

(b) if so, the details thereof;

(c) whether Government is contemplating to develop any district level system to enhance the sources of renewable energy, State-wise keeping in view the increasing demand of electricity; and

(d) if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) The Ministry has formulated a Plan for increased exploitation of various renewable energy sources in the country during the Twelfth Plan period. The Jawaharlal Nehru National Solar Mission has been initiated with a view to increase utilization of solar energy in the country.

(b) The Twelfth Plan proposals envisage 29,800 MW grid-interactive and 3267 MW off-grid power generation capacity addition from various renewable energy sources and deployment of 7 lakh biogas plants, 35 lakh cook stoves, 8.5 lakh solar cookers and 80.5 lakh solar thermal energy systems, in the country during the plan period, besides stepped up support for sector specific resource assessment and R and D activities, etc. Under the Jawaharlal Nehru National Solar Mission, deployment of 20,000 MW of grid-interactive solar power, 2000 MW off-grid applications, including 20 million solar lighting systems and 20 million sq. solar thermal collector area is envisaged by 2022.

(c) No, Sir. Such systems are to be developed and put in place by respective State and District level authorities taking into account their existing electricity demand, available supply options and resources and other local factors.

(d) Does not arise.

#### **Decentralized renewable energy system**

418. SHRI ANIL MADHAV DAVE: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the details of decentralized renewable energy systems deployed in the country;

(b) the rate of growth recorded during the last three years; and

(c) the details of annual budget, State-wise?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) Various types of off-grid/ decentralized renewable energy systems/ devices such as biogas plants, biomass gasifiers, solar cookers, solar water heaters, solar lighting systems, SPV power plants/water pumping systems, water mills/ micro-hydel units, aero-generators/hybrid systems, waste to energy plants, etc. have been deployed in the country under different promotional programmes of the Ministry over the last three decades. Figures of cumulative deployment till end of the last financial year *i.e.* up to 31.3.2012 are given in Statement (*See* below)

(b) The growth in deployment of various types of decentralized renewable energy systems/devices during the last three years *viz.* 01.4.2009 to 31.3.2012 is reflected in the Annexure to part(a) referred above.

(c) State-wise budgetary allocations are not made for renewable energy schemes/programmes. Details of the outlay and actual expenditure in respect of the off-grid/decentralized renewable energy programmes during the last 3 years are given below:

(Rs. in crore)

Year	Off-grid/decentralised programmes	
	Outlay	Exp.
2009-10	60.00	55.95
2010-11	298.00	294.74
2011-12	626.80	626.72

**Statement**

*Details of off-grid/decentralized renewable energy systems deployed as on 31.03.2012 and percentage growth recorded during the last three years in the country.*

Sl.No.	Programme/system	Cumulative Deployment		Growth/Addition during last 3 years (1st April, 2009 to 31st March, 2012)
		as on 31.3.2009	as on 31.03.2012	
1	2	3	4	5
1.	Waste to Power (MWeq)	34.06	101.75	67.69

1	2	3	4	5
2.	Non-bagasse Cogen (MWeq)	170.78	382.50	211.72
3.	Gasifiers (MWeq)	105.46	150.21	44.75
4.	Aero-Gens/ Hybrid systems (MWeq)	0.89	1.64	0.75
5.	SPY Systems (MW eq)	5.00	85.21	80.21
6.	Remote Village Electrification (Nos. of Villages + Hamlets)	5453	9160	3707
7.	Family type Biogas Plants (No. in Lakh)	41.27	45.09.	3.82
8.	Solar Water Heating–collector area (Million sq. meter)	2.90	5.46	2.56

MWeq. = Megawatt equivalent, Nos. = Numbers,

#### **Wind energy in Uttarakhand**

‡419. SHRI MAHENDRA SINGH MAHRA: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) whether the Ministry has explored the possibility of generating electricity from wind energy at different places of Uttarakhand;

(b) if so, the names of those places; and

(c) if not, whether the Ministry would make efforts to explore these possibilities in that State in future?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) and (b) Yes Sir. Under the wind resource assessment programme carried out by Centre for Wind Energy Technology, the possibility of wind resource availability has been explored at 11 sites in Uttarakhand. The list of these sites is given in Statement (*See* below). The site at Bachelikhhal in Narendra Nagar district has been found suitable for generating electricity from wind energy and a project of 2.4 MW has been sanctioned to Uttrakhand Renewable Energy Development Agency (UREDA) by the Ministry.

(c) Does not arise.

‡ Original notice of the question was received in Hindi.