

Impact of climate change on agricultural productivity

1339. SHRIMATI SHOBHANA BHARTIA:

SHRI N.K. SINGH:

Will the Minister of AGRICULTURE be pleased to state:

- (a) whether Government has been unable to properly address the impact of climate change on the agriculture and food sectors;
- (b) if so, the reasons therefor;
- (c) whether agriculture and food experts have observed that the agricultural productivity and food availability in the country is likely to fall due to climate change in the next few years; and
- (d) if so, the steps Government proposes to take to adopt improved methods to increase agricultural productivity, in view of the threat?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) to (c) No, Sir. Government of India, Ministry of Agriculture had launched a "National Network Project on Climate Change (NNPCC)" during X Five Year Plan with the objective to study the impact of climate change on agriculture and food sectors including livestock, fisheries, horticulture and forestry at different locations spread across the country. The assessment of climate change and its impact on Indian agriculture is an on-going process and NNPCC is continuing in the present Plan period also. Though there are no definite and conclusive evidence of the impact of climate change on agricultural productivity, the studies conducted under NNPCC indicate inter annual monsoon rainfall variability and slight change in mean annual temperature, which may affect agricultural production in future. The study also reveals that increase in temperature reduces crop duration, increases crop respiration rates, affects the equilibrium between crops and pests, hastens nutrient mineralization in soils, decreases fertilizer use efficiencies, and increases evapo-transpiration. The increase in Carbon Dioxide is beneficial for several crops such as wheat, rice, legumes and oilseeds. However, crops such as maize, jowar, bajra and sugarcane do not benefit from increase in Carbon Dioxide.

(d) With a view to enhance the agricultural productivity, sustaining foodgrain production and to address the various issues relating to climate change adaptation and mitigation in the agriculture and food sectors, Government of India, Ministry of Agriculture has intensified the

implementation of various programmes/schemes, namely; Macro Management of Agriculture (MMA), National Food Security Mission (NFSM), National Horticulture Mission (NHM), Rashtriya Krishi Vikas Yojana(RKVY), Micro Irrigation (MI) etc.

Sale of fake seeds

1340. SHRI ANIL MADHAV DAVE:

SHRI BALAVANT ALIAS BAL APTE:

Will the Minister of AGRICULTURE be pleased to state:

- (a) the number of cases of sale of substandard or fake seeds have been detected in the last five years, State-wise;
- (b) the companies involved in the sale of such seeds;
- (c) the action taken against those companies;
- (d) the size of the organized seeds market in the country; and
- (e) the percentage of farmers buying branded seeds from the market?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) to (c) The information regarding sale of sub-standard seeds is given in Statement-I to V (See below). As regards sale of fake seeds, no such cases have been reported except by Punjab, Haryana and Andhra Pradesh. Punjab has reported the sale of supply of spurious hybrid Bt Cotton during 2005-06, 2006-07 and 2007-08. No report of selling/supplying of spurious seed of Bt Cotton has been received thereafter from Punjab. FIRs against 11 dealers have been registered and prosecution has been initiated in the competent court. Government of Andhra Pradesh reported a few cases during kharif 2009 by some unscrupulous elements against whom suitable action has been taken. Government of Haryana has reported 5 cases of sale of fake Bt Cotton seed during Kharif 2010 and FIRs have been lodged.

It is further stated that the States are empowered to take action in such cases at their level. Adequate provisions are available under Seeds Act, 1966, Seeds Rule, 1968 and Seeds (Control) Order, 1983 to curb the sale of fake/inferior seeds. Further, the Inspectors notified under relevant provisions of these legal instruments have powers to draw the samples, seize the stock and issue 'Stop Sale order' in case the commodities under reference contravene the provisions of law.

(d) and (e) Both public & private sector produce & sell seeds in India. According to Industry estimate the total size of the Seed Industry is about Rs.7500 crores.