

#### **Potential of solar and wind energy**

3493. SHRIMATI JAYANTHI NATARAJAN: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether Government has conducted any survey to find out the potential of solar energy and wind energy in Tamil Nadu;
- (b) if so, the details thereof;
- (c) the extent to which this potential is being tapped in the State, at present; and
- (d) the action Government proposes to take to fully tap the potential of solar energy and wind energy in the State?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) Yes, Sir.

(b) India Meteorological Department (IMD) measures solar radiation in the country including Tamil Nadu. As per IMD reports, the State of Tamil Nadu receives on an annual average basis solar energy up to 5.5 kilowatt-hour per square meter of area. The Centre for Wind Energy Technology undertakes the wind resource assessment studies in the country including Tamil Nadu. The wind power potential in Tamil Nadu has been estimated to be 5530 MW.

(c) Recently, two grid interactive solar power projects of aggregate capacity of 6 MW have been allocated to the State. In addition, a number of decentralized solar applications have been deployed under various programmes of the Ministry. The cumulative installed capacity of wind power in Tamil Nadu so far is 4584MW.

(d) The Government has recently launched Jawaharlal Nehru National Solar Mission which unveils an enabling policy framework for deployment of grid connected solar power and also off-grid solar systems for various applications for tapping the potential in the country including Tamil Nadu.

The Government has been promoting wind power projects through private sector investment in the country including Tamil Nadu by providing fiscal incentives, loan from Indian Renewable Energy Development Agency (IREDA) and other financial institutions. This apart, preferential tariff is being provided to increase wind energy investment in the potential states including Tamilnadu. Recently, Government has approved for the 11th plan period, General Based Incentive for electricity from wind power projects to run concurrently with the benefit of accelerated depreciation, but in a mutually exclusive manner.

#### **Requirement of foodgrains for Bio-fuels**

‡3494. SHRI KAPTAN SINGH SOLANKI: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether it is a fact that a large quantity of foodgrains would be required to be used for bio-fuels in future which may result in food crisis;

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‡Original notice of the question was received in Hindi.

(b) if so, the details thereof; and

(c) Government's action plan and target concerning bio-fuel production and before-hand plan of Government to address the apprehension of food crisis?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) and (b) No, Sir. The Indian approach differs from current international approaches towards biofuels. In India, biofuel production is based solely on non-food feedstocks to avoid any conflict with foodgrain production.

(c) A comprehensive National Policy on Biofuels has been approved by the Cabinet. The Policy provides an indicative road map and directions for production of biofuels from non-food feedstocks, their conversion and utilization.

#### **Electricity from decomposition of solid waste**

3495. SHRI MOINUL HASSAN: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) whether Government's attention has been drawn to the survey by the Federation of Indian Chambers of Commerce and Industry (FICCI) regarding solid waste generated by the cities;

(b) if so, the quantum of solid waste generated in the cities due to lack of adequate treatment and disposal facilities;

(c) whether landfill gas is a natural by-product of the de-composition of solid waste in landfills and is primarily comprised of carbon dioxide and methane which can be used as a substitute for electricity generated by thermal or coal; and

(d) if so, the Central contribution thereto?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) and (b) Yes, Sir. Federation of Indian Chambers of Commerce and Industry (FICCI) has brought out a report in August 2009, on survey of current status of Municipal Solid Waste (MSW) management in 22 cities. The report indicates that 23,425 tonnes per day of solid waste out of a total of 27,018 tonnes per day generated in these 22 cities, is dumped in the landfills. This shows a lack of adequate treatment of solid waste before it's disposal.

(c) Landfill gas, which is a product of decomposition of the biodegradable fraction of solid waste in scientifically constructed landfill, can be used as a fuel for generating electricity. However, as per the provisions of Municipal Solid Waste (Handling & Management) Rules - 2000, Municipal Corporations / Urban Local Bodies are supposed to treat the biodegradable waste through composting or other state-of-the-art technologies for power generation, etc. and dump only the inert fraction of solid waste in the landfills.

(d) Ministry of Urban Development has approved solid waste management projects based on an integrated approach under Jawaharlal Nehru National Urban Renewal Mission, in 40 cities,