## Gap between India and China in science and technology sector

- \*76. SHRI BAISHNAB PARIDA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:
- (a) whether it is a fact that China has been far ahead of India in the field of science, research and technology during the last decade;
- (b) whether it is also a fact that the wide gap between the two countries has only deepened over the last few years;
- (c) whether China has invested about 2.5 per cent of its GDP during the last year in science and technology projects; and
- (d) why India is still aspiring to ramp it up from the current 0.9 per cent to 2 per cent by 2017?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI VILASRAO DESHMUKH): (a) and (b) China has been investing significant national resources in GDP during the last decade in scientific research and technological development and in terms of certain science and technology parameters has taken a lead over India. However, Government has since taken a series of measures to bridge the technological gap in certain key areas such as supercomputing, open source drug discovery, nanotechnology etc.

- (c) According to the Organisation for Economic Co-operation and Development (OECD), Main Science and Technology Indicators 2011 Report, China spent 1.7% of GDP in 2009 on scientific research and development.
- (d) The national Research and Development (R and D) expenditure is around 0.09% of GDP of which three-fourth is contributed by the public sector and onefourth by the private sector. To align Science and Technology with the national development goals, in principle, a decision to increase national R and D expenditure from current level of 0.9% to 2% of GDP has been taken together with enhanced participation from private sector by 2017. This is more than double the expenditure over the past years and represents a significant allocation of resources considering the overall resources of the country.

## Second phase of JNNSM

- \*77. SHRI A. ELAVARASAN: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:
- (a) whether Government has scaled up the second phase of Jawaharlal Nehru National Solar Mission (2013-17) target from 3,000 MW to 9,000 MW and is mulling fresh incentives for potential investors;
  - (b) if so, the details thereof;
- (c) whether Rs. 1.08 lakh crores would be invested in the second phase of the Mission; and

## (d) if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOO ABDULLAH): (a) and (b) While approving the Jawaharlal Nehru National Solar Mission (JNNSM), the Government approved a mission target of ramping up the capacity of grid connected solar power generation to 1,100 MW within three years (by 2013) and an additional capacity creation of 3,000 MW by 2017. It also decided that the capacity proposed for phase II (3,000 MW) could be more than doubled-reaching 10,000 MW installed power by 2017 or more, based on a variety of factors in the enabling ecosystem including price reduction and technological advancements. The experience of the selection process of the first phase of the mission has been that of a significant fall in price. In view of these developments, the Ministry has proposed a target of 3,000 MW capacity addition through government support and additional capacity of 6,000 MW through compliance of solar RPO during Phase 2 by 2017 thereby taking the cumulative installed capacity to 10,000 MW by 2017.

(c) and (d) No such estimates have been prepared.

## New formula for coal price

†\*78. SHRI MEGHRAJ JAIN: Will the Minister of COAL be pleased to state:

- (a) whether a decision has been taken to determine the price of coal on the basis of a new formula from January, 2012;
  - (b) it so, the details of the old and new formulae of price determination; and
- (c) the reasons for making this change now and the likely percentage of rise in the price of coal on implementation of a new system of price determination?

THE MINISTER OF COAL (SHRI SHRIPRAKASH JAISWAL): (a) and (b) Yes, Sir. The Government has decided to switch over from the existing Useful Heat Value (UHV) based grading and pricing system of coal to Gross Calorific Value (GCV) based classification of non-coking coal w.e.f. 1st January, 2012. In the UHV based system, the coal grading was determined in seven bands on ash and moisture content. In the new mechanism, the coal was classified on the basis of gross calorific value into seventeen bands with bandwidth of 300 Kcal/kg each.

(c) The decision on the above migration is based on international coal trading practices. The Intergrated Energy Policy Document and the Expert Committee headed by Shri T.L. Sankar on Coal Sector Reforms also recommended for the same. The new mechanism is more scientific and accurate and ensures uniform price across the subsidiary companies of Coal India Limited (CIL) with exception of prices of Western Coalfields Ltd. (WCL). The implementation of the GCV based system is expected to improve the quality of coal supply and reduce the consumer complaints.

Initially the price of coal in the GCV system was finalised by CIL on the basis of Rupees per Million Kilo calories heat value by providing various discounts on exunload

<sup>†</sup>Original notice of the question was received in Hindi.