The observed values were well within the CPCB standards. The Ambient Noise Level Monitoring was carried out at 2 locations as per CPCB guidelines. Overall, the noise levels in all the seasons were observed to be well within the CPCB standards. The surface water samples were collected at 3 locations. According to CPCB surface water quality criteria, the water quality belongs to C (Post Monsoon), D (Pre-monsoon) and E (Monsoon) class. The ground water samples in the study area are confirming to IS 10500: 2012 Drinking water quality standards.

All the floral species recorded were common to the region and no RET species were observed during the study. All the recorded avifaunal species belonging to Least Concerned category as per IUCN conservation status 2019 except Indian peafowl belonging to Schedule I of Wildlife (Protection) Act, 1972.

Anticipated environment impacts due to proposed project during the project construction & operation phase on air, water, noise, ecology, socioeconomic environment, etc. were studied. To ameliorate the negative effects of the project construction and overall improvement of the environment management plans are formulated for implementation concurrent to the project construction.

PP also informed that as the project site i.e. lifts point / Jack well cum pump house is proposed in the Krishna River the litho unit covering the lift point is Basalt. There is no structure proposed or disturb the natural course. Only through pipes water is drawn in to the jack well where pump sets are installed to raise the water to raising mains and distribute through a delivery chamber to farmers. The seismic zoning map has been referred to know the zone in which the project site is falling. The proposed project site is falling on Zone-II which has very low risk of damage.

Improper treatment of sewage from labor camps leads to infiltration into the subsurface soil and finally affects the quality of ground water. Labors camp is expected to generate 8 KLD of sewage (considering 75 lpcd for 100 labors) which is likely to pollute ground water in an area of 1 ha from the source at 60-70 m bgl if improperly treated/handled. Further, the source of pollution is at a distance of 800 m to the Kavatagi village. The sewage generated from the labor camps will be treated in septic tank followed by soak pit at site. Solid waste from labour camps will be collected in different bins and handed over to nearby municipal authorities.

About 97 ha of land has been acquired for the project and compensation for the same has been paid as per Right to Fair compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, (RFC&TLA) 2013. Remaining area acquisition in under process. Rs 358 Crores has been earmarked for Land Acquisition.

Environmental Management Plan with budget breakup: The cost estimates for implementation of EMP is as follows;

Sl. No.	Particulars	Cost in Rs.
A. Construction Phase (Capital investment)		
1	Environmental safeguard measures	17,35,250/-
2	Land acquisition	358,00,00,000/-
3	Green belt development	10,74,000/-
4	Construction of embankment for intake canal	3,50,000/-
5	Fisheries conservation and management plan	2,00,000/-
6	Public health delivery system	4,00,000/-
7	Sanitation and Solid waste management plan	1,00,000/-
8	Energy conservation measures	5,00,000/-
9	Environmental monitoring programme	3,26,330/-
10	Muck management plan	4,00,000/-
Sub Total (A)		358,50,85,580/-
B. Operation Phase (Annual Recurring cost)		
1	Catchment area treatment plan	57,10,00,000/-
2	Command area development	45,00,000/-
3	Local area development plan	33,80,000/-
4	Maintenance of green belt plan	24,24,000/-
5	Fisheries conservation and management plan	8,00,000/-
6	Environmental monitoring programme	1,24,945/-
Sub Total (B)		58,22,28,945/-
Grand Total (A+B)		416,73,14,525/-

As far as project benefit is concerned, project will improve the biological diversity. Project improves yields through reduced crop loss due to erratic, unreliable or insufficient rainfall. Further, extensive agricultural production supplies raw materials to the nearby small scale industries thereby increasing the economy in the region. Altogether 14,015 households in the command area will be benefitted directly under the scheme. Direct employment opportunities for 350 peoples (50 technical and 300 construction labourers) are expected. Budgetary provision of Rs 8.93 crores is proposed for CER activities.

Further, as it is expansion project, project site was monitored by the scientist of the concerned Regional Office of MoEF&CC and during the inspection violations/non compliances to EC conditions, stipulated vide Environmental Clearance letter No. J-11011/5/2015-IA.I dated 31.07.2017, were noted.

Observation and recommendation of the 30th EAC meeting held on 27.01.2020

The EAC in the 30th meeting held on 27.01.2020 deliberated on the information submitted by the PP (EIA/EMP report, Form 2, R.O. compliance report, etc.). EAC observed that as per the R.O. report, PP had commenced the construction activities like Intake canal, Delivery Chamber- 1 and 2 and Pipe line from Intake canal to DC-1 and from DC-1 to DC-2 prior to the grant of the Environmental Clearance hence violated EIA Notification 2006 as amended thereof. Ministry may take up this matter as per the extant provisions and law. EAC further observed that in the instant project, PP proposed for drip to flood irrigation as the farmers are demanding for recharge the ground water. EAC is of the view that reasons for flood irrigation is not convincing and change in technology from drip to flood is against the Government policy, i.e. per drop more crop. Therefore, EAC opined that instant proposal involving flood irrigation shall be revised. EAC after detailed deliberation **deferred** the proposal for want of following information:

1. Revised proposal involving drip irrigation shall be submitted.
2. Seasonal variation of the base line data for air, water, soil, etc. in tabular form be submitted.
3. Clarification from the Divisional Forest Officer that only 0.73 ha of forestland is involved in the total 2419 ha of land.
4. Approval from CWC regarding total availability of 6.273 TMC of water for the instant project.
5. Action taken report on the non-compliances of earlier EC conditions be submitted to the Regional office of the MoEF&CC and closing/status report from Regional office of the MoEF&CC of the non-compliance shall be submitted to the Ministry.
6. NABET accreditation certificate for the period of base line data collection.
7. Conservation plan for Schedule I species shall be submitted to the Chief Wildlife Warden and proof of the same to be submitted to the Ministry.
8. Table EMP cost shall be revised as suggested.

Project proponent submitted the compliance on the additional information on 26.05.2020 and accordingly proposal was considered in the 33rd meeting (present meeting) held on 24.06.2020. PP alongwith the consultant made the detailed presentation on the additional information. PP informed EAC that proposed project being the run of river lift irrigation and there are no structures proposed for storage of water, the project is planned to irrigate only during Kharif season hence providing drip irrigation only for one season is uneconomical and the infrastructure will be unutilized in the remaining crop season. Therefore, providing drip irrigation for only one season may not be economically feasible. On the issue of clarification on the forestland involved in the project from Divisional Forest Officer, PP informed that no forest land is involved in the expansion area, forest clearance is not required. Hence, clarification from DFO is not required. Conservation Plan for Schedule I species has been submitted to PCCF Chief Wildlife Warden Bangalore vide CE office ltr No. KNNL/CEN/TBLIC-ENV/WGF/TAW-3/20-21/269 Dated. 12. 05.2020.

Observation and recommendation of the EAC in the present meeting (33rd)

EAC in the 33rd meeting (present meeting) deliberated on the additional information and observed that PP did not submit the approval from CWC regarding total availability of 6.273 TMC of water for the instant project, clarification from the Divisional Forest Officer that only 0.73 ha of forest land is involved in the total 2419 ha of land and closing/status report from Regional Office of the MoEF&CC on the non-compliances. The reason for going from drip to flood irrigation appears not convincing. Instead of drip they can very well go for mobile sprinkler irrigation. This is a very farmer friendly system of irrigation. Water is saved and more area can be brought under irrigation. EAC also deliberated on the construction activities commenced by the PP without obtaining the Environmental Clearance. It has learnt that if work on a project is started without the EC then the case is referred to the Violation Committee; the environmental damage is assessed; and an appropriate penalty is imposed on the project promoter. One of the EAC members, opined that this is not sufficient as it does not address the violation of law, that work cannot be taken up without EC. This will encourage project promoters to start work without EC, and pay whatever penalty is imposed. In addition to the penalty for damages caused there has to be a penal consequence for violation of law, even if there are no damages.

EAC after detailed deliberation observed that this proposal attracts the provisions of Ministry's Notification 804 (E) dated 14.03.2017 and recommended that proposal may be transferred to the Expert Appraisal Committee dealing with the **violation** proposals of EIA Notification, 2006 and as amended thereof for further consideration.

Item No. 33.4: Any other item with the permission of the Chair.

As the EAC tenure completes by 30th June, 2020 and this being the last meeting for the present committee, the Chairman thanked the Member Secretary and all members for extraordinary cooperation during discussions and appraisals. Chairman also thanked Secretariat of Ministry for providing support in organizing EAC meetings. As there being no agenda item left, the meeting ended with a vote of thanks to the Chair.

The following members participated in the video conference held on 24.06.2020:

- | | |
|-----------------------------|--------------------------------------|
| 1. Dr. S.K. Jain | - Chairman |
| 2. Shri Sharvan Kumar | - Representative of CEA |
| 3. Dr. Vijay Kumar | - Rep. of Ministry of Earth Sciences |
| 4. Dr. J.A. Johnson | - Rep. of WII |
| 5. Dr. A.K. Sahoo | - Representative of CIFRI |
| 6. Dr. D.M. More | - Member |
| 7. Shri Chetan Pandit | - Member |
| 8. Dr. (Mrs.) Poonam Kumria | - Member |
| 9. Dr. J.P. Shukla | - Member |
| 10. Dr. S.R. Yadav | - Member |
| 11. Dr. S. Kerketta | - Member Secretary |

Sd/-
(Dr. S. Kerketta)
Director-IA.I and Member Secretary EAC RVP

From: "s k jain" <s_k_jain@yahoo.com>
To: "Dr S Kerketta" <s.kerketta66@gov.in>
Sent: Thursday, July 2, 2020 4:58:44 PM
Subject: Re: 33rd Meeting RVP

Dear Dr Kerketta,
I am sending the approved minutes of the meeting.

Regards,
Sharad K Jain / शरद कुमार जैन
Chairman, EAC (RVH)
(Ex-Director, National Institute of Hydrology, Roorkee)
Visiting Professor, Civil Engg. Dept.
Indian Institute of Technology Roorkee, India
Tel: [+91 1332 285649](tel:+911332285649)/ 98970 18550

On Tuesday, 30 June, 2020, 09:08:55 am IST, Dr S Kerketta <s.kerketta66@gov.in> wrote:

Sir,

Dr. More Sir has given his comments and the same has been included and attached. It is requested to kindly approve the revised draft MoM for uploading in our Ministry's website.

regards,

Kerketta

From: "Dr S Kerketta" <s.kerketta66@gov.in>
To: "Sharad K Jain" <s_k_jain@yahoo.com>
Sent: Tuesday, June 30, 2020 6:51:28 AM
Subject: Fwd: 33rd Meeting RVP

Sir,

PFA. It is submitted after circulating the draft MoM to the domain experts and incorporating their comments herein. It is requested to kindly approve the draft moM for uploading in our Ministry's website.

regards,

Kerketta

**Name of the project
Addressed detailed
e-mail/contact No.**

**Undertaking
(To be provided by the PP)**

This is to certify that the information provided in Form-.... in physical form and/or in .pdf format (as applicable to the project and remaining be removed) in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting held on 14.05.2020 have no deviation in respect of the proposal of ToR/EC/EC validity extension/EC amendment for establishing “.....MW Thermal Power Project at village, Taluk, District....., State.....by M/s.

2. It is further certified that there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory.

3. In case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of amendment in EC.

**Authorized Signature
date**