



# Indian Institute of Technology Guwahati

**Dr. D N Buragohain**  
Emeritus Professor  
Department of Civil Engineering

Guwahati-781 039  
Phone: off. +91 361 258 3333  
res. +91 361 258 5333  
cell: +91 961 955 3622  
e-mail: [dnb@iitg.ernet.in](mailto:dnb@iitg.ernet.in)  
[dnburagohain@yahoo.com](mailto:dnburagohain@yahoo.com)

To  
Mr. P. K. Bhuyan  
Technical Consultant

August 11, 2017

**Sub: Alternative Proposal of a True Run of the River Base Load Dam for Lower Subansiri Hydroelectric Project (LSHEP) using the Existing Intake and Power House**

Dear Mr. Bhuyan,

I have carefully gone through your above proposal, the salient features of which are the reduction of the dam height from 210m level to 193m level and increase in the height of the spillway section from 150m to 175m. You have also pointed out the various positive consequences of the change including the presence of water in the downstream side throughout the year.

I have also discussed the proposal with Professor Arup Sarma (specializing in Water Resources Engineering) of our Department, and both of us have examined the proposal. I may also mention that Professor Arup Sarma had earlier given a proposal to NHPC which is still with NHPC. That proposal is on slightly different lines from this one, but reduction of height of the dam was also suggested as a possibility apart from other measures.

We find your proposal eminently feasible, since it does not call for any additional construction but only modifies the present dimensions. At the same time it is also able to address all the issues raised by various stake holders and is able to solve them to a large extent. The amount of power generated will be somewhat reduced (may be by 10-15%), but should still be able to serve the needs of NHPC.

Another positive effect is the reduction in the magnitude of seismic forces on the dam as well as on the foundation, in case of an earthquake, because of the reduction in the height and weight of water and structure.

We feel that this is a very viable solution and should be acceptable to all concerned.

Yours truly,

(D N Buragohain)