

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

**LOK SABHA**  
**UNSTARRED QUESTION NO. 828**  
TO BE ANSWERED ON THE 7<sup>TH</sup> FEBRUARY 2023

**SMART FARMING METHODS**

828. SHRIMATI JASKAUR MEENA:

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

- (a) whether the Government is promoting smartfarming methods through the use of technology and innovation in the agriculture sector of the country and if so, the details thereof;
- (b) the details of funds sanctioned, allocated and utilized so far across the country including Rajasthan;
- (c) the details of the achievements made so far across the country as a result thereof;
- (d) whether the Government has set any target in this regard in the country; and
- (e) if so, the details thereof?

**ANSWER**

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

(a) to (e): The adoption of modern and smart farming technologies by the farmers depends on various factors such as socioeconomic conditions, geographical conditions, crop grown, irrigation facilities etc. However, the Government of India supports and facilitates the State Governments to promote agriculture throughout the country and infusing modern and smart farming technologies into the agriculture sector. The use of modern machines including kisan drones is promoted under Sub-Mission on Agricultural Mechanization. Under NeGPA program, funding is given to State Governments for Digital Agriculture Projects using emerging technologies like Artificial Intelligence, and Machine Learning (AI/ML), Internet of Things (IOT), Block chain etc. 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 are encouraged to use innovative technologies to resolve challenges faced in agriculture and allied sectors. The funds are released to the States based on their proposals and no specific targets have been fixed towards smart farming methods. The details of State-wise funds released under SMAM

and achievements so far are given in Annexure I and details of projects sanctioned under NeGPA during 2020-21 and 2021-22 are given in Annexure-II.

**Annexure-I**

**State-wise funds released to the States and achievements since 2014-15 under Sub-Mission on Agricultural Mechanization**

<b>State</b>	<b>Funds Released (Rs. in Crores)</b>	<b>Number of Agricultural machinery distributed on subsidy</b>	<b>Total Number of Custom Hiring Centres/Hi-Tech Hubs and Machinery Banks established</b>
Andhra Pradesh	808.72	251514	10598
Arunachal	46.54	35984	13
Assam	53.33	733	561
Bihar	94.93	28559	1035
Chhattisgarh	198.94	94485	2219
Gujarat	66.17	27240	62
Haryana	258.14	24870	2313
Himachal Pradesh	152.53	43290	53
Jammu & Kashmir	51.64	14719	333
Jharkhand	24.69	0	527
Karnataka	722.95	175827	786
Kerala	208.06	61879	1030
Madhya Pradesh	336.12	199528	1046
Maharashtra	473.51	85292	1364
Manipur	104.71	18445	738
Meghalaya	8.84	2457	8
Mizoram	32.21	3947	255
Nagaland	152.94	16162	400
Orissa	289.24	49397	1738
Punjab	102.68	12666	1256
Rajasthan	96.2	23501	1243
Sikkim	29.18	5454	52
Tamil Nadu	468.89	37182	3178
Telangana	40.67	28954	195
Tripura	154.90	41177	562
Uttar Pradesh	403.37	139937	7078
Uttarakhand	260.60	30617	1814
West Bengal	59.71	6497	445
D&D Nagar	1.10	89	0
Puducherry	7.51	489	13
Ladakh	1.03	1314	0
<b>TOTAL</b>	<b>5710.05</b>	<b>1462205</b>	<b>40915</b>

## Annexure-II

**Pilot projects sanctioned in different States/UTs under NeGPA for Financial Year  
2020-2021 and 2021-22**

S. No.	State	Technology	Project Cost (Rs in Lakhs)
<b>2021-22</b>			
1	Arunachal Pradesh	Resilient Supply Chain for identified Agricultural Crops Leveraging Digitization	81
2	Bihar	Digital Package of Practices for Major Crops and Automation Technique in Irrigation in State Seed Multiplication Farms	354
3	Meghalaya	Development of web and mobile based "Crop Pest Surveillance and Advisory Project	63
4	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.	121
5	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	186
6	Odisha	Creation of Farmer Database	178
7	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	52
8	Assam	e-project on ML based Crop Health Checkup for paddy crops.	135
9	Andhra Pradesh	Gap Analysis & proposed solution to overcome the gaps in existing system in terms of integration of digital transformation & seamless process flow	426
<b>2021-22</b>			
1	Sikkim	Sikkim Agriculture Resource and Management System (ARMS)	278.33
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	252.85
3	Nagaland	Soil & Water Resource Management, Meteorological Analysis & Forecasting System	1223

		using Remote Sensing, GIS mapping, Drone and Emerging Technologies under NeGPA.	
4	Meghalaya	Regarding farmers database	36.73
5	Tamil Nadu	creation of Unified Farmers Database and building layers or solutions over the Farmers Database	428.57
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	300
7	Mizoram	Geospatial Analytics & Decision Support for agriculture Development in Mizoram	135.90
8	Haryana	Implementation of Emerging Technologies in Agriculture Sector in Haryana	828
9	Andhra Pradesh	Implementation of Phase-II “UDP app to operate RBKs”	4446
10	Punjab	Estimation of Groundwater Unit Draft and Water Budgeting in Different Agro-climatic Regions of Punjab using Internet of Things and Satellite Remote Sensing	341.6
11	Odisha	Phase II of Krushak database (Odisha’s farmers database)	331.59

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