Use of new and renewable energy

4905. SHRI MOHAMMED ADEEB: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the details of new and renewable energy sources found and being used in the country;

(b) the details of research being under-taken on some more new and renewable energy sources; and

(c) the progress made in each case?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) Renewable energy sources available and being utilized in the country include mainly wind, hydro, biomass and solar energy.

(b) The other emerging new and renewable energy sources on which research activities are underway in the country include off-shore wind energy, hydrogen energy, bio-fuels, tidal energy and geo-thermal energy.

(c) A status note on progress made in the above mentioned emerging new and renewable energy sectors in the country are given in Statement.

Statement

Status note on progress made in emerging new and renewable energy sectors in the country

Off-shore Wind Power

- The possibility of off-shore wind farming is being explored through C-WET. Near shore measurement have been carried out at 54 locations along the coastline. C-WET is also implementing a project in association with RISO, Denmark for off-shore wind power assessment at Dhanshukodi, Rameshwaram, Tamil Nadu using Satellite Aperture Radar and 100.meter anemometry.

- The Ministry has constituted an Off-shore Wind energy Steering Committee to examine the policy framework and the requirement of inter-agency coordination towards exploiting off-shore wind resources in the country. It has also constituted a Technical Committee to analyze the available data with various agencies in order to identify the off-shore wind areas and preliminary assessment of their potential.

Hydrogen Energy

- A number of research projects on hydrogen production through various routes are in progress. PEM electrolyser for hydrogen production using water and water-methanol solution has been developed. Hydrogen fuelled motorcycles have been developed and demonstrated. Catalytic combustion cookers using hydrogen as fuel have been developed. RD and D projects for using hydrogen blends with compressed natural gas as well as diesel, development of hydrogen fuelled 3-wheelers with hydrogen storage and multi cylinder engine are under implementation in collaboration with the industry. A H-CNG dispensing station was set up at Dwarka in New Delhi during 2008-09 and is being used for dispensing hydrogen (up to 20% by volume) blended CNG fuel in demonstration and test vehicles.

Biofuels

- A National Policy on Biofuels has been announced in Dec, 2009. Assessment studies have been carried out on Jatropha plantations undertaken in nine States. Pilot projects have been taken up on demonstration of the promising genotypes of Jatropha in four States, namely, Rajasthan, Karnataka, Tamil Nadu and Chhattisgarh. Thrust areas for R and D in the area of production of 2nd Generation Biofuels from ligno-cellulosic substrates have been identified and several R and D projects on various aspects of second generation technologies have been taken up by Research Institutions, Universities and Industry, both in the private and public sectors.

Tidal Energy

- A 3.75 MW demonstration Tidal power plant at Durgaduani Creek in Sunderban was sanctioned in Feb 2008. However, it has now been cancelled owing to its high cost as per bids received (Rs. 238 cr. against initial estimate of Rs. 48 cr.). The State Government of Gujarat has recently formed a Special Purpose Vehicle and sponsored a study for exploitation of tidal energy across the coast-line of the state.

Geothermal Energy

- The states of Jammu and Kashmir, Chhattisgarh, Uttarakhand, Andhra Pradesh, Maharashtra, Gujarat and West Bengal have taken steps to harness Geothermal Energy in their states. Geothermal resource

assessment studies have been taken up at various potential sites through NGRI, Hyderabad. Efforts have also been made to develop multi-purpose R and D cum technologies demonstration projects using Geothermal Energy for heating, Cooling, Green House Cultivations and other applications.

Implementaton of RVEP

4906. SHRI RAJEEV CHANDRASEKHAR: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state: .

(a) whether it is a fact that Government is implementing a Central Scheme of Remote Village Electrification Programme (RVEP) for un-electrified villages, not covered with grid connectivity;

(b) if so, the details thereof;

(c) the number of villages covered under RVEP in Karnataka, so far, district-wise; and

(d) the number of villages proposed to be covered in the State during the Twelfth Five Year Plan?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) and (b) Ministry had been implementing Remote Village Electrification Programme (RVE) for providing financial support for lighting/basic electrification through renewable energy in those remote unelcctrified census villages and unelectrified hamlets of electrified census villages where grid extension was not found feasible by the State Governments and hence were not covered under the Rajiv Gandhi Gramin Vidyutikaran Yojna. The programme was implemented in states by state notified implementing agencies. Central Financial Assistance of upto 90% of the costs of systems, subject to pre specified maximum amount for each technology, was provided for approved projects for coverage under the programme.

(c) A total of 62 remote villages/hamlets have so far been covered under RVE programme in Karnalaka. District-wise details are given in Statement (*See* below).

(d) RVE programme is approved up to the end of Eleventh Five Year Plan only. However, as on 31-03-2012, 2716 villages and hamlets were under implementation under the programme, which would be completed during the Twelfth Plan period.