

**GOVERNMENT OF INDIA
POWER
LOK SABHA**

UNSTARRED QUESTION NO:860

ANSWERED ON:25.11.2011

HYDRO POWER PROJECTS

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Will the Minister of POWER be pleased to state:

- (a) whether the Government has signed any agreement with Bhutan for setting up of hydro power projects there;
- (b) if so, the details thereof;
- (c) the details of power projects set up with India's assistance/support in Bhutan, project-wise;
- (d) whether after completion of the power projects at Bhutan, the Indo- Bhutan border especially Bodoland Territorial Autonomous District (BTAD) in Assam is suffering continuous flood/erosion;
- (e) if so, the details thereof; and
- (f) the corrective measures being taken or proposed to be taken by the Government in this regard?

Answer

MINISTER OF THE STATE IN THE MINISTRY OF POWER (SHRI K.C. VENUGOPAL)

(a) & (b): Ongoing cooperation between India and Bhutan in the hydropower sector is covered under the 2006 agreement on cooperation in Hydropower between the two countries and the Protocol to the 2006 agreement signed in March, 2009 thereof. Under the Protocol, Government of India has agreed to develop 10,000 MWs of hydropower in Bhutan for export of surplus power to India by 2020.

Implementation Agreements has been signed for construction of following projects between India and Bhutan:

Sl. Name of the Project Installed Total Cost Funding Pattern
No. Capacity (MW) Rs. (Crores) Loan Grant

1. Punatsangchhu HE 1200 3514.81 2108.88 1405.92
Project Stage-I (60%) (40%)

2. Punatsangchhu HE 990 3777.80 2644.46 1133.34
Project Stage-II (70%) (30%)

3. Mangdechu HE Project 720 2896.30 2027.41 868.89
(70%) (30%)

(c): Following hydro-electric projects have been developed and are in operation under Indo-Bhutan Cooperation:

Sl. Name of the project Installed capacity Total Cost Funding pattern
No. (MW) (Rs.Crores) (Rs.Crores)

Loan Grant

1 Chukha H.E. Project 336 246.00 98.40 147.60

(40%) (60%)

2 Kurichu H.E. Project 60 555.00 222.00 333.00

(40%) (60%)

3 Tala H.E. Project 1020 4125.85 1650.34 2475.51

(40%) (60%)

(d) to (f): All the existing hydropower schemes in Bhutan are run-of-the-river (RoR) types which has no impact on the quantum of flow downstream of the hydropower dam. The river water is primarily used for generation of hydro electricity which is non – consumptive in nature. The diversion structures in the hydropower projects have only a minimal storage capacity for diurnal peaking purpose.

Government of Bhutan and Government of India have since 1960s established an effective flood information sharing system whereby Bhutan notifies Assam at regular intervals over HP Radio sets on the water levels in Bhutan. Regular meeting of India – Bhutan Joint Group of Experts (JGE) on flood management also takes place to discuss/assess the probable causes and erosion in the southern foothills of Bhutan and the adjoining plain in India and to suggest appropriate measures.