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

LOK SABHA
UNSTARRED QUESTION NO. 3043
TO BE ANSWERED ON THE 8th AUGUST, 2023

INFORMATION TECHNOLOGY IN AGRICULTURE SECTOR

3043. SHRI DHANUSH M. KUMAR:
DR. AMOL RAMSING KOLHE:
DR. DNV SENTHILKUMAR S.:
SHRI SELVAM G.:
SHRIMATI MANJULATA MANDAL:
SHRI C.N. ANNADURAI:
SHRI KULDEEP RAI SHARMA:
DR. SUBHASH RAMRAO BHAMRE:
SHRIMATI SUPRIYA SULE:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि एवं किसान कल्याण मंत्री be pleased to state:

(a)   the details of level of development and implementation of Information Technology (IT) in the agriculture sector;

(b)   whether the Government has taken any measures to promote the use of IT tools and solutions to enhance agricultural practices and productivity, if so, the details and the outcomes thereof;

(c)   whether the Government has also assessed the impact of IT on the agriculture sector;

(d)   if so, whether the Government is planning to further advance the integration of IT in the agriculture sector;

(e)   whether the Government is also creating awareness among farmers about the use of this technology in the agriculture sector; and

(f)   if so, the details thereof alongwith the steps that the Government is taking to ensure that farmers, particularly small-scale farmers, have access to the necessary resources, training, and support to effectively utilize the said technology in their agricultural operations?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE
कृषि एवं किसान कल्याण मंत्री   (SHRI NARENDRA SINGH TOMAR)

(a) to (f): Information technologies are finding increasing use in the agricultural value system, and farmers are increasingly becoming more informed. The Government has taken various measures to provide access to technology and information across the country, through various Digital Initiatives, such as:

i. National e-Governance Plan in Agriculture (NeGP-A) wherein, funds are provided to the State(s)/UT(s) for project involving use of modern technologies viz. Artificial Intelligence (AI), Machine Learning (ML), Robotics, Drones, Data Analytics, Block Chain etc. After receiving proposals from the States, funds are released for development of various solutions.

ii. The Government has announced for development of Digital Public Infrastructure (DPI) for agriculture as an open source, open standard and inter-operable public good to enable inclusive farmer centric solutions through relevant information services for crop planning and health, improved access to farm inputs, credit and insurance, help for crop estimation, market intelligence etc. In this regards, following action has been taken so far:

   ➤ Architecture of three core registries i.e. Farmer registry, Geo referencing of village map registry, crop sown registry has been finalized.

   ➤ To generate crop sown registry, Digital crop survey has been launched on pilot basis in 12 states from Kharif 2023.

   ➤ An MoU has been signed with Pixxel Space India Pvt. Limitedto develop use cases with the hyperspectral data of Pixxel for crop identification and mapping, crop health monitoring and soil organic carbon estimation over selected regions on pilot basis.

iii. Sub Mission on Agricultural Mechanization (SMAM) is being implemented w.e.f April, 2014.The scheme aims at 'reaching the unreached' by bringing to the small and marginal farmers in the core 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 equipments, creating awareness among stakeholders through demonstration and capacity building activities, and ensuring performance-testing and certification at designated testing centers located all over the country.

iv. National Agriculture Market (e-NAM) is a pan-India electronic trading portal which networks the existing Agricultural Produce Market Committee

(APMC) mandis to create a unified national market for agricultural commodities. Digital services are provided to traders, farmers, Farmers Producer Organizations (FPO), Mandis through various modules of e-NAM platform such as FPO trading module, warehouse based trading module.

v. Under PM KISAN Scheme, fund is directly transferred into the bank accounts of the eligible farmers under Direct Benefit Transfer mode. Farmers can do their self- registration through the Farmers Corner in the portal. PM-KISAN Mobile App was launched to broaden the reach of the scheme where farmers can view beneficiary status, update or carry out corrections of name based on their Aadhaar card and also they can see history of benefits transferred to their bank accounts. Recently, face authentication feature has also been included in PM-KISAN mobile App.

vi. Agriculture Infrastructure Fund (AIF): To mobilize a medium - long term debt finances facility for investment in viable projects for post-harvest management Infrastructure and community farming assets through incentives and financial support in order to improve agriculture infrastructure in the country. Financial assistance is provided digitally in the form of Interest Subvention and Credit Guarantee for setting up post-harvest management Infrastructure to beneficiaries such as Farmers, Primary Agricultural Credit Societies (PACS), Farmer Producers Organisations (FPOs), Self Help Groups (SHG), State Agencies/APMCs.

vii. National Mission on Horticulture: It Promotes holistic development of Horticulture sector (including bamboo & coconut) HORTNET project is a web enabled work flow- based system for providing financial assistance under MIDH. It is a unique intervention to accomplish e-Governance in NHM where-in total transparency has been envisaged in all the processes of workflow i.e., online application filing, authentication, processing and online payment to the beneficiary's bank account through DBT.

viii. National Project on Soil Health and Fertility:-Issuance of soil health cards to farmers of the country, so as to provide a basis to address nutrient deficiencies in fertilization practices. Soil Health Card Portal is available where farmers can track soil samples.

ix. Several new technological initiatives has been taken under the Pradhan Mantri Fasal Bima Yojana such as Yield Estimation System, based on Technology (YES-Tech), Weather Information Network Data Systems (WINDS) portal and door to door enrollment app AIDE/Sahayak.

a. YES-TECH, a technology-driven yield estimation system, offering methodologies, best practices, and integration insights for accurate yield assessments at the Gram Panchayat level.

b. WINDS Portal is a centralized platform that hosts, manages, and processes hyper-local weather data collected by Automatic Weather Stations and Rain Gauges at Taluk/Block and Gram Panchayat levels. The portal enhances risk assessment and decision-making in crop insurance, agriculture advisories, and disaster mitigation, supporting the agricultural sector and rural economy.

c. The AIDE app's aims to revolutionize the enrolment process, bringing it directly to the doorstep of farmers. This door-to-door enrolment ensures a seamless and transparent process, making crop insurance more accessible and convenient for farmers.

x. The Indian Council of Agriculture Research (ICAR) has also compiled more than 100 mobile apps developed by ICAR, State Agricultural Universities and Krishi Vigyan Kendras and uploaded on its website. These mobile apps developed in the areas of crops, horticulture, veterinary, dairy, poultry, fisheries, natural resources management and integrated subjects, offer valuable information to the farmers, including package of practices, market prices of various commodities, weather related information, advisory services, etc.

xi. Further, ICAR has developed a Digital multimedia platform named as "Kisan Sarathi" which is being used to provide advisories to the farmers through 731 KVKs across the Country.

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