

*Response of the State Government of Arunachal Pradesh on the Report of
Dr A Rahmani*

**COMMENTS OF THE GOVERNMENT OF ARUNACHAL PRADESH ON THE
REPORT OF THE STUDY GROUP CONSTITUTED BY THE STANDING COMMITTEE
OF NBWL ON LOWER DEMWE HEP**

Background:

National Board of Wildlife (NBWL) is examining the Demwe Lower HE Project from the point of view of wildlife angle, since the Project submergence though not within the Kamlang Wildlife Sanctuary (KWLS), is within the stipulated 10 km distance from the KWLS. In this connection a Committee/Sub group of NBWL comprising of Dr. Asad Rahmani, Director, BNHS & Mr. Pratap Singh CCF, Govt. of Arunachal Pradesh (GoAP) went to site for on the spot and first hand assessment of the impacts and reporting to the NBWL.

Dr. Asad Rahmani has submitted a Report after site visit, Mr. Pratap Singh other member who does not agree with the views of Dr. Asad Rahmani has submitted his separate report.

On the substantive issues raised by Dr. Asad Rahmani and Mr. Pratap Singh, the responses to the issues are mentioned below:

GENERAL COMMENTS:

The Lower Demwe HEP has 26 percent equity from Arunachal Pradesh Government and after 40 years will revert to the State. On commissioning, 12% of the power will be available free to the State Government.

2. This is the first project on any of the three major rivers of Arunachal Pradesh, namely, Siang, Dibang and Lohit. Also, of the so called 147 HEPs planned in AP, so far only 4 projects have been accorded final clearance or are under construction even though the hydropower development started in Arunachal Pradesh more than 25 years ago.

3. The fact that the matter is before this High Power Committee is because the project is within 8.5 Km of the Sanctuary and the reservoir within 50 meters of the sanctuary against an Eco Sensitive zone of 100 meters upstream of the dam. But for this fact, the forestry clearance to the project would have

been accorded. However, committee in its wisdom has asked for a study which only covers downstream impact of the project right down up to Dibru Saikhowa 105 Km away from the dam.

4. The report has a lot of similarities to the petition filed before the NEAA (NGT) in terms of issues raised, the facts quoted and even the line of argument. That petition was that filed more than a year ago. Therefore, one cannot avoid the suspicion that the report was pre-meditated and there are questions even on its neutrality and objectivity. This is borne out by the following facts

- i) The verbal observations made by the esteemed Dr Rehmani, like unsuitability of some chapporis as habitat for Bengal florican, has not been included in the final report.
- ii) Only DCs from Assam, namely Dibrugarh and North Lakhimpur, were consulted and none from Arunachal Pradesh.
- iii) The multidisciplinary study team includes experts mainly from organizations/institutes located in Assam namely IIT Guwahati, Dibrugarh University and Aranyak.

SPECIFIC COMMENTS:

1. Dibru-Saikhowa National Park (DNP) and Biosphere Reserve-

- The apprehensions of Dr. Rehmani that water level variation due to Demwe Lower HEP peaking will have major impact on Dibru-Saikhowa National Park (DNP) are hypothetical and alarmist in nature without either any study or precedence.
- It is found that no significant impacts are foreseen on the DNP due to its distance of 100 km from the Dam site.
- Further, from the simulation studies done by WAPCOS, it has been reported that the flow variation during the 2-3 months will be attenuated to a great extent before reaching DNP so that the maximum variation in water level is 0.24 m as compared to the virgin flow. The flow at during the lean season all times remains below the lowest point

of National Park and there is no grassland within the adjoining river bank that would be affected.

- Dr. Rahmani has suggested 2-3 years of studies before taking up the project for clearance while Mr Pratap Singh has opined that Studies can be done after according clearance to the Project and necessary mitigation measures can be suggested. In case impacts are found to be immitigable by other means, water flow from the Project during 2-3 months of lean season can be suitably modified to minimize the impacts.

Recommendation:

Since the impacts prima-facie seem to be mitigable either by adopting some engineering/biological measures etc. or by modulating peaking flows of the project, there is no justification for holding the NBWL clearance. Necessary conditional clearance subject to the project proponent adhering to all mitigation measures including flow modulation, if required after studies (studies to be completed before the project commissioning) may be accorded.

2. Chapories of Lohit River as Important Bird Area

- Dr. Rehmani feels that many species are found in the downstream Chapories and no major study has been done in this regard. He feels that the studies should be done for 2-3 years before the approval since he apprehends that these species especially avi-fauna can be adversely affected due to the projects coming up upstream.
- Mr. Pratap Singh has opined that any potential impacts and their mitigatory measures can be studied, and if mitigatory measures do not substantially reduce the impact, water flow regime may be needed to be suitably modified. Since flow regime management can be done post facto, studies can be undertaken simultaneously if the project is approved.

Recommendation:

Based on the State Government's study report on the Chapories, it is prima-facie felt that no major effect is anticipated since there is no low lying grassland that may get submerged even during the monsoon season. As such no purpose would be served if clearance is denied based on mere apprehensions. It is felt that views of Mr. Pratap Singh are more logical, keeping in view the spirit of sustainable development.

3. Impact on grassland ecology and grassland dependent species such as Critically Endangered Bengal Florican

- Dr Rehmani feels that due to diurnal peaking from Demwe Lower Project, the grassland will get affected since due to daily high water

levels the grass will not get dry and since this grass is burnt every year before during non-monsoon months, this would not be possible now and this will adversely affect the habitat of avi-fauna.

- Mr. Pratap Singh is of the view that most of the the Chaporis are part of Unclassified Sate Forest and they are located at varying levels having grassland and mixed forest vegetation. The Chaporis have various pressures such as unregulated cattle grazing, fuelwood/firewood and thatch collection. These are not covered under management for conservation of wildlife. Hence it would be appropriate to bring the Chapori under wildlife management. He is of the view that since there have not been any in-depth studies of water level variation on Brahmaputra Chaporis and at this stage it will be difficult to say about quality and quantity of impacts. Some of these impacts can be assessed only after actual diurnal flow variation. Therefore, he has suggested a simultaneous multidisciplinary study would be appropriate, so as to undertake remedial measures including flow regime management in case of adverse impacts.

Recommendation:

Drying of grass is not a function of river water elevation but also depends upon many other factors like soil type, rainfall, life cycle of grass and length of grass roots etc.

It is felt that Dr. Rehmani's view of not according clearance pending studies for 2-3 years is against the sustainable development spirit. The need is to look beyond the narrow interpretation of animal and plant biodiversity and think of people who are as much a part of the same biodiversity and need green and clean power for their sustainable development.

Under this back drop and since all the likely adverse impacts are a consequence of flow variations due to peaking in 2-3 lean months which are easily mitigable by modulating flows from the project, denial of clearances based on mere apprehensions is against the National interest of sustainable development. It is suggested to accord clearance to the project on the same lines that has been suggested at Point-(2) above.

4. Impact on Gangetic Dolphin

- Dr Rahmani feels that due to altered flows because of project peaking, River Dolphins may get adversely affected. He has further quoted a study done by Dr. Biswas of Dibrugarh University that due to minimum flow of 35 – 70 cumecs Dolphins will be affected.
- Mr. Pratap Singh is again of the same view that a more detailed study needs to be done in this regard also and since this issue is also directly

related to flow variation, necessary flow modulation, if required after the studies can be taken up.

Recommendation:

Dr Wakid's study of Gangetic dolphin pertains to Lohit river wherein he has observed that dolphins were not sighted upstream of Tengapanimukh-70km downstream of the Dam during the winter months. . Instead of accepting Dr Wakid's study report who is an IUCN Dolphin expert, he has drawn reference to Dr Biswas's study done in Subansiri River. Dolphins require 3-5 metres of depth and avoid rapids. To recommend another study lacks merit and therefore only to delay the project.

The view that the project would lead to the minimum flow to drop to 35-70 cumecs is also not correct. From the perusal of WAPCOS Report it is gathered that the minimum discharge in the 2-3 non monsoon lean months is not less than 200 cumecs downstream where dolphins have been witnessed. If as a consequence of downstream study being taken up by the WAPCOS, it comes out that the requirement is for releasing more water the project developers could be asked to peaking modulation. It is important that none of the studies has indicated that dolphins are available upstream of Tengapanimukh which is about 70 Km downstream of the Dam site. Further, with extensive inquiry from fishermen, it was found that dolphins are not seen at Alubarighat even during monsoon. (Alubarighat being 40Km downstream of Dam Site).

5. Daily fluctuation of water and its adverse impact

- Dr. Rehmani feels that daily peaking fluctuations in the lean season may have serious ecological effect on the downstream area.
- Mr. Pratap Singh suggests suitable study to be done in this regard simultaneously with the project construction and diurnal operation and in case of adverse effects modulation of flow regime from the project.

Recommendation:

As has been mentioned in above paras conditional NBWL clearance may be accorded and the Project should adhere to the recommendations arising out of the studies in this regard.

6. Asiatic wild buffalo

- Dr Rehmani has mentioned that due to diurnal peaking from the Demwe Lower Project, possible foraging grounds of Wild Buffalo may be affected. However, he has himself mentioned that no studies have been done in this regard. He has also mentioned that these foraging grounds are on the grasslands of Assam-Arunachal.
- Mr. Pratap Singh is also of the view that necessary studies needs to be done in this regard. However this study can be done alongwith the

project construction/operation and if required necessary mitigable measures including flow modulation can be resorted to.

Recommendation:

It is important to note that all downstream apprehensions mentioned by Dr Rehmani is not based on any study or based on any fact encountered during the recently concluded site visit. The Report of Dr. Rehmani fails to mention any specific sighting of any species or any specific grass land etc. It is also important that all apprehensions are due to flow variation on account of peaking from Project. In case the study shows that the apprehensions are true then we can very well mitigate these by suitable engineering / biological and /or flow modulation.

7. Siting of project (Kamlang sanctuary, Parasuram Kund and MPCA etc.)

- Dr. Rehmani has raised issues related to location of the project, its proximity to Prasuramkund, Kamlang Wildlife Sanctuary; submergence of Medicinal plants etc. and wants the project clearance to be denied on these issues.
- Mr. Pratap Singh is of the view that the developers have taken necessary safeguards regarding Parsuramkund and there is no medicinal plant in the submergence area. Regarding Kamlang WLS he is of the opinion that due to steep mountain range of more than 6000 feet the project area is separated from the KWL Sanctuary.

Recommendation:

It is important to note that the issue of Parsuramkund, longitudinal connectivity etc. were gone in very detail by the EAC and based on that Environment clearance to this project was accorded. Questioning decisions already made by one statutory authority is not the correct thing to do.

As regards to Kamlang Sanctuary, it may be noted that there is no submergence within the designated sanctuary area. In fact Dr. Rahmani during his recent site visit was of the opinion that Kamlang WLS is well protected due to its inaccessibility and there will be no adverse impact on it due to the project. However, he chose not to mention this aspect in his Report for reasons best known to him. It is, therefore, felt that this issue does not warrant holding the clearance to this project.

8. Strategic importance and first user rights issue

- Dr Rahmani questioned the basis about the decision of Gol on prioritizing Hydroelectric Project in each basin to secure our riparian rights

- Mr Pratap Singh clarified that this issue is beyond the professional ambit of the Team to take up for examination or to draw conclusions there from.

Recommendation:

Demwe Lower HE Project is at most advanced stage compared to the other projects proposed in the Lohit river basin and will be helpful in proving first user rights for the country.

Dr. Rahmani is of the view of building up a case of Wildlife clearance using non Wildlife reason is not correct. Similarly, recommending rejections of the wildlife clearance to the Project on non Wildlife issues like siting of the dam is also not correct.

9. Development of Arunachal Pradesh (as well as Lohit river Basin in particular)

- Dr Rahmani expressed concerns about large scale development of hydroelectric power projects in Arunachal Pradesh.
- Mr Pratap Singh clarified that this issue is beyond the professional ambit of the Team to take up for examination or to draw conclusions there from.

Recommendation:

Hydro Power development is being taken on case to case basis and after critically examining the geological aspects, environmental & social feasibility etc. only project are being developed in the State.

Though hydro power development started in AP more than 25 years ago sometimes in 1986-87 so far only 4 projects have received final clearance and are under construction. Then project is also important for AP as it involves 26% equity and on commissioning will result in 12% free power to the state. Therefore, it is of vital importance to the project.

10. Likely impact on local communities in Arunachal Pradesh and Assam

- Dr Rehmani has stressed the importance of Down Stream studies covering the impacts on the social and livelihood needs of downstream people.
- Mr Pratap Singh clarified that this issue is beyond the professional ambit of the Team to take up for examination or to draw conclusions there from.

Recommendation:

The TOR of the Downstream Studies as finalized by EAC already covers these concerns. The decisions of EAC regarding downstream mitigations would be binding on the Project.

11. Cumulative impact of proposed hydroelectric dams on Lohit, Dibang and Siang rivers

- Dr Rahmani has expressed concerns about the modifications carried out by M/s WAPCOS in their flow impact studies on DNP.

Recommendation:

The modifications by WAPCOS have been carried out based on the observations made by EAC.

12. FAC referral to NBWL Standing Committee

- Dr Rahmani requested that the complaint by Mr Akhil Gogoi and response of State Government in this regard be placed before NBWL.

Recommendation:

All the issues raised by Mr. Akhil Gogoi regarding violation of FC Act and other relevant issues were examined by State Govt as well as SBWL and forwarded to MoEF. No violations were found at Project site by State Forest Officials.

13. Recommendations

a) Siting of the Project

- Dr Rehmani recommended consideration of rejection of the Project on non-wildlife issues i.e. issues concerned the Siting of the Project
- Mr Pratap Singh clarified that Dr Rehmani observations on Siting of the Project are not as per existing records. He further suggested that these issues are beyond the professional ambit of the Team. He also clarified that issue of Medicinal Plant Conservation Area is not applicable to this Project.

Recommendation:

All the issues concerning the Siting of the Project have been duly examined by Central Electricity Authority, Central Water Commission, Geological Survey of India, State Government Agencies and Environment Wing of Ministry of Environment and Forests while according their necessary Clearances such as Techno-Economic Clearance and Environment Clearance.

b) Downstream Impacts:

- Dr Rahmani has recommended that the Project should be given clearance from Wildlife angle only after completion of studies regarding downstream impacts.
- Mr Pratap Singh recommended that the downstream impacts can be studied simultaneously if the Project is approved as corrective measures, including flow regime variation will be possible post-facto also.

Recommendation:

The downstream impacts are limited to few months of lean season and will be confined to low lying flood plains in Brahmaputra basin which would be positively impacted of increased availability of water during non-monsoon peaking hours that would support winter agriculture. These impacts can always be studied during construction of the Project. Environment Appraisal Committee has already deliberated on these issues and commissioned a separate Down Stream Impacts study, which is being done by M/s WAPCOS. The TOR of this study can be enlarged and more experts can be associated to arrive at required mitigation measures for downstream impacts.

It may be emphasized that as already highlighted by one of the members of the Sub-Committee, the downstream impacts can always be mitigated with appropriate modulation of peaking operations.

14. Permission from Chief Wildlife Warden of DNP

- Dr Rahmani felt that since flow variations will take place at DNP, permission should be sought from Chief Wildlife Warden of DNP under Section-35(6) of the Wildlife Act.
- Mr Pratap Singh has recommended that the spirit behind the provision of the Act regarding the flow variation at Protected Areas has to be looked into as the same would be having Geo-Political Consequences.

Recommendation:

NBWL is requested to take a judicious view on applicability of such provision as it would have wide repercussions on the on-going as well as upcoming hydroelectric projects even though the flow variation at Protected Areas far down below is only limited to peaking operations on a daily basis by the up-stream Projects.

Demwe Lower HEP is only a ROR (run of the river) Project with daily peaking operations. Moreover, the Project is more than 100 kms upstream of DNP. No diversion of water due to flow to DNP is involved. Finally, peaking operations of the Project would be governed by the outcome of Downstream Studies. As such flow variation would be within the permissible limits as decided by the Studies. As such necessity of any approval from Chief Wildlife Warden of DNP may not be required.

15. Final Recommendation:

In power generation for various technical and non-technical reasons there has to be a proper mix of thermal and hydropower and Arunachal Pradesh having about 40% of hydropower potential of the country holds the key. Comparatively, Hydropower is much cleaner and carbon emission-free power and much safer for the present and future generations and, therefore, country needs to concentrate on harnessing it.

The issue is of the downstream Impacts due to non monsoon peaking can be studied by comparing base line downstream data with the data collected during peaking operations. If mitigation is not possible by normal Biological/Engineering measures, the project developers can be asked to resort to flow modulation. As such clearance to the project may be accorded.