

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

RAJYA SABHA
UNSTARRED QUESTION NO. 675
TO BE ANSWERED ON THE 05/12/2025

GROWTH OF AGRI-TECH STARTUPS AND DIGITAL AGRICULTURE MISSION

675 SMT. REKHA SHARMA:

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

- (a) whether the Digital Agriculture Mission (DAM) and public-private innovations have contributed to the rapid growth of agri-tech startups in the country;
- (b) the number of farmers currently benefiting from drone services, satellite-based crop assessment, and precision farming tools; and
- (c) whether Government proposes to scale these innovations to all aspirational districts?

ANSWER

MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE

(SHRI RAMNATH THAKUR)

(a) to (c): The government has taken various steps for rapid growth of agri-tech startups and to promote the adoption of new and emerging technologies in agriculture such as Artificial Intelligence (AI), precision farming, drone technology, and climate-smart agriculture in the States/UTs, such as:

- I. The Department of Agriculture & Farmers' Welfare (DA&FW), Government of India is implementing the "Innovation and Agri-Entrepreneurship Development" programme under Rashtriya Krishi Vikas Yojana (RKVY) from 2018-19 onwards with an objective to promote innovation and agri-entrepreneurship by providing financial support and nurturing an incubation ecosystem in the country. This Department has appointed six Knowledge Partners (KPs) and twenty-four RKVY Agribusiness Incubators (R-ABIs) from across the country for implementation assistance and incubation of startups under this programme. Under this programme, for idea/pre-seed stage, a selected start-up shall be eligible for a maximum financial assistance of Rs. five lakhs in one instalment. For seed stage, a selected start-up shall be eligible for a maximum financial assistance of Rs. Twenty-five lakh in two instalments of 50% and 50% based on the recommendation given by the Selection and Investment Committee (SIC). Each KP can select a maximum 20-25 start-ups and each R-ABI can select a maximum 10-12 start-ups in each category of pre seed and seed stage in a financial year. Trainings, Technical and financial assistance is

provided to startups to launch their products, services, business platforms, etc into the market and facilitate them to scale up their products and operations to attain business viability. More than 6000 Agri-Startups have been trained by KPs and R-ABIs so far under this programme. So far, 2096 Agri-Startups have been supported with technical and financial assistance under this programme during FY 2019-20 to 2025-26. The funding support of Rs. 168.14 crore grants-in-aid have been released in instalments for funding to these 2096 agri- Startups to the respective KPs & R-ABIs by DA & FW. Start-ups are taking projects in various field of agriculture and allied sectors like Precision agriculture including applications of sensor, Artificial Intelligence (AI), Internet of Things (IoT), Information & Communication Technology (ICT), & drone, Farm Mechanization, Post-Harvest, Food Technology & Value addition, Supply Chain and Agriculture logistics & agriculture inputs, Waste to Wealth & Green Energy in Agriculture & Organic Farming, Allied Sectors etc.

- II. In order to promote use of drones in agriculture, under SMAM, financial assistance @ 100% of the cost of drone up to a maximum of Rs. 10 lakhs per drone is provided for its purchase and demonstration on the farmers' fields by the institutes under Indian Council of Agricultural Research (ICAR), Farm Machinery Training & Testing Institutes, Krishi Vigyan Kendras (KVKs), State Agriculture Universities (SAUs), State and other Central Government Agricultural Institutions/Departments and Public Sector Undertakings (PSUs) of Government of India engaged in agricultural activities. The Farmers Producers Organizations (FPOs) are provided grants up to 75% of the cost of Kisan Drone for its demonstrations on the farmers' fields. In order to make available drone services to farmers on rental basis, financial assistance @ 40% up to a maximum of Rs. 4.00 lakhs are provided for purchase of drones by CHCs under Cooperative Society of Farmers, FPOs and Rural entrepreneurs. Agriculture graduates establishing CHCs are eligible to receive financial assistance @ 50% of the cost of drone up to a maximum of Rs.5.00 lakhs per drone. For purchase of drones on individual ownership basis, the Small and Marginal, Scheduled Caste/Scheduled Tribe, Women and North Eastern State farmers are provided financial assistance @ 50% of the cost up to a maximum of Rs. 5.00 lakhs and other farmers @ 40% up to a maximum of Rs. 4.00 lakhs per drone.

Further, Sub Mission on Agricultural Mechanization (SMAM) is being implemented w.e.f 2014-15 through States/UTS Governments. SMAM is now being implemented under the umbrella of the Centrally Sponsored Scheme of Rashtriya Krishi Vikas Yojana (RKVY). The scheme aims at 'reaching the

unreached' by bringing to the small and marginal farmers in the core, including women farmers and giving the benefits of farm mechanization, by promoting 'Custom Hiring Centers', creating hubs for hi-tech & high-value farm equipments, distribution of various agricultural equipment, and creating awareness among stakeholders through demonstration and capacity building activities.

The Government has established four Farm Machinery Training and Testing Institutes at Budni (Madhya Pradesh), Hisar (Haryana), Garladinne (Andhra Pradesh) and Biswanath Chariali (Assam) under the administrative control of the Department of Agriculture and Farmers Welfare. These institutes are imparting training to Farmers, including women farmers/Technicians/ Engineers/ Unemployed Youths/ Machinery Manufacturers, etc., under various training programmes on the latest technology of farm mechanization, including kisan drones.

- III. The Government has approved 'Namo Drone Didi' as a Central Sector Scheme for providing 15,000 drones to the Women Self Help Groups (SHGs) with an outlay of Rs. 1261 Crores for the period from 2023-24 to 2025-26. The major objectives of the scheme is to promote advanced technology in agriculture for improved efficiency, enhanced crop yield & reduced cost of operation and to empower SHGs as drone service providers for increasing their income and providing livelihood support to them. Lead Fertilizer Companies (LFCs) have distributed 1094 drones to drone didis of SHGs in 2023-24 using their internal resources. Out of these 1094 drones, 500 drones have been distributed under the Namo Drone Didi Scheme.
- IV. Department of Agriculture & Farmers Welfare is implementing the Centrally Sponsored Scheme of Per Drop More Crop (PDMC) in the Country from 2015-16. PDMC focuses on enhancing water use efficiency at the farm level through Micro-Irrigation, namely Drip and Sprinkler Irrigation Systems. The Micro Irrigation helps in water saving as well as reducing fertilizer usage through fertigation, labour expenses, other input costs and overall income enhancement of farmers. The Government provides financial assistance @ 55% for small and marginal farmers and @ 45% for other farmers for the installation of Drip and Sprinkler systems under the PDMC.
- V. Pradhan Mantri Fasal Bima Yojana (PMFBY) envisages the use of improved technology. Accordingly, the National Crop Insurance Portal (NCIP) and the Application for Intermediary Enrolment (AIDE) app have been developed to disseminate information about the scheme to the farmers. Farmers, can insure themselves through the portal and apps and check the status of their application,

claims etc. Further, Village Level Entrepreneurs (VLEs) under Common Service Centres (CSCs) have also been engaged to enroll farmers and disseminate coverage information, claims etc. Government has taken various steps to strengthen implementation of the scheme, leveraging technology in implementation of the scheme, capturing of yield data/Crop Cutting.

- VI. The Government has approved the Digital Agriculture Mission, which envisages the creation of a Digital Public Infrastructure (DPI) for Agriculture, such as AgriStack, Krishi Decision Support System, and a comprehensive Soil Fertility & Profile Map to enable a robust digital agriculture ecosystem in the country. This, in turn, would drive innovative farmer-centric digital solutions and make reliable crop-related information available to all farmers on time. The AgriStack DPI consists of three foundational registries or databases associated with the agriculture sector, i.e., Geo-Referenced Village Maps, Crop Sown Registry, and the Farmers Registry, all created and maintained by the State Governments/ Union Territories. The government is providing technical and financial support to all the states/UTs to implement this DPI.
- VII. The Mahalanobis National Crop Forecast Centre (MNCFC) under the Ministry of Agriculture & Farmers Welfare also plays a pivotal role by leveraging space and geospatial technologies for agricultural applications as follows:
- a. Forecasting Agricultural output using Space, Agro-meteorology and Land-based observations (FASAL) Project: MNCFC operationalizes this project to generate pre-harvest crop production forecasts at national, state, and district levels for major crops using satellite remote sensing (optical and microwave data). This is a core part of satellite-based crop monitoring.
 - b. Drought Monitoring: MNCFC actively provides drought assessment and monitoring using satellite-derived indicators for timely disaster response.
 - c. Support to Crop Insurance Activities (PMFBY): MNCFC supports the Pradhan Mantri Fasal Bima Yojana (PMFBY) for various activities through the Yield Estimation System based on Technology (YES-TECH), Planning of Crop Cutting Experiment (CCEs), and addressing disputes for yield and area discrepancies.
