GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

RAJYA SABHA
STARRED QUESTION NO. 362
ANSWERED ON 27.03.2026

ESTABLISHMENT OF CAMP OFFICE OF CRIDA AT NANDED

*362. DR. AJEET MADHAVRAO GOPCHADE:

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

(a) whether Government intends to establish a camp office of the Central Research Institute for Dryland Agriculture (CRIDA) at Nanded to provide hands-on training and field level guidance to farmers of the region, as many farmers are unable to travel to its Hyderabad office;

(b) if not, the reasons therefor;

(c) the number of new farming technologies and practices that have been developed by the Institute during the last three years; and

(d) whether the impact and field-level outcomes of these technologies have been independently evaluated through any neutral or accredited agency, if so, the details thereof?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE
(SHRI SHIVRAJ SINGH CHOUHAN)

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

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STATEMENT REFERRED TO IN REPLY TO PARTS (A) TO (D) IN RESPECT OF RAJYA SABHA STARRED QUESTION NO. 362 FOR REPLY ON 27.03.2026 REGARDING "ESTABLISHMENT OF CAMP OFFICE OF CRIDA AT NANDED".

(a) & (b): ICAR- Central Research Institute for Dryland Agriculture (CRIDA) is conducting basic and strategic research on dryland agriculture addressing the problems of dryland and rainfed regions of the country including Nanded. Besides, CRIDA through All India Coordinated Research Project on Dry Land Agriculture (AICRPDA) and All India Coordinated Research Project on Agro-Meteorology (AICRPAM) centres and National Innovations in Climate Resilient Agriculture - Technology demonstration component (NICRA-TDC) centres located in the region is working to provide hands-on training and field level guidance to farmers of the Nanded region to avoid unnecessary travel of farmers to Hyderabad office.

The AICRPAM and AICRPDA centre at Parbhani are undertaking critical and strategic research, focusing on the evaluation and establishment of region-specific crops and cropping systems, rainwater management, nutrient management, energy management, alternative land use management, Rainfed Integrated Farming Systems, resource characterization, agro advisories and the establishment of crop-weather-insect-pest relationships for major crops of dryland agriculture. The study findings of the Marathwada Region including Nanded are communicated to farmers through centres of NICRA-TDC and the Krishi Vigyan Kendras (KVKs) located in the Marathwada region.

The Marathwada area is home to Vasantrao Naik Marathwada Krishi Vidyapeeth in Parbhani, which has been operational since 1972, focusing on research, education, training, and the extension of agriculture tailored to regional needs. The university has the AICRPAM and AICRPDA center at Parbhani to cater the needs of the entire agroclimatic region of Central Maharashtra Zone of Maharashtra comprising of the districts of Aurangabad, Parbhani, Hingoli, Nanded, Beed, Latur, Osmanabad, and Jalna. Krishi Vigyan Kendra, Limbgaon and Nanded is providing expert guidance on crop production, soil health, pest control, and modern dryland agricultural techniques.

Further, district-level contingency plans to address climatic aberration and effect of extreme weather events have been developed and disseminated among various stakeholders at the grassroots level. ICAR-CRIDA is consistently holding pre-kharif interface meetings with state authorities to solicit suggestions and engage in discussions about the district-level contingency plan and shared with the state department officials for implementation. Besides ICAR-CRIDA, several other ICAR institutes (**Annexure-I**) and state agricultural universities continues to provide training and field level guidance to farmers of the region.

The AICRPDA, AICRPAM and KVKs (NICRA-TDC) located in Marathwada region are working as a camp office of the CRIDA to provide hands-on training and field level guidance to farmers of Nanded region.

(c): A total of 86 technologies/ products/ practices/ methodologies were developed by CRIDA and its AICRP Centres suitable for different agro-ecologies of country including Marathwada region of Maharashtra during last three years. ICAR-CRIDA has developed 20 technologies/ practices (**Annexure-II**), AICRPAM network have developed 5 new technologies (**Annexure-III**), AICRPDA network have developed new 44 technologies/ practices (**Annexure-IV**) and NICRA network has developed 17 new technologies/ practices (**Annexure-V**).

(d): The outcome of the Institute has also been evaluated by an independent Third Party every five years. In 2021, the third-party assessment was done by Administrative Staff College of India (ASCI) and ranked "Outstanding". Recently (in January, 2026) the outcomes of the AICRPDA/ AICRPAM/ CRIDA/ NICRA network have been assessed by the Quality Council of India (QCI). The impact and field level outcomes of these technologies is monitored and evaluated by Quinquennial Review Team every five-year, Research Advisory Committee and Institute Management Committee every year by a panel of experts constituted by Secretary, Department of Agricultural Research and Education (DARE) & DG, ICAR. A high-level monitoring committee under the chairmanship of Secretary, DARE & DG, ICAR with invited members representing different ministries also review the NICRA and other network projects.

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ANNEXURE-I

[PART (A) & (B) OF RAJYA SABHA STARRED Q. NO. 362 DATED 27.03.2026]

ICAR institutes and state agricultural universities working in Maharashtra

ICAR institutes:

1. ICAR-National Institute of Abiotic Stress Management, Baramati
2. ICAR-National Bureau of Soil Survey and Land Use Planning, Nagpur
3. ICAR-Central Institute for Cotton Research, Nagpur
4. ICAR–Central Citrus Research Institute, Nagpur
5. ICAR–National Research Centre on Grapes, Pune
6. ICAR–Directorate of Floricultural Research, Pune
7. ICAR–Directorate of Onion and Garlic Research, Pune
8. ICAR–National Research Centre on Pomegranate, Solapur
9. ICAR–Central Institute of Fisheries Education, Mumbai
10. ICAR - Central Institute for Research on Cotton Technology, Mumbai
11. ICAR- Agricultural Technology Application Research Institute, Pune
12. ICAR-Indian Agricultural Research Institute Regional Station, Pune
13. ICAR-National Bureau of Plant Genetic Resources Regional Station, Akola
14. ICAR-Indian Institute of Millets Research Regional Station on Rabi Sorghum, Solapur
15. ICAR-Indian Sugarcane Research Institute Biological Control Lab, Ahmad Nagar

State agricultural universities and other institutes:

1. Vasantrao Naik Marathwada Krishi Vidapeeth (VNMKV), Parbhani
2. Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola
3. Mahatma Phule Krishi Vidyapeeth, Rahuri
4. Dr Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, Ratnagiri
5. Bhabha Atomic Research Centre, Trombay, Mumbai
6. Bharati Vidyapeeth Deemed University, Pune
7. Maharashtra Animal and Fishery Sciences University, Nagpur
8. Krishi Vigyan Kendras- 81 in all the districts
9. AICRP – 23 at VNMKV, Parbhani

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ANNEXURE-II

[PART (C) OF RAJYA SABHA STARRED Q. NO. 362 DATED 27.03.2026]

Technologies generated at ICAR-CRIDA during last three years

1. DSS on farm pond-based irrigation systems in different agro-climatic regions:
2. Designed and developed a variable width raised bed planter cum herbicide applicator
3. A high ground clearance platform developed and mounted on mini tractor for inter row weeding and spraying operations in rainfed cropping systems especially in cotton, pigeonpea, sorghum and maize crops
4. Development of Three-row planter.
5. Autonomous platform for weeding in the raised bed cropping system:
6. Location specific in situ moisture conservation practices for rainfed regions
7. Climate resilient rainfed Integrated Farming System (IFS) for small holders
8. Dry fortified Total Mixed Ration (TMR) for indigenous sheep
9. Organic rainfed crop (greengram, pigeonpea and sunflower) production protocol was developed and documented.
10. Unreaped yield potentials of major rainfed crops and scope for bridging yield gaps- A Decision Support system (DSS)
11. Climate resilient fodder based cropping system for rainfed Alfisols
12. Organic Fodder Production for rainfed regions
13. Developed 100 block level agricultural contingency plans for Maharashtra, Odisha, Karnataka and Andhra Pradesh. District agricultural contingency plans were prepared for 650 districts, updated (386 districts), validated (23 village clusters in 15 states) and sensitized officials for preparedness through 48 State- level interface meetings.
14. Drought proofing action plans was developed for 24 districts spread over Karnataka (16), Andhra Pradesh (4) and Rajasthan (4) at block level and the document was shared with NRAA, New Delhi for implementation.
15. Real-time contingency measures (soil, crop and water) to cope with early/midseason/terminal drought and flood, Drought Manual & AESR based crop planning.

16. Crop-Pest DSS for Maharashtra state: Based on isoline GIS maps for weather data superimposed with pest data on soybean, cotton, rice, maize, sugarcane, tur and gram crops on weekly basis highlighting the risk prone districts for different pests and diseases.
17. Commodity specific (including horticulture, livestock and fisheries) climate risk assessment at granular scale
18. Microbial consortia (CRIDA Resilia 1, 2) for drought tolerance in rainfed maize.
19. Protocol developed for Solar power-cum-battery operated E-Prime mover.
20. Developed and validated Conservation Agriculture (CA) practices for rainfed systems in the states of Telangana, Andhra Pradesh, Maharashtra, Karnataka in crops like sorghum, maize, cotton, pigeon pea, finger millet.

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ANNEXURE-III

[PART (C) OF RAJYA SABHA STARRED Q. NO. 362 DATED 27.03.2026]

Technologies generated at AICRPAM during last three years

1. Developed 'Criteria-based decisions for Agroclimatic onset of crop season' based on rainfall & soil moisture dynamics. Developed district-level onset dates, will ensure better crop establishment compared to conventional sowing strategy based on the onset of monsoon especially during the kharif season.
2. Micro-level Agromet Advisory Services (MAAS) conceptualized and implemented to enhance the accuracy and operational feasibility of block level agromet advisories. The program was implemented in 50 selected villages across 20 states of the country covering 1250 farmers.
3. Agroclimatic Atlases were developed using long term block-level daily climate data which is useful for climate-based crop planning, seasonal monitoring, and adaptive farming, and supports real-time agromet advisories.
4. "Weather Cock" Software was developed for the analysis of agroclimatic data uniformly aid in agrometeorological analysis and decision support. It supports creation of agroclimatic atlases and district profiles in a standardized format, enabling better comparison and national-level integration
5. Developed 'Dynamic Crop Weather Calendar' (DCWC), a DSS software for on-farm operations like optimum sowing time, irrigation scheduling and prediction of crop stages, etc. This concept was adopted by IMD and presently being implemented in 92 districts of the country for automation of Agromet Advisory Services (AAS) under GKMS program of MoES.

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ANNEXURE-IV

[PART (C) OF RAJYA SABHA STARRED Q. NO. 362 DATED 27.03.2026]

Technologies generated at AICRPDA during last three years

1. Foliar Nutrient Spray for Dry Spell Management in Maize for Southern zone in Rajasthan
2. Integrated Nutrient Management in Clusterbean for Southern zone in Rajasthan
3. Foliar Nutrition for Drought Management in Blackgram for Southern zone in Rajasthan
4. Microbial Consortium-Based INM in Chickpea for Southern zone in Rajasthan
5. Ber-Based Agro-Horticulture System with Cotton + Soybean Intercropping for Western Vidarbha Zone in Maharashtra
6. Farm Pond-Based Catchment–Storage–Command System for Enhancing Water Productivity for Western Vidarbha Zone in Maharashtra
7. Agroforestry-Based Fodder Production System under Rainfed Conditions for Scarce rainfall zone in Andhra Pradesh
8. Track-Type Ananta Planter for Groundnut Sowing and Conservation Furrow Formation for Scarce rainfall zone in Andhra Pradesh
9. Contingent Crop Planning under Delayed Monsoon for Scarce rainfall zone in Andhra Pradesh
10. Microbial Consortium for Drought Tolerance in Groundnut for Scarce rainfall zone in Andhra Pradesh
11. Crop + livestock IFS model for small farm holdings (partially irrigated) for Kandi region in Punjab
12. Tractor Drawn Automatic Seed-cum-Fertilizer Drill for Intercropping/Monocropping for Central, eastern and southern dry zone in Karnataka
13. Polyhouse-Based Rainwater Management System for Dryland Agriculture for Central, eastern and southern dry zone in Karnataka
14. Organic Production Technology for Turmeric for North Bank plain zone in Assam
15. Application of Ipomoea Biochar with RDF in Greengram for North Bank plain zone in Assam

16. Intercropping of pigeonpea with okra (1:1) for Western plateau zone of Jharkhand
17. Aonla-based intercropping system for marginal lands for Western plateau zone of Jharkhand
18. Intercropping of Pigeonpea + Okra (1:1) for Rainfed Uplands for Western plateau zone of Jharkhand
19. In-situ green manuring in cotton for Southern zone of Tamil Nadu
20. Foxtail Millet + Pigeonpea Intercropping System for Southern zone of Tamil Nadu
21. Complete Mechanization in Rainfed Cotton for Southern zone of Tamil Nadu
22. Farm Pond Technology Based on Catchment–Storage–Command Relationship (Rain Scarcity Zone) for Central Maharastra Plateau Zone in Maharashtra
23. Subsoiling for Enhancing Soybean Productivity in Vertisols for Central Maharastra Plateau Zone in Maharashtra
24. Complete Mechanization in Rainfed Soybean for Central Maharastra Plateau Zone in Maharashtra
25. Soybean + Pigeonpea Strip Cropping System for Central Maharastra Plateau Zone in Maharashtra
26. Suitable Crops and Varieties under Delayed Monsoon for Central Maharastra Plateau Zone in Maharashtra
27. Ridge furrow system with organic mulching in tomato–radish sequence for Eastern Ghat Zone in Odisha
28. Finger millet + vegetable intercropping in raised & sunken beds for Eastern Ghat Zone in Odisha
29. Organic nutrient management in turmeric for Eastern Ghat Zone in Odisha
30. Rainfed Integrated Farming System (RIFS) for Eastern Ghat Zone in Odisha
31. High Density Planting and Nutrient Management in Bt Cotton under Rainfed Conditions for North Saurashtra zones in Gujarat
32. Integrated Nutrient Management in Rainfed Maize for Low altitude subtropical zone in Jammu and Kashmir
33. Integrated Nutrient Management in Pearl Millet for Low altitude subtropical zone in Jammu and Kashmir
34. Foliar Nutrient Application in Wheat under Rainfed Conditions for Low altitude subtropical zone in Jammu and Kashmir

35. Farm Pond-Based Water Harvesting for Double Cropping for Keymore plateau and Satpura Hill zone in Madhya Pradesh
36. Integrated Nutrient Management for Rainfed Crops for Keymore plateau and Satpura Hill zone in Madhya Pradesh
37. Ridge and Furrow for In-situ Moisture Conservation in Soybean for Keymore plateau and Satpura Hill zone in Madhya Pradesh
38. Foliar Spray for Drought Mitigation in Soybean for Keymore plateau and Satpura Hill zone in Madhya Pradesh
39. Drumstick-Based Agri-Horticultural System for Northern Gujarat
40. Compartment bunding for rainwater harvesting in chickpea & rabi sorghum for Northern dry zone in Karnataka
41. Use of subsoiler for moisture conservation in black soils for Northern dry zone in Karnataka
42. Foxtail millet + niger intercropping system for Northern dry zone in Karnataka
43. Supplemental irrigation + mulch in pigeonpea for Northern dry zone in Karnataka
44. Ber-based agri-horti system for Northern dry zone in Karnataka

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ANNEXURE-V

[PART (C) OF RAJYA SABHA STARRED Q. NO. 362 DATED 27.03.2026]

Technologies generated at National Innovations on Climate Resilient Agriculture (NICRA) during last three years

1. Microbial formulations to reduce methane emissions and increase yield in rice
2. Green technology for rice-straw-pulp-appliance
3. Ecofriendly technology for in-situ and ex-situ rice straw decomposition through lignin-degrading-solid-microbial formulation (CR-Composter)
4. Pusa Sanjeevni, a liquid biofertilizer for plant growth promotion and alleviating moisture and salinity stress in crops
5. Energy efficient mole plough to reduce carbon footprints
6. Land shaping technology for climate resilience in coastal regions
7. Mobile application for irrigation advisory to the farmers "NeerPasanam"
8. AI based National Animal Disease Referral Expert System for forewarning of major livestock diseases
9. Anti-heat & anti-transport stress feed supplements for sheep and goat
10. Beehive briquette fuel animal heating system to mitigate cold stress in piglets
11. Climate resilient pigpen housing model for high altitude areas with rainwater harvesting system
12. Functional feed for amelioration of climate change induced abiotic stressors in aquaculture
13. Super-Intensive, Precision, and Natural Shrimp Farming (SIPNSF)
14. Grow-out farming technology of stunted milkfish (Chanos chanos) for improved productivity and climate resilience in brackishwater aquaculture
15. Climate resilient pen culture system in floodplain wetlands
16. Integrated Multi-Trophic Aquaculture (IMTA) – Integration of cage fish farming and seaweed mariculture
17. Recirculating aquaculture technology for intensive farming of rainbow trout

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