- (b) whether Government has made any qualitative and quantitative assessment of the nature of risks involved for major crops as a result of climate/weather changes and localized calamities and if so, the details thereof;
- (c) whether the existing National Agricultural Insurance Scheme adequately covers all risks involved in agriculture sector and provides security to farmers, including small and medium; and
  - (d) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. SANJEEV KUMAR BALYAN): (a) Yes, Sir. Farming in India is inherently risk prone as 60% of the cultivable land is rainfed with no assured irrigation facilities. Indian agriculture is also susceptible to the vagaries of nature like floods, droughts, heat & cold waves, frost, hailstorms and cyclones.

- (b) Indian Council of Agricultural Research (ICAR) has made vulnerability assessment on major food crops in different production zones to climatic variability under the 'National Initiative on Climate Resilient Agriculture' (NICRA). The study revealed that around 81.3 million ha area in arid, semi-arid and dry sub-humid regions of the country may suffer from extreme weather events. In another study, the impact of climate change on agriculture was assessed using crop simulation models. Reduction in crop yields has been projected for irrigated maize, wheat, irrigated and rainfed rice to the extent of 18, 6, 4 and 6 percent respectively in 2020.
- (c) and (d) The Government under 'National Crop Insurance Programme' (NCIP) is providing comprehensive risk coverage to farmers through its components namely, (i) Modified National Agricultural Insurance Scheme (MNAIS), (ii) Weather Based Crop Insurance Scheme (WBCIS) and (iii) Coconut Palm Insurance Scheme (CPIS). Under MNAIS, farmers get comprehensive risk coverage for standing crops against non-preventable risks *viz.*, natural fire, lightning, storms, hailstorm, cyclones, typhoons, floods, inundation, landslides, droughts, dry spells, pest/diseases etc. Small and marginal farmers get 10% subsidy on premium. Additional risks *viz.*, preventing sowing/planting risks and post-harvest losses arising out of cyclonic rains in coastal areas are also included with provision of upto 75% subsidy on premium to all farmers.

## International agreements for cooperation in agriculture and allied sectors

- 646. SHRI K.V.P. RAMACHANDRA RAO: Will the Minister of AGRICULTURE be pleased to state:
- (a) whether it is a fact that the Ministry has signed MoUs/agreements with 52 countries, including United States of America, for co-operation in the fields of agriculture and allied sectors, if so, the details thereof; and

(b) to what extent these MoUs/agreements have facilitated improvement in the agricultural sector, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI MOHANBHAI KALYANJIBHAI KUNDARIA): (a) and (b) The Department of Agriculture and Cooperation under Ministry of Agriculture has entered into MOUs/Agreements with 52 countries including United State of America. In addition, Department of Agriculture Research and Education (DARE) and Department of Animal Husbandry, Dairying and Fisheries (DAHD&F) under Ministry of Agriculture have also entered into MOUs/Agreements with other countries taking the total number of countries to 63. Agreements with these countries provide better agricultural facilities due to cooperation in areas such as Research and Development, Capacity Building, Germ-Plasm Exchange, Post Harvest Management, Value Addition/Food Processing, Plant Protection, Animal Husbandry, Dairy and Fisheries and also help in enhancing bilateral trade.

## Availability of quality seeds

- 647. SHRI K.V.P. RAMACHANDRA RAO: Will the Minister of AGRICULTURE be pleased to state:
- (a) whether Government regularly assesses and coordinates the demand and availability of certified/quality seeds;
- (b) if so, the details of the demand and supply estimates of seeds in the country, particularly in Andhra Pradesh;
- (c) whether Government is aware of the problems being faced by farmers in getting quality seeds at affordable prices; and
  - (d) if so, the action proposed to be taken by Government in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. SANJEEV KUMAR BALYAN): (a) to (d) Yes, Sir. As reported by the States, the availability of certified/quality seeds in the country for 2014-15 is 351.76 lakh quintals against the demand of 343.55 lakh quintals. Crop-wise and State wise details are given in Statement-I and II (See below). Government of India assists the State Governments and seed producing agencies in making available better quality seeds for farmers through regulatory measures and developmental schemes. Thus, seed quality is administered through seed certification, testing, labelling and enforcement during the stages of production, processing and packaging of seeds. In addition, various ongoing schemes of the Department including National Food Security Mission (NFSM), National Mission on Oilseeds and Oil Palm (NMOOP), Rashtriya Krishi Vikas Yojana (RKVY), National