

# Subansiri project: Some facts

By PK Bhuyan

**N**arendra Modi, during an election meeting at Pasighat, Arunachal Pradesh, said, "I know citizens of Arunachal Pradesh are against large power projects. I respect your sentiments in this respect. But protecting the environment, using environmental technology, the hydropower can also be harnessed using smaller projects."

Present Subansiri scenario: NHPC Ltd will generate electricity continuously 24x7.

NHPC Ltd has now come up with a statement after 8 years of start of the project, that it will generate power and release some water from the project by running one turbine 24x7 not just for 4 hours as was planned, while retaining all the features of the dam as planned as a 4-hour generation dam to get maximum tariff benefit which resulted in:

- (i) A high dam of 116m height
- (ii) A huge reservoir of 1360 million cubic meter of water

These are issues of major concerns against which people are agitating.

Panic release of the huge reservoir is a 'Risk' as commented by the Technical Expert Committee (TEC) of Thatte & Reddy as constituted by the Planning Commission. It is a potentially frightening situation after what has happened in Uttarakhand, when the developer released 6 million cubic meter of reservoir water from the 280 mw Dhauliganga Hydro Electric Project on the night of 16<sup>th</sup> June 2013 creating, along with other aggravating factors, the worst disaster in the Kedarnath area killing thousands of people.

Also, panic release of Ranganadi at the Hydro Electric Project, in a sub basin of Subansiri, by NEEPCO, on 14<sup>th</sup> June 2008, creating unprecedented floods with death destruction also finds a place as reference in the TEC.

Panic release of Subansiri reservoir on a monsoon day is an unthinkable catastrophe and, as per TEC report "maybe a remote probability but a possibility, risk exists."

The TEC has also expressed doubt about the foundation rocks of the dam of "sand rock" as "suspect". A high dam of 116m height means lot of load on the 'suspect' foundation. These are two insurmountable issues for which no "expert" can give any relief, and it makes change of the features of the dam of SHELP imperative and inevitable. Disasters may happen anytime but to ignore possible seeds of immense catastrophe which was forewarned, will be an act of criminal negligence on our part.

Also, water from the dam up to Power House of about 7 km is channeled through tunnels and because of this the release of water from the turbine from the Power House will be released 7 km downstream of the dam, thus killing the river for 7 km from the dam up to the release point of water from the turbine.

Also a turbine can be switched off anytime due to multitude of reasons in lean months and in such a situation, water will not flow to the river and will get accumulated in the huge reservoir only. It will kill the bio-diverse river which is also home to India's national aquatic animal - the dolphins. Dolphins will simply die so will over 200 varieties of fishes, rare turtles of the most biodiverse river in India.

Also, the dam will create huge fluctua-

tion between day time release of 225-250 cumec of water through a turbine, and a release over 2500 cumec by 8 turbines of evening / night of peak tariff for Developer. Whether dolphins and other biota will ever survive such fluctuation is a matter of serious uncertainty.

For Sustainable Development as per our Prime Minister's vision -

Convert the SLHEP to a true 24x7 continuous dam-cum-weir generation project. It will then ensure:

The height of the dam will be reduced drastically.

Reservoir will be smaller. Lakhs of trees, rare plants, etc will be saved from destruction in this world heritage biodiversity Hotspot region because of a smaller reservoir.

As the river will flow naturally, there will be no ecological disaster downstream because of the dam and the livelihood of the riparian people will not be disturbed.

There will be no fear of "panic release" or due to negligence / incompetence, from the dam through the sluice gates creating catastrophic downstream deluge from the dam in monsoon, because there will be no sluice gates to open.

As stated earlier, it may be emphasized that, the Expert Technical Committee (TEC) of Reddy & Thatte, commented in their report that "risk exists" for panic release of the sluices in the Lower Subansiri Dam.

Pressure on the weak "sand rock" foundations, will be reduced as height of the dam will be reduced drastically.

Power generation will be more or less same but continuous.

If turbine(s) is shut off for any reason, water will flow automatically over the dam-cum-weir unlike the NHPC Ltd. model of 24x7 generation as advocated now, where in such situation water will only get accumulated in the reservoir.

Gestation period and cost of completion from the present state of construction will be reduced drastically.

There should not be any opposition for the project by the public, as there will be no issues to oppose after converting the present dam format to a dam-cum-weir true ROR scheme.

Though it is a paradigm change yet the only thing needed to achieve this is an 'intent' to make the change - nothing more! Height of the present level of construction will make this change feasible.

This situation is true of all other proposed dams in Arunachal - over Lohit, Debang, Siang. In river Siang three dams are planned - Siang Lower, Siang Upper I & II to cover the entire length of the Siang river in Arunachal back to back which will create 208 km of the river into reservoirs, literally a sea, on the "head" of the people of Arunachal and Assam. Developing India needs power 24x7 in a sustainable manner. The above change to a true Run of the River project will ensure sustainable development, yet generate adequate continuous power year round. As a corollary, the tariff structure will have to be restructured for ROR Hydro Projects making it remunerative for the Power Developer for 24x7 dam-cum-weir hydro projects.

(The author is IITian and senior citizen)

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