(i) **Mission for Integrated Development of Horticulture (MIDH), Ministry of Agriculture and Farmers Welfare**

Department of Agriculture, Cooperation and Farmers Welfare is implementing Mission for Integrated Development of Horticulture (MIDSH) for development of Horticulture in the country under which financial assistance is available, *inter-alia*, for setting up of Post Harvest Management (PHM) infrastructure including establishment of cold storages etc.

The component is demand/entrepreneur-driven from among entrepreneurs, private companies, cooperatives, farmers groups etc through commercial ventures for which assistance at the rate 35% of the eligible project cost in general areas and 50% in hilly and scheduled areas, is available as credit linked back ended subsidy through respective State Horticulture Missions.

(ii) Pradhan Mantri Kisan SAMPADA Yojana (PMKSY), Ministry of Food Processing Industries

Ministry of Food Processing Industries is implementing the Scheme for Integrated Cold Chain and Value Addition Infrastructure as one of the component of Pradhan Mantri Kisan Sampada Yojana (PMKSY) with the objective of reducing post-harvest losses of horticulture and non-horticulture produce and providing remunerative price to farmers for their produce. Under the scheme, Ministry provides financial assistance in the form of grant-in-aid at the rate 35% for general areas and 50% for North East States, Himalayan States, ITDP areas and Islands for storage and transport infrastructure and at the rate of 50% and 75% respectively for value addition and processing infrastructure subject to a maximum of `10 crore per project for setting up Integrated Cold Chain projects including Irradiation facility. Standalone cold storages are not covered under the Scheme.

Scarcity of water for cultivation of paddy and wheat crops

3055. SHRI SANJAY SINGH: Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether Government is aware that according to NITI Aayog's Composite Water Management Index of 2019, 74 per cent and 65 per cent of the country's wheat and paddy cultivation areas face serious water scarcity;

(b) if so, the details thereof and the reasons therefor; and

(c) the measures Government is planning to tackle the issue of water use as water efficiency across the country continues to be low at 30 to 40 per cent?

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE (SHRI NARENDRA SINGH TOMAR): (a) and (b) NITI Aayog's report titled 'Composite Water Management Index 2.0' (August, 2019) mention that 'About 74% of area under wheat cultivation and 65% of the area under rice cultivation faces significant levels of water scarcity.' This is based on WWF 2019 India Report-Hidden Risks and Untapped Opportunities: Water and the Indian Banking Sector (page-21). The link of report is at *http://www.indiaenvironmentportal.org.in/files/file/hidden_risks_and_untapped_opportunities.pdf.*

(c) Various initiatives taken by the Government for increasing water use efficiency in agricultural sector are as under:–

- The scheme namely Per Drop More Crop (PDMC) component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) focuses on enhancing water use efficiency at farm level and assists farmers to adopt Micro Irrigation *viz.* Drip and Sprinkler Irrigation systems with special focus on water guzzling crops like sugarcane, cotton, banana, etc. An area of 43.70 lakh ha. has been covered under micro-irrigation through PMKSY-PDMC since 2015-16 till date.

- Direct Seeded Rice (DSR) and System of Rice Intensification (SRI) for reducing water requirement in rice.

- Crop Diversification Programme in Original Green Revolution States of Punjab, Haryana and Western Uttar Pradesh with objective of changing cropping pattern from water intensive crops to other crops requiring less water.

- Agronomic practices like raised bed sowing, alternate furrow irrigation, mulching, alternate wetting and drying method, laser land leveling, adoption of varieties which require less water etc.

- Indian Council of Agricultural Research (ICAR) has developed cost effective, location specific technologies *viz.* rainwater harvesting and recycling,

conjunctive use of rain, surface and groundwater resources, smart and precision technologies for irrigation and farming practices, optimum irrigation scheduling, resource conservation technologies and efficient rain water harvesting structures so that the harvested water can be used for supplemental/lifesaving irrigation under water scarce situations.

- National Water Mission (NWM), D/o Water Resources, River Development and Ganga Rejuvenation has been working on one of its goals to increase water use efficiency by 20%. NWM has launched the 'Sahi-Fasal' campaign to nudge farmers in the water stressed areas to grow crops which are not water intensive and economically remunerative suited to the agro-climatic zone of the area. Creating awareness among farmers on appropriate crops, micro-irrigation, soil moisture conservation etc.; weaning them away from water intensive crops like paddy and sugarcane to crops like corn and maize, which require less water.

Technology for assessing crop loss

3056. SARDAR SUKHDEV SINGH DHINDSA: Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state the procedure and technology under which crop area and loss assessment is done at present?

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE (SHRI NARENDRA SINGH TOMAR): Agriculture being as a state subject, the state Governments employ various measures for assessment of crop loss in the event of natural/other calamities. In order to assess crop area, the Directorate of Economics and Statistics, Department of Agriculture, Cooperation and Farmers Welfare is implementing an umbrella scheme of "Integrated Scheme on Agriculture Census, Economics and Statistics". The scheme has three components (i) Timely Reporting Scheme (TRS), (ii) Establishment of an Agency for Reporting of Agricultural Statistics (EARAS) and (iii) Improvement of Crop Statistics (ICS). For assessment of area coverage, a comprehensive system has been laid down in each State/UT. Under the above system, the primary worker of Revenue Department *i.e.* Patwari/Lekhpal visits each field/survey number and records the crop sown and area during kharif as well as rabi seasons. Sample of 20% villages is selected in such a way that over a period of 5 years all the villages in a State/UT are covered.