

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

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 2101**  
TO BE ANSWERED ON 09/08/2024

**PLANS TO BOLSTER FARM STATISTICS SYSTEM**

2101. SHRI JAGGESH:

Will the Minister of Agriculture and Farmers Welfare be pleased to state:

- (a) whether it is a fact that gathering accurate crop sowing data is crucial to building a robust farm statistics system;
- (b) whether Government plans to bolster its farm statistics system by undertaking regular digital crop surveys;
- (c) if so, the outcome of the digital survey launched in 12 states on a pilot basis last year; and
- (d) the steps taken by Government to firm up more realistic farm production forecasts, the details thereof?

**ANSWER**

MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE  
(SHRI RAMNATH THAKUR)

(a) to (d): Crop Statistics play a crucial role in aiding the Government to undertake various policy decisions relating to procurement, export/import, food security, marketing, farmers welfare, distribution, GDP estimation etc. In this regard, during an agricultural year (July to June) this Ministry prepares and releases three advance estimates and a final estimate of area and production of major agricultural crops.

Agriculture being a State subject, the data for generation of crop statistics is predominantly received from the States. The area enumeration of various crops in the States is received through Girdawari conducted by the States and Yield estimates of various crops are calculated through Crop Cutting Experiments (CCEs) conducted at the time of harvesting.

In order to modernise the system of area enumeration and yield estimation and to enable realistic crop production estimates, this Ministry has taken following initiatives:

(i) Digital Crops survey (DCS) was initiated on pilot basis in 12 States from Kharif 2023 with an aim to create a single and verified source of truth about the crop sown data which is useful for accurate crop area estimation and development of various farmers centric solutions. Digital Crop Survey is enabled through DCS reference application which is open sourced and incorporates technologies such as Geo-referenced cadastral maps with Geographic Information System (GIS) and Global Positioning System (GPS) Technologies to ensure the Farmland position.

(ii) Additionally, to strengthen the process of yield estimation and reduce time-lag, this Ministry has rolled-out "Digital General Crop Estimation Survey (DGCES)". This program utilises a meticulously crafted survey methodology rooted in the principles of crop cutting experiments. The introduction of the GCES mobile application and portal has ushered in a transformative era for recording Crop Cutting Experiment (CCE) results directly from the field. With innovative features such as GPS-enabled photo capture and automated plot selection, this technological advancement significantly enhances transparency and accuracy within the system.

(iii) Moreover, the Ministry is implementing Forecasting Agricultural Output using Space, Agro-meteorology and Land based Observation (FASAL) which aims towards enabling scalable crop forecasting system using the latest technology. FASAL involves (i) Crop mapping based on Remote Sensing which aims at generating Area Statistics and Thematic Maps (ii) Crop-specific surveillance and monitoring systems for close monitoring of selected crops using satellite indices and providing crop health factor and (iii) Technology based Crop Yield Forecasting System which enables yield forecast through various Models such as Semi Physical Models (SPM), Crop Simulation Models (CSM) and Econometric and Statistical Models (ESM). Recently, the Ministry has collaborated with agencies such as Indian Agricultural Research Institute (ICAR-IARI) and Space Application Centre (SAC), and new knowledge partners such as Indian Agricultural Statistics Research Institute (ICAR-IASRI) and the Indian Statistical Institute (ISI), Kolkata to build yield forecasting models.

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