

Minutes of the 90th Meeting of the Expert Appraisal Committee for River Valley and Hydroelectric Projects held on 22-23rd December, 2015 at Teesta Meeting Hall, 1st Floor, Vayu Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003

The 90th Meeting of the Expert Appraisal Committee (EAC) for River Valley and Hydroelectric Projects was held during 22-23rd December, 2015 at Teesta Meeting Hall, 1st Floor, Vayu Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003. The meeting was chaired by Shri Alok Perti, Chairman. Shri. P. K. Choudhury and Dr. A. Lingaraju, Members could not attend the meeting. The list of EAC Members and officials/consultants associated with various projects and who attended the meeting is at **Appendix**.

The following Agenda items were taken-up in that order for discussions:

1st day (22.12.2015)

Minutes of 89th EAC meeting were confirmed. Thereafter, the following agenda items were taken-up

Agenda Item 2.1 Nandawadagi Lift Irrigation Scheme (Part of UKP Stage-I & II) in of Karnataka by M/s. Operation & Maintenance Zone, Krishna Bhagya Jala Nigam Limited, Government of Karnataka - For consideration of TOR.

The project proponent has requested for postponement of the project to next EAC meeting as the other projects connected to expansion of UKP-I & II pertaining to other zones have to be placed before EAC for consideration. Therefore, the EAC has not considered the project and deferred the project.

Agenda Item 2.2 Nakthan HEP Project (460 MW) in District Kullu of Himachal Pradesh by M/s HPPC Ltd – for reconsideration of environmental clearance (EC)

The project proponent made a detailed presentation. The Project is proposed to utilize the water of Tosh Nalla and Parbati River (both streams are tributaries of river Beas). The project will have two (2) diversion sites with common surge shaft and an underground powerhouse. Out of 2 diversion sites; one will be on the river Parbati at Dhara Thach with 13.5 m high barrage & second on the Tosh nalla at Wanshi Thach with 12 m high barrage. This is run-of-the-river scheme. An underground powerhouse is proposed on the right bank of Parbati River at Nakthan village with 4 units of 115 MW capacity each. Total land requirement is about 90.07 ha. Out of which 81.85 ha is forest land and 8.22 ha is private land. The total project cost is about Rs. 4508.16 Crores.

2. This project was earlier considered by EAC in its meeting held on 23-24th April, 2015. While considering the proposal, EAC observed the following:-

- (i) Nakthan project was accorded Scoping/TOR clearance in 2011 for 520 MW and thereafter, the validity of TOR was extended 2 times. Now, the present project is for 460 MW capacity. Hence, HPPCL has to submit the approval of the State Government & MoP/CEA for the downward revision of the capacity.
- (ii) As per the OM dated 28.5.2013, the State Governments were to take up river basin studies for consideration of project for TOR/Environmental Clearance. The proposed project is on tributaries of Beas river. Recently, the TOR clearance for Beas river has been accorded. Therefore, the committee desired to know the status of river basin study and clarification as to whether the committee can consider this project for EC clearance, pending the river basin study as per the OM dated 28.5.2013.
- (iii) The e-flow study for the project should be as it was done in the case of their earlier project Shongtong-Karcham HEP.

3. The project proponent submitted a letter by Central Electricity Authority for 460 MW capacity and mentioned that as per power potential studies, 4 numbers of generating units of 115 MW each has been proposed. It may be pointed out that the number and size of units may be optimally selected keeping in view of the operation flexibility and transportation limitations at DPR stage. It was also informed that the TOR of Beas River Basin study has been granted by MoEF & CC. It appears that the work has been allocated and the study is yet to be initiated.

4. The project proponent mentioned that the e-flow study has been conducted by National Institute of Hydrology, Roorkee. Based on the study modified study report, the suggested e-flow values are as follows:

A. Parbati River

Sl. No.	Season	Quantity in cumecs
i	Lean season	2.37 cumec
ii	Monsoon season	11.2 cumec
iii	Non lean/non-monsoon season	6.3 cumec

B. Parbati River

Sl. No.	Season	Quantity in cumecs
i	Lean season	0.51 cumec
ii	Monsoon season	3.88 cumec
iii	Non lean/non-monsoon season	1.67 cumec

5. The committee inquired about the hydrological details in 90% dependable year for both Parbati river and Tosh Nala and latest norms of MoEF & CC on environmental flow release at the downstream of the project viz. Environmental flow release would be 20% of average of four consecutive lean months, 30% of average flow during monsoon months and the flow for remaining months will be in between 20-30 % corresponding to 90% dependable year depending on the site specific requirements.

A table of 10-daily water discharges corresponding to 90% dependable year showing the intercepted discharge at both the diversion sites, the environmental flow to be released and the other flow releases downstream of the barrage and spills to be provided in hydrology section of EIA.

The EAC concluded that on receipt of compliance of the observations made, the project will be reviewed and reconsidered again for Environmental Clearance.

Agenda Item 2.3 Rampur HEP (412) project in Shimla & Kullu Districts of Himachal Pradesh by M/s. SJVN Ltd- for consideration of Amendment in Environmental Clearance (dated 31.3.2006) – Part-A Specific Condition No. (vi)– Release of downstream flow.

The project proponent did not attend the meeting. Therefore, the EAC has not considered the project and deferred the project.

Agenda Item 2.4 Suntaley Tar HEP (40 MW) project in East Sikkim District of Sikkim by M/s. Hindustan Power Ltd – for consideration of Extension of validity of ToR .

The project proponent made a detailed presentation. It was noted that this is a Category-B Project but falls within 10 Km radius of Pangolakha Wildlife Sanctuary. Therefore, the project has been submitted to Ministry for consideration at Central level. The project envisages construction of a 17 m high barrage across river Rangpo Chu near village Karo in East Sikkim District of Sikkim to generate 40 MW of hydropower. Total land requirement is about 39.02 ha, out of which 13.01 ha is forest land (out of this, submergence is 7.80 ha) and 26.01 ha is private land. A surface powerhouse has been proposed on the right bank of the river with 3 units of 13.33 MW each. Total cost of the project is about Rs. 300 Crores and will be completed in 3 years.

2. The scoping/TOR clearance for this project was accorded on 31.12.2012 with 2 year validity period which was ended on 31.12.2014. Thereafter, the Ministry granted 1 year extension of validity for TOR up-to 31.12.2015.

3. The project proponent requested for further 2 years to complete ongoing project activities including EIA/EMP studies. The project proponent informed the committee that topographical survey, geological mapping, baseline data collection is in progress. Meteorological data collection for assessment of probable maximum precipitation (PMP)

and estimation of standard project flood by standard project storm (SPS) method has been completed. The works that are to be completed are as follows:

- i. freezing project layout is pending
- ii. preparation of Detailed Project Report (DPR)
- iii. estimation of land requirement depended on freezing of layout
- iv. after freezing of layout and finalizing land requirement, socio-economic study including identification of PAFs and finalisation of R&R plan
- v. preparation of EIA/EMP and conducting public hearing

Keeping in view of the project progress and no significant change in any of the project parameters, EAC recommended extending the validity of Scoping/TOR Clearance for 2 year i.e. from 1.1.2016 to 31.12.2017 to complete all the remaining works within the extended period of validity of TOR. However, MoEF & CC to consider the matter in terms of relevant OM in this regard which stipulates processes for consideration of extension.

Agenda Item 2.5 Karcham - Wangtoo Hydroelectric Project (1000 MW) in District Kinnaur, Himachal Pradesh - Transfer of EC to M/s. Himachal Baspa Power Company Limited

The project proponent made a detailed presentation. It was noted that the Karcham-Wangtoo HEP Project (1000 MW) is located near village Karcham in District Kinnaur, Himachal Pradesh. This is a run-of-the-river scheme on river Satluj, comprising a concrete gravity diversion dam at Karcham and an underground power house located in village Wangtoo. Total land requirement for the project is 155.2910 ha, out of which 136.2833 ha is forest land. Forest clearance had been issued on 21.11.2002.

2. The Environmental Clearance (EC) was accorded to the project vide letter No.J-12011/47/2005-IA-I dated 9.11.2005 in favour of M/s. Jaypee Karcham Hydro Corporation Limited (JKHCL). The Project had been commissioned on 13.11.2011 and is in operation since then.

3. During the year 2011, M/s. Jaypee Karcham Hydro Corporation Limited (JKHCL) was merged into M/s. Jaiprakash Power Ventures Limited (JPVL). The Project Authorities had informed MoEF on 30.10.2014 and requested for transfer of EC in the name of M/s. Jaiprakash Power Ventures Limited. Subsequently in the year 2015, M/s. JPVL filed a petition (Company Petition No. 6 of 2015) versus the Petitioner Companies Jaiprakash Power Ventures Ltd. (Transferor Company) and Himachal Baspa Power Company Ltd. (Transferee Company) in High Court of Himachal Pradesh at Shimla for transfer of the Project from M/s. JPVL to M/s. HBPCCL wherein the Hon'ble High Court vide order dated 25.6.2015, under Section 391/394 of the Companies Act, 1956 directed the following:

- i) That all the properties, rights and powers of the Transferred Undertaking No.1 and 2 specified in the fourth and fifth parts of the Scheme of Arrangement (Schedule of

- Property as listed in Schedule-II) and all the other properties, rights and powers of the Transferor Undertaking No.1 and 2 be transferred without further act or deed to the Transferee Company and accordingly the same shall pursuant to Section 394(2) of the Companies Act, 1956, be transferred to and vest in the Transferee Company for all the estate and interest of the Transferor Undertaking No.1 and 2 therein but subject nevertheless to all charges now affecting the same; and
- ii) That all the liabilities and duties of the Transferor Undertaking No.1 and 2 be transferred without further act or deed to the Transferee Company and accordingly the same shall pursuant to Section 394(2) of the Companies Act, 1956 be transferred to and become the liabilities and duties of the Transferee Company; and
 - iii) That all proceedings now pending by or against the Transferor Undertaking No.1 and 2 be continued by or against the Transferee Company; and
 - iv) That the Transferee Company do without further application allot to the Transferor Company the Securities (Equity Shares and Non Convertible Debentures) in the Transferee Company to which they are entitle under the said Scheme of Arrangement; and
 - v) That the Transferor Company do within 30 days after the date of this Order cause a certified copy of this Order to be delivered to the Registrar of Companies, Himachal Pradesh, for registration and on such certified copy being so delivered the Transferred Undertaking No.1 and 2 and shall be transferred to the Transferee Company.

The term “Transferred Undertaking No.2” means the entire business of Karcham Wangtoo Hydro Electric Project located in the District of Kinnaur in the State of Himachal Pradesh and built on the Satluj river on a going concern basis.

4. As per this Scheme of Arrangement, all assets, liabilities, rights, privileges, powers, authorities, obligations, licenses and clearances of Karcham-Wangtoo HEP project have become the assets, liabilities, rights, privileges, powers, authorities, obligations, licenses and clearances of the Himachal Baspa Power Company Limited (HBPCL). This transfer does not involve any change in the conditions of EC, which conditions would continue to be performed/ observed without prejudice by M/s. HBPCL.

5. In pursuance to the Hon'ble High Court of Himachal Pradesh, Shimla order dated 25.6.2015, it was informed by M/s. Jaiprakash Power Ventures Ltd. (Transferor Company) vide their letter No.JPVL/KWHEP/EC/15 dated 3.9.2015 that the Project has now been transferred to M/s. Himachal Baspa Power Company Limited (HBPCL) (Transferee Company) w.e.f. 1.9.2015 and a request was made therein to transfer the Environmental Clearance already accorded by the MoEF &CC on 9.11.2015 in the name of M/s. Himachal Baspa Power Company Limited (HBPCL)

6. It was informed to EAC that as per EIA Notification, 2006, a provision under para-11 i.e. Transferability of Environmental Clearance (EC) exists. The project proponent has to submit the following requisite documents, as per the extant rules:

- i. Affidavit for change of name from both the parties i.e. by M/s. Jaiprakash Power Ventures Ltd. & M/s. Himachal Baspa Power Company Ltd. for transfer of Environmental Clearance on non Judicial stamped paper (duly signed by the notary)
- ii. Deed partnership agreement
- iii. Public Notice issued for change of name – Daily news paper (in English/local paper)

The EAC desired that a copy of the latest 6 monthly compliance report and a copy of Hon'ble High Court order dated 25.6.2015 should be submitted to MoEF&CC for reference. The project proponent informed during the meeting that these documents are readily available and can be submitted in MoEF &CC. The EAC is of the view that the compliance of EC conditions are of prime concern and it has to be brought-out explicitly as to what is the progress of EMP as was required as per EC, the compliance status and the remaining liability etc, to facilitate the matter for meaningful consideration. On receipt of the above information/documents and clarifications, the matter may be placed before EAC for consideration.

Agenda Item 2.6 Baspa Stage-II Hydroelectric Project (300 MW), Himachal Pradesh - Transfer of EC to M/s. Himachal Baspa Power Company Limited

The project proponent made a detailed presentation. It was noted that the Baspa Stage-II HEP Project (300 MW) is located in District Kinnaur, Himachal Pradesh. This is a run-of-the-river scheme on river Baspa, comprising a diversion barrage at Kuppa village and an underground power house located near village Karcham with three units of 100 MW power generation capacity.

2. The Environmental Clearance (EC) was accorded to the project vide MoEF letter No.J-12011/1/87/IA-I dated 17.12.1993 to Himachal Pradesh State Electricity Board. During the year 1996, the EC was transferred in favour of M/s. Jaiprakash Hydro Power Limited (JHPL) vide its office letter No.J-12011/1/97-IA-I dated 16.10.1996. Later on in the year 2009, the name of M/s. Jaiprakash Hydro Power Limited was changed to M/s. Jaiprakash Power Ventures Limited (JPVL). The Project Authorities had informed MoEF vide their letter No. JBaspa-II HEP/EC/14 dated 30.10.2014 of this change in name of the Company and requested for transfer of EC in the name of M/s. Jaiprakash Power Ventures Limited. The Project was commissioned during June 2003 and is in operation since then.

3. Subsequently in the year 2015, M/s. JPVL filed a petition (Company Petition No. 6 of 2015 between the Petitioner Companies Jaiprakash Power Ventures Ltd. (Transferor Company) and Himachal Baspa Power Company Ltd. (Transferee Company)) in High

Court of Himachal Pradesh at Shimla for transfer of the Project from M/s. JPVL to M/s. HBPCL wherein the Hon'ble High Court vide order dated 25.6.2015, under Section 391/394 of the Companies Act, 1956 directed the following:

- i. That all the properties, rights and powers of the Transferred Undertaking No.1 and 2 specified in the fourth and fifth parts of the Scheme of Arrangement (Schedule of Property as listed in Schedule II) and all the other properties, rights and powers of the Transferor Undertaking No.1 and 2 be transferred without further act or deed to the Transferee Company and accordingly the same shall pursuant to Section 394(2) of the Companies Act, 1956, be transferred to and vest in the Transferee Company for all the estate and interest of the Transferor Undertaking No.1 and 2 therein but subject nevertheless to all charges now affecting the same; and
- vi) That all the liabilities and duties of the Transferor Undertaking No.1 and 2 be transferred without further act or deed to the Transferee Company and accordingly the same shall pursuant to Section 394(2) of the Companies Act, 1956 be transferred to and become the liabilities and duties of the Transferee Company; and
- vii) That all proceedings now pending by or against the Transferor Undertaking No.1 and 2 be continued by or against the Transferee Company; and
- viii) That the Transferee Company do without further application allot to the Transferor Company the Securities (Equity Shares and Non Convertible Debentures) in the Transferee Company to which they are entitle under the said Scheme of Arrangement; and
- ix) That the Transferor Company do within 30 days after the date of this Order cause a certified copy of this Order to be delivered to the Registrar of Companies, Himachal Pradesh, for registration and on such certified copy being so delivered the Transferred Undertaking No.1 and 2 and shall be transferred to the Transferee Company.

The term "Transferred Undertaking No.1" means the entire business of Baspa Hydro Electric Project Stage-II located at Karcham in the District of Kinnaur in the State of Himachal Pradesh and built on the lower reaches of the Baspa river on a going concern basis.

4. As per this Scheme of Arrangement, all assets, liabilities, rights, privileges, powers, authorities, obligations, licenses and clearances of Baspa Stage-II HEP project have become the assets, liabilities, rights, privileges, powers, authorities, obligations, licenses and clearances of the Himachal Baspa Power Company Limited (HBPCL). This transfer does not involve any change in the conditions of EC, which conditions would continue to be performed/ observed without prejudice by M/s. HBPCL.

5. In pursuance to the Hon'ble High Court of Himachal Pradesh, Shimla order dated 25.6.2015, it was informed by M/s. Jaiprakash Power Ventures Ltd. (Transferor Company)

vide their letter No.JPVL/Baspa-II HEP/EC/15 dated 03.09.2015 that the Project has now been transferred to M/s. Himachal Baspa Power Company Limited (HBPCL) (Transferee Company) w.e.f. 1.9.2015 and a request was made therein to transfer the Environmental Clearance already accorded by the MoEF on 17.12.1993 in the name of M/s. Himachal Baspa Power Company Limited (HBPCL) .

6. It was informed to EAC that as per EIA Notification, 2006, a provision under para 11 i.e. Transferability of Environmental Clearance (EC) is exists. The project proponent has to submit the following requisite documents, as per the extant rules:

- i. Affidavit for change of name from both the parties i.e. by M/s. Jaiprakash Power Ventures Ltd. & M/s. Himachal Baspa Power Company Ltd. for transfer of Environmental Clearance on non Judicial stamped paper (duly signed by the notary)
- ii. Deed partnership agreement
- iii. Public Notice issued for change of name – Daily news paper (in English/local paper)

The EAC desired that a copy of the latest 6 monthly compliance report and a copy of Hon'ble High Court order dated 25.6.2015 should be submitted to MoEF&CC for reference. The project proponent informed during the meeting that these documents are readily available and can be submitted in MoEF &CC. The EAC is of the view that the compliance of EC conditions are of prime concern and it has to be brought-out explicitly as to what is the progress of EMP as was required as per EC, the compliance status and the remaining liability etc, to facilitate the matter for meaningful consideration. On receipt of the above information/documents and clarifications, the matter may be placed before EAC for consideration.

2nd day (23.12.2015)

Agenda Item 2.7 Singtalur Lift Irrigation Scheme in Gadag District of Karnataka by M/s Karnataka Neeravari Nigam Limited, Government of Karnataka - For consideration of Environmental Clearance (EC).

The project proponent made a detailed presentation This scheme envisages construction of 10 m high & 387.5 m long diversion barrage across Tungabhadra River upstream of Tungabhadra Dam for diversion of 18.55 TMC of water (15.991 TMC for irrigation + 2.55 TMC for drinking water) to provide irrigation facility to 77,198 ha in 146 villages in Gadag, Koppal and Bellary Districts of Karnataka. The command area will receive flow irrigation with head works lifting water to the FSL from the barrage pond. The total network of left bank canal will be 173.15 Km and right bank canal will be 41.18 Km. Two (2) lifts on right bank & 4 lifts on left bank shall be required to lift water. Total land requirement is about 4304 ha out of which 4.9 ha is forest land. Total submergence area is

1620 ha. One (1) village will be fully submerged and 3 villages will be partially affected due to this project. The total estimated project cost is about Rs. 5768.03 Crores.

2. The project proponent informed that process of obtaining forest clearance for 4.9 ha; of forest land is at the final stage.

3. The project proposes to irrigate 77,198 ha of the Command Area by lift irrigation. The total network of left bank canal will irrigate 60,293 ha and right bank canal will be of 16,955 ha. The cropping pattern is 100% during Kharif over 68,922 ha and 17% during Rabi in 8,276 ha. The benefit cost ratio will be 1.6.

4. It was informed that while obtaining TOR for this project, the committee noted a violation i.e. the project was initiated without obtaining EC. The case was dealt under the provisions of OM issued by the Ministry in dealing with violation cases. The Secretary, Water Resource Dept., Govt. of Karnataka, the Secretary, Dept. of Forest, Ecology and Environment, Govt. of Karnataka and the Director, Regional Office, MoEF & CC submitted their compliance reports. Based on the recommendations of the 68th EAC and replies of the above in response to the Ministry's letter dated 6.12.2013, the ToRs for the project was accorded on 21.4.2014. However, the committee was informed that the NGT order on violation committed/occurred in the project has been stayed by Hon'ble Supreme Court in September, 2015. Hence this project has been considered.

5. The public consultation was conducted in all the 3 districts viz., at Alavandi village in Koppal District on 1.9.2015; Singatalur -Hammige village in Gadag District on 11.9.2015 and Allipura village in Bellary District on 22.9.2015 of Karnataka. The main issues raised during the public hearing were to take care of the local public needs by providing drinking water facilities, proposed irrigation activities should not cause any adverse impact on villagers, generate awareness among students of protecting the greenery in dry zone, planting more and more trees, create a Peacock corridor, assurances fulfilled by the Government for losers, infrastructural facilities to villages, agro-forestry plantation should be taken-up along the canals, to provide basic facilities to the R&R centers and the project affected families, construction of houses by the project proponent. All the issues discussed during the public consultation were considered in the EIA/EMP report.

6. During the meeting it was ensured that no new works would be undertaken till the Environmental Clearance is accorded and further the Chief Engineer of the project considered the suggestions of EAC to revise the R&R cost.

7. The baseline data covering submergence area, command area and project influence area i.e. area within 10 km radius from main project components and downstream up to 10 Km from the tip of the barrage have been considered. The baseline data has been collected covering physico-chemical aspects, Biological aspects and Socio-economic aspects. The 3 season data has been collected for air, noise, water, soil and ecological aspects. Impacts during construction and operation phases have been assessed and mitigation measures suggested minimizing the anticipated impacts.

8. Other salient features of the project and EIA/EMP were report as under:
- i. The Catchment Area Treatment (CAT) plan in an area of 53,822 ha of area is proposed with biological and engineering measures in 5 years. An amount of Rs. 1014.57 lakhs have been proposed for this purpose.
 - ii. The compensatory afforestation programme is proposed in 5 ha of revenue land identified by Forest Department. Density of saplings in compensatory forest land will be 1500 sapling per hectare with 32 different plant species will be used for the programme. An amount of Rs. 35.92 lakhs have been proposed for this purpose. Overall cost estimates of afforestation and restoration of ecology is about Rs.737.92 lakhs.
 - iii. Fishery development and management plan is proposed for the conservation fish in river. Under this programme development of around 10 lakh fingerlings comprised of major carp to be introduced in river Tungabhadra above the project site and in Tungabhadra reservoir. The plan will be implemented in consultation State Fisheries Department. An amount of Rs. 35.92 lakhs have been proposed for this purpose.
 - iv. The project is likely to generate 3,22,50,000 m³ of muck due to excavation. Out of which 1,39,07,812 m³ is to be utilized for construction purpose and remaining 1,83,42,188 m³ will be dumped as heaps on sides of raising main. The muck disposal sites should be reclaimed/ restored with vegetation once capacity is utilized.
 - v Greenbelt will be developed along the road side, around the temples, around barrage, R&R Centres etc. Selection of local plant species & its implementation will be done in consultation with the State Forest Department, Govt. of Karnataka. An amount of Rs. 8 lakhs have been proposed for this purpose.
9. The EAC observed that the EMP cost is on the lower side, therefore, the EMP cost should be revised. The Chief Engineer, KNNL has submitted the EMP has been prepared based on the predicted impact and the revised details of the same have been submitted, which are as follows:

Sl. No	Proposed EMP aspects	Original Cost (Rupees in lakhs)	Revised Cost (Rupees in lakhs)
1	Catchment Area Treatment Plan	1014.57	4500.00
2	Command Area Development Plan	1300.00	3500.00
3	Green belt development and biodiversity conservation measures	737.92	850.00
4	Fisheries conservation and management plan	10.00	50.00
5	Water, Noise and Air Quality Management Plan	19.50	30.00

6	Public Health Management Plan	5.00	55.00
7	Solid Waste Management Plan including muck disposal & management	35.69	2500.00
8	Rehabilitation and Resettlement Plan	10991.31	17700.00
Total		14113.99	29185.00

10. After detailed deliberation, the EAC recommended for issue of environmental clearance for the project with the following conditions:

- i. R&R Cost has to be revised as per Right to Fair Compensation and Transparency in Land Acquisition Act, 2014 and house construction will be undertaken by the project proponents for the project affected families at R&R centers. Cost indicated against other EMP components to be upwardly revised.
- ii. All basic infrastructure facilities shall be developed at R&R centers.
- iii. An independent Social Scientist / organization shall be appointed to supervise the R&R implementation.
- iv. Stone to stone reconstruction of Goni Basaveshwara Temple in the project affected area shall be undertaken.
- v. All commitments made during the environmental public consultation shall be implemented.
- vi. Necessary forest clearance required for the project for shall be obtained and informed this Ministry's accordingly.
- vii. MoEF & CC may consider granting EC on receipt of revised cost as discussed in the EAC including enhanced R&R component

Agenda Item 2.8 Shiggaon Lift Irrigation Scheme in Haveri District of Karnataka by M/s Karnataka Neeravari Nigam Limited, Government of Karnataka - For consideration of expansion in Environmental Clearance (EC).

The project proponent made a detailed presentation. The Bankapura Peacock Conservation Reserve is in the vicinity of the project area, the proposal was considered at Central Level as per EIA Notification, 2006 as per General Conditions. The Shiggaon Lift Irrigation Scheme envisages construction of a diversion weir across Varada river near Halsur village of Savanur Taluka in Haveri District of Karnataka for diversion of 1.5 TMC of water and providing irrigation facility to 9900 ha command area benefitting 30 drought prone villages. The project also involved drinking water facility by filling-up of 5 minor irrigation tanks (MI) tanks within the command area and construction of 6 bandaras. Filling of existing tanks in command area helps in stabilization and recharge of the groundwater in the region. Total land requirement is about 45 ha. No forest land is involved. Total cost of the project is about Rs.238 Crores.

2. The project was accorded environmental clearance (EC) on 22.10.2014.

3. The total water allocated for the scheme is 1.5 TMC. While considering the project for TOR, the EAC in its meeting held in March, 2010 noted that the entire command area of the project has been converted from flow irrigation to sprinkler irrigation system thereby, reducing the total water required for the project to 1.12 TMC (0.98 TMC for irrigation and 0.14 TMC for filling MI Tanks) and achieved 0.38 TMC of water conservation. Considering demand of farmers adjacent to the command area, Karnataka Neeravari Nigam Ltd proposed to utilize the balance 0.38 TMC of water allocated for the scheme by providing drip irrigation to 3600 ha benefitting additional 7 villages.

4. The proposed addition of command area will utilize the existing infrastructure of Shiggaon LIS including the rising main, pump house, intake canal, delivery chambers, pumps, etc and involves extension of MS rising main and distributory network which are buried underground. The State Government has accorded revised administrative approval to the modified scope of the project.

5. The EAC observed that the EC was accorded in November, 2014 for the project and by adding 3600 ha command area using saved water by providing drip irrigation is welcoming exercise and appreciated the Government's initiative. The committee also noted that the project scope has not been changed and all parameters are within the original project layout, except 3600 ha of additional command area. However, the committee mentioned that in order to lay underground pipelines, the muck generation, land use pattern & irrigation pattern has slightly changed. Therefore, the project was granted TOR with one season study in proposed command area. The project proponent submitted amended EIA/EMP report as well as compliance report to EC conditions and the same was presented before the EAC. The committee noted that after adding additional command area, now the present project details are as under:

- Shiggaon Lift Irrigation Scheme envisages construction of a diversion weir across Varada river near Halsur village of Savanur Taluka in Haveri District of Karnataka for diversion of 1.5 TMC of water and providing irrigation facility to 13,500 ha command area benefitting 32 drought prone villages. The project also involved drinking water facility by filling-up of 5 minor irrigation tanks (MI) tanks within the command area and construction of 6 bandaras. Filling of existing tanks in command area helps in stabilization and recharge of the groundwater in the region. Total land requirement is about 307 ha. About 0.96 ha forest land is involved. Total cost of the project is about Rs.532 Crores (as per 2013-14 prices).

6. The EAC observed that there is no change in project parameters except make use of available water within the allocated 1.5 TMC by adding additional 3600 ha of command area. It was informed that in order to lay underground pipelines, the muck generation, land use pattern & irrigation pattern has slightly changed. Therefore, the project was granted TOR with one season study in proposed command area. The baseline has been collected for one season covering ambient air quality, noise environment, water quality analysis (physico-chemical & biological parameters), soil quality analysis (physic-chemical characteristics) flora and fauna in the additional command area. Impacts during

construction and operation phases have been assessed and mitigation measures suggested minimizing the anticipated impacts.

7. Other salient features of the project and EIA/EMP were report as under:

- (i) The revised muck management & disposal plan in new command area has been prepared with cost escalation. The total excavated muck for MS raising main is about 39,272.72 m³ and it is proposed to utilize entire quantity for refilling purposes.
- (ii) The Greenbelt development in new command area has been prepared with cost escalation. Around 500 trees per hectare will be planted in consultation with Regional Forest Department, Haveri District. An amount of Rs. 5.00 lakhs have been allocated for this purpose. About 48 local plant species are selected for the proposed greenbelt development.
- (iii) Water quality monitoring in 5 km stretch in the upstream/downstream of Varada river during construction phase, for drinking water quality standards at suitable locations on bio-monthly basis have been proposed.
- (iv) Environmental Management Plan (EMP) plan has been revised with respect to additional command area of 3600 ha. An amount of Rs. 27,14,000 have been allocate for this purpose. Total cost of implementation of mitigation measures as per EMP is Rs. Rs. 95.96 lakhs during construction phase, Rs.21.82 lakhs during first three years of operation phase and Rs.50,000 per annum for the fourth year onwards for maintenance of greenbelt.

The EAC after detailed deliberations noted that the present proposal is for expanded scope of work than the project with earlier scope for which EC accorded earlier. The instant proposal is also based on the TOR issued by this Ministry in May, 2015. Therefore, while the EAC agreed to grant a fresh EC, it has advised that the Ministry should take steps to cancel the EC granted earlier. It would be appropriate to obtain request from State for cancellation of the earlier EC with grounds.

Agenda item 2.9 Lohit River Basin Study by M/s. WAPCOS – Discussion on Interim Report

The project proponent made a detailed presentation. It was noted that the Lohit River Basin study was initiated at the instance of MoEF & CC while according environment clearance to Demwe Lower and Demwe Upper Hydroelectric Power Projects of M/s Athena Demwe Power Limited. The TOR for the study was communicated by the Ministry on 26.3.2009, The Interim report and Basin Study Reports study was discussed by EAC in its various meetings. The response to comments of various NGOs were discussed in various EAC meetings. During the EAC meeting held on 11-12th December 2014, WAPCOS presented the TOR for conducting the Basin Study for hydroelectric projects on

the tributaries in the study area. A total of 5 projects are envisaged on the tributaries of Lohit Basin.

Name of the Project	Tributary	Installed capacity (MW)	Project Proponent
1. Gimliang HEP	Dav	99	M/s. Sai Krishnodaya Industries Pvt. Ltd
2. Raigam HEP	Dalai	96	M/s. Sai Krishnodaya Industries Pvt. Ltd
3. Tidding-I HEP	Tidding	98	M/s. Sai Krishnodaya Industries Pvt. Ltd
4. Tidding-II HEP	Tidding	68	M/s. Sai Krishnodaya Industries Pvt. Ltd
5. Kamlang HEP	Kamlang	21	M/s. Sai Krishnodaya Industries Pvt. Ltd

2. The Ministry granted TOR for the Carrying Capacity & Cumulative Impact Assessment Studies (CC & CIAS) for HEPs on the tributaries of Lohit River Basin in Arunachal Pradesh by M/s. WAPCOS Ltd on 11.2.2015.

3. The basin study envisages providing optimum support for various natural processes and allowing sustainable activities undertaken by its inhabitants. The same is determined in terms of the following:

- i. Inventorisation and analysis of the existing resource base and its production, consumption and conservation levels.
- ii. Determination of regional ecological fragility/sensitivity based on geophysical, biological, socio economic and cultural attributes.
- iii. Review of existing and planned developments as per various developmental plans.
- iv. Evaluation of impacts on various facets of environment due to existing and planned development.

4. The study should involve assessment of stress/load due to varied activities covering, e.g. exploitation of natural resources, industrial development, population growth which lead to varying degree of impacts on various facets of environment.

5. The project proponent informed that data availability at present on PFRs of Gimiliang HEP and Raigam HEPs only. The project related information for Tidding-I HEP, Tidding-II HEP and Kamalang HEP projects is being collected and shall be included in next stage of submissions. Preliminary data on project details, hydrological discharge series for 90% dependable year (2002-03) for Gimiliang, Raigam, Tidding-I and Tidding-II HEPs are compiled. The data on terrestrial ecology for 10 sampling sites have been collected.

6. Terrestrial fauna for all 5 HEPs have been collected. Kamalang Wildlife Sanctuary is located 1 km from the Kamalang HEP site, therefore present level information, it is proposed to be dropped.

7. Environmental flow norms of 20% in lean season, 25% in non-monsoon/ non-lean season and 30% in monsoon season corresponding to 90% dependable criteria has been adopted to downstream release of e-flows for aquatic life.

8. The EAC after detailed deliberations noted that the data collected is preliminary and for some projects data was not available. The hydrological data is incomplete. In the absence of such vital details, it may not be possible to examine the report. Therefore, EAC observed that this cannot be treated as an interim report to appraise and suggested to incorporate all the details as was followed in the main Lohit Basin study. Accordingly, the report needs to be modified by incorporating requisite studies/ information/input-data.

The EAC concluded that on receipt of a proper interim report, the same will be considered afresh.

Agenda item 2.10 Nabha HEP (1000 MW) project in Upper Subansiri District of Arunachal Pradesh by M/s Abir Infrastructure Pvt. Ltd – For consideration of extension of validity of ToR

The project proponent made a detailed presentation. It was noted that the project envisages construction of a 167 m high concrete gravity dam across Subansiri River near Badok Village in Upper Subansiri District of Arunachal Pradesh to generate 1000 MW of hydropower. This is a run-of-the-river scheme. The total land requirement is about 658.8 ha. Total submergence area is 263 ha. Total catchment area of the project is 11272 Sq. km. A surface powerhouse is proposed with 4 units of 250 MW each. There is no displacement of population. There is no national park/wildlife sanctuary/biosphere reserve located within 15 Km radius of the project area. Total cost of the project is about Rs.7801 Crores and will be completed in 5 years.

2. The scoping/TOR clearance for this project was accorded on 26.7.2013 with 2 year validity period which was ended on 25.7.2015.

3. The project proponent requested for further 2 years to complete ongoing project activities including EIA/EMP studies. The project proponent informed the committee that topographical survey, geological mapping, baseline data collection is in progress. The works that are to be completed are as follows:

- i. Detailed investigations and Detailed Project Report (DPR) finalisation are under progress and are expected to be finalised soon
- ii. Land acquisition, property survey and socio-economic survey shall be taken-up upon finalisation of DPR
- iii. Preparation of EIA/EMP and conducting public hearing

Keeping in view of the project progress and no significant change in any of the project parameters, EAC recommended extending the validity of Scoping/TOR Clearance

for 2 year i.e. from 26.7.2015 to 25.7.2017 to complete all the remaining works within the extended period of validity of TOR. However, the EAC recommended that MoEF & CC follows the stipulations of relevant OM in this regard including fulfilling the requirement of submission of application before 3 months of expiry of the validity.

The meeting ended with vote of thanks to Chair.
