Minutes of the 97th Meeting of the Expert Appraisal Committee (EAC) for River Valley and Hydroelectric Projects held on 26th August, 2016 at Narmada Hall, First Floor, Jal Wing, Indira Paryavaran Bhawan, JorBagh Road, New Delhi – 110 003.

The 97th Meeting of the EAC for River Valley and Hydroelectric Projects (RV & HEP) was held on 26thAugust,2016 at Teesta Hall, First Floor, Vayu Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110 003. Shri Alok Perti, Chairman, RV & HEP chaired the meeting. The list of EAC members and officials/consultants associated with various projects and who attended the meeting is at Appendix.

Agenda Item No.1: Confirmation of Minutes of the 96th Meeting of EAC held during11th and 12thAugust, 2016.

The minutes of the 96th EAC meeting were confirmed after incorporating the corrections made in the Agenda item 2.7. Any other items: a) Attappady Valley Irrigation Project in Pallakkad district, Kerala.

Thereafter, following agenda items were taken up:

Agenda item 2.1. Installation of 6 nos. of Material Ropeways for the construction of Chanju-III 48 MW Hydroelectric Project in Chamba District of Himachal Pradesh by M/s. Himachal Pradesh Power Corporation Ltd. – for consideration of Scoping/ToR.

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Agenda item 2.2. Installation of 5 nos. of Material Ropeways for the construction of Deothal Chanju HEP (30 MW) in Chamba District of Himachal Pradesh by M/s. Himachal Pradesh Power Corporation Ltd - for consideration of fresh Scoping/ToR.

M/sHimachal Pradesh Power Corporation Limited (HPPCL) has a proposal of developing 2 Nos. Hydro Electric Projects viz.

a) Chanju- III HEP (48MW) &

b) Deothal- Chanju HEP (30 MW)inChurah, Chamba district in Himachal Pradesh.

For construction of these Hydro Electric Projects, M/sHPPCL intend to transport construction materials by installing Material Ropeways instead of transporting construction materials through roads.Installation of 6 nos. of Material Ropeways for the construction of Chanju-III HEP (48 MW) and 5 nos. of Material Ropeways for the construction of Deothal Chanju HEP (30 MW)has been envisaged.EAC was informed that if both the roadsto be constructed, 27.5 kmlong road for the Chanju III and 15 km long road for the Deothal Chanju Project would be constructed, i.e. total of 42.5 kmlong road. However, if the Material Ropeways are to be installed for the construction purpose, the total road construction shall reduce to 7.5 km only.

New road construction only for the project components shall require formation cuttings within the forestland and shall be adversely affect the environment. However, with the construction of these Ropeways, the diversion of forestland and its intervention can be minimized. The Ropeways will move aerially, forestland shall be required only at the loading and unloading stations i.e. a size of 20x30 m area and for the towers to be constructed only a size of 5x5 m area. The Ropeways will be required during the construction of the hydro power projects which are expected to be completed within 2-3 years, after that, only a few ropeways will be kept in operation and rest will be

dismantled. Materials to be transported through the ropeways include - Construction Material, Machinery for construction, Butterfly valve, Penstocks, etc.

The details of the Material Ropeways are as follows:

i) INSTALLATION OF 6 Nos**.** MATERIAL ROPEWAYSFOR CHANJU III HEP (48 MW)

S. No.	Description	Horizontal Length (m)	Level Difference (m)	Nos. of intermediate Towers	Pay Load Capacity (MT)	Line Speed (m/s)	Motor Rating (kW)
1.	Ropeway – 1 (R1)	741.174	144.015	-	2.0	2.0	50
2.	Ropeway – 2 (R2)	899.552	165.592	-	2.0	2.0	50
3.	Ropeway – 3 (R3)	851.738	167.845	-	2.0	2.0	50
4.	Ropeway – 4 (R4)	897.544	36.317	-	2.0	2.0	37
5.	Ropeway – 5 (R5)	1117.221	25.617	-	2.0	2.0	37
6.	Ropeway – 6 (R6)	947.875	203.161	-	3.5	2.0	90

Location Coordinates

Loading Stations:

Sl. No.	Description	N (M)	E (M)
1.	Ropeway – 1 (R1)	3619768.088	623741.293
2.	Ropeway – 2 (R2)	3619682.957	623435.602
3.	Ropeway – 3 (R3)	3619761.874	623013.548
4.	Ropeway – 4 (R4)	3620179.169	621990.491
5.	Ropeway – 5 (R5)	3620387.416	621455.380
6.	Ropeway – 6 (R6)	3620861.945	619746.185

Unloading Stations:

Sl. No.	Description	N (M)	E (M)
1.	Ropeway – 1 (R1)	3619032.461	623831.801
2.	Ropeway – 2 (R2)	3618796.986	623279.879
3.	Ropeway – 3 (R3)	3618964.278	622714.721
4.	Ropeway – 4 (R4)	3619297.818	621820.767
5.	Ropeway – 5 (R5)	3619869.696	620465.355
6.	Ropeway – 6 (R6)	3619914.225	619763.336

ii) INSTALLATION OF 5 Nos. MATERIAL ROPEWAYS AT DEOTHAL CHANJU HEP (30 MW) ALONG WITH 6 Nos. LONGITUDINAL FEEDER MATERIAL ROPEWAYS

S. No.	Description	Horizontal Length (m)	Level Difference (m)	Number of Intermediate Towers	Pay Load Capacity (MT)	Line Speed (m/s)	Motor Rating (kW)
1.	Ropeway – 1(DR1)	218.198	89.841	1	2.0	2.0	60
2.	Ropeway – 2(DR2)	404.062	200.186	2	2.0	2.0	75
3.	Ropeway – 3(DR3)	804.935	269.291	1	2.0	2.0	60
4.	Ropeway – 4(DR4)	1165.428	404.308	1	2.0	2.0	60
5.	Ropeway – 5(DR5)	908.843	410.394	-	3.0	2.0	110

Ropeways For Deothal Chanju HEP (30 MW) – Connecting all the take off Points up tothe Trench Weir (Right Bank Of River)

S. No.	Description	Horizontal Length (m)	Level Difference (m)	Number of Intermediate Towers	Pay Load Capacity (MT)	Line Speed (m/s)	Motor Rating (kW)
1.	SECTION – I	920.000	155.608	2	2.0	2.0	60
2.	SECTION –II	761.720	105.606	4	2.0	2.0	60
3.	SECTION –III	790.840	75.000	4	2.0	2.0	50
4.	SECTION –IV	2244.260	127.614	2	2.0	2.0	60
5.	SECTION –V	456.922	30.022	1	2.0	2.0	60
6.	SECTION – VI	1200.00	143.022	5	3.0	2.0	75

Location Coordinates

Loading Station:

S. No.	Description	N (M)	E (M)
1.	Ropeway – 1 (DR1)	3616087.990	628248.780
2.	Ropeway – 2 (DR2)	3616641.860	627725.860
3.	Ropeway – 3 (DR3)	3617298.440	627285.030
4.	Ropeway – 4 (DR4)	3619130.010	625988.090
5.	Ropeway – 5 (DR5)	3619300.210	625564.050

Connecting all the take off points up to Trench Weir (Right Bank Of River)

S.No.	Description	N (M)	E (M)
1.	Section – I	3616087.990	628248.780
2.	Section – II	3616641.860	627725.860
3.	Section – III	3617298.440	627285.030
4.	Section – IV	3619130.010	625988.090
5.	Section – V	3619300.210	625564.050
6.	Section – VI	3619844.921	624494.802

Unloading Stations:

S. No.	Description	N (M)	E (M)
1.	Ropeway – 1 (DR1)	3615876.469	628195.215
2.	Ropeway – 2 (DR2)	3616334.282	627463.826
3.	Ropeway – 3 (DR3)	3616678.284	626771.878
4.	Ropeway – 4 (DR4)	3618009.495	625667.671
5.	Ropeway – 5 (DR5)	3618404.330	625411.101

Connecting all the take off pints up to the Trench Weir (Right Bank Of River)

S.No.	Description	N (M)	E (M)
1.	Section – I	3615406.171	628866.456
2.	Section – II	3616087.990	628248.780
3.	Section – III	3616641.860	627725.860
4.	Section – IV	3617298.440	627285.030

5.	Section – V	3619130.010	625988.090
6.	Section – VI	3619300.210	625564.050

The EAC after detailed deliberation, recommended the TOR for preparation of EIA/EMP report based on the three seasons data.

Agenda item 2.3. Sindh (Seondha) Barrage Project in Datia district of Madhya Pradesh by M/s. Water Resources Department, Government of M.P.-**for Reconsideration of fresh Scoping/ToR.**

The project proponent did not attend the EAC meeting. Thus, the project deferred for the next EAC meeting.

Agenda item 2.4. Tubachi-Bableshwara Lift Irrigation Scheme in Bagalkot District of Karnataka by M/s. Karnataka Neeravari Nigam Ltd., Government of Karnataka- for Reconsideration of Environmental Clearance.

Earlier, the project was considered in the 96thEAC meeting held on 12.08.2016 wherein, the Project Proponents were asked to submit the following documents:

1. Orders from Government of Karnataka in respect of 1 TMC of water allocation for the project shall be submitted. No objection from the lower riparian State i.e. Andhra Pradesh shall be submitted by the Project Proponent.
2. Permission for firm power linkage from the concerned authorities be obtained and submitted to MoEF&CC.

In response to the above, project proponent submitted the order of the Principal Secretary, Water Resource Deptt., Govt. of Karnataka and informed that the total 3.8 TMC of water is allocated for the scheme (2.80 TMC under allocation available from Indirasagar-Pollavaram diversion scheme and 1 TMC out of en-block allocation made by Krishna Water Dispute Tribunal (KWDT)-1 award. Further, Chief Engineer, Irrigation North Zone, KNNL informed that the additional 1 TMC for the project is within the state allocation and NOC from the lower riparian state is not required. Project proponent also submitted the firm power linkage accorded for the project by Govt. of Karnataka as desired by the EAC.

After detailed deliberation, the EAC recommended the project for issue of environmental clearance after submission of the water balance statement of 176 TMC of the river and the following conditions shall be implemented during construction phase:

1. Government of Karnataka shall ensure that the additional 1 TMC of water is within the state allocation of KWDT-1 award.This would also be confirmed by the CWC.
2. All commitments made during the Public Consultations shall be implemented judiciously.
3. Six monthly compliance reports shall be submitted to the Regional Office, MoEF&CC, Bengaluru as per the EIA Notification, 2006 till completion of the project and the same along with monitored data shall be uploaded in the website of the company as a part of information to the General Public.
4. Land acquired for the project shall be suitably compensated with the prevailing guidelines and all commitments made during the public hearing shall be fulfilled.

5. Periodical soil health shall be verified in command area during operation phase to ensure the maintenance of soil fertility.

Agenda item 2.5. Kundaliya Major Multipurpose Irrigation Project (Phase-II) for additional command area, Madhya Pradesh by M/s Water Resources Department, Government of Madhya Pradesh – For approval for ToR / Scoping for additional command area.

Project Proponent informed the committee that the Kundaliya Major Irrigation Project proposed by MPWRD on river Kalisindh along with diversion of water from its tributary i.e. river Lakhundar. Phase-I Kundaliya Major Multipurpose Irrigation Project was appraised during 70th, 71st and 77thEAC meetings held during 10.12.2013-11.12.2013, 20.1.2014-21.1.2014 and 16.09.2014-17.09.2014, respectively and was accorded Environmental Clearance by MoEF&CC vide letter No. J-12011/42/2011-IA-I, dated 14.01.2015.Diversion of 680 ha of forestland has also been taken from the Ministry.

Project proponents submitted that as Micro Irrigation allows efficient use of water almost doubling the irrigation area with same units of water, the Government of Madhya Pradesh is keen to adopt Micro Irrigation projects instead of Canal Irrigation in all the new major and medium projects.

The Gross Command Area as covered by the Environment Clearance for Kundaliya Major Irrigation Project of Madhya Pradesh could beserved byonly 45-50% ofthe water needed undercanal / floodirrigation.

With this background, the PP requested to allow forusingMicroIrrigation fortheapproved GCA. Withtheadoption ofMicroirrigation, it is expected about200MCMwatercanbesaved whichwould be available in Kundaliya Major Irrigation Project for covering the additional command area.

After the detailed presentation, and considering that Dam features and submergence area is not changing and the irrigation methodology from flood/canal to micro irrigation is proposed; EAC recommended the approval of the Terms of Referencein line with the TOR of the main project except that for preparation of EIA Study report based on one season data (preferably winter season) for the additional command area would be adequate along with the conduct of Public Hearing in the affected areas.

Agenda item 2.6. Kundalia Major Irrigation Project in Madhya Pradesh – for **amendment of Environment Clearance**.

Kundaliya Major Irrigation Project proposed by MPWRD on river Kalisindh along with diversion of water from its tributary i.e. river Lakhundar. Kundaliya Major Irrigation Project and was appraised during 70th, 71st and 77th EAC meetings held during 10-11 December, 2013, 20-21 January, 2014 and 16-17 September, 2014, respectively. The EAC recommended the above proposal for grant of EC for CCA of 58,000 ha with canal irrigation system. The EC was issued to the PP vide letter No. J-12011/42/2011-IA-I, dated 14.01.2015.Diversion of 680 ha of forestland has also been taken from the Ministry.

The PP later on submitted a proposal to increase the CCA from 58,000 ha to 1,25,000 ha with 130% cropping intensity by adopting the micro irrigation (drip and sprinkler) technology from canal irrigation technology to increase the project-level efficiency. The proposal was placed before the EAC in its 95th meeting held in July,2016 and the EAC recommended theTOR for preparation of EIA/EMP report based on the three seasons data for the total command area including additional command area, followed by Public Hearing along with the following recommendation:

"*In view of this, the PP has to take a call whether fresh TOR has to be given for*

- *CCA increased from 58,000 to 1,25,000 ha with 130% cropping intensity.*
- *Micro irrigation (drip and sprinkler) to increase project-level efficiency.*
- *Solar plant to reduce energy costs and support climate change mitigation (be energy neutral).*

which will lead to stoppage of ongoing work as EC will be null and void."

As the EC granted by MoEF&CC vide letter No. J-12011/42/2011-IA-I, dated 14.01.2015 shall become null and void because of grant of ToR forthe increased CCA from 58,000 to 1,25,000 ha, the PP again applied to the MoEF&CC for change of technology of irrigation i.e. Canal/Flood Irrigation to Micro Irrigation in the existing CCA of 58,000 ha.

While appraising in the present EAC meeting, the PP informed the committee that the project is under construction and reservoir is expected to be complete during the FY 2017-18.

The project proponent requested amendment in the EC accorded in 14.01.2015 for change of technology i.e. from canal/flood irrigation to micro irrigation. Project proponent further requested that with micro irrigation technology arable area, farther to within the command area being at higher elevation too could be irrigated. Therefore, additional area within the same GCA be allowed for irrigation.

EAC after detailed deliberation and considering that Micro irrigation being water efficient and a better irrigation technology and can irrigate more areas from the same water usage, recommended the change of technology from flood irrigation to micro irrigation for the same CCA of 58,040 ha, out of the total GAC of 82,625 ha.EAC also recommended allowing irrigation within the given GAC of 82,625 ha subject to the condition that increase irrigation area would remain within 10% of 58,040 ha that allowed earlier in the EC given on 14.01.2015.

Agenda item 2.7. Cumulative Impact Assessment & Carrying Capacity Studies of Lohit River Basin Studies in Arunachal Pradesh-Consideration of Draft Report.

The project proponent made a detailed presentation on Lohit Basin study after inclusion of Anjaw HEP on the Lohitriver. This project had not figured in the recommendations made by the study in the previous presentation made before the EAC. It appears that the study included this HEP but inadvertently it was missed out in the last 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 Basin Study Reports study was discussed by EAC in its various meetings. The responses to comments of various NGOs were discussed in various EAC meetings.

The list of hydroelectric projects covered in the Basin Study of river Lohit and its tributaries is given in Tables-1 and 2 respectively.

Table-1: List of hydroelectric projects covered in the Basin Study of river Lohit.

S. No	Project Name	Capacity (MW)	Project Proponent
1	Kalai-I HEP	1450	Mountain Fall India Private Limited
2	Kalai-II HEP	1200	Kalai Power Private Limited
3	Hutong-I	750	Project yet to be allotted
4	Hutong-II	1250	Mountain Fall India Private Limited
5	Anjaw HEP	270	LohitUrja Limited
6	Demwe Upper HEP	1080	LohitUrja Limited
7	Demwe Lower HEP	1750	Athena Demwe Power Private Limited

Table-2: List of hydroelectric projects on the tributaries of river Lohit.

S.No	Project Name	Tributary	Capacity as per approved TOR (MW)	Capacity as per PFR, Project Reports, etc. (MW)	Project Proponent
1	Gmiliang HEP	Dav	99	88.5	SaiKrishnodaya Industries(P) Ltd.
2	Raigam HEP	Dalai	96	195	SaiKrishnodaya Industries(P) Ltd.
3	Tidding- I HEP	Tidding	98	84.5	SaiKrishnodaya Industries(P) Ltd.
4	Tidding- II HEP	Tidding	68	75	SaiKrishnodaya Industries(P) Ltd.
5	Kamlang HEP	Kamlang	21	24.9	SaiKrishnodaya Industries(P) Ltd.

The detailed presentation on the findings of terrestrial ecology, aquatic ecology, fauna and avifauna has been revealed. The design flow series for the various hydroelectric projects on main Lohit River along with its tributaries was also shown during the presentation.

The recommendations of the basin study are given as below:

a) Construction of the hydroelectric projects would lead to conversion of free flowing river into a series of reservoirs interested with dams/diversion structure of various hydroelectric projects.
b) As present, free flow stretch will be available for a stretch of 19.1 km out of a total stretch of 109 km.
c) It is recommended to drop Hutong stage 1 HEP, so that free flowing river stretch increases to 49.9 km.
d) Hutong stage 1 HEP was recommended to be dropped as it is at the elevation where both Mahaseer and Snow Trout are observed. The dropping of the project will provide the free

stretch of 19.1 km for migration of both these species. The site is also not geologically stable. Hence, it is recommended to drop the Hutong-I HEP.

e) Free stretch for more than 1 km is available in HEP's located in tributaries
f) All the projects on tributaries are recommended for development, with no change in operating level
g) The recommended Environmental Flows for various HEPs main river Lohit and its tributaries are given in Table below.

The recommended Environmental Flows of Discharge for 90% dependable year for various HEPs on Lohit River is as below:

Month	Kalai HEP Stage-1	Kalai HEP Stage-II	Hutong HEP Stage-2	Anjaw HEP	Demwe Upper HEP	Demwe Lower HEP
Monsoon Season	21% (162.26 m3/s)	20% (163.48 m3/s)	22% (293.54 m3/s)	20% (162.56 m3/s)	20% (215.13 m3/s)	20% (225.93 m3/s)
Lean season	18% (42.09 m3/s)	15% (39.71 m3/s)	18% (51.22 m3/s)	15% (44.73 m3/s)	15% (54.19 m3/s)	15% (56.89 m3/s)
Non-Monsoon non lean season* (April-May)	21% (118.9 m3/s)	20% (103.60 m3/s)	21% (140.06 m3/s)	20% (133.33 m3/s)	20% (158.07 m3/s)	20% (166.0 m3/s)
Non-Monsoon non lean season* (October-November)	21% (81.97 m3/s)	20% (90.67 m3/s)	21% (84.11 m3/s)	20% (90.41 m3/s)	20% (94.37 m3/s)	20% (99.02 m3/s)

Note: Minimum depth for fisheries is not available even with 100% flow in pre project scenario. In such a scenario, top width has been considered.

The recommended Environmental Flows of Discharge for 90% dependable year for various HEPs on the tributaries of river Lohit is as below:

Month	Gmiliang HEP	Raigam HEP	Tidding-I HEP	Tidding-II HEP	Kamlang HEP (75% dependable year)
Monsoon Season	30% (7.61 m3/s)	30% (34.17 m3/s)	30% (15.75 m3/s)	30% (12.61 m3/s)	20% (31.47 m3/s)
Lean season	20% (1.75 m3/s)	20% (7.77 m3/s)	20% (3.62 m3/s)	20% (2.90 m3/s)	12-15% (2.16m3/s-2.70 m3/s))
Non-Monsoon non lean season* (April-May)	25% (4.19m3/s)	25% (18.67m3/s)	25% (8.66 m3/s)	25% (6.93 m3/s)	20% (10.43 m3/s)
Non-Monsoon non lean season* (October-November)	25% (3.65m3/s)	25% (16.23m3/s)	25% (7.54 m3/s)	25% (6.04 m3/s)	20% (8.57 m3/s)

Note: Minimum depth for fisheries is not available even with 100% flow in pre project scenario. In such a scenario, top width has been considered.

Regarding impact of peaking power operations on Dibru Saikhowa National Park, consultant

informed the EAC that WAPCOS have also carried out the **"Assessment of Impact of Peaking Power Operations of Dibang, Siang Lower and Damwe Lower HEPs on Dibru Saikhowa National Park"** as a part of Environmental Clearance for Dibang Multipurpose project. The study compares the scenarios before construction of the projects and during peaking power operations of all the three HEPs operating simultaneously in peaking mode. The study concluded that maximum water level variations for the two scenarios are within 1 m when all projects will be working simultaneously. The water level was observed to be well below the minimum elevation of Dibru-Saikowa National Park even when the three projects will be working simultaneously in peaking mode.This issue was discussed in detail during the 77th EAC held on 16th and 17th September 2014. Other observations regarding dropping of Hutong HEP and reconciliation of list of Avifauna have been adequately addressed in the report.

After the detailed deliberations, Expert Appraisal Committee recommends the approval of Lohit Basin Report.

Agenda item 2.8. Review of 4 projects (Hirorng, Tato-II, Naying and Siyom Middle HEPs on Siyom River) in Siang River Basin Studies- Consideration of Draft Report.

Cumulative Impact Assessment and Carrying Capacity Study of Siang Sub-basin including Downstream Impacts has been carried out by M/s RS Envirolink Technologies Pvt. Ltd., Gurgaon, for which draft report was submitted to CWC in August, 2013 and final report during December, 2013. Final report was discussed in 72nd EAC meeting held during February 2014, thereafter it was shared with the state Govt. and also presented to sub-committee of EAC at Itanagar on 7th and 8th May, 2014. Govt. of Arunachal Pradesh raised their concerns on the Siang Basin Study Report. They objected to recommendations on dropping of projects; reducing FRL of three projects on Siyom river; on avoiding diversion of Sittin Nalla for Hirong HEP and on environmental flow release.Final report was reviewed and accepted in 75th meeting of EAC held during July 2014.

Thereafter, a high level team headed by CEO of Niti Ayog, visited Arunachal Pradesh on May 31, 2016, and reviewed the development of HEPs in Arunachal Pradesh. Again the matter was reviewed by Niti Aayog on June 15, 2016 and asked MoEF&CC to re-examine the projects recommended to be dropped/ modified in Siang River Basin Study.

Thereafter, a meeting was convened at MoEF&CC with State Government and other Stake holders on 29-30th August, 2016. During the meeting it was suggested to review the 4 projects on Siyomriver. Accordingly, Consultant submitted a detailed re-assessment report on the following points:

1. Two HEPs on Siyom river viz. Jarong and Taiyong have been dropped by state government, therefore, presently there are four planned projects on Siyom river instead of 6 planned projects as considered in Siyom river.
2. Gradient profile of Siyom river have been updated based on 1-2m contour interval, whereas it was prepared earlier based on SOI topo-sheets with 40m contour interval.
3. State government and developer have proposed to divert the Sittin Nalla only during the four monsoon months, with a maximum cap of 25 cumec.

4. Live storage of Siyom Middle HEP is 44.75 MCM instead of 153.42 MCM as considered in Siang basin study report.
5. Yammeng HEP (20 MW), was not included in the Siang basin study report as the project was allotted during August 2013, when draft report was submitted and no information was available to consultant about this project.

After detailed deliberations, EAC recommended the following on review of 4 projects (Hirorng, Tato-II, Naying and Siyom Middle HEPs on Siyom River) in Siang River Basin Studies.

1. Tato II and Naying HEPs can be developed in the present form without any reduction of FRL.
2. Siyom Middle HEP needs to reduce the FRL by 10m to create free flow river stretch between FRL of Siyom Middle and TWL of Naying HEP
3. Hirong HEP can be allowed to divert Sittin Nalla during four monsoon months only viz. June, July, August and September up to a maximum limit of 25 cumec and during this period. Environment flow in Sittin Nala will be maintained as 20% of average discharge during four monsoon months based on 90% dependable year. This aspect of diversion only during monsoon months along with provision of environment flow during this period should be built into the project design.
4. Environment flow release recommendation as mentioned in Siang Basin Study report shall be implemented for Naying, Tato II and Hirong HEPs without any relaxation.
5. Environment flow release for Siyom Middle HEP shall be maintained at 20% of average discharge in four leanest months based on 90% dependable year through an un-gated opening throughout the year. Further, one turbine should be running continuously throughout the year. This should be incorporated in the revised project design and DPR updated accordingly.
6. Yammeng HEP (20 MW) can be allowed for development in Siang basin.

Agenda item 2.9. Any other item with the permission of the Chair.

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

The project had been earlier taken up for discussion in the 91st EAC meeting held on 08thFebruary, 2016. EAC had decided that a Sub-committee shall undertake a site visit, meanwhile the project proponent shall get the flow of Satluj River measured for the present season (lean season) at Nathpa (just downstream of NJHEP Dam), Jhakri (intake for Rampur HEP), Rampur town and downstream of village Bael (downstream of Rampur HEP Tail Race) and present the report during the site visit of the Sub-Committee.

The Sub-committee visited the Rampur HE Project site from 21to 23 August, 2016. During the visit, the Project Proponent shared the discharge data collected for the designated locations and Sub-committee visited the sites to understand the operation of Rampur Project in tandem with NathpaJhakri Project. The Sub-committee also inspected the four designated discharge measurement sites. The Project Proponent presented the case before the members of the Sub-Committee and shared the flow data compiled for the designated discharge sites.

The report of the Sub-committee was placed before the EAC. The recommendations were discussed. The EAC noted that Rampur Project is designed to operate in tandem with 1500 MW Nathpa Jhakri Hydro Project, there is no Dam and the intake is located within the tail pond of Nathpa Jhakri Outfall structure at Jhakri. The water is directly taken to a surface Power House located at village Bayal in District Kullu of Himachal Pradesh through a 15.177 km long Head Race Tunnel; without any interference with River Satluj water (no drawl, usage or consumptive use is made at all by Rampur Project). The EIA report prepared for the Project does mention that the total lean season discharge of all the tributaries joining Satluj river from Nathpa to Jhakri (start point of Rampur Project) and upstream of Rampur Town is 23.7 cumec.

Nathpa Jhakri HE Project is releasing the mandatory discharge as per notification of H.P.State Government i.e. 15% of the minimum flow observed in the lean season, for which an online monitoring system has already been installed at Nathpa dam.

EAC deliberated the matter and was of the view that the specific condition at Sl. No. (vi) of Environment Clearance letter dated 31.03.2006 that "during lean season 23.7 cumec water should be made available in the released downstream of the dam for immediately aquatic life" is not valid for Rampur HE Project. Accordingly, the condition at Sl. No. (vi) of Part A of EC letter dated 31.03.2006 now stands modified to:

"PP shall install an online monitoring facility to record the discharge of Satluj river at the downstream of Jhakri on a regular basis to generate a time-series data round the year."

b) Corrigendum in the Agenda item 2.7. Any other items:- a)ATTAPPADY VALLEY IRRIGATION PROJECT IN PALLAKKAD DISTRICT, KERALA discussed in 96th EAC meeting

The EAC took note of the contents of the last Para of the above agenda item as mentioned in the 96th EAC minutes, which had been inadvertently mentioned. The content may be read as:

The EAC took note of no response from the Tamilnadu state inspite of letters written by Government of Kerala to the Government of Tamilnadu and recommended grant of Standard ToR with the following additional conditions:

Instead of

The EAC took note of no responses from the Tamilnadu state in spite of several letters and reminders sent from the Government of Kerala and MoEF&CC to the Government of Tamilnadu and recommended grant of Standard ToR with the following additional conditions:

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

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