

Minutes of the 5th Meeting of the Expert Appraisal Committee for River Valley and Hydroelectric Projects held on 31st May, 2017 at Indus Meeting Hall, Prithvi Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-3.

The 5th meeting of the re-constituted EAC for River Valley & Hydroelectric Projects was held with the Chairmanship of Dr. Sharad Kumar Jain on 31st May, 2017 in the Ministry of Environment, Forest & Climate Change at Indus Meeting Hall, Jal Wing, Ground Floor, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi. The following members were present:

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|--------------------------|---|---|
| 1. Dr. Sharad Kumar Jain | - | Chairman |
| 2. Shri Sharvan Kumar | - | Representative of CEA |
| 3. Dr. J.A. Johnson | - | Representative of WII |
| 4. Dr. Vijay Kumar | - | Representative of Ministry of Earth Science |
| 5. Dr. T.P. Singh | - | Member |
| 6. Shri Chetan Pandit | - | Member |
| 7. Dr. Poonam Kumria | - | Member |
| 8. Dr. S. Kerketta | - | Member Secretary |

As requested by Prof. Pradeep P. Mujumdar, the Competent Authority has approved to relieve him from the Expert Appraisal Committee for River Valley and Hydroelectric Projects. Accordingly, his name has been deleted from the Committee list. His services rendered to the Ministry have been duly acknowledged. Further, the Competent Authority has also approved the names of Dr. T.P. Singh and Dr. Poonam Kumria to include as Expert Members in the Committee.

The Chairman welcomed the new Expert Members in the committee. The Chairman also gave some briefing to the new Expert Members and highlighted the requirement of maintaining true spirit of neutrality while appraising a project proposal placed before the Committee and felt that in doing so, merit of the case shall be the sole criteria for recommendations by the Committee.

Prof. Govind Chakrapani, Dr. R. Vasudeva, Dr. A. K. Sahoo, Dr. D. N. More, Shri N. N. Rai, Dr. J.P. Shukla and Dr. S. R. Yadav could not attend the meeting due to pre-occupation.

The deliberations held and the decisions taken are as under:

Agenda Item No. 5.0 Confirmation of minutes of 4th EAC meeting.

The Minutes of the 4th EAC (River Valley & Hydroelectric Projects) meeting held on 12.04.2017 were confirmed.

Agenda Item No. 5.1 Sunni Dam HEP (355 MW) Project in Mandi & Shimla Districts of Himachal Pradesh by M/s Satluj Jal Vidyut Nigam Ltd – For TOR clearance

The project proponent made a presentation on the project. The project is proposed on Satluj River near Khaira in Shimla District of Himachal Pradesh. This is a run-of-the-river scheme. It is proposed to construct a 71 m high concrete gravity dam across Satluj River with an installed capacity of 355 MW. The total land requirement is about 319.09 ha out of which, 262.52 ha is forestland. The total submergence area is about 265.39 ha. No RF, WL, Sanctuary, etc. is present within

10 km radius of the proposed project. A dam-toe powerhouse is proposed with 4 main units of 67.4 MW installed capacity each and 2 auxiliary units of 67.4 MW and 18 MW installed capacity for making releases as per environmental flow requirement. Since the scheme envisages construction of Dam Toe powerhouse, no intermediate river stretch will become dry due to the operation of the project. The design discharge of 713.2 cumecs being utilized for hydropower generation will join the river immediately downstream of the dam. The cost of the Project is Rs. 2,911.85 Crores.

After detailed deliberations and considering all the facts of the project as presented by the PP, the **EAC recommended for scoping clearance** for the project with the following additional conditions:

- i. Land to be acquired for the project purpose shall be suitably compensated in accordance with the law of the land with the prevailing guidelines.
- ii. Biodegradable and non-biodegradable substances be properly identified, separated and disposed as a part of waste disposal and its management.
- iii. Online facility to be provided for continuous monitoring of e-flows in the stream.
- iv. A concrete gravity dam will be constructed. Information regarding borrow materials, boulders, etc and necessary permissions should be obtained as per prevailing rules on the subject.
- v. Once the consultant to carry out the base line study for preparation of EIA/EMP report for the proposed project is finalized, their details will be informed to the Ministry to process the grant of Scoping Clearance.

Agenda Item No. 5.2 Naba HEP (1000 MW) project in Upper Subansiri District of Arunachal Pradesh by M/s Abir Infrastructure Pvt. Ltd. – For extension of validity of ToR.

The project proponent along with the consultant (WAPCOS) made a presentation on the project for extension of validity of TOR. It was noted that the project envisages construction of 167 m high concrete gravity dam above river bed across river Subansiri with an installed capacity capacity of 1,000 MW. The total land requirement is about 658.8 ha. Total submergence area is 263 ha. A surface powerhouse is proposed with 4 units of 250 MW installed capacity each. Total cost of the project is about Rs. 7,801 Crores.

The TOR for this project was granted on 26.7.2013 with a validity of 2 years which was ended on 26.7.2015. Earlier, keeping in view of the progress of the project and no change in any of the project parameters and based on the recommendation of EAC, the Ministry had extended the validity of Scoping/TOR Clearance for 2 more years, i.e. from 26.7.2015 to 25.7.2017 to complete all the remaining works within the extended period of validity of TOR.

The project proponent (PP) requested for further 1 year to complete ongoing project activities including preparation of EIA/EMP report. The PP informed the committee that topographical survey, 3 seasons data has been collected, report on water availability studies have also been submitted to CEA and proposal for forest diversion has been submitted to the Government of Arunachal Pradesh. The PP mentioned the following:

- i. Preparation of Detailed Project Report (DPR) is under progress and the work is expected to be completed soon.
- ii. Realignment of the planned Daporizo-linking road which will avoid the submergence is underway.
- iii. Preparation of EIA/EMP report and conducting Public Hearing are remaining.

The PP explained that because of difficult accessibility to the project site, the above works are getting delayed. After completing the remaining works, the EIA/EMP will be prepared and submitted for conducting the Public Hearing. The PP requested to give extension of validity of ToR for one more year to complete all the remaining works. The PP further mentioned that there will be no change in the project parameters which affects in the change of the scoping of the project. EAC after deliberation and considering all the facts presented by the PP, **recommended for extension of validity of TOR** for one more year, i.e. up to 24.7.2018.

Agenda Item No. 5.3 Singoli-Bhatwari (99 MW) project in Rudraprayag District of Uttarakhand by M/s L & T Uttaranchal Hydropower Ltd - For Extension of validity of Environmental Clearance.

The project proponent made a presentation on the project for extension of validity of environmental clearance (EC). It was noted that the project envisages construction of a 22 m high barrage across river Mandakini near village Kund in Rudraprayag District of Uttarakhand with a capacity of 99 MW. Total cost of the project is about Rs. 678.54 Crores.

The environmental clearance for this project was accorded on 24.8.2007 as per the provisions of EIA Notifications, 1994 and 2006 with a validity period of 10 years and will be ending on 23.8.2017. The PP informed the following:

- i. The whole Uttarakhand and the project area faced unprecedented floods in 2013. Due to the floods, the project was severely affected. Some portion was washed away and the project suffered huge delay in implementation.
- ii. The powerhouse was completely buried with debris and boulders.

The PP in his request for extension of the validity of EC mentioned that they had started restoration soon after the floods and now extension of 5 years is required for completion of the project. It was also informed that ~70% of the civil works, 19% of hydro-mechanical works and 22% of electro-mechanical works have been completed and they have already incurred an expenditure of Rs. 950 crores on the project. An amount of Rs. 30.65 crores has been spent on EMP as against allocation of Rs. 19.37 crores. In addition, an amount of Rs. 9.48 cores has also been spent towards CSR activities in the project.

It was informed to EAC that the compliance report of the EC conditions has been received (Vide letter No. IV/ENVUTR/RVP-29/38/2007/15 dated 6.4.2017) from Regional Office, MoEF, Dehradun. Among others, the following have been mentioned in compliance report:

- i. So far, about 36.4% of CAT funds have been utilized by the Forest Department. As the project is likely to be commissioned by the year 2018,

CAT plan should be implemented before commissioning the project. The PP should take-up this the matter with Forest Department to expedite implementation of CAT plan before commissioning of project as stipulated in Specific Condition No. (i).

- ii. Requirement of additional land, if any, needed for storage of additional muck generated due to June, 2013 catastrophe should be assessed and necessary action should be taken accordingly as stipulated in General Condition No. (xi).

The EAC considered the request for extension of the validity of EC for 5 years. It was informed that a provision for extending the validity of EC for further period of 3 year exists as per EIA Notification, 2006.

After deliberations and considering all the facts of the project and events as presented by the PP, **the EAC recommended for extension of the validity of EC** for a period of three years to facilitate the PP to complete the remaining works and commission the project.

Agenda Item No. 5.4 Shahid Lakhan Nayak HEP (25 MW) in Koraput District of Odisha by M/s. Meenakshi Odisha Power Pvt. Ltd.- Extension of Validity of Environmental Clearance (EC).

The PP made a presentation on the project for extension of validity of environmental clearance (EC) and *inter alia* provided the following information:

The proposed project envisages construction of a weir across river Kolab near Tentuligumma village in Koraput District of Odisha with an installed capacity 25 MW. This is a run-of-the-river scheme. Total land requirement is 6.122 ha. Out of this, 4.902 ha is forestland. The environmental clearance was accorded on 23.4.2007 for a period of 5 years as per the provisions of Environment Impact Assessment Notifications, 1994 and 2006. Thereafter, the Ministry issued a corrigendum on 2.1.2014 and validated to extend the EC for a period of 10 years.

It was informed that this is a Category-B project and at that time environmental clearance was granted by the Ministry. Therefore, the PP approached the Ministry for consideration of extension of the validity of the environmental clearance beyond 10 years. The state boundary of Chhatisgarh state is located 7 km away from this project. The online application was submitted to the Ministry during February, 2017. It was also informed that the validity of EC for River Valley Projects is for 10 years and as per EIA Notification, 2006, a provision of further extension of validity of EC for 3 years is available/ existing for River Valley Projects. However, PP had requested EC validity for 3 more years. The works on the project were initiated during 2008-09 and so far they have incurred an expenditure of Rs. 14.13 crores on the project.

There is no change in the project parameters and thus no change in the scope of the project is envisaged. The PP also informed that the proposal for diversion of forestland has been submitted to Forest Department, Government of Odisha. The Special Secretary, Forest and Environment Department, Government of Odisha vide its letter No. IOF (Cons.) 35/2017/6902/F&E dated 5.4.2017 has written to the PCCF, Odisha seeking some additional information/clarifications on the proposal and requested to comply with the deficiencies and resubmit the forest

diversion proposal for consideration. In the letter, it has also been mentioned that the status of validity of EC should also be informed while replying to the above deficiencies. As the area is infested by naxals, Government officials couldn't visit the site in the past. The PP also submitted that as now, almost all the formalities have been completed for the forest clearance and issuance of the same would take another 2-3 months. The PP also presented that once the EC is revalidated and Forest clearance is granted, execution of the project would be completed within a period of 2 years.

The Regional Office, MoEF & CC, Bhubaneswar has also submitted status of the compliance report on the EC conditions to the Ministry wherein it has been stated that as the project work is yet to start at the site, the site couldn't be visited. More so, it is a Maoist infested area. Sukhna is located very near to the project site and happens to be the most Maoist affected area of Chhatisgarh.

The EAC considered the request for extension of the validity of EC for 3 years. It was informed that a provision for extending the validity of EC for further period of 3 year exists as per EIA Notification, 2006.

After deliberations and considering all the facts of the project as presented by the PP, the EAC opined that while the validity of EC is considered, forest clearance should have been available with the PP by now. However, because the area is the naxal affected area, the Forest Officials couldn't visit the project site in the past. Therefore, the process of diversion of forestland got delayed. Seeing the importance of project to be taken up in a sensitive and also the most backward area of Odisha state, **the EAC recommended for extension of the validity of EC** for three years as per the OM dated 14.09.2016 and the PP shall submit the forest clearance to the Ministry within six months.

Agenda Item No. 5.5 Vishnugad-Pipalkoti (444 MW) project in Chamoli District of Uttarakhand by M/s THDC Ltd – For Extension of validity of Environmental Clearance.

The PP along with WAPCOS, the consultant, made a presentation on the project for extension of validity of environmental clearance (EC). It was noted that the project envisages constructions of 65 m high concrete diversion dam near village Helong on river Alaknanda (a tributary of River Ganga) with an installed capacity of 444 MW. Total land requirement is 141.568 ha. Out of this, 100.39 ha is forestland, 31.639 ha is private land, and 9.539 ha is PWD land. Total submergence area is 24.5 ha.

The PP informed the following:

- i. There is no change in the project parameters and thus no change in the scope of the project is envisaged.
- ii. The World Bank is funding the project.
- iii. The environmental clearance for this project was granted on 22.8.2007 as per EIA Notification, 1994 and 2006 for a period of 10 years and the validity is ending on 21.8.2017.
- iv. The environmental flow stipulation was revised from 3 cumec to 15.65 cumec on 31.5.2011.
- v. Forest clearance for diversion of 80.507 ha forestland was obtained on 28.05.2013.

- vi. Investment approval for Rs. 2491.58 crores was obtained in August, 2008.
- vii. Due to floods in June, 2013, there was a heavy deposit of debris and big boulders both on the approach roads to powerhouse and also at the powerhouse. So, there was delay of around 60 months to make this approach road operational including opening up of the powerhouse.
- viii. The EMP is under implementation by PP. The budget allocated in 2007 for implementation of EMP is Rs.14.50 crores and the budget has been substantially revised to Rs. 76.24 crores.
- ix. The majority of the works have been completed and expenditure of Rs. 1187.54 crores has been incurred so far.
- x. As per the original schedule, the works were to be completed by June, 2013. The project implementation got delayed due to delay in diversion of forestland for non-forest use, Civil & HM works, E&M package unprecedented rains and catastrophic floods in Uttarakhand.
- xi. The PP also submitted the compliance report of the EC conditions.
- xii. In-spite of unprecedented delays, project has made a substantial progress and is anticipated to be commissioned by July, 2020.

Vide letter No. THDCIL/RKSH/S&E/CAMP01 dated 31.5.2017, the PP has submitted additional information on the following and requested for grant of extension of validity of EC for the project:

- i. The project is scheduled to be commissioned by July, 2020 and a copy of Master Control Network is submitted.
- ii. Muck generated from the construction of the project is being dumped at designated muck disposal sites along with detailed muck disposal plan.
- iii. M/s. HCC Ltd has been engaged in Civil & HM contractors and has presently deployed 20 dumpers for disposal of muck. All these dumpers have been installed with GPS.

The EAC considered the request for extension of the validity of EC for 3 years. It was informed that a provision for extending the validity of EC for further period of 3 year exists as per EIA Notification, 2006.

After detailed deliberations and considering all the facts of the project as presented by the PP, **the EAC recommended for extension of the validity of EC** for a period of three years in order to facilitate the PP to commission the project.

Agenda Item No. 5.6 Rammam Stage-III HEP (120 MW) in West Bengal & Sikkim by M/s. NTPC Hydro Ltd. - Extension of Validity of Environmental Clearance (EC).

The project proponent made a detailed presentation on the project for extension of validity of environmental clearance (EC) and *inter alia* provided the following information:

It was noted that the proposed project envisages construction of 20 m high barrage across river Rammam near Lodhama at a distance of 60 km from Darjeeling with an installed capacity of 120 MW. A surface powerhouse is located on the right bank of the river near village Barbatia of 3 units of 40 MW capacity each. This is a run-of-the-river scheme. Total land requirement is 74.077 ha. Out of this, 65 ha

(Private + Government land) land is in West Bengal and 7 ha (1.30 ha forest land) is in Sikkim. Total project cost is Rs. 633.92 crores.

The environmental clearance for this project was accorded on 17.8.2007 for a period of 10 years as per the provisions of EIA Notifications, 1994 and 2006. The validity period will be ending on 16.8.2017. The PP has submitted online application for the extension of validity of EC for 5 years. It was informed that the validity of EC for River Valley Projects is for 10 years and as per EIA Notification, 2006, a provision of extension of validity of EC for further 3 years is available/ existing for River valley Projects. However, PP had requested the extension validity of EC for 5 more years.

The PP mentioned that project implementation got delayed due to frequent interruption by the villagers and also tree felling permission got delayed from District Administration. The PP also submitted the latest compliance report to the EC conditions. Among others, the following are mentioned in the compliance report:

- i. The total cost has been revised from Rs. 663.92 crores to Rs. 1381.94 Crores (at 2014 price index). An amount of Rs. 893.035 Crores has been spent so far on the project.
- ii. Forest clearance was accorded on 23.05.2008 and wildlife clearance was accorded by Government of West Bengal on 01.02.2008
- iii. For CAT plan implementation, Rs. 3.2562 Crores & Rs. 1.189 Crores have been deposited with forest department of West Bengal and Sikkim.
- iv. One-time settlement for R&R package to PAFs has been agreed and an amount of Rs. 2.98 Crores has been disbursed as per R&R Policy till 31.3.2017.

The EAC considered the request for extension of the validity of EC for 3 years. It was informed that a provision for extending the validity of EC for further period of 3 year exists as per EIA Notification, 2006.

After detailed deliberations and considering all the facts of the project as presented by the PP, **the EAC recommended for extension of the validity of EC** for a period of three years in order to facilitate the PP to complete the works and commission the project.

Agenda Item No. 5.7 Any other item with the permission of the Chair

Agenda Item No. 5.7 Pancheshwar Multipurpose Project in Uttarakhand by M/s (a) Pancheshwar Development Authority

The Member Secretary informed EAC that the Secretary, MoWR, RD & GR has written to the Ministry mentioning that EIA report for this project for the Nepal side has been approved by Govt. of Nepal on 16.10.2014. It has also been informed that in connection with the formation of Joint Mechanism, an internal meeting was held on 20.2.2017, which was attended by the officials of MoEF & CC and MEA and the current status of the activities on EIA report was discussed. It has also been informed that both sides have significantly advanced on preparation of EIA/EMP report of the project. Under such circumstances, it was proposed that *in lieu* of considering the assessment of environmental impact of full project through Joint Mechanism, separate EIA/EMP

reports of the project for Indian side & Nepal side be placed before the EAC for considering the EIA of full project. It was also informed that the DPR & EIA study report has been prepared and the documents have been submitted to the Government of Uttarakhand for consideration and appraisal. After their clearance, the documents will be submitted for conducting the Public Hearing for the project for the Indian portion in Uttarakhand as per the EIA Notification, 2006.

Then the PP made a presentation along with WAPCOS, the consultant to the project, and *inter alia* provided the following information:

Pancheshwar Multipurpose Project will be located in Uttarakhand and Nepal and will be implemented by M/s Pancheshwar Development Authority, Ministry of Water Resources, River Development and Ganga Rejuvenation. The proposed project is envisaged on river Mahakali (known as Sarada in India) which forms the international boundary between India and Nepal, dividing the Far Western Development Region of Nepal from the Uttarakhand State in India. It is a bi-national scheme, primarily aimed at energy generation and with other benefits too.

The project comprises of a rock-fill dam of 315 m height from the deepest foundation level. It is proposed to have 2 underground powerhouses with an installed capacity of 5,600 MW. The total submergence area is 11,600 ha (India - 7,600 ha + Nepal - 4,000 ha). The Ministry granted scoping/TOR for this project on 13.10.2016 with additional conditions and some are presented below:

- i. The EIA/EMP studies as depicted in the model ToR of MoEF & CC effective from April, 2015 shall be carried out.
- ii. Minimum e-flow discharge of 20%, 25% and 30% should be planned for lean season, non-lean season & non-monsoon and monsoon, respectively.
- iii. The EIA/EMP report for the full project should be placed before the entity established through the Joint Mechanism mentioned earlier for examination. Recommendation would be given to the Ministries of Environment in both the countries for acceptance.

The EAC observed the following:

- i. EIA/EMP studies as depicted in the model TOR of MoEF & CC are effective from April, 2015.
- ii. Skill mapping of the project effected families shall be carried-out and suitable provisions should be made in R&R plan
- iii. Environmental flows should be planned as per the TOR or based on a detailed site specific scientific investigation.

The EAC was informed by the Member Secretary that the above stipulations are very much present in the model TOR of the Ministry and the same would have to be incorporated by the PP as a part of the EIA/EMP studies. Since the reports are complete in respect of the above ToRs and thus EAC has recommended that there is no objection for finalizing the reports and submitting them to Departments/ Organisations concerned for their consideration and approval. After completing all the formalities, the same could be submitted to Ministry/EAC for consideration. As far as Joint Mechanism Set up is concerned, the EAC is of the view that as of now and considering the progress of preparation of EIA reports, setting up of the Joint Mechanism would rather delay the process of this important international project. Hence, let the Public Hearing be

conducted based on the EIA report for Indian portion and the PP may approach the Ministry for final appraisal for environmental clearance.

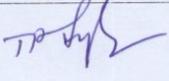
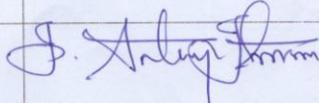
As there being no agenda item left, the meeting ended with a vote of thanks to the Chair.

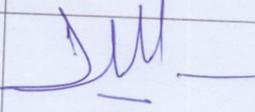
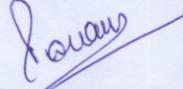
Attendance Sheet

LIST OF MEMBERS

5th MEETING OF RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) FOR RIVER VALLEY & HYDROELECTRIC PROJECTS

DATE : 31th May 2017
TIME : 09:30 AM to 5:30 PM
VENUE : *Man Mohan* Godavari Hall, INDIRA PARYAVARAN BHAWAN,
NEW DELHI

Sl.No.	Name of Member	Signature
1.	Prof. Sharad Kumar Jain, Chairman	
2.	Shri. T. P. Singh Member	
3.	Shri. Sharvan Kumar, Member,	
4.	Shri N. N. Rai, Member	Abs
5.	Dr. J.A.Johnson, Member	
6.	Dr. B. K. Das, Member	Abs
7.	Dr. Vijay Kumar, / Dr. AK Sahu Member	

8.	Prof. Govind Chakrapani, Member	Abs
9.	Dr. Chetan Pandit, Member	
10.	Dr. Dinkar Madhavrao More, Member	Abs
11.	Dr. R. Vasudeva, Member	Abs
12.	Prof. S.R. Yadav, Member	Abs
13.	Dr. Jai Prakash Shukla, Member	Abs
14.	Dr. Poonam Kumria Member	
15.	Dr. Kerketta, Member Secretary Director (IA-1)	Present

Approval of Chairman of the EAC –RV&HEP

6/20/2017

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Subject: Re: Draft minutes of 5th meeting of EAC for River Valley Projects held on 31.05.2017 - regarding.
To: Dr S Kerketta <s.kerketta66@gov.in>
Cc: "Prabhu S." <p.subramani@gov.in>

Date: 06/20/17 11:48 AM
From: Sharad Jain <s_k_jain@yahoo.com>
Reply-To: Sharad Jain <s_k_jain@yahoo.com>

Draft__5th_EAC_MoM_13.06.2017_chairman.pdf (240kB) Draft__5th_EAC_MoM_13.06.2017_chairman.doc (96kB)

Dear Dr Kerketta,
I am returning the approved minutes of the 5th meeting of EAC - doc and PDF versions.
Before uploading, pls ensure that all the data mentioned in the minutes are correct.

Regards,

Sharad Jain
NIH Roorkee

From: Dr S Kerketta <s.kerketta66@gov.in>
To: s_k_jain@yahoo.com; skj@nih.ernet.in
Cc: Prabhu S. <p.subramani@gov.in>
Sent: Tuesday, 20 June 2017 10:41 AM
Subject: Draft minutes of 5th meeting of EAC for River Valley Projects held on 31.05.2017 - regarding.

Sir,
I am sending the corrected draft for approval please.

regards,

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

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