bio power and 20,000 MW solar power as envisaged by 2020 under the National Solar Mission approved recently), which would correspond to a share of about  $9^{\circ}$ % in the then likely electricity-mix from all sources.

## Conversion of cities into solar townships

1155. SHRI R.C. SINGH: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether it is a fact that his Ministry is planning to convert 60 cities into solar townships;
- (b) if so, the details of cities that are proposed to be converted into solar cities in West Bengal;
- (c) whether any criteria has been adopted for declaring a particular city into a solar township; and
  - (d) if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) to (d) The Ministry of New and Renewable Energy is implementing a programme on 'Development of Solar Cities'. The programme aims to reduce a minimum of 10% of the projected demand of conventional energy of the City through energy efficiency measures and renewable energy installations. Sixty cities are proposed to be developed as solar cities during the Eleventh Plan period including two model solar cities. So far, no proposal has been received from West-Bengal.

## Expenditure on R&D on renewable energy

1156. SHRI RAHUL BAJAJ: SHRI RAJKUMAR DHOOT:

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the level of R&D spending in Government sector on renewable energy during the last three years; and
  - (b) the major R&D projects in this area and their planned outlays, outcome timelines?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) and (b) During the last three years an expenditure of Rs. 367.87 crore has been incurred on R&D for carrying out research, development and demonstration in different areas of new and renewable energy by various Government Departments/organizations. The major projects/areas include development of high efficiency solar cells, hydrogen and fuel cells, solar photovoltaic and thermal power, high rate bio-methanation, medium and large capacity biogas plants for energy and power generation, bio-fuels and biomass energy including development of standards, specifications and testing of various renewable energy systems, devices and others. For the Eleventh Five year Plan Ministry of New and Renewable Energy has made a provision of Rs. 500