**Sub.:** Proposal for diversion of **additional area of 4.2 ha of forest land** (PH & Barrage Quarry of 0.5 ha and Muck Access road of 3.7 ha) in respect of Heo Hydro Electric Project (240 MW) being developed by M/s Heo Hydro Power Private Limited in West Siang District of Arunachal Pradesh.

#### and

Diversion of 52.80 ha of forest land (surface forest land-47.1 ha, reiverbed-2.3 ha & underground area-2.8 ha) for construction of Tato-I Hydro Electric Project (186 MW) in West Siang District of Arunachal Pradesh -change in location of PH quarry site of 0.5 ha. from Heyo to Padusa village and intake quarry of 0.3 ha from Gapo to Meying village.

The Govt. of Arunachal Pradesh vide their letter For.322/Cons/2010/Part/3806-809 dated 21.11.2018 forwarding a proposal for seeking diversion of **additional 4.2 ha of forestland for construction of Heo Hydro Electric Project** (240 MW) in West Siang District of Arunachal Pradesh by M/s Heo Hydro Power Private Limited. This proposal was discussed in Forest Advisory Committee (FAC) meeting held on 22.05.2019 and minutes of meeting is placed in file.

- With regard to a proposal for diversion of 52.80 ha of forest land (surface forest land-47.1 ha, 2. reiverbed-2.3 ha & underground area-2.8 ha) for construction of **Tato-I Hydro Electric Project** (186 MW) in West Siang District of Arunachal Pradesh of the same company, State Govt. of Arunachal Pradesh vide their letter No, FOR. 313/Cons/2010/636-637 dated 26.04.2019 provided certain information in connection with CA and informed that that a proposal has been submitted by M/s Siyota Hydro Power Private limited seeking permission for relocation of "PH quarry site of 0.5 ha from Heyo to Padusa village and "Intake quarry site" of 0.3 ha from Gapo to Meying village as it do not fulfill the technical requirement of the project and found not useful for construction purpose. These quarries have been proposed to be relocated with same area to Padusa & Meying village respectively. The said relocated new two quarry sites fall in Unclassified State Forest (USF) and there is no change in diversion of forest land of 52.8 ha for construction of Tato-I Hydro Electric Project (186 MW). The proposed change in land & layout plan is against the spirit of conditions mentioned at S. No. xiii & xiv of Ministry's In-principle approval letter dtd. 27.10.2015. In view of above, the approval of this Ministry is required for change in location of PH quarry site of 0.5 ha. from Heyo to Padusa village and intake quarry of 0.3 ha from Gapo to Meying village. This proposal was also discussed in Forest Advisory Committee (FAC) meeting held on 22.05.2019 and minutes of meeting is placed in file.
  - **3.** Both the above referred proposals were considered by the Forest Advisory Committee (FAC) Meeting on 22.05.2019 and after thorough deliberation and discussion FAC decided that:
    - **i.** Regional Office, Shillong shall inspect the area and submit a detail report related to area required to be deleted or added to the forest land which has already been granted *In-Principle* approval.
    - **ii.** The Status of quary sites which the user agency had proposed to be abandoned due to geological studies, may be ascertained. Regional office may clearly give recommendation if that area can be taken out of the purview of *In-Principle* approval granted earlier to the project and managed under regular management of the forest department or the user agency has to keep the area within the project and maintain as a green belt. The requirement of CA area can be calculated accordingly.
    - **iii.** Regional office may also see the option of approach roads to the newly proposed query sites. It may be checked if the area of approach road is also a part of the proposal.
    - iv. Regional office may see all three HEPs of the same company. The user agency had proposed reappropriation of area of these projects. The requirement of CA need to reassessed and reported accordingly.

- **v.** State government in consultation with Regional Office, Shillong may submit exact requirement of area along with shape files so that the *in-principle* approval granted to the project can be modified accordingly.
- vi. The area proposed to be added may also be analysed on DSS.
- **4.** Based on the above stated recommendation of FAC, the State Government vide this Ministry's letter dated 19th June 2019 requested to furnish the information on the point (v) above and Regional Office of MoEF&CC, Shillong was requested to send SIR along with detailed report as sought by the Forest Advisory Committee (FAC) to this Division for further consideration of the proposal.
- 5. State Govt. vide their letter no.For.322/Cons/2010/300-07 dated 31.01.2020 forwarded their response to DDG,RO Shillong.
- **6.** It is imperative to mention that the Ministry accorded Stage-I approval for three HEP Projects of the same company during 2015 for which the compliance report from State Govt. of Arunachal Pradesh has not yet received. The details of these projects are as under:

S.N.	Subject	Sanction No. and Date of In-principle approval	Remarks
	Diversion of <b>55.7 ha of forest land</b> (Surface forests land = 47.1 ha, Riverbed = 5.9 ha & underground area = 2.7 ha) in favor of M/s Heo Hydro Power Pct. Ltd., New Delhi for construction of Heo Hydroelectric Project (240 MW) in West Siang District of Arunachal Pradesh - reg.	No.8-94/2013-FC dated 27.10.2015	The State Govt. vide this Minsitry's letter dated 14.06.2018 (Pg.625 ToC) requested to provide condition-wise compliance and shape file/KML file for additional CA land being proposed in lieu of proposed diversion. Reply awaited.  Proposal for additional land of 4.2 ha discussed in FAC on 22.05.2019 as stated above.
2	Diversion of <b>52.80</b> ha of forest land (surface forest land-47.1 ha, reiverbed-2.3 ha & underground area-2.8 ha) for construction of Tato-I Hydro Electric Project (186 MW) in West Siang District of Arunachal Pradesh.	No. 8-102/2013-FC dated 27.10.2015	Proposal for change in location of PH quarry site of 0.5 ha. from Heyo to Padusa village and intake quarry of 0.3 ha from Gapo to Meying village discussed in FAC on 22.05.2019 as mentioned in para(2) above. Based on the recommendation of FAC,The State Govt. vide this Minsitry's letter dated 19.06.2019 requested for compliance.
	Diversion of <b>91.70</b> ha of forest land (Surface forests land=79.10 ha, Riverbed=9.30 ha & Underground area=3.30 ha) for construction of Pauk Hydro Electric Project (145 MW) by M/s Pauk Hydro Power Pvt. Ltd in West Siang District of Arunachal Pradesh reg.	No. 8-71/2014 – FC d ate 27.10.2015	The compliance awaited from State Govt. on the conditions stipulated in Minsitry's letter dated 27.10.2015  As per rules, the compliance has to be received by October,2020.

7. The Regional Officer, Shillong vide their letter dated No. 8-102/2013-FC/4230 dated 13.03.2020 refereing Ministry's letters No.8-94/2013-FC dated 19.06.2019 and 8-102/2013-FC dated 19.06.2019 informed that the site visit of three HEPs has been carried out during 18&19 November,2019 and forwarded their report for further necessary action. The SIR is reproduced below:

REPORT OF THE SITE VISIT OF TATO-I HEP, HEO HEP AND PAUK HEP CARRIED OUT BY REGIONAL OFFICE SHILLONG

**BACKGROUND:** The user agency, Velcan Energy, is developing following three Hydro-Electric projects in cascade on River Yarjep in Shi Yomi District (Previously West Siang District), of Arunachal Pradesh. These projects are:

- Pauk HEP (145 MW), being implemented by Pauk Hydro Power Pvt Ltd
- Heo HEP (240 MW), being implemented by Heo Hydro Power Pvt Ltd
- Tato-I HEP (186 MW), Being implemented by Siyota Hydro Power Pvt Ltd

### Area Applied for Forest Clearances for each of the Project is given below:

Table:1: Statement of area Applied for and granted IPA

	Surface Land (Ha)	Riverbed (Ha)	Underground (Ha)	Total (Ha)
Tato-I HEP	47.7	2.3	2.8	52.8
Нео НЕР	47.1	5.9	2.7	55.7
Pauk HEP	79.1	9.3	3.3	91.7
Total	173.9	17.5	8.8	200.2

As per the above earlier submission of the User Agency, the In-Principle Approval for the three HEPs were granted by Ministry vide letters mentioned below: -

Sl. No.	Name of the proposal	Area (ha)	Letter and date of the In Principle Approval
1	Diversion of 52.80 ha of forest land(Surface forests land		Letter F.No. 8-102/2013-
	=47.1 ha, Riverbed =2.3 ha & Underground area= 2.8 ha)		FC dated 27.10.2015
	for construction of Tato-I H.E.P. Project (186 MW) in West	52.80	
	Siang District of Arunachal Pradesh by M/s Siyota Hydro		
	Power Private Limited.		
2	Diversion of 55.70 ha of forest land(Surface forests land		Letter F.No. 8-94/2013-FC
	=47.1 ha, Riverbed =5.9 ha & Underground area= 2.7 ha)		dated 27.10.2015
	for construction of Heo H.E.P. Project (240 MW) in West	55.70	
	Siang District of Arunachal Pradesh by M/s Heo Hydro		
	Power Private Limited.		
3	Diversion of 91.70 ha of forest land (Surface forests land		Letter F.No. 8-71/2014-FC
	=79.10 ha, Riverbed =9.30 ha & Underground area= 3.30		dated 27.10.2015
	ha) for construction of Pauk H.E.P. Project 91.70(145 MW)	91.70	
	in West Siang District of Arunachal Pradesh by M/s Pauk		
	Hydro Power Private Limited.		

Now User Agency has sought changes in the area of the three HEPs for which the FAC has examined and the Ministry has sought for a fact check through a Site Visit to ascertain the details of the request made by the User Agency and to make recommendations as per the mandate below:

- **i.** Regional office Shillong shall inspect the area and submit a detail report related to area required to be deleted or added to the forest land which has already been granted *in-Principle* approval.
- **ii.** The Status of quarry sites which the user agency had proposed to be abandoned due to geological studies may be ascertained. Regional office may clearly give recommendation if that area can be taken out of the purview of *In-Principle* approval granted earlier to the project and managed under regular management of the forest department or the user agency has to keep the area within the project and maintain as a green belt. The requirement of CA area can be calculated accordingly.
- **iii.** Regional office may also see the option of approach roads to the newly proposed quarry sites. It may be checked if the area of approach road is also a part of the proposal.

- **iv.** Regional office may see all three HEPs of the same company. The user agency had proposed re-appropriation of area of these projects. The requirement of CA needs to reassessed and reported accordingly.
- **v.** State Government in consultation with Regional office, Shillong may submit exact requirement of area along with shape files so that the *in-principle* approval granted to the project can be modified accordingly.

The site visit has been carried out and 19 <sup>th</sup> & 20 <sup>th</sup> November, 2019 accompanied by the Mr Abhinav Kumar, DFO Aalo, Mr. James T. Singh, Research Officer from Regional Office and accompanied by the representatives from the user agencies. The user agency has provided a detailed and comprehensive presentation on the night of the 18 November, 2019 wherein it has clearly explained the location of the three HEPs, the reason for the change in the area and other details. It may be mentioned that the three HEPs are located in very difficult area and visit to all the possible sites were made but the inaccessible terrain renders visit to all spots very time consuming. After the site visit it was seen that some additional information would be required to prepare a comprehensive report.

The Regional Office, Shillong vide letter No. 8-94/2013-FC/3040-42 dated 27.11.2019 has requested the State Govt to provide the additional information on the 3 HEP's and the reply on the same was furnished by the State Govt vide letter FOR.322/Cons/2010/300-07 dated 31.01.2020.

### 1. Deletion and Addition of Area:

Area wise break-up as granted under IPA for the 3 projects namely, Tato HEP, Heo HEP and Pauk HEP are given in Table 1 above

The addition and deletion that the User Agency has now desired to make changes within the proposal are as follows:

		<b>Surface Land</b>	0	Riverbed	Underground	Total
		(Ha)	Surface Land	(Ha)	(Ha)	(Ha)
			(Ha)			
Tato-I HEP	Earlier	47.7		2.3	2.8	52.8
	New	47.7	-0.5+0.5	2.3	2.8	52.8
			-0.3+0.3			
Heo HEP	Earlier	47.1		5.9	2.7	55.7
	New	51.3	-0.3+0.3	5.9	2.7	59.9
			-0.3+0.3			
			+3.7,			
			+0.5			
Pauk HEP	Earlier	79.1		9.3	3.3	91.7
	New	74.9	-3.7	9.3	3.3	87.5
			-0.5			
Total		173.9		17.5	8.8	200.2

While the overall area is same, that is 200.2 ha, it may be mentioned that there are six area changes that the UA has requested for, of which four sites are changes from old sites (to be abandoned) to new sites and 2 sites are for re-appropriation in Surface Land area from Pauk HEP to be added to the Heo HEP which are discussed below as per the mandate given by the Ministry:

1. THE STATUS OF QUARRY SITES PROPOSED TO BE ABANDONED DUE TO GEOLOGICAL STUDIES AND TO RECOMMEND IF THAT AREA CAN BE TAKEN OUT OF THE PURVIEW OF IPA GRANTED EARLIER TO THE PROJECT

# AND MANAGED UNDER REGULAR MANAGEMENT OF THE FOREST DEPARTMENT OR THE USER AGENCY TO KEEP THE AREA WITHIN THE PROJECT AND MAINTAIN AS A GREEN BELT.

The User Agency has applied for change of the quarry sites due to unavoidable technical problem, namely, that the rocks from the quarry proposed are not of the required standard. They have substantiated their claim by submitting Petrographic Analysis report of the rock sample from the proposed quarry sites wherein it was found that there is high presence of Calcite and Biotite (Mica) in the material which is said to be not conducive for construction purposes (Annexure- A). The reason for abandonment of old quarry sites seems justified.

With regards to the status of the quarries proposed to be abandoned, it may be mentioned that the state of Arunachal Pradesh is covered with 79.63 % forest cover. Majority of the land is being held by the community and the area which is being proposed to be diverted is a community land. These lands are given the status of USF (Unidentified State Forests) and are being managed by the Community. It is understood that the whole area involved in the proposal is yet to be acquired and the land acquisition process is yet to start. Hence as the area is neither being managed by the Forest Department nor does it belong to the User Agency; it would be wise for the land being surrendered by the User Agency to be deleted from the proposal. This area will continue to be with the Community to be managed by them.

The quarry sites that are proposed to be abandoned by the UA and the status of Green Zone:

Table 3: Sites proposed to be abandoned and status of Green Zone

Project				Justification	Remarks w.r.t. Green Zone		
		lage	in ha				
	Old ( to be abandon ed)	Gapo	0.3	uirement as per petrograp	The old proposed quarry area ha s not been acquired. The forest i s with the Community.		
Tato-I HE	New	Meying	0.3	Approved Quarry of TEC accorded DPR.			
P	Old(to be aband oned)	Нео	0.5	uirement as per petrograp	The old proposed quarry area ha s not been acquired. The forest i s with the Community.		
	New	Padusa	0.5	Approved Quarry of TEC accorded DPR.			
	Old( to be aban doned)	Hiri	0.3	uirement as per petrograp	The old proposed quarry area ha s not been acquired. The forest i s with the Community.		
Heo HE P	New	Lipusi	0.3	Approved Quarry of TEC accorded DPR.			
neo ne r	Old( to be aban doned)	Gapo	0.3	uirement as per petrograp	The old proposed quarry area ha s not been acquired. The forest i s with the Community.		
	New	Meying	0.3	Approved Quarry of TEC accorded DPR.			
	P No site proposed for abandoning/changing. Only re-appropriation of 0.5 ha of quarry area (Chengr ong village) and 3.7 ha road (Hiri village) to Heo HEP. (TEC to Pauk DPR not received as Pauk D PR is under preparation stage).						

Apart from the fact that the areas proposed to be abandoned have never been under the Forest Department nor was it acquired by the UA, it is also found that since the location of the proposal itself is in lush green forests and the sites are not surrounded by polluting activities, the idea of green zone does not seem necessary.

Therefore, the above sites proposed to be abandoned are recommended to be taken out of the purview of the IPAs and the proposed new sites need to be added to be as part of the IPA issued.

# 2. STATUS OF APPROACH ROADS TO THE NEWLY PROPOSED QUARRY SITES AND TO CHECKED IF THE AREA OF APPROACH ROAD IS ALSO A PART OF THE PROPOSAL

The matter of access to the new proposed quarry sites have been examined and it is found that the new sites have been proposed along the existing roads or along the proposed roads which are part of the current proposal. User Agency and the DFO Along have given evidence of the same and the proposed sites have been checked as per the KML files submitted and found to be so. A table reiterating what is stated is given below:

Table 4: New Quarry Sites proposed and status of their Access

Project		Name of Villa ge	Area in Ha	Justification	Remarks regarding Acc ess to New Site
	Old( to be aban doned)	Gapo	0.3	Not meeting technical requiremen t	-
Tato-I HE	New		0.3	Approved Quarry of TEC accorde d DPR.	Adjoining to Proposed H eo PH road.
P	Old(to be aban doned)	Нео	0.5	Not meeting technical requiremen t	-
	- 1 - 11		0.5	Approved Quarry of TEC accorde d DPR.	Adjacent to BRO road (T ato-Mechukha)
	Old( to be aban doned)	Hiri	0.3	Not meeting technical requiremen t	-
Heo HEP	New	•	0.3	Approved Quarry of TEC accorde d DPR.	Adjacent to BRO road (T ato-Mechukha)
нео нег	Old( to be aban doned)	Gapo	0.3	Not meeting technical requiremen t	-
	New	Meying	0.3	Approved Quarry of TEC accorde d DPR.	Adjoining to Proposed H eo PH road.
Pauk HEP	New	Chengrong	0.5	Quarry meets technical standards	Situated along BRO main road

The status of connectivity of the roads can also be checked from the maps enclosed as Annexure B, C and E.

## 3. RE-APPROPRIATION OF AREA OF THE THREE PROJECTS AND ASSESSMENT OF THE REQUIREMENT OF AREA FOR COMPENSATORY AFFORESTATION.

As mentioned earlier, there are six area changes that the UA has requested for, of which four sites are changes from old to new sites and 2 sites are for re-appropriation in Surface Land area from Pauk HEP to be added to the Heo HEP . The details of the two land re-appropriation are as follows:

- 0.5 ha (out of total quarry area of 1 ha) from Pauk Dam quarry site at Chengrong Village is proposed to be re-appropriated to Heo Barrage/PH to compensate demand of the revised barrage design.
- 3.70 ha of access road (out of 12.6 ha proposed under Pauk HEP) branching off from BRO road which caters accessibility to project components of BOTH Pauk HEP and Heo HEP is proposed to be re-appropriated to Heo HEP (As Pauk DPR has been delayed, this road will provide access to Heo HEP's Barrage Muck Disposal Area).
- Therefore 4.2 ha (0.5 + 3.7 ha) of land re-appropriated (deleted) from Pauk HEP and added to Heo HEP. Hence CA land of 8.4 Ha is indentified at Kasin Puttu VFR, Hapoli Forest Division.

Table showing Re-appropriation of area of the Projects from within the IPA approved area:

Table 5: Statement showing the Re-appropriation of area

Name of HEP	Surface Land			Con	ponents	Remarks	
		(Ha)	C	Quarry	Acc	ess Road	
	Earlier	New	Earlier	New	Earlier	New	
Tato-I HEP	47.7	47.7	N	No Change			
Нео НЕР	47.1	<b>51.3</b> (4.2 h added)	0.6 a	1.1 (0.5 added)	3.0	6.7 (3.7 h added)	An area of 3.7 ha access road from Pauk HEP is added to Heo HEP. Also an area of 0.5 ha from Pauk HEP Quarry is added to
Pauk HEP	79.1	<b>74.9</b> (4.2 h deleted)	1.0 a	0.5 (0.5 deleted)	12.6	8.9 (3.7 h) deleted)	─Heo HEP Quarry. na

The Proposed quarry of 1.0 ha under Pauk HEP of which 0.5 ha is to be re-appropriated to HEO HEP is at location Chengrong Village and the GPS location and reading is verified from the shape file submitted and as per map at **Annexure-** C and table given at **Annexure-D** (**Pg.683/ToC**).

The polygon for the change of 3.7 ha from Pauk HEP to Heo HEP being access road to Muck DA has been submitted and the GPS location of the starting and ending point of the road are given as per map at **Annexure-E** and table given at **Annexure-D** 

### REVISED CA AREA REQUIREMENT:

The CA area proposed for the Tato-I and Heo HEPs are given below. However as stated earlier that since the DPR of the Pauk HEP is not completed and that there is likelihood that the area may further change, the CA area of only Tato-I and Heo HEP may be treated as final and the details of Pauk HEP shall be dealt with as and when the DPR is completed.

Table 6: CA Area Requirement for Tato-I and Heo HEPs

Project	Surface Land& River Bed (Ha)	CA as per IPA		Revised CA		Remarks
	47.7+2.3=50	Name of Village	Area	Name of Village	Area	
Tato-I HEP		Chisi VRF	100	Chisi VRF	83	
				Tashi Philly	17	
	Total for Tato		100		100	
	47.1+5.9=53	Chisi VRF	106	Chisi VRF	94	
				Tashi Philly	12	
Heo HEP	4.2			Kasin Puttu (Ago)VFR	8.4	Additional area 4.2 ha from Pauk HEP.
	Total for Heo		106		114.4	

4. STATE GOVERNMENT IN CONSULTATION WITH REGIONAL OFFICE, SHILLONG MAY SUBMIT EXACT REQUIREMENT OF AREA ALONG WITH SHAPE FILES SO THAT THE *IN PRINCIPLE* APPROVAL GRANTED TO THE PROJECT CAN BE MODIFIED ACCORDINGLY.

The exact requirement of the land for the three HEP cannot be ascertained as the Pauk HEP's DPR has not been finalized. The area required may most likely be more than what is currently

proposed and given that 4.2 ha (3.7 and 0.5 ha) is being re-appropriated to the Heo HEP, the status of requirement of land for Pauk HEP cannot be fixed as of now. However, for the Tato I HEP and for the Heo HEP the table below shows the exact requirement of forest land.

The State Government has recommended the proposed area and CA area required as per its letter For.322/Cons/2010/300-07 dated 31/01/2020 attached as **Annexure-F.** 

Table 7: Final area requirement of Pauk HEP and Heo HEP

	Tate	Tato-I HEP		o HEP	Remarks	
	Earlier	Revised	Earlier	Revised		
Surface Land	47.7	47.7	47.1	51.3	With regards to changes within the HEP and reappropriation from Pauk to Heo HEP details given in table 2, 3 and 4	
Riverbed	2.3	2.3	5.9	5.9	No Change	
Underground	2.8	2.8	2.7	2.7	No Change	
	52.8	52.8	55.7	59.9		

The area with regards to Pauk HEP as mentioned above is fluid given that the 4.2 ha has been deleted from its present proposal and the DPR is yet to be finalised and the requirement of additional area cannot be ruled out. Ministry may reconsider the IPA granted in respect of Pauk HEP as and when the area is finalized as a fresh proposal or as it deems fit.

Shape file has been submitted and the area with regards to the proposed earlier area components and the 4 new proposed sites of all quarries have been checked at this office and have been found correct.

### **Recommendations** of Regional Office, Shillong:

1. RECOMMENDATION WITH RESPECT TO THE AREA REQUIRED TO BE DELETED OR ADDED TO THE FOREST LAND WHICH HAS ALREADY BEEN GRANTED *IN-PRINCIPLE* APPROVAL.

The Regional Office having carried out the site visit as directed by the Ministry and having discussed with the local officers and the State Government recommends the following:

Tato HEP: No change in total area involved, i.e. 52.8 ha. Changes with regards to the two new quarries are recommended for approval.

- **Change of site 1**: A new quarry area of 0.5 Ha in Padusa village to be added and 0.5 ha site at Heyo village to be deleted from the IPA
- Change of site 2: A new quarry area of 0.3 ha in Meying village to be added and 0.3 ha site in Gapo village to be deleted.

The GPS location details of the polygon of the old (to be abandoned) quarry and the New (to be added) quarry has been given in Annexure D. The new quarries are accessible from existing road and road under proposal.

Heo HEP: Change in total area involved is addition of 4.2 ha by way of re-appropriation, so total area proposed is changed from 57.7 to 61.9 ha and also change of sites for two quarries are recommended.

- Change of site 1: A new quarry of 0.3 ha area at Lipusi village to be added and 0.3 ha quarry site in Hiri village to be deleted from the IPA
- Change of site 2: A new quarry area of 0.3 ha in Meying village to be added and 0.3 ha site in Gapo village to be deleted from the IPA.
- Addition of area 1: A part of 0.5 ha from Pauk HEP Dam quarry site at Chengrong Village to be re-appropriated to Heo HEP.

• Addition of area 2: Proposed access road to Muck Dumping Area of an area of 3.70 ha (out of 12.6 ha proposed under roads in Pauk HEP) providing accessibility to both Pauk HEP and Heo HEP proposed under Pauk HEP proposal is to be re-appropriated to Heo HEP (As Pauk DPR has been delayed).

### Thus, an area of 4.2 ha (0.5 + 3.7 ha) is to be added to the area under IPA.

The GPS location details of the polygon of the old (to be abandoned) quarry and the New (to be added) quarry has been given in Annexure D. The new quarries are accessible from existing road and road under proposal.

Therefore the above changes in respect of Tato-I HEP and Heo HEP as detailed above are recommended for necessary alterations in the IPAs in respect of these HEPs. However, with regards to Pauk HEP, in view of the reasons stated earlier in para 4 which include, possible change in the total area to be required after approval of DPR, it is suggested that the IPA with regards to this HEP may be considered as and when their final requirement as per DPR is submitted by the User Agency.

**2. RECOMMENDATION WITH REGARDS TO GREEN ZONE**: The sites proposed to be abandoned as detailed in Table 3 are recommended to be taken out of the purview of the IPAs and the abandoned quarries which are currently with the community will continue to be with them and managed by them.

### 3. RECOMMENDATION WITH REGARDS TO CA AREA:

- The CA area with respect to Tato-I remains as given in the IPA, i.e. 100 ha
- With regards to Heo HEP, in view of addition of 4.2 ha, the proposal area has increased from 53 ha to 57.2 ha (surface + riverbed area) and subsequently CA area is to be increased by 8.4 ha from 106 ha to 114.4 ha. The additional area of 8.4 ha being twice the 4.2 ha additional land added to Heo HEP from Pauk HEP has been identified at Kasin Puttu (Ago) VFR has been verified in the DSS by the Sr. T.A. of Regional Office and found to be acceptable.
- CA proposed by the State Government with regards to Tato-I and Heo HEP are recommended for acceptance. The area with respect to Pauk HEP can be finalized only after approval of DPR of PAUK HEP.
- 4. The new proposed CA area of 8.4 ha in respect of Heo HEP has been **analysed in the DSS** available in this office and the area is found acceptable and report is attached as **Annexure-G.** The new proposed quarries have also been analysed in DSS as per Annexure-D and the report has been attached as Annexure D-I.

The above facts are being placed before FAC in its meeting scheduled to be held on 11.05.2020 for appropriate recommendation.

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