

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

LOK SABHA
STARRED QUESTION NO. 276
TO BE ANSWERED ON THE 22ND MARCH 2022

KISAN DRONES

*276. SHRI MANICKAM TAGORE B.:
SHRI MANNE SRINIVAS REDDY:

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

(a) whether it is a fact that the Government has installed 100 kisan drones in different parts of the country for spraying pesticides and other farm materials and if so, the details thereof;

(b) whether it is also true that the Government is considering to deploy more number of drones for the agricultural sector;

(c) whether it is also true that the Government is contemplating for the deployment of many such technologies in the agricultural sector in the coming days and if so, the details thereof;

(d) whether it is also true that a new culture of drone start-ups is getting ready which is leading to the generation of new employment opportunities on a massive scale and the Government will ensure that there is no impediment in the sector's development and has already undertaken several reforms and policy measures to facilitate its rise; and

(e) if so, the details thereof and the progress made so far, State-wise specially in Andhra Pradesh and Tamil Nadu?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a) to (e): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO. 276 DUE FOR REPLY ON 22ND MARCH 2022.

(a) to (e): Drones were used for the first time by the Department of Agriculture & Farmers Welfare (DA&FW) in 2020-21 for desert locust control. To promote the use of drone technology in the country the Ministry of Civil Aviation notified the liberalized Drone Rules, 2021. The DA&FW released the Standard Operating Procedures (SOPs) for use of drones in agriculture for pesticide and nutrient application, which provide concise instructions for effective and safe operations of agricultural drones. In the Union Budget 2022-23, the Government has also announced that the use of Kisan Drones will be promoted for crop assessment, digitization of land records, spraying of insecticides and nutrients.

To promote use of drones in agriculture and make drone technology affordable to the farmers and other stakeholders of this sector, financial assistance @ 100 % cost of drone together with the contingent expenditure is extended under Sub-Mission on Agricultural Mechanization (SMAM) to the Farm Machinery Training & Testing Institutes, Institutions of Indian Council of Agricultural Research, Krishi Vigyan Kendra (KVK) and State Agricultural Universities (SAUs) for its demonstration on the farmer's fields. Farmers Producers Organizations (FPOs) are provided grants @ 75% for purchase of drones for its demonstration on the farmers' fields. In order to provide agricultural services through drone application, financial assistance @ 40% of the basic cost of drone and its attachments or Rs.4 lakhs, whichever less is also provided for drone purchase by existing and new Custom Hiring Centers (CHCs) under Cooperative Society of Farmers, Farmers Producer Organizations (FPOs) and Rural entrepreneurs. The agriculture graduates establishing CHCs are eligible to receive financial assistance @ 50% of the cost of drone up to a maximum Rs.5.00 lakhs.

The Government of India supports and facilitates the State Governments through various Centrally Sponsored and Central Sector Schemes to promote agriculture throughout the country and infusing new technologies into the agriculture sector including agricultural drones. National e-Governance Plan in Agriculture (NeGP-A) is being implemented and funds are released for sanctioning projects involving use of modern Information Technologies such as Artificial Intelligence & Machine Learning, Block Chain Technology, Internet of Things, Robotics etc., and for customization / shifting of web & mobile applications already developed by the States, to the platform to be developed using digital/emerging technologies. The details of projects for use of modern technology sanctioned under NeGP-A during 2020-21 and 2021-22 are given in Annexure-I.

The drone deployment in the agriculture sector of the country is new and the country is gaining experience in this sector including building up of the start-up ecosystem in different States. To provide impetus to start ups for agriculture, a component called “Innovation and Agri-Entrepreneurship Development” has been launched under Rashtriya Krishi Vikas Yojana (RKVY-RAFTAAR) in 2018-19 with the objective of promoting innovation and agri-entrepreneurship by providing financial support and nurturing the incubation ecosystem. Under this programme, start-ups including for drones are encouraged to use innovative technologies to resolve challenges faced in agriculture and allied sectors.

Projects sanctioned under NeGP-A during 2020-21 for the project for use of modern technology:

S.No.	State/UT	Technology	Amount
(i)	Arunachal Pradesh	Resilient Supply Chain for identified Agricultural Crops Leveraging Digitization	Rs.81 Lakh
(ii)	Bihar	Digital Package of Practices for Major Crops and Automation Technique in Irrigation in State Seed Multiplication Farms	Rs.354 Lakh
(iii)	Meghalaya	Development of web and mobile based "Crop Pest Surveillance and Advisory Project"	Rs.63 Lakh
(iv)	Uttar Pradesh	(i) Unmanned Aerial Vehicle for Agriculture Applications, (ii) Hand Held Tool based Soil Health Monitoring Integrated system and (iii) Automated Fire Alert System for Crop Residue Burning in U.P.	Rs.121 Lakh
(v)	Telangana	(i) Crop Monitoring (ii) Automated irrigation Systems (iii) Fertilizer Calculation (iv) Automated Farm Operation (v) Traceability from seeds to produce and (vi) Produce Grading and Quality Assaying	Rs.186 Lakh
(vi)	Odisha	Creation of Farmer Database	Rs.178 Lakh
(vii)	Punjab	(i) Development of Crop and Soil Digital Algorithms for Crop Growth Monitoring, Crop Yield and Soil Quality at Farm Level using Remote Sensing, GIS and Machine Learning Techniques and (ii) Precision irrigation in major cropping systems of Punjab using artificial intelligence and sub-surface drip system	Rs.52 Lakh
(viii)	Assam	e-project on ML based Crop Health Check up for paddy crops.	Rs.134 Lakh
(ix)	Andhra Pradesh	Gap Analysis & proposed solution to overcome the gaps in existing system in terms of integration digital transformation & seamless process flow	Rs.426 Lakh
(x)	Madhya Pradesh	(i) Precision Farming and (ii) Ground water Availability	Rs. 161 Lakh

Projects sanctioned under NeGP-A during 2021-22 for the project for use of modern technology:

Sr. No.	Proposal Received from State	Name of Project	Amount Sanctioned as Central Share (Rs. in Lakh)	First Installment released during 2021-22 (Rs. in Lakh)
1.	Sikkim	Sikkim Agriculture Resource and Management System (ARMS)	250.50	62.62
2.	Uttarakhand	1.computerize reporting of Agricultural Statistics Land Use Statistics and Area under different crops right from village level to State level 2. A for designing, development, installation and commissioning of the smart agriculture platform using GIS, Remote Sensing, AI and IoT	227.56	56.89
3.	Nagaland	Soil & Water Resource Management, Meteorological Analysis & Forecasting System using Remote Sensing, GIS mapping, Drone and Emerging Technologies under NeGPA.	1097.00	274.25
4	Meghalaya	Regarding farmers database	33.06	8.26
5.	Tamil Nadu	creation of Unified Farmers Database and building layers or solutions over the Farmers Database	257.25	64.29
6.	Arunachal Pradesh	1.Developing a resilient Agriculture /Farm Produce Supply Chain System Leveraging Digitalization in Arunachal Pradesh 2. Development of Smart Pest Surveillance System cum Geo Spatial aided Agricultural Information System	270.00	67.50
7.	Mizoram	Geospatial Analytics & Decision Support for agriculture Development in Mizoram	122.28	30.58
8.	Odisha	For the phase-II of Krushak data base (Odisha Farmers' Database	165.05	41.26
