

like application of frontier technologies; agricultural bio-security system; use of Information and Communication Technology (ICT) and setting up of farm schools to revitalize agricultural extension; coverage of farmers under a comprehensive national social security scheme; effective implementation of Minimum Support Price (MSP) across the country and establishing community foodgrain banks; development of agricultural market infrastructure and terminal markets for agriculture; curriculum reforms in agricultural universities; special categories of farming like organic farming and contract farming; rural non-farm employment initiative for farm households; and integrated approach for rural energy, etc. The various schemes/programmes/missions adopted by the Ministry are based on the National Policy for Farmers-2007.

The Government has taken several measures to protect the small and marginal farmers by ensuring a fixed amount of allocation of funds for them or providing them higher subsidies, in its various schemes. Government is providing assistance to various categories of farmers, including small and marginal farmers through programmes like Sub-Mission on Agricultural Mechanization (SMAM), Sub-Mission for Seed and Planting Material (SMSP), National Food Security Mission (NFSM), Bringing Green Revolution to Eastern India (BGREI), Crop Diversification Programme (CDP), National Agroforestry and Bamboo Mission (NABM), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), National Mission on Agricultural Extension and Technology (NMAET), Rashtriya Krishi Vikas Yojana (RKVY) etc. Support is provided to farmers on seeds, bio-agents, bio-fertilizers, planting material, other improved farm implements. Agriculture Credit etc. As per revised guidelines on Priority Sector Lending issued by RBI, focus is being given on credit to small and individual farmers. Besides, the Government has approved Prime Minister Fasal Bima Yojana (PMFBY) for implementation from Kharif 2016.

(b) and (c) No such statutory powers has been issued to any Commission as agriculture is a State Subject. The Central Government, however supplement the efforts of the State Governments through appropriate budgetary and policy measures.

Risks to crops due to climate change

973. DR. T. SUBBARAMI REDDY:

SHRIMATI AMBIKA SONI:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether Government has made any qualitative and quantitative assessment of

the nature of risks involved for major crops as a result of climate change/global warming;

(b) if so, the details thereof, including major crops classified as risk prone crops, region-wise;

(c) whether crop insurance schemes would be reviewed and tuned in line with the nature of risks involved for the farmers due to natural calamities; and

(d) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE (DR. SANJEEV KUMAR BALYAN): (a) Yes, Sir.

(b) Indian Council of Agricultural Research (ICAR) started National Network Project on Climate Change (2004-13) to study the changing climate and its impact on Indian agriculture. Subsequently, ICAR has taken a major initiative by launching a network project, "National Innovations on Climate Resilient Agriculture (NICRA)" in 2011 to enhance resilience of Indian agriculture to climate change through strategic research, technology demonstrations and capacity building.

Research studies indicate more erratic and intense monsoon rains/unseasonal rains and hailstorm, increasing risk of droughts and floods and rise in temperature including increased frequency of warm days. This leads to projected average reduction of yield by 6% in wheat, 4-6% in rice, 18% in maize, 2.5% in sorghum, 2% in mustard and 2.5% in potato. The crop yields were projected to be more vulnerable in Central and East India for wheat; Punjab, Haryana, and Rajasthan for irrigated rice; Maharashtra, Odisha, Chhattisgarh and Assam for rainfed rice; Central India for mustard and Punjab, Bihar, Jharkhand, Uttar Pradesh and West Bengal for potato. The coconut yields are projected to reduce in east coast regions while increase in west coast regions. Whereas, simulation and field studies show that the adaptation strategies could improve yields by 8 to 25% at all Indian level.

(c) Yes, Sir.

(d) The Government has already reviewed the existing two schemes of National Agricultural Insurance Scheme (NAIS) and Modified NAIS and recently launched Pradhan Mantri Fasal Bima Yojana (PMFBY) to tune in with the nature of risk involved for the farmers due to natural calamities. PMFBY aims at providing financial support

to farmers suffering crop damage from unforeseen events and production risks. The scheme covers risks that leads to losses due to prevented sowing/planting risks, non-preventable risks (*viz.* drought, dry spells, flood, inundation, pest and diseases, landslides, natural fire and lighting, storms, hailstorms, cyclone, typhoon, tempest, hurricane and tornado etc.), post harvest losses and localized calamities of hailstorms, frost, landslides and inundations etc. to food, oilseed, commercial and horticultural crops. The details of PMFBY are available at www.agricoop.nic.in.

Promoting organic farming

974. SHRIMATI VANDANA CHAVAN: Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether Government has formulated any scheme for promoting organic farming and marketing of organic products on a large scale, if so, the details thereof; and

(b) the details of funds allocated and released to farmers for encouraging organic farming and the benefits accrued to them during last three years and the current year, State-wise?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE (SHRI MOHANBHAI KALYANJIBHAI KUNDARIYA): (a) and (b) Government has formulated a scheme for promoting organic farming through various schemes/programmes under the National Mission of Sustainable Agriculture (NMSA) such as Paramparagat Krishi Vikas Yojana (PKVY)/ and "Mission Organic Value Chain Development for North Eastern Region", Rashtriya Krishi Vikas Yojana (RKVY) and Mission for Integrated Development of Horticulture (MIDH) and National Mission on Oilseeds and Oil Palm (NMOOP). The pattern of assistance is given in Statement-I (*See below*).

Realizing the potential of organic farming in the North Eastern Region of the country Ministry of Agriculture and Farmers Welfare has launched a Central Sector Scheme entitled "Mission Organic Value Chain Development for North Eastern Region" for implementation in the States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura, during 2015-16 to 2017-18.

The details of funds allocated and released to States under PKVY Scheme is given in Statement-II (*See below*). The details of funds released under various NMSA, RKVY, MIDH is given in Statement-III.