

**Decline in Hydro power generation**

300. SHRI C.M. RAMESH: Will the Minister of POWER be pleased to state:

(a) whether it is a fact that share of hydro power, which is the most economically preferred source of green energy and environment friendly, in the energy sector has declined from 44 per cent in the year 1970 to 19 per cent at present;

(b) if so, the reason for the decline; and

(c) the details of the steps taken by Government to increase the production of Hydro-electricity?

THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI JYOTIRADITYA MADHAV RAO SCINDIA): (a) and (b) The share of hydro power in the energy sector has declined from 43.50% in 1969-70 to 17.55% as on 30th June, 2013. The main reasons for this downward trend is slower pace of growth of hydro projects *i.e.* development cycle of hydro is 8-12 years *vis-a-vis* 4-5 years for thermal. Due to rapid increase in energy requirements of the country, the thermal power development has greatly outpaced the hydro development. Besides, the hydro development is beset with many bottlenecks/challenges during the course of its development. To name a few, they are environment and forest issues, natural calamities, law and order problem, geological surprises, etc.

(c) A robust monitoring mechanism has been put in place for hydro projects implementation. This includes a Task Force on Hydro Project Development headed by the Minister of Power an Advisory Group under the Minister of Power, independent monitoring of progress by a Power Project Monitoring Panel and regular monitoring by Central Electricity Authority (CEA). Steps are also taken for expediting project construction as well as for obtaining necessary statutory clearances from various Central Ministries/States for increasing the production of hydro-electricity.

**Hydel power generation projects in the North-East**

301. SHRIMATI WANSUK SYIEM: Will the Minister of POWER be pleased to state:

(a) whether the Centre is moving at cautious pace over tapping the hydel

power generation potential of the North-East, because of the perceived environmental fall-out;

(b) the major hydel power generation projects in the North-East which are identified as run-of-the-river category posing no major environmental problems; and

(c) whether the Centre has assessed the power generation potential of the North-East including Meghalaya where there is abundant scope for setting up mini-hydel plants serving localised requirements on the lines of similar units opening in Himachal Pradesh?

THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI JYOTIRADITYA MADHAVRAO SCINDIA): (a) There has been some opposition to the construction of dams due to the perceived problems relating to submergence, rehabilitation and resettlement issues and likely impact in the down-stream areas. Accordingly, the Ministry of Environment and Forests (MoEF) is insisting upon basin-wise cumulative Environment Impact Assessment (EIA) Studies.

(b) Any infrastructure development including run-of-the river (R-O-R) hydro electric project would have some environmental impact. Although, RoR projects in general do not pose any major environmental problem, the MoEF stipulates comprehensive mitigative measures for environmental safety while according environment clearance to a project.

(c) A total number of 1279 sites have been identified in the North-East including Meghalaya for setting up mini hydel plants aggregating/estimated potential of 2598.63 MW as per the details given below:

Sl. No.	State	Potential	
		Number of sites	Capacity (MW)
1	2	3	4
1.	Arunachal Pradesh	677	1341.38
2.	Assam	119	238.69

1	2	3	4
3.	Manipur	114	109.13
4.	Meghalaya	97	230.05
5.	Mizoram	72	168.9
6.	Nagaland	99	196.98
7.	Tripura	13	46.86
8.	Sikkim	88	266.64
TOTAL		1279	2598.63

#### **Enhancement of corridor capacity of power grids**

302. SHRI Y.S. CHOWDARY: Will the Minister of POWER be pleased to state:

(a) whether the Ministry of Power has received and proposal from the State Government of Andhra Pradesh for enhancement of Corridor Capacity between Northern-Eastern-Western-Northeast Grid and Southern Region Grid; and

(b) if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI JYOTIRADITYA MADHAVRAO SCINDIA): (a) and (b) Yes, Sir. Presently, there are there HVDC links totaling to 4000 MW capacity between Southern Grid and the Northern-Eastern-Western (NEW) grid, as detailed below:

- 2000 MW, +500 kV, Talcher (Odisha)-Kolar (Karnataka) HVDC bipole, connecting Eastern and Southern Regions.
- 1000 MW HVDC back-to-back at Gazuwaka (Andhra Pradesh), connecting Eastern and Southern Regions.
- 1000 MW HVDC back-to-back at Chandrapur (Maharashtra), connecting Western and Southern Regions.