



भाकृअनुप - केन्द्रीय कटाई-उपरांत अभियांत्रिकी एवं प्रौद्योगिकी संस्थान
ICAR-Central Institute of Post Harvest & Engineering Technology
Hambran Road, PO: PAU, Ludhiana-141001 (Punjab), India

SECTION-4 OF THE RIGHT TO INFORMATION ACT-2005

(i) The particulars of organization, functions and duties of ICAR-CIPHET, Ludhiana

The ICAR-Central Institute of Post-Harvest Engineering and Technology (ICAR-CIPHET) was established on 3 October 1989 at the Punjab Agricultural University Campus, Ludhiana, Punjab, with the mandate to undertake lead research in post-harvest engineering and value-addition technologies suited to agricultural production regions and agro-processing industries. A second campus was established at Abohar, Punjab, on 19 March 1993, primarily to undertake research and development on the processing and value addition of fruits, vegetables and commercial crops. The Abohar campus was accorded the status of a Regional Station with effect from 24 January 2023 and also hosts a Krishi Vigyan Kendra (KVK), Fazilka, which works towards improving agricultural production, post-harvest management and the socio-economic conditions of the farming community.

ICAR-CIPHET is the only ICAR institute exclusively mandated to undertake research on post-harvest engineering and value addition of agricultural commodities across the commodity spectrum. The Institute undertakes basic, strategic and applied research to develop practical and sustainable technologies addressing post-harvest losses, processing and value addition, and the requirements of farmers, orchardists, rural youth, entrepreneurs and agro-processing industries. Its research and technology development contribute to reducing post-harvest losses, improving product quality and safety, enhancing resource and energy efficiency, increasing the value of agricultural produce and by-products, and creating employment and income-generation opportunities in rural areas.

The Institute carries out its research and development activities through five divisions, namely:

1. Division of Agricultural Structures and Environmental Control
2. Division of Automation and Sensor Technology
3. Division of Food Grains and Oilseeds Processing
4. Division of Horticultural Crop Processing, Abohar
5. Division of Transfer of Technology

ICAR-CIPHET is the headquarters of two major All India Coordinated Research Projects, namely the AICRP on Post-Harvest Engineering and Technology (PHET), with 29 centres, and the AICRP on Plastic Engineering in Agriculture Structures and Environment Management (PEASEM), with 14 centres across the country. The Institute also serves as a coordinating centre for the CRP on Secondary Agriculture, with five cooperating centres. Through these coordinated programmes, ICAR-CIPHET facilitates nationwide research, technology development, evaluation and dissemination in its mandated areas.

Overall, the Institute functions as a national centre of excellence for post-harvest engineering and value addition, linking research and innovation with the needs of agricultural production systems, farmers and agro-processing industries. Its activities are directed towards minimizing post-harvest losses, enhancing value realization from agricultural produce, promoting rural industrialization and entrepreneurship, and strengthening the post-harvest sector for sustainable agricultural and economic development.

Vision

Higher profitability of agricultural production systems ensuring better income to farmers and increased employment opportunities in rural sector through efficient post-harvest engineering and technological interventions for loss reduction and value addition to agricultural produce and byproducts resulting in high quality and safe food and feed at competitive prices for domestic and export markets.

Mission

Envisaging prosperity through minimization of post-harvest losses from 15% to 5% and increase in value addition from present level of 10% to 30% to produce and by-products from crops, horticulture, livestock and fisheries sectors.

Mandate

- Research on postharvest processing, preservation, storage and value addition of agricultural commodities.
- Human resource and entrepreneurship development in postharvest engineering and technology.

Organizational Structure

To fulfil its mandate, the Institute pursues its research activities through five divisions, supported by various cells and units. In addition, the Institute has a Regional Station at Abohar and a Krishi Vigyan Kendra (KVK) under its administrative supervision at Fazilka.

ICAR-CIPHET is also the headquarters of two All India Coordinated Research Projects (AICRPs), namely, the AICRP on Post-Harvest Engineering and Technology (PHET), with 29 centres, and the AICRP on Plastic Engineering in Agriculture Structures and Environment Management (PEASEM), with 14 centres across the country. In addition, the Institute serves as the coordinating centre for the CRP on Secondary Agriculture, with five cooperating centres. The overall organizational structure is reflected in the Institute's Organogram.

The Institute is headed by the Director. A high-powered Research Advisory Committee (RAC) provides guidance on research in thrust areas and new initiatives, besides evaluating and monitoring the progress of research activities. The Management Committee (WIC), constituted by the Indian Council of Agricultural Research under the chairmanship of the Director, oversees various management aspects of the Institute. Several internal committees, including the Institute Research Council (IRC), Official Language Committee and Institute Joint Staff Council (IJSC), support decentralized and effective institutional management.

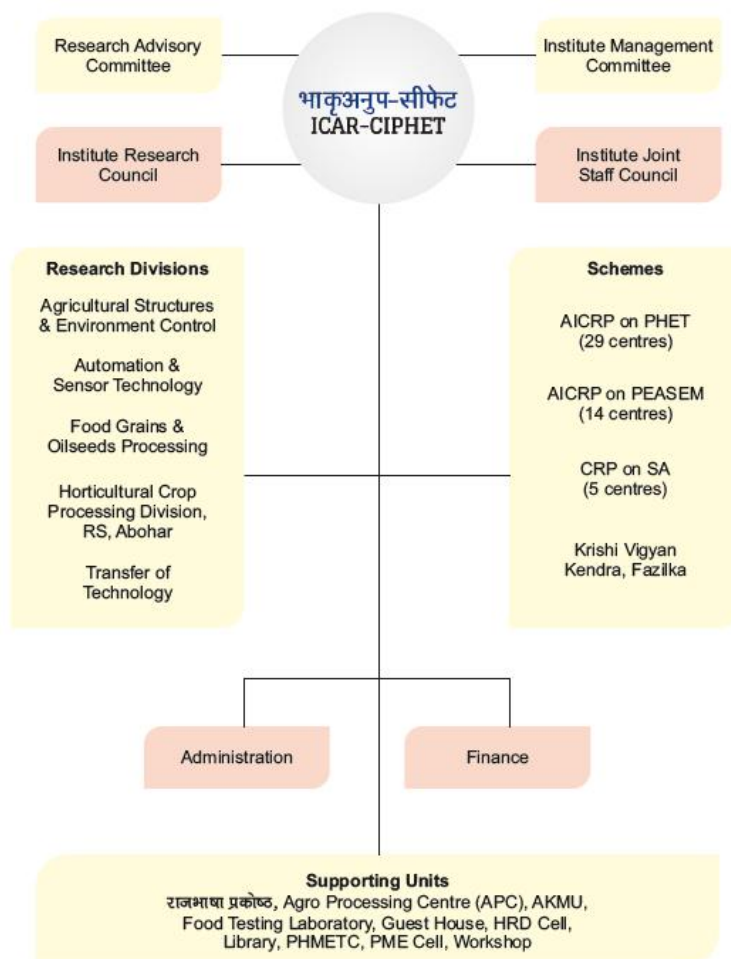


Figure 1: Organogram of ICAR-CIPHET

Research Support services

Workshop

The Ludhiana and Abohar campuses of ICAR-CIPHET have a workshop where post-harvest machinery tools & equipments are manufactured. They have a wide range of advanced tools in the workshop. The workshop is equipped with equipment and machinery for the fabrication, maintenance and repair of post-harvest machinery and its components. The key functions of the workshop include prototyping, building projects and developing problem-solving capabilities through practical application of engineering principles. The workshop staffs also provide necessary support services to develop the institute's infrastructure and machinery for suitable use. The workshop is well equipped with machinery like machining, fitting, welding and sheet metal work. Here they also provide training to students from all over India, where they trained in processes like machining, fitting, welding and sheet metal work, allowing students to build and refine their practical skills.

Library

ICAR-CIPHET serves as an important knowledge and information hub aligned with the institute's mandate. The library maintains a well-stocked collection of books and journals covering post-harvest engineering, food processing, engineering, microbiology, biochemistry,

biotechnology, and related disciplines. During the year under report, the library housed a total of 5,448 books and standards. As a member of the Consortium for e-Resources in Agriculture (CeRA), the library provides access to a wide range of online full-text journals and e-books. In addition, several national and international serial publications, annual reports, newsletters, and research bulletins received on a complimentary basis are available to readers. The library regularly circulates current contents of journals and lists of new arrivals among ICAR-CIPHET staff. During the year, the library subscribed to one Punjabi, one Hindi, and one English newspaper—Ajit, Dainik Jagran, and The Tribune, respectively—and received the Employment Newspaper, Science Reporter (English), Grehshobha (English), and India Today (both Hindi and English). Library facilities are extended to trainees from various organizations across different parts of the country.

Agricultural Knowledge Management Unit (AKMU)

The Agricultural Knowledge Management Unit (AKMU) at ICAR-CIPHET provides IT, networking, and digital support for research and administrative activities. The Unit maintains IT infrastructure, LAN and Wi-Fi connectivity across the institute and residential campus and assists in procurement of hardware and software. High-speed internet connectivity is ensured through 1 Gbps NKN and 300 Mbps BSNL optical fiber links, along with management of the EPABX system. AKMU administers licensed, security, and scientific software including MS Office, Adobe and Corel suites, Quick Heal Antivirus, Netbero Internet Management Solution, Aadhaar-based Biometric Attendance System, ANSYS, MATLAB, and Design-Expert. The Unit also provides technical support for the Conference Hall, virtual meetings, IRC and RAC meetings, and maintains the ICAR-CIPHET website (ciphnet.res.in), which was remapped and hosted on the ERNET server during the year.

Guest House

The ICAR-CIPHET campuses—Ludhiana and Abohar—provide guest house accommodation for personnel from ICAR, State Agricultural Universities (SAUs), government organizations, and farmers. In addition, the Ludhiana campus houses an International Training Centre with eight air-conditioned rooms and a dining hall with an attached kitchen, designed to meet diverse training and lodging requirements.

Agro Processing Centre (APC)

Agro-processing centres significantly contribute to rural economic development by generating employment and increasing income through local value addition of agricultural produce. ICAR-CIPHET has set up a small-scale agro-processing center focused on processing crops such as black gram, green gram, black pepper, turmeric, coriander, and others. The processed products are sold to consumers within and around the institute. In addition, the center functions as an important training facility for prospective rural entrepreneurs, providing them with practical skills and knowledge to start and manage their own agro-processing enterprises.

Institute Technology Management Unit (ITMU)

The Institute Technology Management Unit (ITMU) of ICAR-CIPHET is entrusted with the protection, management, and commercialization of intellectual property (IP) generated through the institute's research activities. It plays a crucial role in promoting and accelerating the development of advanced technologies in the field of post-harvest management. By effectively linking research outputs with practical applications, ITMU enables the conversion of innovative ideas, inventions, and technologies into commercially viable solutions that address societal needs. Since its inception, ITMU has been actively involved in safeguarding

and managing the institute's intellectual assets. So far, it has filed 81 patent applications, of which 35 have been granted. Through sustained and focused efforts, ITMU has successfully enabled the commercialization of 70 technologies developed at ICAR-CIPHET.

Agri-Business Incubation (ABI)

ICAR's Agri-Business Incubation Centers (ABICs) play a vital role in empowering farmers, entrepreneurs, and unemployed individuals by promoting innovation and supporting the development of new agricultural technologies and machinery. These centers provide access to advanced agricultural solutions along with need-based, customized support services. ABICs serve a wide spectrum of beneficiaries, including farmers, entrepreneurs, unemployed youth, women entrepreneurs, and small and medium enterprises. Through this holistic support framework, ABICs enable the effective adoption of agro-based technologies developed by ICAR-CIPHET, creating opportunities for income generation and employment in the agricultural sector.

Post-Harvest Machinery & Equipment Testing Centre (PHMETC)

The Post-Harvest Machinery and Equipment Testing Centre (PHMETC) at ICAR-CIPHET, Ludhiana is officially authorized by the Government of India to carry out rigorous testing of a broad range of post-harvest machinery and equipment. This accreditation enables PHMETC to ensure that manufacturers deliver high-quality, safe, and reliable equipment to end-users. Through the establishment of PHMETC, ICAR-CIPHET seeks to create a credible and trusted platform that instills confidence among manufacturers, buyers, and entrepreneurs engaged in post-harvest technologies. PHMETC undertakes comprehensive evaluation of machinery used in the processing of agricultural and allied products, thereby supporting the development, standardization, and adoption of efficient and dependable post-harvest solutions.

Regional Station, ICAR-CIPHET, Abohar

The Regional Station, the institute's second campus, was established on 19 March 1993 at Abohar. It is dedicated to advancing post-harvest technology and controlled environment agriculture. Its major programs address several critical areas, including the assessment and reduction of post-harvest losses across various commodities; the development of improved packaging solutions to extend shelf life and facilitate the transport of perishable goods; the application of high-pressure processing to preserve the nutritional value and quality of fruit and vegetable products; the optimization of greenhouse designs and environmental control systems for different agro-ecological zones; the development of predictive models for greenhouse environments; the design of low-cost micro-irrigation systems for efficient water and nutrient management; and the development of effective dryers for high-value crops. Collectively, these initiatives aim to enhance agricultural sustainability and productivity in the region.

Food Testing Laboratory

The Ministry of Food Processing Industries (MoFPI), New Delhi, supports a Food Testing Laboratory equipped with basic and semi-advanced analytical facilities for food analysis and safety assessment. The laboratory is accredited under ISO/IEC 17025:2017 (Certificate No. TC-12253) and offers validated testing services for key parameters such as water quality, fat, protein, fibre, and mineral content. The facility caters to the analytical and quality assurance requirements of food processors, entrepreneurs, small and medium enterprises (SMEs), and industry stakeholders at reasonable charges. During 2025, the laboratory handled a substantial number of commercial samples and generated Rs. 3.30 lakh through testing and training

activities. The unannounced audit by the National Accreditation Board for Testing and Calibration Laboratories (NABL) was conducted on 28 January 2025.

Research Programme (2025-2026)

Research Programmes of basic, strategic and applied in nature are being carried out at this institute. The list of on-going projects are given below:

Project Title	Investigators	Year of Start	Year of Completion
Institutional Projects			
Techno-economic feasibility assessment and socio-economic impact analysis of selected post-harvest technologies	Dr. Renu Balakrishnan, (PI) Dr Sandeep Mann Dr Reshma Gills Dr. Soumya Mohapatra	2021	2025
Biospeckle laser technique for post-harvest quality and safety evaluation of Peach and Maize	Dr. Shaghaf Kaukab (PI) Dr. R. C. Kasana Dr. Khwairakpam Bembem	2022	2025
Real-time fruit quality monitoring using digital twins and machine learning during storage	Dr. Dhritiman Saha (PI) Er. Thongam Sunita Devi Dr. Ranjeet Singh Dr. Vishwas Rathi	2023	2026
Metabolite profiling and sprouting inhibition of Onions for prolonged storage	Dr. Mahesh Kumar Samota (PI) Dr. Poonam Choudhary Dr. Amit Nath	2023	2026
Development of functional coating for preservation of minimally processed fruits and vegetables	Dr. Ramesh Kumar (PI) Dr. Amit Nath Dr. Sandeep Raheja,	2023	2026
Development and Evaluation of a Waterless Live Fish Transportation System for Freshwater Fish	Dr. Armaan U. Muzaddadi (PI) Dr. Vikas Kumar (Co-PI) & PI Dr. Ranjeet Singh	2023	2026
Inter-Institutional project entitled Improvement of quality traits in maize for nutritional security and industrial application including feed, starch and bioethanol <i>(Between ICAR- CIPHET - ICAR-IIMR, Ludhiana)</i>	Dr. R.C. Kasana	2022	2027
Development of a PCM based energy-efficient vending cart for fruits and vegetables	Dr. Ravi Prakash (PI) Dr. Sandeep Mann	2024	2026
Development of a Model Dairy Structure for Peri-Urban Areas	Dr. Ravi Prakash (PI)	2024	2025
Development of self-cooling coating for sustainable environment control	Dr. Abhinav Dubey (PI) Dr. Shrikrishna Nishani (Co-PI)	2024	2026

	Dr. Sandeep Mann (Co-PI)		
Development of Visible Light Induced Composite (C-Dot/TiO ₂) Photocatalytic Reactor for Ethylene Degradation	Dr. Shrikrishna Nishani (PI) Dr. Abhinav Dubey	2024	2027
Identification of Aril browning and Blackening (Black Heart Disease) in Pomegranate using X-ray imaging	Er. Ritu Bharat Kukde (PI) Dr. Shaghaf Kaukab Dr. Navnath Indore Er. Thongam Sunita Devi Dr. Pinki Raigond Dr. Manjunath	2024	2026
Development of a biosensor-based kit for quality detection of Aflatoxin B1 in maize	Er. Urhe Sumit Bhausahab (PI) Dr. Surya Prof Sunil Bhand	2024	2027
Establishment of Value chain management of tomato for minimization of post-production losses	Dr. Ramesh Kumar Dr. Soumya Mohapatra (PI)	2024	2025
Assessing the impact of Farmer Producer Organizations in Agro-processing in the Trans-Gangetic Plains of India	Dr. Amit Nath (PI) Dr. Renu Balakrishnan (Co-PI) Dr. Rahul Kumar Anurag (Co-PI)	2024	2027
Creation of online mass media based digital repository of selected CIPHET technologies and digital interface for stakeholders	Dr. Rahul Kumar Anurag (PI) Dr. Ranjeet Singh Dr. Sandeep Dawange Dr. Vikas Kumar	2024	2026
Development of on-farm maize cob drying system for effective value chain	Dr. Pankaj Panwar (PI) Dr. Shaghaf Kaukab Dr. Sumit Kumar Aggarwal, IIMR Ldh	2024	2025
<i>Inter-Institutional Collaborative Research Project entitled, "Development of an automatic fruit washing machine and grader for mangoes."</i>	Ms. Nisha Sulakhe (PI) Dr. Shilpa Selvan Dr. Karma Beer Dr. Akath Singh Dr. T Damodaran	2024	2027
Study on determination of storage losses for mustard oilseeds (<i>Brassica juncea. L.</i>) in bag and silo storage systems.	Dr. Abhinav Dubey (PI) Dr. Poonam Dr. Sandeep Mann	2025	2027
Development of rapid spectrophotometric method for monitoring quality of used frying oil	Dr. Swati Sethi (PI)	2025	2026
Design and Development of an FRP-Based Air Jet Mill for Milling Applications of Food Grains	Dr. Pankaj Panwar (PI) Dr. Swati Sethi Dr. Ranjeet Singh	2025	2028
Development of process and	Dr. Khwairakpam Bembem	2025	2027

system for making flexibly packaged peanut butter slice.	(PI) Dr. Sandeep P Dawange Dr Rahul Anurag		
Rapid NIR screening of golden rice vs conventional rice	Dr. Maharishi Tomar (PI) Dr. Manju Bala	2025	2026
Development of an imaging setup for authentication and adulteration detection in selected spices based on visual signatures	Dr. Leena Kumari (PI) Dr. Deepika Goswami Dr. Shaghaf Kaukab	2025	2027
Development of plant-based meat analogues using 3D printing technique	Dr. Deepika Goswami (PI)	2025	2027
Design and Development of Pilot-Scale Ultrasound -Assisted Extraction (UAE) System for Enhanced Recovery of Bioactive Compounds from Biological Material.	Dr. Rahul Subhash Yadav (PI) Dr. Manju Bala Dr. Sumit Urhe	2025	2028
Waste-to-Wealth: Transforming Rice Husk Fly Ash into High-Purity Silica & Silicon for Strategic Industries	Dr. S. K. Tyagi, (PI) Dr. Navnath Indore Sakharam Er. Sumit Urhe	2025	2027
Development of mini millet mill	Dr. Chandan Solanki (PI) Dr. Rahul Subhash Yadav	2025	2027
Development of nutritionally enriched Malt-Based value-added Products	Dr Sujata Sethy (PI) Dr K Bembem	2025	2027
Externally Funded Projects			
Development of image (Visual and X-Ray) based mango sorting and grading system and sensor-based monitoring system with block chain technology for supply chain of banana. <i>Co-operating Center under ICAR-Network Project on Precision Agriculture (NePPA)</i>	Dr. Nachiket Kotwaliwale, Director (Mentor) Dr. K. Narsaiah (PI) Er. Yogesh B. Kalnar Dr. Bhupendra M. Ghodki Dr. Leena Kumari (Co-PI) & PI Dr. Thingujam Bidyalakshmi Devi Er. Thongam Sunita Devi Dr. P. Suresh Kumar Dr. Dhritiman Saha	2021	2025
Mechanized system for making Hawaijar - a traditional fermented food of North-East India	Dr. Thingujam Bidyalakshmi Devi (PI) Ms. Surya Dr. Khwairakpam Bembem Dr. Ng. Joy Kumar	2021	2025
Collaborative Contract research project entitled "Development of grain image processing software	Dr. Dhritiman Saha (PI) Dr. Ranjeet Singh Dr. Nachiket Kotwaliwale	2023	2026

for rice and paddy”			
ICAR-DOCA Project entitled “Study on Determining Storage Losses of pulses stored in Warehouses and to Recommend Norms for Loss/Gain during Long term Storage.”	Dr. Nachiket Kotwaliwale (Coordinator) Dr. R. K. Vishwakarma (PI) Dr. Guru P. N. Dr. Thingujam Bidyalakshmi Devi Dr. Sandeep P. Dawange Er. Shaghaf Kaukab Dr. Navnath Indore Sakharam	2023	2027
Collaborative project on “Research, Development & Capacity Building Activities on Processing & Value Addition of Minor Forest Produce of Chhattisgarh State” between ICAR-CIPHET, Ludhiana as Nodal Agency and CGMFPEFED	Dr. Nachiket Kotwaliwale, Director, ICAR-CIPHET (Mentor) Dr. R.K. Vishwakarma, Principal Scientist & PC PHET (Mentor) Dr. Manju Bala (PI) Dr. Sandeep Mann Dr. Surya Dr. Swati Sethi Dr. Chandan Solanki Dr. Pankaj Panwar Dr. Poonam Dr. Th Bidyalakshmi Devi Dr. Sandeep P. Dawange Dr. Guru P.N.	2023	2028
Establishment of millet processing facility and development of value-added products from millets	Dr. Manju Bala (PI) Dr. Deepika Goswami Dr. Swati Sethi Dr. Chandan Solanki Dr. Pankaj Panwar Dr. Guru P.N. Dr. Surya Er. Urhe Sumit Bhausahab	2024	2026
Development of Day-Night Solar Insect Trap	Dr. Guru P.N. (PI) Er. Urhe Sumit Bhausahab	2024	2025
Up-scaling of chitosan and thymol based smart nanoformulations to control fungal diseases and fall armyworm in maize crop	Dr. Poonam (PI) Dr. Sandeep Mann Dr. Shrikrishna Shrinivas Nishani	2024	2027
Sensitizing stakeholders to minimize food loss and waste through awareness programmes.	Dr Manju Bala (PI) Dr Surya Dr. Chandan Solanki Sh. Lakhwinder Singh	2024	2026
Assessment of Oilseeds and Pulse Production and Processing Potential for Economic Prosperity and Sustainable Development: A study of Punjab	Dr. Gurdeep Singh (PI) Dr. Renu Balakrishnan Prof. Amandeep Singh Brar Prof. Bikramjit Singh Sanjeev Kumar Katria	2024	2025

	Ramandeep Kaur Sh. Harinder Singh		
Strategies for Reducing Post-harvest Losses in Selected Fruits and Vegetables <i>[Under The World Resources Institute's (WRI) Food Land and Water Program has awarded Indian Council of Agricultural Research (ICAR)]</i>	Dr. Nachiket Kotwaliwale (Mentor) Dr. Sandeep Mann (PI) Dr. Shrikrishna Shrinivas Nishani Dr. Abhinav Dubey Dr. Ravi Prakash	2025	2025
Validation of PICS (Purdue Improved Crop Storage) bags for storage of selected commodities	Dr. Guru PN (PI) Dr. Swati Sethi	2025	2026
Study on Loss or Gain in Weight/Bulk Driage/Shrinkage or Absorption of Moisture in Millets during Storage” between Chhattisgarh State Minor Forest Produce (Training and Development) Co-operative Federation Limited (CGMFPPFed), Raipur & ICAR-CIPHET, Ludhiana	Dr. Nachiket Kotwaliwale (Mentor) Dr. R.K. Vishwakarma (Mentor) Dr. Guru P.N (PI) Dr. Manju Bala Dr. Sandeep Mann Dr. Chandan Solanki	2025	2026
Development of Device for non-destructive estimation of tender coconut water volume	Dr. Abhinav Dubey (PI)	2025	2028
Development of protein recovery technology from cold-pressed and expeller-pressed sesame and groundnut meals”. (Between ICAR-CIPHET, Ludhiana and M/s Steady Rootz, Dindigul, Tamil Nadu)	Dr. Surya (PI) Dr. Manju Bala (Co-PI)	2025	2027
Image based phenotyping and multi-omic prediction schemes for horticultural crop improvement” under QUAD AI ENGAGE initiative of Government of India	Dr. Dhritiman Saha, Collaborating Institute-PI (CIP)	2025	2028
ICAR-Funded Projects			
Farmers FIRST Project entitled “Processing and Value Addition of Agricultural Produce for Enhancing Farmers income and Employment in Production Catchment with revised mandate to cover whole State of Punjab	Dr. Sandeep Mann (PI) Dr. A.K. Dixit Dr. Rahul Kumar Anurag Dr. Renu Balakrishnan Dr. Soumya Mohapatra Subhashree Sh. Rajiv Sharma Er. Yogesh Kalnar Dr. B.V.C Mahajan	2020	2026
Reformation of Makhana	Dr. R.K. Vishwakarma (PI)	2021	2026

processing and value-addition industry through mechanization and automation	Dr. Mridula D. Dr. Ranjeet Singh Dr. Kh. Bembem Dr. Guru P.N. Dr. Swati Sethi Dr. Rahul Kumar Raut		
Extraction of bioactive compounds and value addition to by-products of farms and agro-processing Industries.	Dr. Mridula D. (PI) Dr. Deepika Goswami Er. Akhoun Asrar Bashir Dr. Manju Bala (Co-PI) & (PI)	2021	2026
Genetic modification of yeast (<i>Saccharomyces cerevisiae</i>) for improving xylitol production from corn cob	Dr. R.C. Kasana (PI) Dr. Poonam	2023	2026
Agri Business Incubation and ITMU	Dr. Renu Balakrishnan, (PI) Dr. Ranjeet Singh	2024	2026
Development of building materials using natural fibers and other fibrous crops- Reinforcement of concrete bricks/blocks using fibre from crop residues under CRP on Natural Fiber (NF) CIRCOT, Mumbai	Dr. Sandeep Mann (CC-PI) Dr. Thingujam Bidyalakshmi Dr. Abhinav Dubey	2024	2027
Development and characterization of bioplastic using rice straw cellulose	Dr. Shilpa S. Selvan (PI) Dr. Mahesh Kumar Samota Dr. Amit Nath	2024	2026
Development of a portable cool crates for horticultural crops	Dr. Shilpa S. Selvan (PI) Dr. Mahesh Kumar Samota	2025	2027
Agri Drone Project (ADP) under ICAR-ATARI, Zone-I, Ludhiana	Dr. Leena Kimari (PI) Dr. Mahesh Kumar Samota	2022	2026

Future Thrust Area & Scope

The future thrust areas of ICAR-CIPHET will focus on developing sustainable and innovative post-harvest technologies for efficient utilization of agricultural resources. The research will aim to strike a balance between resource efficiency, value addition, loss reduction and environmental sustainability, with due consideration to farmers' needs, economic viability and emerging technological advancements. The major identified areas are:

- AI, automation, robotics and sensor-based technologies for smart, efficient and precision-oriented post-harvest operations.
- Advanced processing and value-addition technologies for cereals, pulses, oilseeds, fruits, vegetables, millets and other agricultural commodities.
- Smart storage, cold-chain and packaging technologies for reducing quantitative and qualitative post-harvest losses.
- Non-destructive quality assessment and food safety technologies for rapid evaluation of agricultural and processed food products.
- Energy-efficient, renewable-energy-based and climate-resilient post-harvest technologies for sustainable processing and storage.

- Utilisation and value addition of agricultural by-products and residues for promoting circular bio-economy and zero-waste processing.
- Digital technologies, IoT and data-driven systems for real-time monitoring, traceability and optimisation of post-harvest processes.
- Development and commercialisation of farmer- and entrepreneur-oriented technologies through incubation, capacity building, technology transfer and industry linkages.

Consultancy at CIPHET

Consultancy services are also available at this Institute. Many consultancy services are already completed and some of them are under process. ICAR Guidelines followed for consultancy project - <https://icar.org.in/sites/default/files/inline-files/ICAR-Guidelines-PSF-2014.pdf>

(ii) The powers and duties of its officers and employees

Duties of Director

- To plan/ coordinate research programmes and undertake case studies in the area of post-harvest engineering and technology.
- To coordinate the work of different units of this Institute
- To provide consultancies to Universities/ Research institutes
- To carry out duties as may be assigned from time to time by any authority delegated power in this regard

Duties of Scientific Staff

- To guide, lead and contribute in training/ research/ consultancy in the areas of post-harvest engineering and technology.
- To facilitate in bringing about inter-institutional linkages and collaboration.
- To carry out duties as may be assigned from time to time by the Director of this Institute or any authority delegated power in this regard.

(iii) The procedure followed in the decision-making process, including channels of supervision and accountability

The Director is assisted in the execution and implementation of various programmes by his subordinates' namely senior colleagues, AO, AAO, DDO and AF&AO. The Administration and Finance Sections of this Institute provide the needed support. The Institute Management Committee (IMC) guides and supports the Director by periodic review of programmes and approval of investments in new area of research and training programmes. The Research Advisory Committee (RAC) and Institute Research Council (IRC) provide broad guidelines and assist in developing and implementing specific research programmes and projects.

The Organogram of this Institute provided in above section (i) indicates the channels of supervision.

(iv) The norms set by it for the discharge of its functions

The norms are set by the ICAR Headquarters, New Delhi. The various functions carried out by this Institute are indicated in the mission, mandate and objectives of this Institute, outlined in the above Section (i). The major achievements of the Institute are provided on its website and publications.

Major Research Achievements- <https://ciphet.res.in>

Institute Technologies- <https://ciphet.res.in>

Awards & Honors- <https://ciphet.res.in>

(v) The rules, regulations, instructions, manuals and records, held by it or under its control or used by its employees for discharging its functions

List of Rules, regulations, instructions manuals and records

- Fundamental Rules and Supplementary Rules (General rules)
- Fundamental Rules and Supplementary Rules (Travelling Allowance Rules)
- Fundamental Rules and Supplementary Rules (Leave Rules)
- General Financial Rules & Delegation of Financial Power Rules
- Pension Rules
- Seniority and Promotion Rules
- Manual of Office Procedure
- Conduct Rules
- House Building Rules
- CCS (CCA) Rules
- Brochures on Verification of Character & Antecedents
- Instruction, Guidelines issued by the Department of Personnels & Training (DoPT) and Ministry of Finance time to time
- Rules and By rules of ICAR Society
- Delegation of Powers
- ARS Rules
- Handbook of Technical Service Rules
- Recruitment rules framed for different post in ICAR
- Seniority list in respect of various cadres/posts

(vi) A statement of the categories of documents that are held by it or under its control

Vision 2050 -	https://ciphet.res.in/about-us/vision/
Annual reports -	https://ciphet.res.in/media/annual-reports/
News Letters -	https://ciphet.res.in/media/icar-newsletter/
Research Papers -	https://ciphet.res.in/media/important-publications/
Project reports –	Under the Prioritization Monitoring & Evaluation (PME) Cell

(vii) The particulars of any arrangement that exists for consultation with, or representation by, the members of the public in relation to the formulation of its policy or implementation thereof

This Institute is guided and supported by Institute Management Committee (IMC) and Research Advisory Committee (RAC).

Both the IMC and RAC have two members in its composition who are drawn from the public, who take active part in the deliberations and decisions of these committees.

The IMC guides and supports this Institute by periodic review of programmes and approval of investments in new areas of research and training programmes. The Research Advisory Committee (RAC) and Institute Research Council (IRC) provide broad guidelines and assist in developing and implementing specific research programmes and projects.

(viii) A statement of the boards, councils, committees and other bodies consisting of two or more persons constituted as its part or for the purpose of its advice, and as to whether meetings of those boards, councils, committees, and other bodies are open to the public, or the minutes of such meetings are accessible for public

The IMC, RAC and IRC are the committees, which help this Institute in guiding and implementing its various programmes and activities.

The composition of these committees is as per the guidelines of ICAR Headquarters, New Delhi.

(ix) A directory of its officers and employees

(xii) The manner of execution of subsidy programmes, including the amounts allocated and details of beneficiaries of such programmes

NIL (Not Applicable)

(xiii) Particulars of concessions, permits, or authorizations granted by it

(xiv) Details in respect of the information, available to or held by it, reduced in an electronic form

ICAR-CIPHET Internet web: <https://ciphjet.res.in>

- About CIPHET
- Research
- Services
- Extension
- For farmers
- Publications
- Downloads
- Announcements

(xv) The particulars of facilities available to citizens for obtaining information, including the working hours of a library or reading room, if maintained for public use

(xvi) The names, designations, and other particulars of the Public Information Officers

(Last updated- 31-03-2026)