

Project Completion Report

**Mapping of IPRs and its management in academic/research institutions: A study on
agricultural research sector in India**

(DST/NSTMIS/05/36/2017-18, dated August 23, 2018)

Implemented by

Dr. Surya Mani Tripathi (Principal Investigator)

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

Study Sponsored by

National Science and Technology Management Information System (NSTMIS)

Department of Science & Technology

Government of India

©NSTMIS Division 2022

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of NSTMIS (DST). Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that the above copyright notice appears on all copies.

NSTMIS Division

Department of Science & Technology
Ministry of Science & Technology
Technology Bhawan, New Mehrauli Road, New Delhi-110016
Phone:91-011-26567373
Website:www.nstmis-dst.org/

About NSTMIS:

The National Science and Technology Management Information System (NSTMIS), a division of Department of Science and Technology (DST) has been entrusted with the task of building the information base on a continuous basis on resources devoted to scientific and technological activities for policy planning in the country.

Citation:

The report may be cited as DST/NSTMIS/05/36/2017-18: Report on Mapping of IPRs and its management in academic/research institutions: A study on agricultural research sector in India; PI – Dr. Suryamani Tripathi, ICRISAT, Hyderabad, India.

Disclaimer:

Every care has been taken to provide the authenticated information. However, the onus of authenticity of data rests with the PI of the project.

PREFACE

“Mapping of IPRs and its management in Academic / Research Institutions: A study on Agricultural Research sector in India” is a research study is funded by National Science and Technology Management Information System (NSTMIS) to retrieve and showcase details of IP developed and owned by ICAR institutions, State and Central agricultural universities and other relevant Research Academia. The project has been executed by ICRISAT with the aim to develop a dynamic database of IP protected technologies which have been developed at the public research institutes all across India in the Agricultural sector. It involved collection of IPRs data with respect to patents, plant varieties, designs, copyrights, Trademarks and GIs that have been protected by the target institutions. The study has covered mapping of publicly available IPRs from ICAR institutions, public research institutes, central and state agricultural universities and other research academic entities that developed technologies in the domains of Genetic Resources, and Crop Improvement; Agricultural Mechanization and Agricultural implements; Post-harvest, Value-addition, Food products and processes; Plant-protection and processes, Agricultural chemicals and inputs.

ACKNOWLEDGEMENT

We acknowledge the support and guidance extended by the LPAC members in the successful execution of the project. The data that has been collected as a part of this project has been retrieved from the databases of various IP offices, target institutions' websites, government records and journals.

S. NO.	NAME AND ADDRESS	POSITION
1.	Dr. R. Kalpana Sastry Managing Director at Ag-Hub Foundation, PJTSAU Ex-Professor - Tata Institute of Social Sciences (TISS), Hyderabad, and Ex-Director ICAR_NAARM, Hyderabad	Chairperson
2.	Dr. Parveen Arora Ex- Head, CHORD, DST, New Delhi	Member
3.	Prof. Harikesh Bahadur Singh (Mentor) Ex-Professor, Institute of Agricultural Sciences, Banaras Hindu University (BHU), Varanasi	Member
4.	Dr. HB Singh Ex-Scientist F, DST, Govt of India, New Delhi	Member
5.	Dr. Ajit Rangnekar Director General, Research and Innovation Circle of Hyderabad (RICH) and former Dean of the Indian School of Business (ISB), Hyderabad	Member
6.	Prof. V.C. Vivekanandan Vice Chancellor Hidayatullah National Law University	Member
7.	Dr. Sobhan Babu Sajja Senior Scientist, Asia Program, ICRISAT, Hyderabad	Member
8.	Mr. B. Hanumanth Rao Ex-Senior Manager-IP office, ICRISAT, Hyderabad	Member
9.	Dr. A.S. Prasada Reddy Centre for Organization Development, Hyderabad	Member
10.	Dr. Kumar Aashish Ex-Assistant Professor, Institute of Public Enterprise (IPE), Hyderabad	Member
11.	Dr. Surya Mani Tripathi ICRISAT, Hyderabad	Convenor

Contents

EXECUTIVE SUMMARY	5
CHAPTER 1 Introduction.....	6
CHAPTER 2 Literature Review	10
CHAPTER 3 Study Methodology	13
CHAPTER 4 Data Analysis & Findings.....	18
Analysis of IP infrastructure at Target institutions	19
Analysis of IPR data of Target Institutions.....	24
CHAPTER 5 OUTCOME.....	48
CHAPTER 6	59
FINDINGS & RECOMMENDATIONS	59
REFERENCES	66
ANNEXURES	69

EXECUTIVE SUMMARY

The study, **“Mapping of IPRs and its management in academic/research institutions: A study on agricultural research sector in India”** executed by ICRISAT and supported by the National Science and Technology Management Information System (NSTMIS), Department of Science and Technology, Government of India, aimed to study IPRs owned and protected by public research organisations in the agricultural sector across India and subsequently develop a dynamic database of IP protected technologies developed at these institutes. The core objective of this portal is to make the public institutions’ IP protected technology information available to various key stakeholders for technology exchange and technology commercialisation.

The study has been carried out by retrieving the requisite data from various publicly available data resources such as IP databases and records maintained by patent office, design office, Trademark registry, copyright office, PVPFR and GI registry; Technology and IPR information provided by the target institutions and other publicly available IP databases such as WIPO patent scope, etc.

The study reveals an analysis of the Intellectual Property assets developed and protected by the target institutions in the agricultural sector as defined in the scope of the study. A dynamic digital database of IPR protected technologies has been developed with the collected and analyzed IPR as per the project requirement.

The outcome of this project will help in developing interventions for better implementation of the National IPR Policy by analyzing the retrieved data. The research study also resulted in the development of a dynamic IP database that can serve as a platform for technology exchange, transfer and commercialisation.

CHAPTER 1

Introduction

Introduction

The agricultural research system in India is trying to gradually augment its research management with IP protection strategy, keeping up with evolving national and international IP policies. However, IPR management in the country's agricultural research domain continues to be a challenge by constraints of scale, human resource, and awareness, among other things. This directly impacts the system's ability to strategically leverage the country's traditional advantage of being a region rich in agri-biodiversity.

Researchers and policymakers involved in public research setup must evaluate the impact of including Intellectual property in their research regime for improved research impact. Applying suitable IP strategies and evaluating the costs and benefits in establishing such enabling environment for use of IPRs should be an integral part of the public agricultural research system. The reasons agricultural research institutions need to embrace IPRs are recognition, access to technology, prospects of technology transfer and generation of revenue. For example, plant varieties - another form of IP is a crucial IPR for the agricultural sector. Plant variety protection creates additional value for the specific plant variety by providing a legal basis for license contracts between the breeder and seed producers. This is an example of how IPRs could be an important tool to recoup the investment in research.

Going forward, considering the scale of innovations happening at the global level and research institutes having a crucial role to play in innovation management in the country, it is crucial for the research sector to prepare themselves for managing IPRs. Human and financial resources should be made available for IP management and the 'institutional culture' needs to undergo significant transformation to accommodate the new developments in terms of IP Management. Many academic and research institutes do not have well defined IPR policy and are still unable to

implement IP protection or commercialize their research outcomes due to many factors. These institutions have to include aspects of intellectual property in their strategies based on their mission and mandate. Explicit institutional policies are needed to guide effective management of IPRs in agricultural research. The Objective 2 of National IPRs Policy-2016 (Generation of IPRs - To stimulate the generation of IPRs) emphasizes the need to stimulate the creation of IP assets at R&D institutions, universities and technical institutes. It also demands the requirements of a comprehensive baseline survey or IP audit across sectors to formulate and implement sector-specific targeted programs.

Implementing and managing intellectual property presents many complex decisions for scientists, research managers and policymakers. Policymakers and research managers have to be aware of potential difficulties in the management of IPRs under the public research system. To formulate evidence-based policy, the policymakers need the current status of information and analysis of various indicators on IPRs.

The study, **“Mapping of IPRs and its management in academic/research institutions: A study on agricultural research sector in India”** executed by ICRISAT aimed to study IPRs owned and protected by public research organisations in the agricultural sector across India to generate critical information required for the development of measurable indicators on agricultural IPRs. The research study resulted in the subsequent development of a dynamic IP database of agricultural technologies that can serve as a platform for technology exchange.

Following are the objectives of the research study:

1. To identify enabling factors influencing the IPR protection and commercialization in agricultural research domain.
2. To map the status of IPR policy, and various forms of agriculture related IPRs in Indian academic and research institutes.
3. To collect, collate and quantitatively analyse IPRs related information for developing a set of indicators for better implementation of National IPR Policy-2016 in academic/research institute working in agricultural domain.
4. To develop a dynamic IP database consisting of IPRs data collected as a part of the research study to act as a platform for technology exchange

Limitations of the research study:

1. The research study is limited to the agricultural sector only.
2. The study has been carried out to analyze all the major IPRs such as patents, plant varieties, designs trademarks, copyrights and geographical indications. However, considering how vast the agricultural domain is, the study has been limited to the following sub-domains in the agricultural sector:
 - Genetic Resources, and Crop Improvement;
 - Agricultural Mechanization and Agricultural implements;
 - Post-harvest, Value-addition, Food products and processes;
 - Plant protection and processes, Agricultural chemicals and inputs

CHAPTER 2

Literature Review

Review of Literature

Innovation plays a pivotal role in the economic development of any country. Fostering innovation capacities is essential for successful growth experiences (Louwaars et al., 2005). IP rights are important for building these innovation capacities (Arza et al. 2010). IP can serve innovation not only by providing direct incentives for inventions, but also by a number of indirect mechanisms: facilitating access to knowledge and inventions, stimulating innovation by resolving information asymmetries, facilitating international competitiveness and trade, and enhancing opportunities for access to finance. Rosenberg (1994) studied that in the United States, licensing of IPRs from scientific organizations has been fundamental to the emergence of new industries dedicated to scientific instruments, semiconductors, computer software, and biotechnology. Prabuddha Ganguli in his discussion paper for WIPO emphasized the need for an institutional IPRs policy and stated that the primary aim of an institutional IPRs policy is to create an enabling environment that recognizes and values creativity and innovation, and simultaneously assists in translating these into an orderly fashion into products, processes, and services for the widest public good.

National innovation performance depends on a variety of factors and innovation policy choices have substantial impacts. As per OECD studies IP policy is in many cases complement to other innovation policy instruments: It can be used to foster the commercialisation of public research, to guarantee inventors responding to public procurement (demand-side policies), to back access to soft loans or other public funding and so on. Pray and Naseem (2005) reported that the net impact of patents on research tools seems positive and IPRs have stimulated research on these tools thereby increasing technical efficiency. However, the availability of input and output R&D indicators alone does not suffice to evaluate policies. Long-term temporal series of indicators is necessary to analyse the impact of specific public policies (Lemarchand, 2010).

IPRs in Indian agriculture is very crucial in the context of India's international commitments on TRIPS (Watal, 1998). Mywish Maredia (2001) generated a report for WIPO by conducting a need assessment of IPRs in public sector agricultural research institutes and concluded that the protection and use of intellectual property by a public research institute is a complex decision making process based on economics, as well as the desire to serve the public good. Vikas kumar (2015) has given an overview on impact of IPRs on Indian agricultural innovations and concluded that there is a need to improve the IPR regime in agriculture by involving public sector institutions. However, there is no comprehensive study that collected and analysed agricultural IPRs for the Indian academic and research system.

CHAPTER 3 Study

Methodology

Methodology

To execute the research study, it was important to identify the methodology that will be adopted for the research study. As a part of identifying the scope of target sample, data resources and research methods a background paper has been developed in consultation with the Project LPAC committee.

In accordance with the LPAC committee, a pilot secondary research was carried out to develop sampling strategy and applicable data retrieval methods for execution.

The Target Sampling strategy was divided into 4 parts:

1. Institutional sampling - Sampling of target Institutions based on their working domain, affiliation, size and relevance to the research study.

- The National Agricultural Research System is a humungous umbrella of Agri-Systems comprising ICAR Institutes, State and Central Agricultural Universities, National Research Centres, National Bureaus, Agriculture Technology Application Research Institutes and other scientific organisations finding their applications in Agriculture. Defining the target institutions for the research study is very crucial since the expected research output should be relevant and effective given the resource constraints. Based on their working domain, affiliation, size and relevance to the research study, the following institutes have been picked as the primary target institutions for the research study:

1. ICAR Research institutions;
2. Central agricultural universities;
3. State agricultural universities;

4. Agriculture division/units/colleges of select Central Universities
- 2. Domain sampling** - Sampling of domains from the major domain of agriculture considering the domain vastness, resources available and timelines to be adhered to.
- Considering the big spread of the Agricultural Research System and various types of IPRs generated by the system, a phase wise approach to study IP protected technologies was required. Based on the availability of resources and timelines to be adhered to, following technology domains have been finalized as target sample domains:
 1. Genetic Resources, and Crop Improvement;
 2. Agricultural Mechanization and Agricultural implements;
 3. Post-harvest, Value-addition, Food products and processes;
 4. Plant protection and processes, Agricultural chemicals and inputs.
- 3. IPRs sampling** - Sampling of IPRs in terms of major and minor focus considering the resources available and timelines to be adhered to.
- With the preliminary study on the IPs owned by the research institutions, it was observed that the most common IPRs owned by the research organisations are Patents, Plant varieties, Designs, Trademarks, Copyrights and Geographical Indications. Therefore, the following IPRs were chosen as target IP samples with major and minor focus:
 - Major Focus: Patents, Plant varieties, and Industrial Designs;
 - Minor Focus: Trademarks, registered Copyrights and GIs;
- 4. Indicators Sampling** - Sampling of target institutions considering IP resources and

infrastructure as indicators such as availability of institute's technology information in the public domain; existence of institutional IP Policy and access to the same; the existence of IP Cells and Tech Transfer offices

- Indicators such as availability of institute's technology information in the public domain; access to institutional IP Policy and existence of IP Cells and Tech Transfer offices in the institutions have been considered for carrying out the research study. A sampling of target institutions based on these indicators will provide insights into the interventions to be developed for effective implementation of the National Innovation Policy 2016.

i. Indicator 1: Institutions with the public listing of their technologies

This is a very crucial indicator to understand the efficacy of Intellectual Property Management at the institutional level. Institutions listing details of their IP and Technologies on their respective institutional websites reflect their openness to indulge in prospective technology exchange and IP licensing activities. This provides insights into developing important interventions for the National IPR Policy in terms of the value being generated through IP Protection in public research institutions.

ii. Indicator 2: Institutions having IP Policy and the availability of same to the public

ICAR Institutes are mandated to follow the ICAR's Guidelines for Intellectual Property Management and Technology transfer/Commercialization. While ICAR has its own IP Policy, it was important to identify whether other target institutions such as central and state agricultural universities, agricultural colleges, and other universities, and colleges have their own institutional IP Policy or not and if the same is available to the public.

Information on these aspects will provide insights on the penetration of National IPR policy into various hierarchies of research system.

iii. Indicator 3: Institutions having IP Cells & Tech Transfer offices/Patent Cells

Target institutions that have IP resources such as IP cells and tech transfer offices reflect their willingness to include IPR component in their research structures and their awareness on utilizing IP as an innovation management tool. Access to such resources for both Internal and external stakeholders in the Innovation ecosystem proves crucial for enabling effective IP and technology exchange. This indicator shall provide insights into the readiness of research institutions to utilize IP as a technology monetization tool.

Data Sources: Data has been collected from resources like Patent databases (such as WIPO's Patent scope, Patent Lens, Google Patents, Patseer by Gridlogics India Private Limited and Lexis Nexis); Indian IP office websites such as (Indian Patent office, Geographical Indications Registry, Protection of Plant Varieties & Farmers' Rights Authority, Trademarks Registry), published journals, peer reviewed scientific journals, Government records and publications along with questionnaires and surveys

CHAPTER 4 Data
Analysis & Findings

Data Analysis and Findings

India has one of the largest agricultural research systems in the world with the largest number of scientific personnel of any developing country engaged in research and education relating to agriculture and allied areas. The research system includes approximately 30,000 scientists and more than 100,000 supporting staff actively engaged in research related to agriculture. India has one of the world's largest Agricultural Research Systems viz., National Agricultural Research System (NARS) including ICAR institutes and State Agricultural Universities (SAUs). The NARS has contributed immensely to making India self-sufficient in food production and serves the agricultural technology and information needs of the country.

Analysis of IP infrastructure at Target institutions

As part of the data collection and analysis for the background paper, the IP infrastructure of target institutes was analyzed through secondary sources and virtual discussions. The following insights have been retrieved:

i. Institutions with the public listing of their technologies

Agricultural Universities (AU's):

- a. About 8% of 71 AUs have their technologies listed on their website along with information about IPRs.
- b. About 5% of 71 AUs have listed information about the patents filed by them but haven't uploaded any details of the technologies at their institutes.
- c. About 44% of 71 AUs have technology titles listed on their portals with no information on the status of IPRs.
- d. About 42% of 71 AUs neither have any technology details nor details of IPRs on their

web portals.

- e. Though few Universities have listed their technologies on their websites, the details furnished about the technologies developed are very limited, outdated, and have no scope to access technology information or IP status.

ICAR Research Institutes:

- a. About 34% of 65 ICAR Institutes have listed information on technologies developed by them and patents owned by them on their portal.
- b. About 26% of 65 ICAR Institutes have listed information about their technologies on their website with no details on IPRs.
- c. About 40% of 65 ICAR Institutes have not listed information about their technologies, or the patents owned by them on their portals.

While few Institutes have listed their technologies on their websites, the details furnished were very limited in terms of technology details and access to IPR related information.

ii. Institutions having IP Policy and the availability of same to the public

ICAR Institutes are mandated to follow the ICAR's Guidelines for Intellectual Property Management and Technology transfer/Commercialisation. Since all the ICAR Research Institutes follow ICAR Guidelines for IPM, most of the institutions have not listed the IP Policy details in their respective web portals. From our preliminary search on IP Policies in Agricultural Universities, the following data trends have been captured:

- As much as 97% of the 71 Agricultural Universities in India either do not have an IP policy in place or have not listed their IP Policy details on their web portals;

- Only 2 State Agricultural Universities have listed Information about their IP Policies - Ch. Sarwan Kumar Himachal Pradesh Krishi Viswavidyalaya, Palampur – Himachal Pradesh has adopted ICAR’s IPM guidelines while TNAU, Tamil Nadu has its own IP Policy developed;
- Though TNAU has its own IP Policy, the policy document has not been listed on their official portal and has been retrieved from other sources in the public domain thus making it a challenge to gain access to the policy.
- Few other Academic entities who listed their Institutional IP Policy in the public Domain entities include Banaras Hindu University, National Academy for Agricultural Sciences, and Kurukshetra University.

iii. Institutions having IP Cells & Tech Transfer offices/Patent Cells

According to the report by Press Information Bureau, IPR Cells have been established in 41 universities across different States in the country. But access to these IP Cells has been challenging as the details of the same are not in the public domain. A preliminary search has been carried out to retrieve details of IP cells/Tech Management cells as established by the ICAR institutions and the Agricultural Universities according to the details listed in their web portal/public domain.

State Agricultural Universities (SAUs):

- G.B. Pant University of Agriculture & Technology, Pantnagar has listed the details of their IP/Tech Management Cell along with contact details;
- Agriculture University, Jodhpur has listed the details of the IP/TM Cell with names of the Committee members but with no contact details;

- As huge as 96% of State and Central Agricultural Universities have no information on IP/TM cells on their Web portals;
- During the study it has been identified that in compliance with the National IPR Policy, the Cell for IPR Promotion & Management (CIPAM)- Ministry of Commerce and Industry, Government of India has proposed an IP framework for academic institutions in the form of “Model guidelines on the implementation of IPR policy in Academic Institutions”. It has been found that various State Governments have been approached to establish IPR Cells in various academic institutions; IPR Cells have been established in 41 universities across different States. In addition, ‘Institution Innovation Councils’ (IICs) have been set up in more than 1000 Higher Education Institutions (HEIs) through the Innovation Cell at AICTE under the Ministry of HRD.
- Though serious efforts have been put to encourage State and Central Academic Institutions to establish these IP/TM Cells, a very small % of the institutions seemed to have implemented it.

ICAR Research Institutes:

- 74% of 65 ICAR Research Institutes have not listed any information about the IP/TM Committees in their web portals;
- Only 26% of 65 ICAR Research institutes have listed information about the IP/TM committees in their web portals;
- Though this 26% of 65 Institutes have listed IP/TM committee details on their portals, the information only had committee member names and their designations with no information on contact details or any communication reference details.

ICAR National Research Centres:

- 53% of 15 National Research centers have not listed any information about the IP/TM Committees in their web portals;
- 47% of 15 National Research Centres have listed information about the IP/TM committees in their web portals with limited information about contact details.

National Bureaus:

- 5 out of 6 ICAR National Bureaus have details of IP/TM committee details on their websites.

Directorates:

- 46% of 13 Directorates have not listed any details on IP/TM committees on their web portals.
- 54% of 13 Directorates have listed details of their IP/TM Committees on their portals with limited contact information.

Analysis of IPR data of Target Institutions

All the IPR Data have been collected from resources like Patent databases (such as WIPO's Patent scope, Patent Lens, Google Patents, Patseer by Gridlogics India Private Limited and Lexis Nexis); Indian IP office websites such as (Indian Patent office, Geographical Indications Registry, Protection of Plant Varieties & Farmers' Rights Authority, Trademarks Registry), published journals, peer-reviewed scientific journals, Government records and publications, and validated through virtual discussions.

Patents

Patent information from ICAR Research institutions, Central and State agricultural universities, Agriculture division/units/colleges of select Central Universities and other research and academic institutions have been retrieved in the following technology domains:

- Genetic Resources, and Crop Improvement;
- Agricultural Mechanization and Agricultural implements;
- Post-harvest, Value-addition, Food products and processes;
- Plant protection and processes, Agricultural chemicals and inputs

Details of more than 700 Patents owned by the target institutions in the targeted domains have been retrieved by means of Patent search through IPC (International Patent Classification) codes. It is a hierarchical classification system used primarily to classify and search patent documents (patent applications, specifications of granted patents, utility models, etc.) according to their respective technical fields. It, therefore, serves as an instrument for an orderly arrangement of patent documents, a basis for selective dissemination of information and a basis for investigating the state of the art in given fields of technology.

The following IPC Codes have been analyzed as the relevant classification codes for retrieving patents from the target domains:

- **Genetic Resources and Crop improvement:**

1. A01H (covers all aspects related to new plant including disease resistant, cold resistant, growth speed, modification in gene, DNA, RNA, and peptides)
2. A01G (vegetative propagation)
3. C07H (Compounds containing saccharide radicals such as sugar and its derivatives, nucleosides; nucleotides; nucleic acids, etc.)
4. C12M (Apparatus for enzymology or microbiology for culturing microorganisms (including plant cells) for producing biomass, for growing cells, or for obtaining fermentation or metabolic products, i.e. bioreactors or fermenters)
5. C12N (Method and apparatus for propagating, preserving, or maintaining microorganisms and also mutation or genetic engineering of plant cell or plant tissue culture. It also includes culture media for plant cell or plant tissue culture)
6. C12P (Fermentation or enzyme-using processes to synthesize desired chemical compound or composition or to separate optical isomers from a racemic mixture)
7. C12Q (Measuring or testing processes involving enzymes, nucleic acids, or microorganisms e.g., test papers and method of condition-responsive control in microbiological or enzymological processes)
8. C12R (Indexing scheme relating to microorganisms)
9. C13K (Sugar industry-grade saccharides obtained from natural sources or by hydrolysis of naturally occurring disaccharides, oligosaccharides or polysaccharides)

- **Agricultural Mechanization and Agricultural implements:**

1. A01B (parts, details, or accessories of agricultural machine or implements)
2. A01C (apparatus used for treating or testing seeds, manuring, planting, transplanting machines, machines, or apparatus for consolidating soil around plants, distribution of fertilizers)
3. A01D (machinery for harvesting and mowing, hand implements)
4. A01F (apparatus used for threshing, baling, and cutting)
5. A01G (Cutting implements specially adapted for horticultural purposes; Delimiting standing trees)
6. A47J (Apparatus for human necessity such as kitchen equipment, coffee mills, spice mills, apparatus for making beverages)
7. B27B (Wood processing apparatus and equipment for subdividing trunks or logs essentially involving sawing machines, sawing mills operations, etc.)
8. E02B (Equipment or apparatus for, or methods of, general hydraulic engineering such as drainage of soil e.g. for agricultural purposes)
9. F16D (Engineering elements such as clutches, breaks and couplings for transmitting rotation. It also covers external control of clutches by electric or electronic means in the agriculture vehicles)
10. G01S (Radiofrequency based detection devices for radio direction-finding, radio navigation, determining distance or velocity by use of radio waves, locating or presence detecting by the use of the reflection or reradiation of radio waves, analogous arrangements using other waves. It also covers systems using the reflection or reradiation of acoustic waves, e.g. sonar systems for locating fish)

- **Post-harvest, Value addition, Food products and processes:**

1. A01N (Preservation of plants or parts thereof, e.g., inhibiting evaporation, improvement of the appearance of leaves (preservation or chemical ripening of harvested fruit or vegetables Grafting wax)
2. A01G (Protecting plants (apparatus for the destruction of vermin or noxious animals, use of chemical materials therefore, composition of protective materials, e.g., grafting wax)
3. A01F (storing of agricultural or horticultural produce)
4. A01J (Apparatus and processes for manufacturing of dairy products)
5. A01K (Animal husbandry, care of animals such as birds, fishes etc., animal breeding including new breed of animals)
6. A21D (Processing/treatment for preservation of food products such as flour or dough or bakery products)
7. A23B (Processes for chemical ripening of fruits or vegetables, processes for preserving/canning fruits, vegetables, meat, fish, etc.)
8. A23C (Processes for manufacturing and treatment of dairy products such as milk, butter, cheese and milk or cheese substitutes)
9. A23D (Processes for the treatment of edible oils or fats such as margarines, shortenings, cooking oils)
10. A23F (Processes for manufacture, preparation, or infusion of coffee, tea, or their substitutes)
11. A01N (Preservation of plants or parts thereof, e.g., inhibiting evaporation, improvement of the appearance of leaves (preservation or chemical ripening of harvested fruit or vegetables Grafting wax)
12. A01G (Protecting plants (apparatus for the destruction of vermin or noxious animals,

- use of chemical materials therefore, composition of protective materials, e.g., grafting wax)
13. A01F (storing of agricultural or horticultural produce)
 14. A01J (Apparatus and processes for manufacturing of dairy products)
 15. A01K (Animal husbandry, care of animals such as birds, fishes, etc., animal breeding including new breed of animals)
 16. A21D (Processing/treatment for preservation of food products such as flour or dough or bakery products)
 17. A23B (Processes for chemical ripening of fruits or vegetables, processes for preserving/canning fruits, vegetables, meat, fish, etc.)
 18. A23C (Processes for manufacturing and treatment of dairy products such as milk, butter, cheese and milk or cheese substitutes)
 19. A23D (Processes for the treatment of edible oils or fats such as margarines, shortenings, cooking oils)
 20. A23F (Processes for manufacture, preparation, or infusion of coffee, tea or their substitutes)
 21. A01N (Preservation of plants or parts thereof, e.g., inhibiting evaporation, improvement of the appearance of leaves (preservation or chemical ripening of harvested fruit or vegetables Grafting wax)
 22. A01G (Protecting plants (apparatus for the destruction of vermin or noxious animals, use of chemical materials, therefore composition of protective materials, e.g., grafting wax)
 23. A01F (storing of agricultural or horticultural produce)
 24. A01J (Apparatus and processes for manufacturing of dairy products)

25. A01K (Animal husbandry, care of animals such as birds, fishes, etc., animal breeding including new breed of animals)
 26. A21D (Processing/treatment for preservation of food products such as flour or dough or bakery products)
 27. A23B (Processes for chemical ripening of fruits or vegetables, processes for preserving/canning fruits, vegetables, meat, fish, etc.)
 28. A23C (Processes for manufacturing and treatment of dairy products such as milk, butter, cheese and milk or cheese substitutes)
 29. A23D (Processes for the treatment of edible oils or fats such as margarines, shortenings, cooking oils)
 30. A23F (Processes for manufacture, preparation, or infusion of coffee, tea or their substitutes)
- **Plant protection and process, Agricultural chemicals, and inputs:**
 1. A01N (Biocides e.g., disinfectants, pesticides, herbicides, pest repellents or attractants, plant growth regulators)
 2. A01P (Biocidal, Pest repellents or attractants, Plant growth regulatory activity of chemicals)
 3. A01G (Protecting plants -apparatus for the destruction of vermin or noxious animals, use of chemical materials therefore, composition of protective materials, e.g., grafting wax)
 4. A01M (Catching, trapping or scarring of animals for plant protection. Apparatus for the destruction of noxious animals)
 5. A62D (Firefighting methods and apparatus or chemical means for extinguishing fires or for combating or protecting against harmful chemical agents)

6. B05B (Apparatus for the release or projection of drops or droplets into the atmosphere or into a chamber to form a mist or the like for spraying or atomizing the pesticides or insecticides e.g. agriculture atomizer)
7. B09C (Method and apparatus for waste disposal and reclamation of soil i.e. partial or total elimination or the fixing of contaminants in soil)
8. C05F (Organic fertilizers used for plant growth)
9. C05G (Mixtures of one or more fertilizers with materials not having a specific fertilizing activity, e.g. pesticides, soil-conditioners, wetting agents, etc.)
10. Y02A (Covers technologies for adaptation to climate change, i.e. technologies that allow adapting to the adverse effects of climate change in human, industrial (including agriculture and livestock) and economic activities)

Retrieved Patent Data analysis:

- 478 Patents have been filed by ICAR institutions in the targeted domains, out of which 193 patents have been granted, 189 patents are still being processed and 96 patents have been inactive (abandoned/expired/refused/suspended due to various reasons including non-payment of maintenance fee).
- Details of 234 patents filed by Non-ICAR institutions have been retrieved, out of which 34 patents have been granted, 159 patents are still being processed and 41 patents have been inactive (abandoned/expired/refused/suspended due to various reasons including non-payment of maintenance fee). Non-ICAR institutions here refer to State and Central Agricultural Universities and other Research and Academic institutions.

Table 1: Patent Data Analysis based on Technology Domain

Technology Domain	ICAR institutions			Non-ICAR Institutions		
	In Application Phase	Granted Patents	Inactive Phase	In Application Phase	Granted Patents	Inactive Phase
Genetic Resources & Crop improvement	34	23	10	6	4	7
Agricultural Mechanization & Agricultural implements	64	43	28	108	16	14
Post-harvest, Value addition, Food products & processes	48	56	23	5	1	4
Plant protection & process, Agricultural chemicals, & inputs	43	71	35	40	13	16
In total	189	193	96	159	34	41

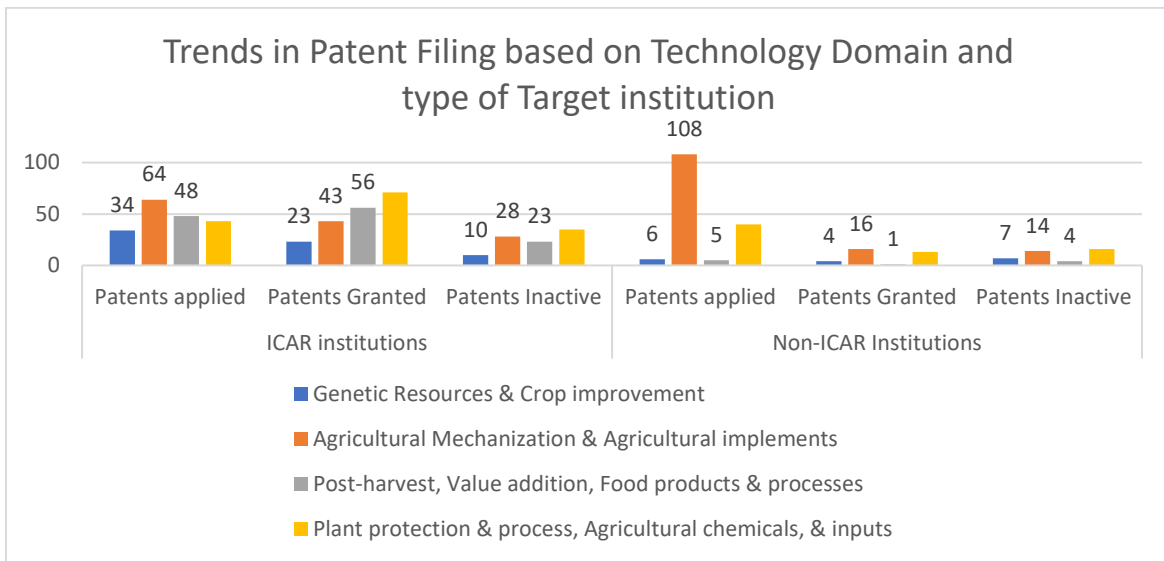
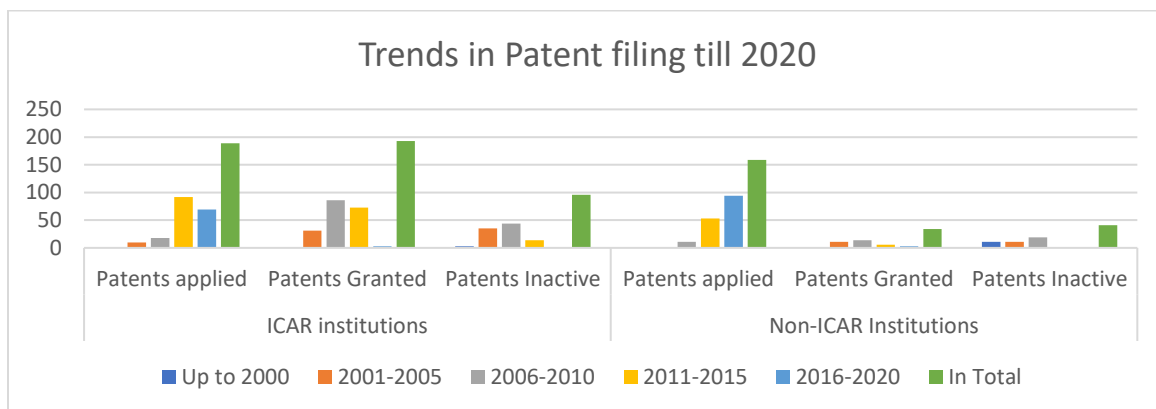


Table 2: Patent Data Analysis based on the Year of Patent application

Year of Patent Application	ICAR institutions			Non-ICAR Institutions		
	In Application Phase	Granted Patents	Inactive Phase	In Application Phase	Granted Patents	Inactive Phase
Up to 2000	0	0	3	0	0	11
2001-2005	10	31	35	1	11	11
2006-2010	18	86	44	11	14	19
2011-2015	92	73	14	53	6	0
2016-2020	69	3	0	94	3	0
In Total	189	193	96	159	34	41



- 14 out of 712 retrieved Patent documents that were filed before the Year 2000 are either abandoned/expired/refused or in suspended phase;
- Amongst the 99 out of 712 retrieved Patent documents that were filed between the Years 2001-2005, 11 are still in the application phase, 42 applications have been granted & 46 are either abandoned/expired/refused or in suspended phase due to non-payment of maintenance fee;
- Amongst the 192 out of 712 retrieved Patent documents that were filed between the Years

2006-2010, 29 are still in the application phase, 100 applications have been granted & 63 are either abandoned/expired/refused or in suspended phase due to non-payment of maintenance fee;

- Amongst the 238 out of 712 retrieved Patent documents that were filed between the Years 2011-2015, 145 are still in the application phase, 79 applications have been granted & 14 are either abandoned/expired/refused or in the suspended phase due to non-payment of maintenance fee;
- Amongst the 169 out of 712 retrieved Patent documents that were filed between the Years 2016-2020, 163 are still in the application phase and 6 applications have been granted as patents.

Plant Varieties

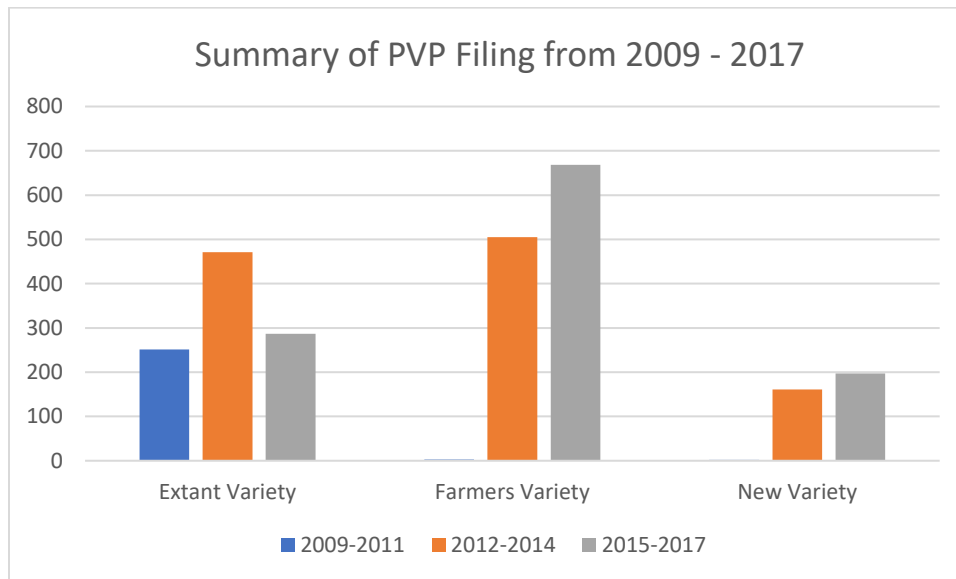
Plant varieties play an important role in accelerating agricultural development; they are even more crucial in the context of India's innovation ecosystem as India is an agrarian economy. An effective system for the protection and management of plant varieties, farmers' and plant breeder's rights is needed to catalyze the development of new plant varieties of plants and monetize the registered varieties. Protection of Plant Varieties and Farmers' Rights (PPV&FR) Authority has been established to fulfill this very objective.

- 2545 Plant varieties have been registered during the time period 2009-2017 and the details of the same have been retrieved from the journals and compendiums published by the PPV&FR Authority of India.
- Out of 2545 plant varieties registered during the time period 2009-2017, 1009 Extant varieties

have been registered which include both Extant, Extant (notified) and Extant (VCK) varieties, followed by 1176 farmer varieties and 360 new varieties.

Table 3: Types of Plant varieties registered during 2009-2017

Year	Plant Variety Type		
	Extant Variety	Farmers Variety	New Variety
2009-2011	251	3	2
2012-2014	471	505	161
2015-2017	287	668	197
Total	1009	1176	360

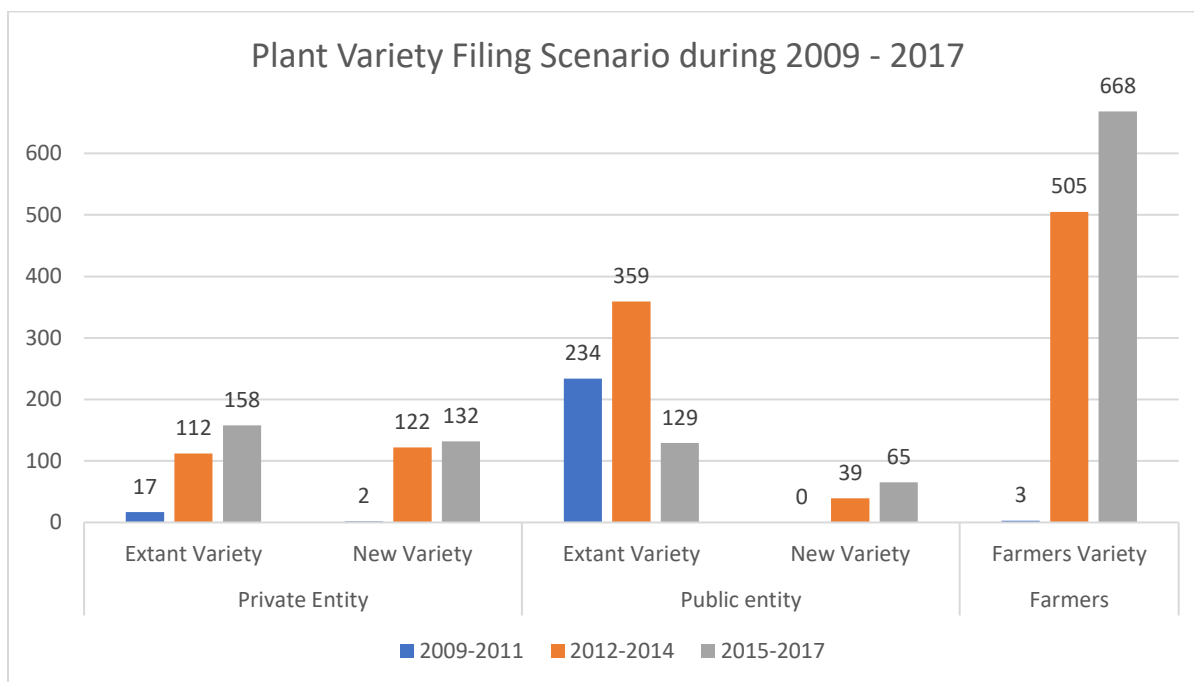


- There are 3 categories of applicants who can apply for Protection of Plant varieties:
 - ✓ Private entities which include seed companies, corporates, MSMEs and SMEs
 - ✓ Public entities which include ICAR institutions, State and Central Agricultural Universities and any other public research academia
 - ✓ Farmer entity which includes farmers

- Out of 2545 registered plant varieties, 543 plant varieties have been registered by private entities which include 287 extant varieties and 256 new varieties; 826 plant varieties have been registered by Public entities such as ICAR institutions, various other state and central agricultural universities; and 1176 plant varieties have been registered by Farmers.

Table 4: Types of Entities and the Plant varieties registered by them

Applicant Type	Private Entity		Public entity		Farmers
	Extant Variety	New Variety	Extant Variety	New Variety	Farmers Variety
2009-2011	17	2	234	0	3
2012-2014	112	122	359	39	505
2015-2017	158	132	129	65	668
Total	287	256	722	104	1176



- Plant varieties of 57 crops have been protected under the PPV&FR Act during the time period 2009-2017.

Table 5: Crops and types of Plant varieties registered during the given time period

S.No	Type of Crop	Extant variety	Farmer variety	New variety	Total Plant varieties registered
1	Barley	6	0	0	6
2	Black gram	14	1	0	15
3	Black Pepper	0	3	0	3
4	Bottle Gourd	3	0	0	3
5	Bread wheat	56	0	2	58
6	Brinjal	11	0	1	12
7	Cabbage	1	0	0	1
8	Castor	2	0	2	4
9	Cauliflower	2	0	0	2
10	Chickpea	17	2	2	21
11	Chilli	6	0	0	6
12	Coconut	6	0	0	6
13	Cotton	14	0	0	14
14	Cucumber	1	0	0	1
15	Dicoccum Wheat	3	0	0	3
16	Diploid Cotton	16	0	7	23
17	Durum Wheat	13	1	0	14
18	Field pea	21	0	0	21
19	Finger Millet	5	0	0	5
20	French bean	2	0	0	2
21	Garden pea	5	0	0	5
22	Garlic	5	0	0	5
23	Green gram	30	0	0	30
24	Groundnut	34	0	0	34
25	Indian mustard (Karan Rai)	2	0	0	2

S.No	Type of Crop	Extant variety	Farmer variety	New variety	Total Plant varieties registered
26	Indian mustard (Sarso)	58	2	2	62
27	Jute	6	0	6	12
28	Kidney bean	8	0	0	8
29	Lentil	10	0	0	10
30	Linseed	5	0	0	5
31	Maize	80	6	74	160
32	Muskmelon	2	0	0	2
33	Okra/Lady's Finger	22	0	6	28
34	Onion	6	0	0	6
35	Pearl Millet	73	0	24	97
36	Pigeon pea	5	3	5	13
37	Potato	15	0	2	17
38	Pumpkin	2	0	0	2
39	Rapeseed (Gobhi Sarson)	5	0	0	5
40	Rapeseed (Torja)	5	5	0	10
41	Rice	157	1137	82	1376
42	Ridge gourd	1	0	0	1
43	Rose	1	0	0	1
44	Safflower	5	0	0	5
45	Sesame	2	0	0	2
46	Small cardamom	0	5	0	5
47	Sorghum	55	4	49	108
48	Soybean	27	0	1	28
49	Spinach beet	1	0	0	1
50	Sugarcane	27	0	4	31
51	Sunflower	23	0	28	51

S.No	Type of Crop	Extant variety	Farmer variety	New variety	Total Plant varieties registered
52	Tetraploid Cotton	84	0	44	128
53	Tomato	25	0	0	25
54	Turmeric	2	0	0	2
55	Vegetable Amaranth	1	0	0	1
56	Wheat	21	7	19	47
Total		1009	1176	360	2545

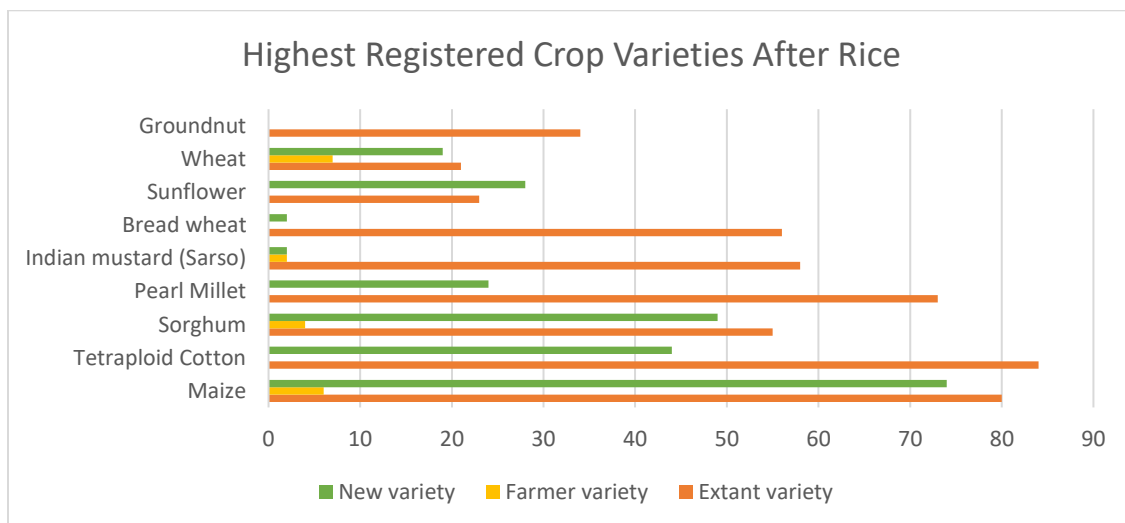
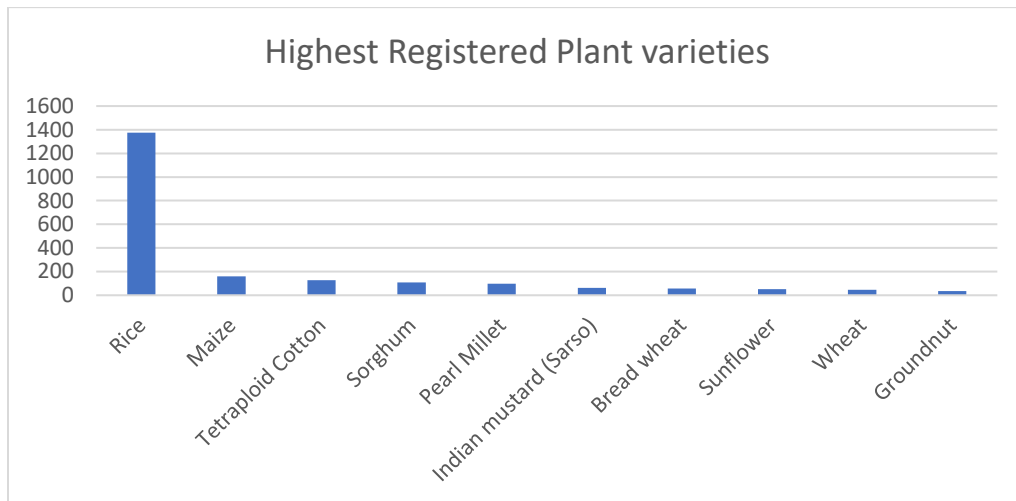


Chart showing Highest Registered Crop Varieties after Rice

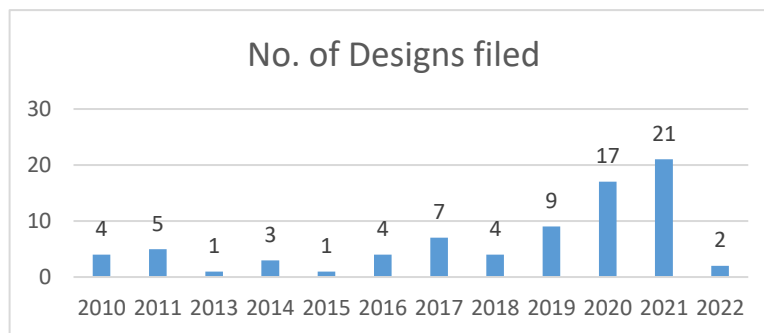
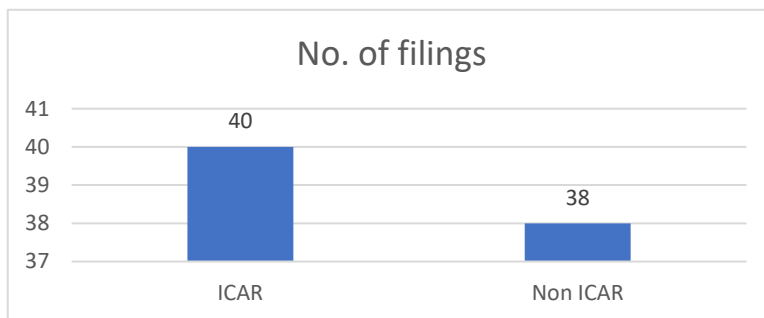
Industrial Designs

An industrial design right is an intellectual property right that protects the visual or aesthetic aspects of a product. Industrial Design protection is provided for a shape, configuration, surface pattern, colour, or line (or a combination of these), which, when applied to a functional article, produces or increases aesthetics, and improves the visual appearance of the design, be it a two-dimensional or a three-dimensional article. As per Indian Law, under the Design Act of 2000, Industrial Design protection is a type of intellectual property right that gives the exclusive right to make, sell, and use articles that embody the protected design.

- Data of 78 Industrial designs owned by ICAR institutions and other academic institutions involved in technologies with application in agriculture have been retrieved from the Design office of India.
- Most of the design applications were filed for agricultural machinery such as grass cutters, weeders, planters, tractors, feeders and agricultural implants.
- Industrial Designs is a very relevant IP in the agricultural sector as this IP is utilized for the protection of the design of agricultural machinery and agricultural implements that play a very important role in building effective agricultural engineering solutions.
- Though the relevance of Design protection is very relevant for the agricultural sector, the number of filings by the target institutions is relatively low since the design right is considered to be weaker IP protection as compared to patents.

Table: Year-wise Designs filing summary

Year	No. of Designs filed
2010	4
2011	5
2013	1
2014	3
2015	1
2016	4
2017	7
2018	4
2019	9
2020	17
2021	21
2022	2
Total	78



- It has been observed that most of the industrial designs registered by non-ICAR entities (universities and colleges) are not core agricultural universities, but technology universities involved in developing technologies that find application in the agriculture domain. Agricultural universities are yet to pick up in terms of IP filings and efforts to build awareness on the importance of IP filings are need of the hour.

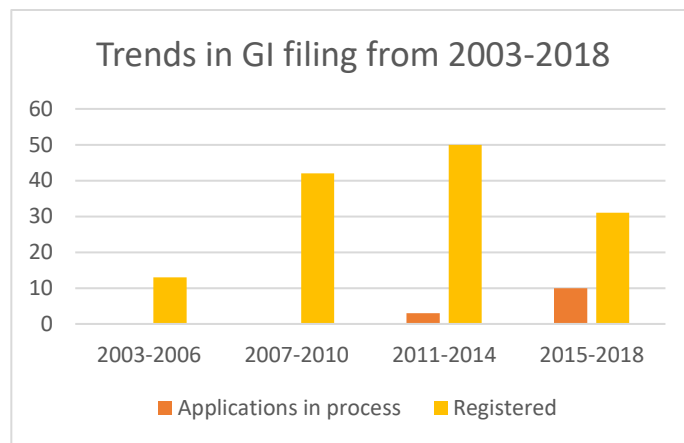
Geographical Indications

Geographical indications (GI) refer to a type of intellectual property (IP) protection that identifies goods with a geographical region. GI tags may be obtained for agricultural products, handicrafts, textiles, manufactured goods, foodstuffs, etc.

- This research study has considered Agricultural GIs which were applied for registration during the time period 2003-2018.
- 370 Geographical Indications have been registered to date in India, out of which 149 GIs are Agricultural Geographical Indications. The information of 149 agricultural GIs has been retrieved from the official website of the Geographical Indications Registry, India.

Table 6: GI filing summary

Year of Application	GI Application Status	
	Applications in process	Registered
2003-2006	0	13
2007-2010	0	42
2011-2014	3	50
2015-2018	10	31
Total	13	136



- ✓ 13 Agricultural GI applications have been filed during 2003-2006 and all the 13 applications have been granted the GI Tag;
- ✓ 42 Agricultural GI applications have been filed during 2007-2010 and all the 42 applications have been granted the GI Tag;

- ✓ 53 Agricultural GI applications have been filed during 2011-2014, out of which 50 applications have been granted GI tag and 3 applications are still being examined/in the process;
- ✓ 41 Agricultural GI applications have been filed during 2015-2018, out of which 31 applications have been granted GI tag and 10 applications are still being examined/in process.
- ✓ State-wise agricultural GI scenario has been analyzed and the top 5 States to have a high number of granted agricultural Geographical Indications were Maharashtra, Karnataka, Kerala, Tamil Nadu and West Bengal

Table 7: Agricultural GI Distribution across States and UTs

S.No	States and Union Territories	No. of Agricultural GI registered
1	Maharashtra	27
2	Karnataka	25
3	Kerala	16
4	Tamil Nadu	15
5	West Bengal	10
6	Assam	6
7	Uttar Pradesh	6
8	Andhra Pradesh	5
9	Bihar	5
10	Manipur	5
11	Odisha	5
12	Himachal Pradesh	4
13	Nagaland	4
14	Madhya Pradesh	3
15	Mizoram	3
16	Goa	2

S.No	States and Union Territories	No. of Agricultural GI registered
17	Gujarat	2
18	Jammu & Kashmir	2
19	Meghalaya	2
20	Punjab	2
21	Sikkim	2
22	Telangana	2
30	Uttarakhand	2
23	Arunachal Pradesh	1
24	Chhattisgarh	1
25	Delhi	1
26	Haryana	1
27	Rajasthan	1
28	Tamil Nadu	1
29	Tripura	1

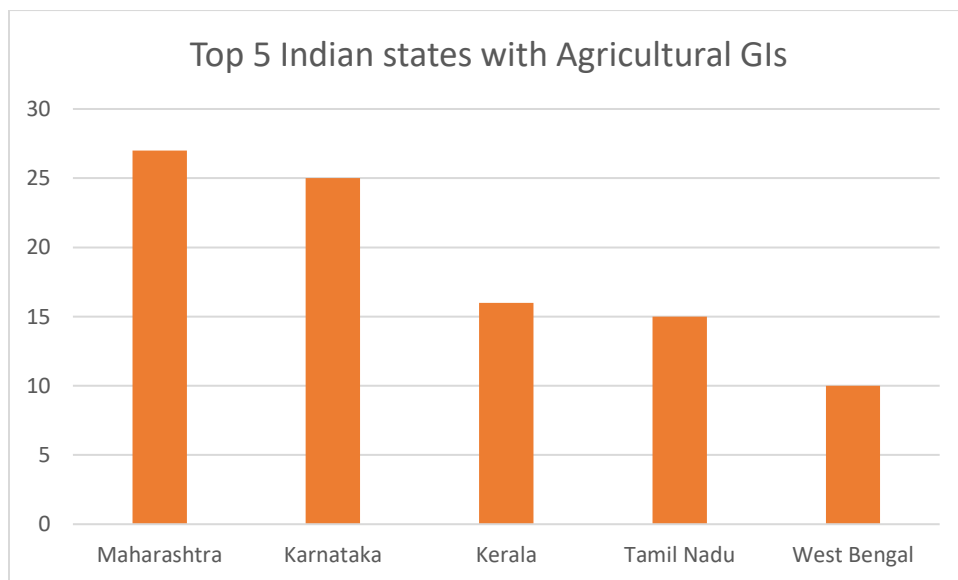


Chart showing five Indian states with Agricultural-GIs

Copyrights

Copyright (or author's right) is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture, and films, to computer programs, databases, advertisements, maps, and technical drawings. Data for Copyrights have been retrieved from the data available on the web portal of the Copyright office, Government of India.

- ✓ Details of 160 Copyrights owned by ICAR institutions and Non-ICAR Institutions including various agricultural Research Academia between 2007 to 2021 have been retrieved
- ✓ The target applicants whose copyrights trends have been retrieved include ICAR institutions, agricultural universities and other universities which filed copyrights with Agriculture related subject matter

Table 8: Types of Copyrights applied and granted between 2007 – 2021

Year	Applied				Granted			
	Artistic	Cinematograph Film	Computer Software	Literary/Dramatic	Artistic	Cinematograph Film	Computer Software	Literary/Dramatic
2007-2011	0	0	0	7	0	0	0	7
2012-2016	0	0	15	19	0	0	11	10
2017-2021	4	4	49	62	4	4	53	71
Total	4	4	64	88	4	4	64	88
Grand Total	160				160			

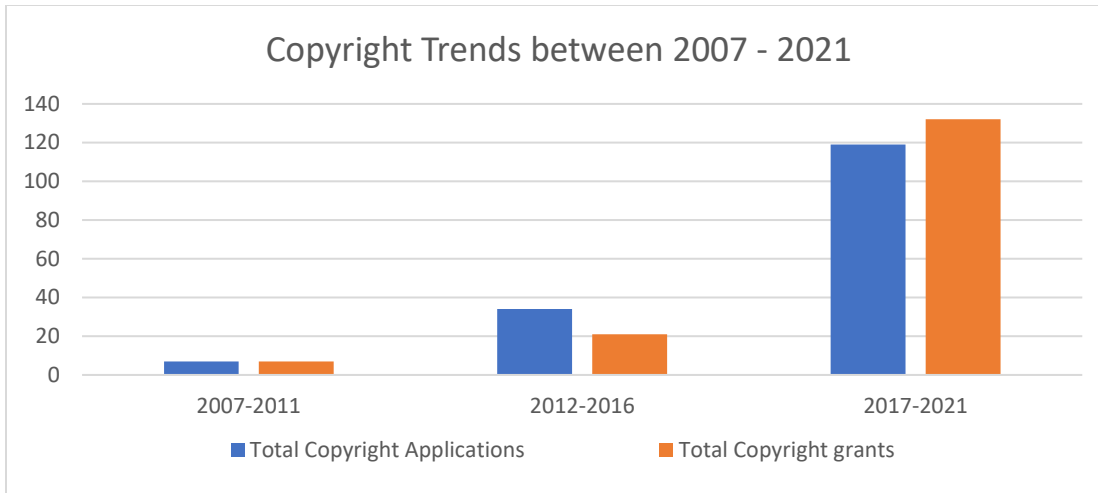
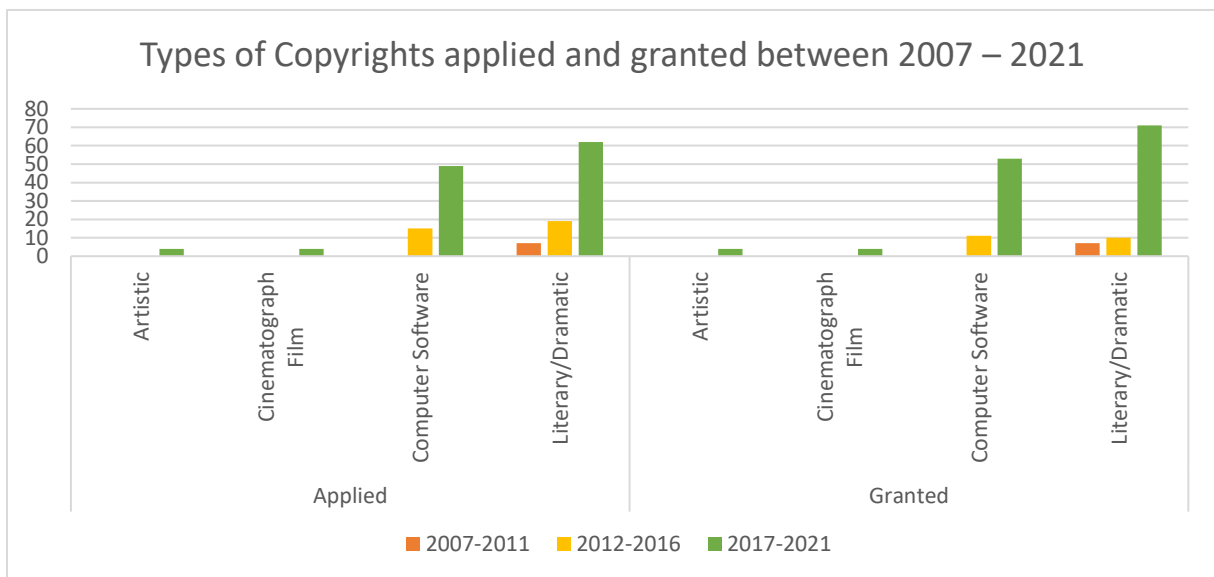


Chart showing copyright trends

- The filing of copyrights has seen a rise after 2017 which may be a result of the execution of the National IPR Policy, 2016 which promoted Intellectual Property Protection and IP awareness in the country.
- Copyrights have been filed in 4 Categories by the Target Institutions:
 - Artistic
 - Cinematograph Film
 - Computer software
 - Literary/Dramatic



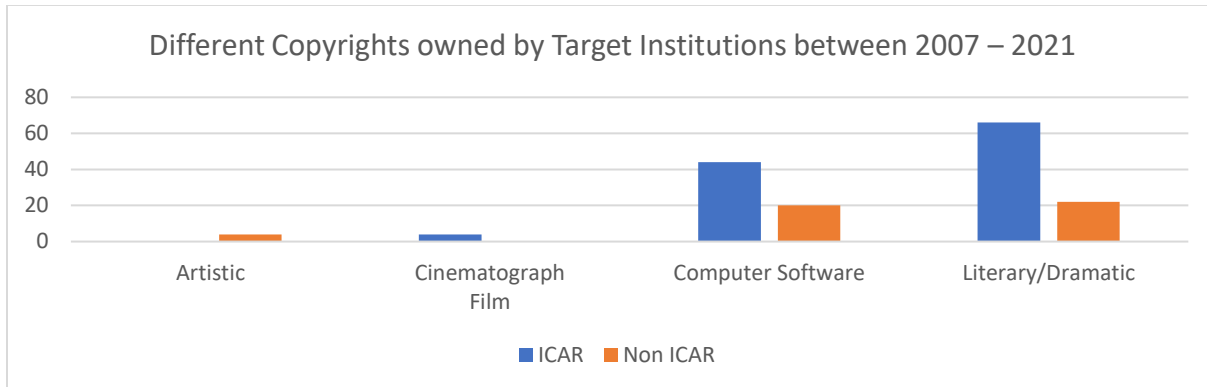


Table 9: Different Copyrights owned by Target Institutions between 2007 – 2021

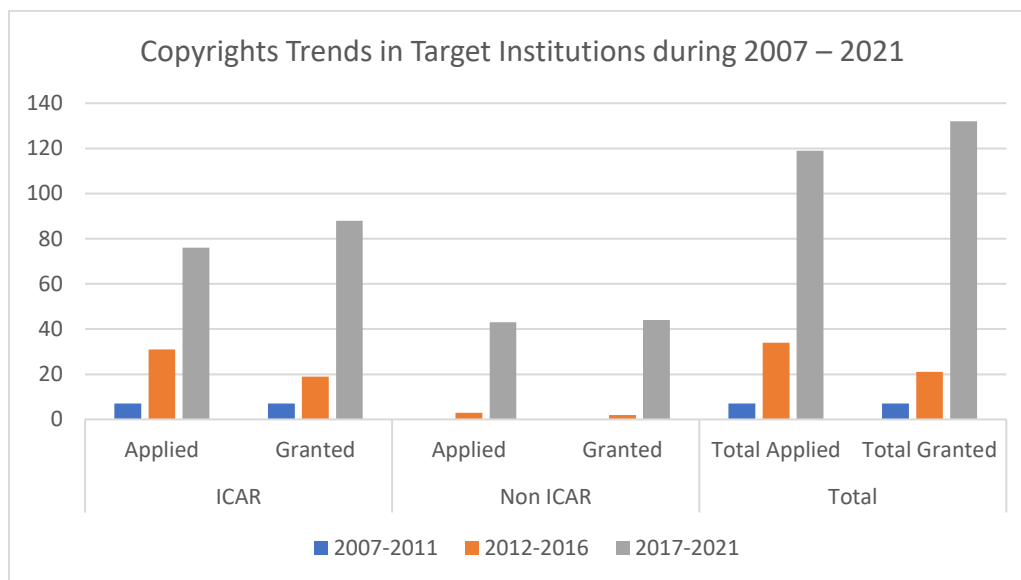
Copyright type	ICAR	Non ICAR	Total
Artistic	0	4	4
Cinematograph Film	4	0	4
Computer Software	44	20	64
Literary/Dramatic	66	22	88
Grand Total	114	46	160

- Significant number of applications have been filed by target institutions in Literary and computer software categories compared to the other two categories

Table 10: Copyrights applied and granted to Target Institutions between 2007 – 2021

Applied Year	ICAR		Non-ICAR		Total	
	Applied	Granted	Applied	Granted	Total Applied	Total Granted
2007-2011	7	7	0	0	7	7
2012-2016	31	19	3	2	34	21
2017-2021	76	88	43	44	119	132
Grand Total	114	114	46	46	160	160

- A total of 114 agricultural copyrights are owned by ICAR institutions while Non-ICAR institutions own 46 copyrights relevant to agriculture.



Trademarks

A trademark is any word, name, symbol, or design, or any combination thereof, used to identify and distinguish the goods of one entity from another entity; and to indicate the source of the goods. Trademark is a branding tool that is quite common for business entities which have their goods and services trademarked for promotions and brand building. Usage of trademarks has been relatively very low for the chosen target institutions as these institutions are yet to realize the monetization potential of having protected Intellectual Property. Since the target institutions are not business entities, therefore the relevance of trademark IP is less compared to the relevance of other IP such as patents, plant varieties, industrial designs and copyrights for the target institutions. Access to the information about trademarks filed by target institutions also has been difficult as the trademark registry does not have a trademark database, making it tough to retrieve information from government records and journals.

CHAPTER 5

OUTCOME

Outcome

The retrieved data and analyses helped to understand the current IP protection scenario in the agricultural research system. The study aided in building insights into the challenges faced by the target institutions in bettering their IP infrastructure and the resources required by them to build the requisite IP regime at their institutions. Interventions and Indicators for better implementation of the National IPR Policy are being suggested after studying and analyzing the retrieved data. The research study also resulted in the development of a dynamic IP database that can serve as a platform for technology exchange and commercialisation.

As per the LPAC Committee's recommendation, a dynamic web portal (www.techknow.org.in) has been developed to showcase the research study. The portal was developed so it can be utilised as an information resource for stakeholders in the innovation ecosystem looking for Technology exchange. The IP and technology information listed on the portal shall be helpful for both the technology developers and technology seekers to list down and seek the requisite information for facilitating Technology exchange activities.

Portal Features:

- The web portal (Techknow.org.in) is dynamic in nature and has been developed with the objective to provide an overview of IPs filed/owned by the target institutions in the Agricultural system so as to provide an opportunity for the stakeholders to identify the IPs & technologies for licensing monetization and revenue generation.
- It features all the retrieved IP information including patents, plant varieties, industrial designs, copyrights, geographical indications and trademarks owned/developed by the target institutions

- The Database provides the user with the functionality to search and retrieve requisite information through various search criteria.

IP	Search Criteria
Patents	Patent Application Number, Application year, Applicant name, Patent status, Invention title, Invention domain, and Time period
Plant varieties	denomination/plant variety name, year, crop, scientific name, plant variety type and time period
Geographical Indications	GI name, year, geographical area, GI registration status and time period
Trademark	applicant name, year of TM application, TM application number, TM, TM type and TM class
Industrial Design	applicant name, year of design application, date of design application, design application number, industrial design title and registration status
Copyrights	Applicant name, Year of copyright application, Date of copyright application, Copyright application number, Copyright title and Copyright type

Home \ IP Database \ Patents

Patents

Patent Application Number Year Applicant Name Status

Invention Title Invention Domain From Date To Date

dd-mm-yyyy dd-mm-yyyy

RESET **SEARCH**

Search Results

S. No	Applicant Name	Year Of Patent Application	Patent Application No	Invention Title	Invention Domain	Current Legal Status	Action
1	INDIAN COUNCIL OF AGRICULTURAL RESEARCH INDIAN INSTITUTE OF OIL PALM RESEARCH (IN)	2019	IN201941042841	A METHOD FOR IDENTIFICATION OF DWARF OIL PALM PLANT USING MICROSATELLITE MARKERS	Genetic Resources	Applied	
2	INDIAN COUNCIL OF AGRICULTURAL RESEARCH (IN)	2019	IN201941011344	HIGH-THROUGHPUT METHOD FOR PRODUCTION OF BANANA PLANTLETS USING SOMATIC EMBRYO REGENERATION VESSEL (SERV)	Genetic Resources	Applied	
3	INDIAN COUNCIL OF AGRICULTURAL RESEARCH (IN)	2019	IN201911011277	AEROPONIC NUTRIENT SOLUTION, AND APPLICATIONS THEREOF	Genetic Resources	Applied	
4	INDIAN COUNCIL OF AGRICULTURAL RESEARCH	2014	782/DEL/2014	NUCLEOTIDE SEQUEECNE OF RICE RESPONSIBLE FOR	Genetic	Granted	

- The portal also lets user to preview, download and print the detailed IP information

Patent Details

Patent ID 1	Applicant Name INDIAN COUNCIL OF AGRICULTURAL RESEARCH INDIAN INSTITUTE OF OIL PALM RESEARCH (IN)	Year 2019
Date Of Patent Application 2019-11-22	Patent Application No IN201941042841	Applicant Type ICAR
Description The present invention relates to the field of molecular plant biotechnology/ agricultural biotechnology. More particularly, it relates to a method for identification of dwarf oil palm (Elaeis guineensis) plant using Single Sequence Repeats (SSR) marker. The invention further relates to a method for identification of oil palm plant with less height increment using molecular markers. The methodology finds application as a marker assisted breeding programmers to identify dwarf palms.		
Invention Title	Invention Domain Genetic Resources	Invention Classification Code H01M
Inventor Name KALYANA BABU B ; RAVI KUMAR MATHUR ; ANITHA P ; RAVICHANDRAN G ; BHAGYA HP ; NAVEEN KUMAR P ; SUNIL KUMAR K	Grant Status Applied	Patent Grant No NA
State Andhra Pradesh	Applicant Address Director, ICAR-Indian Institute of Oil Palm Research, Pedavegi, West Godavari District, Andhra Pradesh, India 534450	Contact Email ip@altacit.com; info@altacit.com
Contact Number +914422501318; 9383152137	WebLink https://patentscope.wipo.int/search/en/detail.jsf?docId=IN311599845&_cid=P10-KJWKXL-95108-1	

OK **Download**

Plant Varieties

Denomination/Variety Name Year Crop Scientific Name

From Date To Date

Type

RESET

Search Results

S.No.	Year	Registration No.	Denomination/Variety Name	Crop	Type	Applicant	Actions
1	2009	1	JKBH-26(MH-595)	Pearl Millet	Extant	J.K Agri Genetics Ltd, Hyderabad-500016	
2	2009	2	JKRH-401 (IET-18181) (JKRH 2000)	Rice	Extant	J.K Agri Genetics Ltd, Hyderabad-500016	
3	2009	3	JKSH-22(JKSH-161)	Sorghum	Extant	J.K Agri Genetics Ltd, Hyderabad-500016	
4	2009	4	Shekhar-2(KU 300)	Black gram	Extant	ICAR, Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi-110001	
5	2009	5	KU-91(Azad Urd-2)	Black gram	Extant	ICAR, Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi-110001	
6	2009	6	Azad Urd-3 (KU-96-3)	Black gram	Extant	ICAR, Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi-110001	
7	2009	7	IPU-94-1(Ultra)	Black gram	Extant	ICAR, Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi-110001	

Plant Varieties

Plant Variety Details - JKBH-26(MH-595) ✕

Year 2009	Registration Number 1	Denomination/Variety Name JKBH-26(MH-595)
Crop Pearl Millet	Scientific Name	
Characteristics Erect having conical shaped ear head with yellow anther, 1.6-3.5 cm spike girth, 21-30 cm spike length, 4-6 productive tillers with tip sterility and gray seed colour with globular shape		
Acknowledgement No NIL	Type Extant	Applicant J.K Agri Genetics Ltd, Hyderabad-500016
Date of Certificate 14-6-2007	Category Private	Contact address and E-mail
Additional details, if any -		

OK

Home \ IP Database \ Geographical Indications

Geographical Indications

Name of the GI Year Geographical Area GI Registration Status

From Date To Date

dd-mm-yyyy dd-mm-yyyy

RESET

Search Results

GI Title	GI Application No	Geographical Area	Applicant Name	Year of GI Application	GI Registration Status	Action
Darjeeling Tea (Word)	1	West Bengal	Tea Board	2003	Registered	
Navara Rice	17	Kerala	Navara Rice Farmers Society	2004	Registered	
Kangra tea	25	Himachal Pradesh	H.P. Patent Information Centre	2005	Registered	
Coorg Orange	33	Karnataka	Department of Horticulture	2005	Registered	
Mysore Betel leaf	34	Karnataka	Department of Horticulture	2005	Registered	
Nanjanagud Banana	35	Karnataka	Department of Horticulture	2005	Registered	
Palakkadan Matta Rice	36	Kerala	Palakkadan Matta Farmers Producer Company Limited	2005	Registered	
Malabar Pepper	49	Kerala, Karnataka & Tamilnadu	Spice Board, Ministry of Commerce & Industry	2006	Registered	

Home \ IP Database \ Geographical Indications

Geographical Indications

Name of the GI Year Geographical Area GI Registration Status

From Date To Date

dd-mm-yyyy dd-mm-yyyy

RESET

Geographical Indication Details

GI Id 1	Applicant Name Tea Board	Geographical Area West Bengal
Year Of GI 2003	Date Of GI 2003-10-27	
Description Of GI The rare flavour of darjeeling tea is a result of combination of plant genes, soil chemistry, elevations, temperature and rainfall unique to the Darieeling hills. A set of agricultural practice has been developed to sustain growth of shoots, while maintaining bush heights suitable for manual plucking		
GI Application No 1	GI Title Darjeeling Tea (Word)	Registration Status Registered
Contact Address And Email Tea Board 14, B.T.M. Sarani (Brabourne Road), P.O.Box No.2172, Kolkatta - 700 001, India.		Web Link http://ipindiaservices.gov.in/GIRPublic/Application/Details/1

OK

Search Results

GI Title	GI Application No	Geographical Area	Applicant Name	Year of GI Application	GI Registration Status	Action
Darjeeling Tea (Word)	1	West Bengal	Tea Board	2003	Registered	
Navara Rice	17	Kerala	Navara Rice Farmers Society	2004	Registered	
Kangra tea	25	Himachal Pradesh	H.P. Patent Information Centre	2005	Registered	
Coorg Orange	33	Karnataka	Department of Horticulture	2005	Registered	
Mysore Betel leaf	34	Karnataka	Department of Horticulture	2005	Registered	
Nanjanagud Banana	35	Karnataka	Department of Horticulture	2005	Registered	
Palakkadan Matta Rice	36	Kerala	Palakkadan Matta Farmers Producer Company Limited	2005	Registered	

Home \ IP Database \ Trademark

Trademark

Applicant Name Year of Trademark Application Trademark Application No Trademark

Trademark Type Trademark class

RESET

Search Results

S. No	Year of Trademark Application	Trademark Application No	Trademark	Trademark Type	Trademark class	Registration Status	Action
-------	-------------------------------	--------------------------	-----------	----------------	-----------------	---------------------	--------

Home \ IP Database \ Design

Industrial Design

Applicant Name Year of Design Application Date of Design Application Design Application No

Industrial Design title Registration Status

RESET

Search Results

Search:

S. No	Applicant Name	Year of Design Application	Design Application No	Industrial Design title	Inventor Name (details)	Registration Status	Action
-------	----------------	----------------------------	-----------------------	-------------------------	-------------------------	---------------------	--------

Home \ IP Database \ Copyright

Registered Copyright

Applicant Name Year of Copyright Application Date of Copyright Application Copyright Application No

Copyright Title Copyright Type

RESET

- The portal has been developed as a dynamic website so that the portal can be updated with the latest IP and technology information as and when needed facilitating for technology exchange between technology developers and Technology Seekers.
- Any stakeholder can request to list their technologies and Intellectual property in the portal by approaching the ICRISAT team. The portal has features called Technology portfolio and IP licensing portfolio which capture these initiatives.
- **Technology Portfolio** – any stakeholder in the innovation ecosystem can submit their technology details for listing in the web portal for better outreach and call for tech transfer opportunities. The following details of the technology will be captured:
 - a. Technology Title
 - b. Technology Domain
 - c. Executive Summary
 - d. Value Proposition

e. Advantages

f. Industrial Applicability

g. Tech-readiness Index

1. Stage 1: Ideation
2. Stage 2: Concept definition
3. Stage 3: Proof of Concept
4. Stage 4: Prototype
5. Stage 5: Lab validation
6. Stage 6: technology development
7. Stage 7: Technology demonstration
8. Stage 8: Technology Integration
9. Stage 9: Market Launch

h. IPRs associated with the Technology

1. IP Type
2. IP application No
3. IP current legal status

i. Contact Details

1. Name
2. Designation
3. Contact No
4. E-mail

j. Technology images/videos

k. IP grant certificate, if any

The screenshot shows a web form titled "Add Technology Portfolio". The form is divided into several sections:

- Technology Information:** Fields for Technology Title, Technology Domain, Executive Summary, and Value Proposition.
- Advantages and Industrial applicability:** Two separate text input fields.
- Contact Details:** Fields for Name, Designation, Contact No., and Email.
- Tech readiness index:** A section with the instruction "Tick all the applicable stages" and a list of checkboxes for stages 1 through 9: Ideation, Concept definition, Proof of Concept, Prototype, Lab validation, technology development, Technology demonstration, Technology Integration, and Market Launch.
- IP Information:** A dropdown for IP type, a text field for IP Application No., and a radio button for IP current legal status (Yes/No).
- Uploads:** Two "Choose File" buttons for "Technology images/video" and "IP grant certificate".
- Additional Technology Info:** A text input field.
- Buttons:** "CANCEL" and "ADD TECHNOLOGY PORTFOLIO" (highlighted in green).

- **IP Licensing Portfolio** - any stakeholder in the innovation ecosystem can submit the details of the IP they own for listing in the web portal for better outreach and call for IP licensing and monetisation opportunities. The following details of the IP will be captured:
 - IP Type
 - IP title
 - Short description
 - Application No
 - Application Date
 - Current Legal Status
 - IP grant No
 - Contact details
 1. Name
 2. Designation
 3. Contact No

4. E-mail

- Relevant IP images/Videos
- IP grant certificate if any

The screenshot displays a web form for adding an IP licensing portfolio. The form is titled "Add Ip Licensing Portfolio" and includes the following fields and sections:

- IP type:** A dropdown menu.
- Title:** A text input field.
- Short description:** A text input field.
- Application No.:** A text input field.
- Application Date:** A date picker showing "dd-mm-yyyy".
- Current Legal status:** A checkbox.
- IP grant No, if applicable:** A text input field.
- Contact Details:**
 - Name:** A text input field.
 - Designation:** A text input field.
 - Contact No.:** A text input field.
 - Email:** A text input field.
- Additional Details:**
 - Upload Files:**
 - Relevant IP images/video:** A file upload button labeled "Choose File" with the text "No file chosen".
 - IP grant certificate:** A file upload button labeled "Choose File" with the text "No file chosen".
 - Additional IP info:** A text input field.

At the bottom right of the form, there are two buttons: "CANCEL" and "ADD IP LICENSING PORTFOLIO".

- **Institutional Profile** – Considering how proactive target institutions have grown to become in terms of establishing requisite IP infrastructure taking a cue from the National IPR Policy 2016, the portal has been developed with the provision for institutions to list their details of IP office/Tech transfer office/Patent cells, etc. for ease of communication and access to institutional innovators and IP owners for IP Monetisation and Tech transfer activities.

For the same, the following details of the Institutions will be captured:

- Institution Name
- Institution Type
- State
- Website
- Contact Email
- Contact No

- Details of IP office/IP cell/Tech Transfer office
 1. Entity/Dept Name
 2. Nodal Officer
 3. Contact No
 4. Contact email
 5. Website
 6. IP Policy details
 7. Upload IP Policy document

The screenshot shows a web portal interface for adding an institutional profile. The form is titled "Add Institutional Profile" and contains the following fields and options:

- Institute Name *** (text input)
- Institutional Acronym** (text input)
- Institution Type** (dropdown menu)
- State** (dropdown menu)
- Institution Website *** (text input)
- Contact Email *** (text input)
- Contact No.** (text input)
- Does your institute have an IP office/IP cell/Tech Transfer office?** (dropdown menu, currently set to "Yes")
- Name of the Entity** (text input)
- Name of the Nodal officer** (text input)
- Contact No.** (text input)
- Contact email** (dropdown menu)
- Website Link** (text input)
- Additional Details, if any** (text input)
- Institutional IP Policy *** (dropdown menu, currently set to "Yes")
- Upload IP Policy** (text input) with a **Choose File** button and "No file chosen" text.
- Policy Document Link** (text input)

At the bottom right of the form, there are two buttons: **CANCEL** and **ADD INSTITUTIONAL PROFILE**.

*Other images of the web portal are annexed in the annexures

CHAPTER 6

FINDINGS &

RECOMMENDATIONS

Findings & Recommendations

Green Revolution, which is regarded as one of the most important achievements of India towards Scientific advances in agriculture has led to significant milestones in the agricultural sector reflecting India's capabilities as an agricultural nation at the global level. In the era of technology and modernization, the application of Intellectual property rights to scientific discoveries is considered to be an important measure to evaluate the quality and efficacy of the developed technologies. In today's dynamic technological era, Intellectual Property (IP) is becoming increasingly significant in light of the swift advancements made in India in terms of scientific growth, creativity, entrepreneurship, and innovation. In this scenario, effective protection and management of Intellectual Property Rights (IPRs) gains importance. National IPR Policy 2016 recognizes the need to support the Indian innovation system by means of a robust IPR regime that channelizes the creative and innovative energies towards a better and brighter future for all.

As a part of the policy interventions, IP Processes have been appreciably simplified for the innovators with reduced statutory fees and fast-tracking mechanisms. Manpower expansion and skill-building have been taken up on a large scale, while nationwide IPR awareness programs for academic institutions and industry, have been made a priority to create an ecosystem of innovation and creativity.

The objective 2 of National IPR Policy focuses on stimulating IPR generation. India has a large talent pool of scientific and technological talent spread over R&D institutions, enterprises, universities and technical institutes. India being a vast agrarian economy, there is a need to tap this fertile knowledge resource and stimulate the creation of IP assets in the agricultural domain.

A comprehensive baseline survey or IP audit across sectors will enable assessment and evaluation of the potential in specific sectors and thus formulate and implement targeted programmes. The focus will be placed on facilitating researchers and innovators regarding areas of national priority.

By means of this research study, the following observations are being made specifically with reference to the agricultural research system in India along with suitable recommendations.

- The most important aspect for any entity involved in R&D is the existence of an IP policy along with research policies. While ICAR has its own IP policy in place, which all the ICAR institutes are mandated to follow, it has been identified that most the agricultural universities and colleges do not have an IP Policy in place.
- An IP policy provides an overview of the beneficial environment that will be created for researchers and innovators involved in the creation of innovations, and guidelines to access and share knowledge, technology and IP with other stakeholders in the innovation ecosystem.
- Most of the innovators seemed to lack awareness of the benefits that can be reaped for acquiring IP Protection for their inventions. Research and educational institutions also lacked knowledge on utilizing the benefits of IP protection to create monetary value as well as passing on the benefits of IP protection to its researchers and innovators.
- For this reason, the agricultural research system needs to be trained on developing an effective IP policy for their individual institutions that outlines the IPR infrastructure and its functioning.
- An effective IP policy outlines how the IP systems are going to be executed, an overview of the IP processes, functioning of IP cells/Tech transfer offices, roles and responsibilities of the human resources involved in IP cell functioning, IP dispute resolution mechanisms, IP

concerns resolution process and benefit-sharing mechanisms for each of the stakeholder involved.

- Besides having an IP Policy, the research academia also needs support in terms of establishing IP cells and Tech transfer offices that shall guide the innovators and researchers in acquiring IP protection for their intellectual work. The efforts of the Indian government in this aspect have been commendable as there have been a significant rise in the number of IP cells and Tech transfer offices that have been set up across various research and academic institutions. However, these IP cells lack the expertise of providing the requisite IP support to their beneficiaries.
 - The human resource involved in the activities of the IP cells/Tech transfer offices needs to be trained on the concepts of IP as well as on how to assist and guide the innovators for IP protection.
 - Workshops and training programs need to be organized for the IP cells to equip them with knowledge and expertise to guide the innovators and beneficiaries of their institute. Such initiatives can be organized by the government agencies in collaboration with IP facilitating agencies both nationally and internationally to capture the best IP facilitation practices that can be adopted for the Indian research academic perspective
 - Besides training and workshops for the staff employed at these IP cells, the significant focus needs to be placed in equipping the researchers and innovators at the research organisations and universities with IP knowledge through specific capacity building programs
 - For example, the low IP filing numbers in the public research space is also attributed to the lack of awareness of public disclosure of inventions through research papers

and journals before the filing of patents. Many innovators via interactions for the research study expressed that they weren't aware of losing out on patentability aspects for their inventions because of publicly disclosing their invention details in presentations and research papers. Therefore, IP cells and the institutions as a whole need to guide and mentor the innovators with requisite knowledge either through awareness seminars or via IP guidelines clearly outlined in the policy documents of the institute.

- Along with training initiatives, these IP cells need to be guided to be visible across the innovation ecosystem so as to be accessible and available for communication with other innovators and external stakeholders which bring the prospects of Technology exchange.
- Information about these IP cells and tech transfer offices has been difficult to retrieve and access, as such important information has not been published on the institute's websites. Provisions to interact with these IP cells need to be provided by the respective institute either through their websites or social media handles to enable the exchange of information that can generate leads for Technology exchange and IP monetization.
- Many of the institutes and Innovators have been quite reluctant in sharing information about the IPs they own as they feared disclosing confidential information about their inventions. It had been a challenge for the project team to retrieve the information to validate the data listed in the databases of the IP offices. This is due to the lack of awareness on what information can be disclosed and till what extent in terms of IP protected technologies. It is for the same reason public research institutes are not so avidly approached for technology exchange initiatives by corporates, startups and MSMEs. This concern of the research community needs

to be addressed through counseling and mentoring about ways to disclose IP information that will maintain confidentiality as well as will be sufficient enough to allow technology seekers to approach the research community for technology commercialisation and IP licensing.

- Government of India has been proactive in encouraging the academic institutions for filing of IPRs through means of a fee reduction and fast track processing especially for public academic institutions. Awareness about such initiatives needs to be aggressively pushed by IP facilitating agencies in the academic networks so that the filing activities of the institute are not hindered because of fund restraints and lack of financial resources.
- Breeding of new plant varieties and hybrid crop varieties have taken the center stage in terms of innovations happening at the agricultural research institutes. However, many researchers and institutes have not protected the new and hybrid crop varieties developed by them due to the lack of knowledge on plant varieties protection, the process associated with it, and the benefits that come along with a registered plant variety.
- Registered plant varieties bring great monetary value to the new varieties being bred improving their prospects for global trade and export. While there is much talking about patents, filing of patents and benefits of patent filing, not much awareness is being induced in the agricultural research community about Plant varieties protection which is the most relevant IP tool for the agriculture sector.
- Export of hybrid variety seeds that are backed by Plant variety protection has better negotiation prospects to strike for a more valued monetary price. The government needs to develop programs and initiatives that promote the protection of plant varieties and ways to realize the monetary value of these protected plant varieties. Government agencies can jump

into the bandwagon of commercialisation to act like a bridge and assist the research community in commercialisation of protected plant varieties across the globe.

- Through the National IP Policy 2016, the Government of India has emphasized on the generation of IPRs, and it is largely seen how the IP filings have seen a significant rise post the launch of the policy. The policy also focuses on commercialisation of IPRs through entrepreneurship and creation of public technology exchange platforms connecting technology developers and innovators to users and investors. “Techknow” portal developed by the project team is an effort to contribute to the Government of India’s initiatives in bringing technologies developed in public research organisations to the market place so that they are not confined to the shelf with no further value creation.
- More Technology commercialisation platforms and entities need to be developed so the research community can be mentored and hand held for commercialisation and licensing activities. The existing IP cells can be guided to get equipped with Tech transfer professionals who have an understanding of both IP and Technology commercialisation
- Additionally, Government can expand the National IPR Policy’s objective of Human Capital Development beyond the development of IPR professionals who may be just confined to spheres such as policy and law, strategy development, administration and enforcement. Emphasis needs to be laid to strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs protection as well as IP commercialisation in order to harness the full potential of IPRs for economic growth by means of holistic IP Management as a whole. Such a pool of experts with a holistic understanding of both IP Protection and IP management will facilitate in an increased generation of IP assets that would create value for the country.

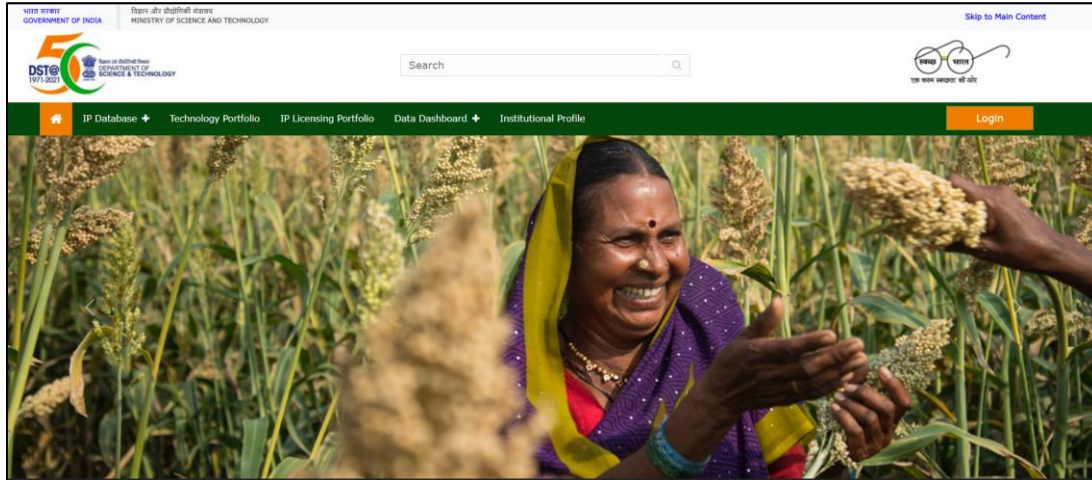
REFERENCES

1. Arza, V. and Vazquez, C. (2010), Interactions between public research organizations and industry in Argentina, *Science and Public Policy* 37 (7), pp. 499-511.
2. Ganguli, P. Creating and embedding an intellectual property rights (IPRS) policy in an educational or publicly funded research and development institution, WIPO:
http://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip_policy_ganguli.pdf
3. Karvonen, V. Karvonen, M. and Kraslawski, A. (2015), Mapping the Activities Between a Public Research Organization and Interest Groups: A Case Study of LUT CST in Finland, *European Planning Studies* Vol. 23, Iss. 7.
4. Kumar, V. and Sinha, K. (2015), Status and Challenges of Intellectual Property Rights in Agriculture Innovations in India, *Journal of Intellectual Property Rights*, Vol 20, pp 288-296.
5. Lemarchand, G.A. (2010), Science, technology and innovation policies in Latin America and the Caribbean during the past six decades. In: G.A. Lemarchand (ed.), *National Science, Technology and Innovation Systems in Latin America and the Caribbean. Science Policy Studies and Documents in LAC*, Vol. 1; UNESCO: Montevideo, pp. 15–139.
6. Louwaars, N.P., Tripp, R., Eaton, D., Henson-Apollonio, V., Hu, R., Mendoza, M., Muhhuku, F., Pal, S. and Wekundah, J. (2005), *Impacts of Strengthened Intellectual Property Rights Regimes on the Plant Breeding Industry in Developing Countries. A Synthesis of Five Case Studies*. Wageningen, Centre for Genetic Resources, The Netherlands, 176 p.
7. Maredia, M.K. (2001), *Application of Intellectual Property Rights in Developing Countries: Implications for Public Policy and Agricultural Research Institutes*, World Intellectual Property Organization (WIPO):
<https://pdfs.semanticscholar.org/17b4/a8a6907408c08ea65c5e1e65806d4f2109fb.pdf>
8. *National Intellectual Property Systems, Innovation and Economic Development*:
<http://www.oecd.org/sti/inno/ip-studies.htm>

9. National Intellectual Property Rights Policy- May 2016:
<https://dpiit.gov.in/sites/default/files/national-IPR-Policy2016-14October2020.pdf>
10. Pray and Naseem (2005), Intellectual Property Rights on Research Tools: Incentives or Barriers to Innovation? *AgBioForum*, 8(2&3): 108-117.
11. Rosenberg, N., and Nelson, R.R., (1994), American universities and technical advance in industry, *Research Policy* 23, pp. 323–348.
12. Watal, J. (1998), Intellectual Property Rights in Indian agriculture, working paper no.44:
<http://icrier.org/pdf/jayashreeW.pdf>
13. Zuniga, P. and Correa, P. (2013), Technology Transfer from Public Research Organizations: Concepts, Markets, and Institutional Failures, World Bank:
https://www.innovationpolicyplatform.org/sites/default/files/rdf_imported_documents/TechnologyTransferFromPublicResearchOrganizations.pdf
14. Vikas Kumar and Kunal Sinha, (2015), Status and Challenges of Intellectual Property Rights in Agriculture Innovation in India

ANNEXURES

Web portal Images



About the Initiative

Technology has emerged as one of the main driving forces for global economies due to the ever growing degree of global competition, and has become a crucial enabler for most sectors. The economy dynamics of a country is dependent on its Innovation capacities and thus, Intellectual property plays a crucial role in developing technologies that are both innovative and sustainable as per global standards. An adequate and effective IPR protection helps developing countries to build sustainable business models, aid in growth and commercialisation of technologies being developed, which help in reaping rewards for innovation and earn returns on the resources invested for the research and development.

"Portal_Name" has been developed by ICRISAT with the support of Department of Science and Technology, Ministry of Science & Technology, Govt. of India, with the objective to provide dynamic information about the Intellectual Property being developed at various public research and academic institutions across India that are engaged in developing technologies for agricultural sector.

The information available in this portal will help:

1. Innovators who look to develop new technologies to understand the existing technologies
2. Innovators who are looking for potential licensees to commercialise their technologies
3. Startups and MSMEs looking for technologies which can be licensed, commercialised into workable business models
4. Any technology enthusiast to analyse the research and technology trends in organisations involved in R&D

Team Behind the Initiative

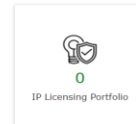
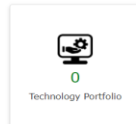
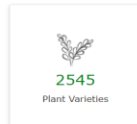
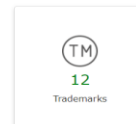
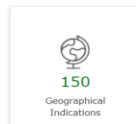
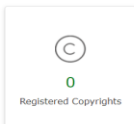


The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is an international organization which conducts agricultural research for rural development, headquartered in Patancheru (Hyderabad, Telangana, India) with two regional centers (Bamako (Mali), Nairobi (Kenya)) and country research stations (Niamey (Niger), Kano (Nigeria), Lilongwe (Malawi), Addis Ababa (Ethiopia), Bulawayo (Zimbabwe)). It was founded in 1972 and since its inception, it has been granted a special diplomatic



Department of Science & Technology (DST) was established in May 1971, with the objective of promoting new areas of Science & Technology and to play the role of a nodal department for organising, coordinating and promoting S&T activities in the country. India is one of the top-ranking countries in the field of basic research. Indian Science has come to be regarded as one of the most powerful instruments of growth and development, especially in the emerging scenario and competitive economy. In the wake of the recent

IP Database



FAQs

Which all IP data is maintained in this website?

This website contains

- Database of patents owned by ICAR and other agricultural institutions in 4 domains (Agri mechanisation, Genetic Resources, Plant protection and Post Harvesting technologies)
- Database of and Plant varieties owned by ICAR and other agricultural institutions, including state and central agricultural universities, colleges, other public and private research organisations
- Database of Agricultural Geographical Indications Database of Trademarks, Industrial designs and copyrights owned by ICAR and other Agricultural Institutions will be updated in the coming days

+ How can I search for a particular IP data with certain criteria?

+ Is there a provision to download the information from the database?

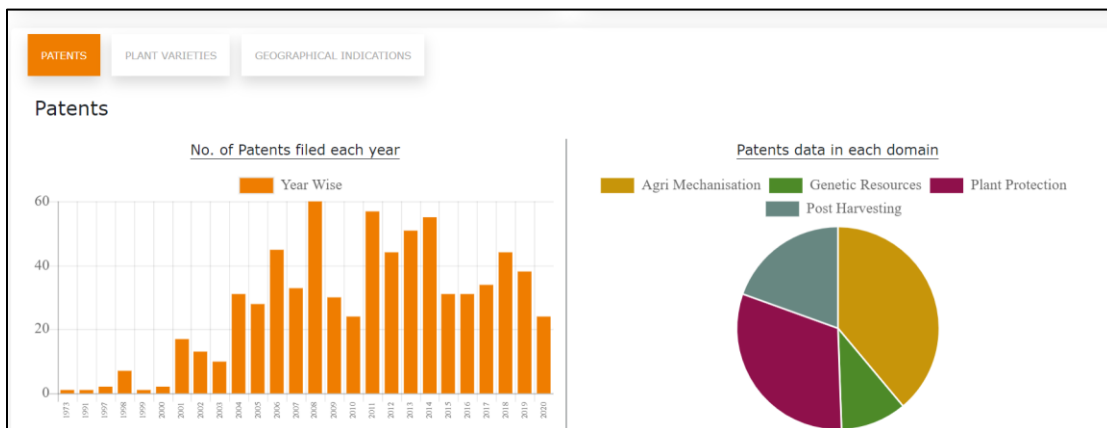
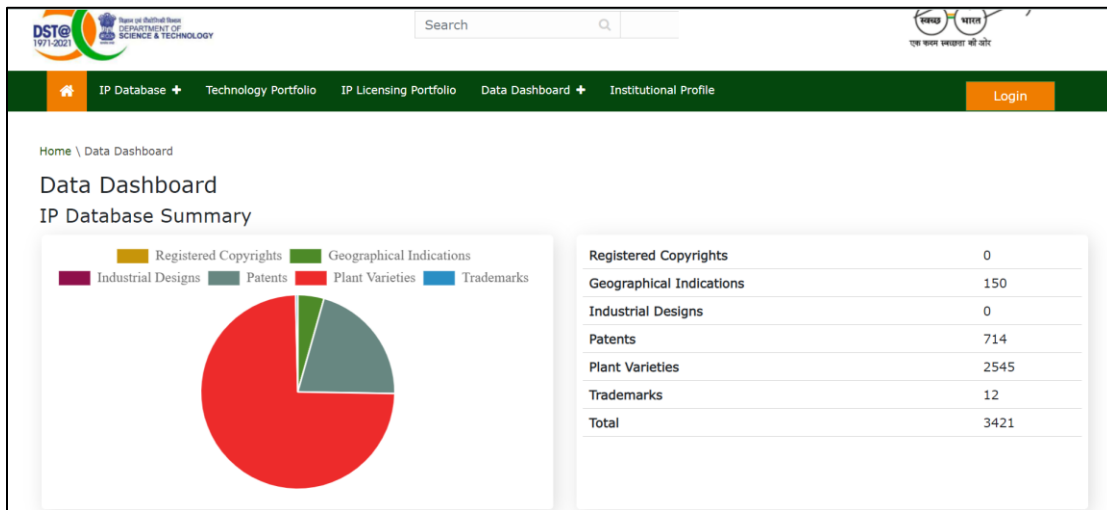
+ Can I upload my Technology/Patent/IP Information to this database?

+ I am the inventor/owner of the IP applications listed on your website and I would want to change/update certain information. Is it possible?

+ I would like to take a license for the IP/Technology listed on your website. Can you help in connecting with the Inventor/Applicant?

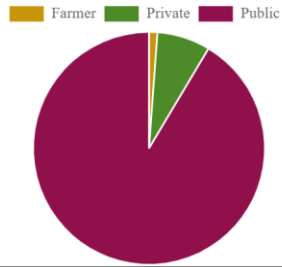
+ Is this an Agricultural IP database only?

+ How to contact in case of queries or feedback?

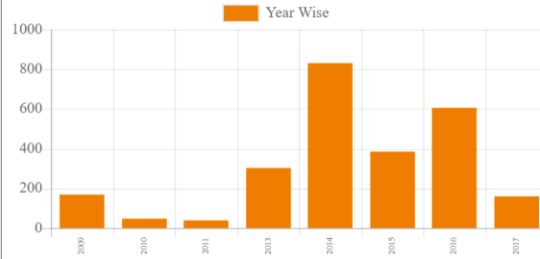


Plant Varieties

Types of Applicants for Plant varieties (farmers, Private entities and public institutions)

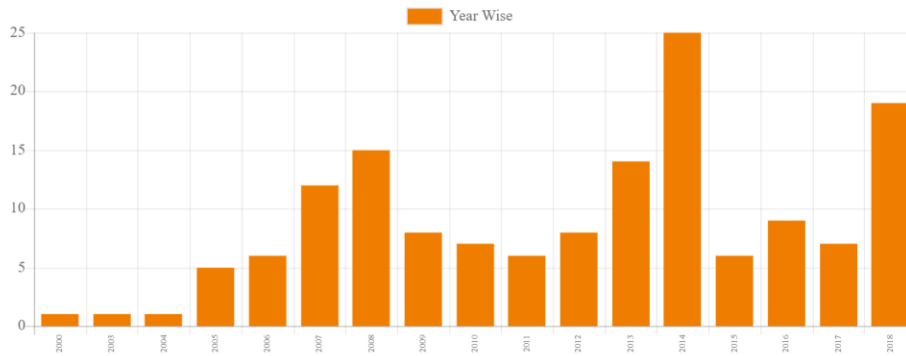


No. of Plant varieties filed every year



Geographical Indications

No. of Geographical Indications filed each year



BACKGROUND PAPER FINDINGS

STATE AGRICULTURAL UNIVERSITIES

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
1	Acharya NG Ranga Agricultural University, Guntur	Acharya NG Ranga Agricultural University, Guntur	No	Unavailable	Yes, But no information about IPR status of technologies	http://angrau.ac.in/angrau/research.php?content=Achievements
2	Dr. YSRHU (APHU), Venkataramannagudem	Dr. YSRHU (APHU), Venkataramannagudem	No	Unavailable	Yes, But no information about IPR status of technologies	https://www.drysrhu.edu.in/english-accomplishments
3	Sri Venkateswara Veterinary University, Tirupati	Sri Venkateswara Veterinary University, Tirupati	No	Unavailable	Yes, But no information about IPR status of technologies	https://svvu.edu.in/research/
4	Assam Agricultural University, Jorhat	Assam Agricultural University, Jorhat	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.aau.ac.in/research/research-achievements
5	Bihar Agricultural University, Sabour, Bhagalpur	Bihar Agricultural University, Sabour, Bhagalpur	No	Unavailable	Yes, But no information about IPR status of technologies	https://www.bausabour.ac.in/technology-developed-and-in-pipeline.aspx
6	Bihar Animal Sciences University, Patna	Bihar Animal Sciences University, Patna	No	Unavailable	Unavailable	Unavailable
7	Indira Gandhi Krishi Viswa Vidyalaya, Raipur	Indira Gandhi Krishi Viswa Vidyalaya, Raipur	No	Unavailable	Yes, But no information about IPR status of technologies	http://igau.edu.in/varieties.htm
8	Chhattisgarh Kamdhenu Viswavidyalaya, Durg	Chhattisgarh Kamdhenu Viswavidyalaya, Durg	No	Unavailable	Unavailable	Unavailable
9	Sardar Krushinagar Dantiwada Agricultural University, Raipur	Sardar Krushinagar Dantiwada Agricultural University, Raipur	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.sdau.edu.in/detail/495237/fruit-research-station-

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
	University, Dantiwada	University, Dantiwada				dehgam#ChildVerticalTab_16
10	Anand Agricultural University, Anand	Anand Agricultural University, Anand	No	Unavailable	Unavailable	Unavailable
11	Navsari Agricultural University, Navsari	Navsari Agricultural University, Navsari	No	Unavailable	Yes, But no information about IPR status of technologies	http://nau.in/pages/technology-developed-1555740922
12	Junagarh Agricultural University, Junagarh	Junagarh Agricultural University, Junagarh	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.jau.in/index.php/resources/new-varieties-released-top
13	Kamdhenu University, Gandhinagar	Kamdhenu University, Gandhinagar	No	Unavailable	Unavailable	Unavailable
14	Chaudhary Charan Singh Haryana Agricultural University, Hisar	Chaudhary Charan Singh Haryana Agricultural University, Hisar	No	Unavailable	Unavailable	Unavailable
15	Lala Lajpat Rai University of Veterinary & Animal Sciences, Hisar	Lala Lajpat Rai University of Veterinary & Animal Sciences, Hisar	No	Unavailable	Unavailable	Unavailable
16	Haryana State University of Horticultural Sciences, Karnal	Haryana State University of Horticultural Sciences, Karnal	No	Unavailable	Unavailable	Unavailable
17	Ch. Sarwan Kumar Himachal Pradesh Krishi Viswavidyalaya, Palampur	Ch. Sarwan Kumar Himachal Pradesh Krishi Viswavidyalaya, Palampur	ICAR IP Policy	Unavailable	Unavailable	Unavailable
18	Dr. Yaswant Singh Parmar University of Horticulture & Forestry, Solan	Dr. Yaswant Singh Parmar University of Horticulture & Forestry, Solan	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.yspuniversity.ac.in/mashobra/mashobra-achi.html

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
19	Birsa Agricultural University, Ranchi	Birsa Agricultural University, Ranchi	No	Unavailable	Unavailable	Unavailable
20	Sher-e-Kashmir University of Agricultural Science & Technology, Srinagar	Sher-e-Kashmir University of Agricultural Science & Technology, Srinagar	No	Unavailable	Unavailable	Unavailable
21	Sher-e-Kashmir University of Agricultural Science & Technology, Jammu	Sher-e-Kashmir University of Agricultural Science & Technology, Jammu	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.skuast.org/skuastwebsite/research-achievements.pdf
22	University of Agricultural Sciences, Bangalore	University of Agricultural Sciences, Bangalore	No	Unavailable	Yes, But no information about IPR status of technologies	https://www.uasbangalore.edu.in/index.php/research/break-through
23	Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar	Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar	No	Unavailable	Yes, But no information about IPR status of technologies	http://kvafsu.edu.in/saleable_technology_developed.html
24	University of Agricultural Sciences, Raichur	University of Agricultural Sciences, Raichur	No	Unavailable	Feature to display technologies and Patents information has been developed. Site under Construction	
25	University of Agricultural Sciences, Dharwad	University of Agricultural Sciences, Dharwad	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.uasd.edu/images/research-files/Technologies_released.pdf http://www.uasd.edu/images/research-files/Technologies_recommended.pdf
26	University of Horticulture Science, Bagalkot	University of Horticulture	No	Unavailable	Yes, But no information	http://www.uhsbagalkot.edu.in/index.php/research/technologies-

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
		Science, Bagalkot			about IPR status of technologies	developed/crop-improvement
27	University of Agriculture & Horticulture Sciences, Shimoga	University of Agriculture & Horticulture Sciences, Shimoga	No	Unavailable	Unavailable	Unavailable
28	Kerala Agricultural University, Thrissur	Kerala Agricultural University, Thrissur	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.kau.in/basic-page/varieties-released
29	Kerala University of Fisheries and Ocean Studies, Panangad, Kochi	Kerala University of Fisheries and Ocean Studies, Panangad, Kochi	No	Unavailable	Unavailable	Unavailable
30	Kerala Veterinary and Animal Sciences University, Pookode, Wayanand, Kerala	Kerala Veterinary and Animal Sciences University, Pookode, Wayanand, Kerala	No	Unavailable	Unavailable	Unavailable
31	Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior	Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.rvskv.net/index.php/research/significant-achievements
32	Nanaji Deshmukh Pashu Chikitsa Visva Vidyalaya, Jabalpur	Nanaji Deshmukh Pashu Chikitsa Visva Vidyalaya, Jabalpur	No	Unavailable	Yes, few Patent Details have been mentioned	http://www.ndvsu.org/index.php/research/research-achievements
33	Jawaharlal Nehru Krishi Viswa Vidyalaya, Jabalpur	Jawaharlal Nehru Krishi Viswa Vidyalaya, Jabalpur			Yes. Patents Information has been listed in the website	http://jnkvv.org/Departments/Dep_DR_S_Patents.aspx
34	Dr. Balaesahib Sawant Kokan Krishi Vidyapeeth, Dapoli	Dr. Balaesahib Sawant Kokan Krishi Vidyapeeth, Dapoli	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.dbskv.org/Research/Technologies_Developed.html

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
35	Maharashtra Animal & Fisheries Sciences University, Nagpur	Maharashtra Animal & Fisheries Sciences University, Nagpur	No	Unavailable	Unavailable	Unavailable
36	Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani	Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.vnmkv.ac.in/research-technologies.htm
37	Mahatma Phule Krishi Vidyapeeth, Rahuri	Mahatma Phule Krishi Vidyapeeth, Rahuri	No	Unavailable	Yes. Patents Information has been listed in the website	http://mpkv.ac.in/researchpatent.aspx
38	Dr. Punjabrao Deshmukh KrishiViswaVidyalaya, Akola	Dr. Punjabrao Deshmukh KrishiViswaVidyalaya, Akola	No	Unavailable	Yes, But no information about IPR status of technologies	https://www.pdkv.ac.in/pdf/Technology-inventory-VARIET.pdf
39	Orissa University of Agricultural & Technology, Bhubaneswar	Orissa University of Agricultural & Technology, Bhubaneswar	No	Unavailable	Very little information is listed	http://www.ouat.nic.in/achievement
40	Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	No	Unavailable	Unavailable	Unavailable
41	Punjab Agricultural University, Ludhiana	Punjab Agricultural University, Ludhiana	No	Unavailable	Unavailable	Unavailable
42	Maharana Pratap University of Agriculture & Technology, Udaipur	Maharana Pratap University of Agriculture & Technology, Udaipur	No	Unavailable	IPR/Publications	Unavailable
43	Swami Keshwanand Rajasthan Agricultural University, Bikaner	Swami Keshwanand Rajasthan Agricultural University, Bikaner	No	Unavailable	Unavailable	Unavailable

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
44	Rajasthan University of Veterinary & Animal Sciences, Bikaner	Rajasthan University of Veterinary & Animal Sciences, Bikaner	No	Unavailable	Very little information is listed	http://rajuvas.org/technology/
45	SKN Agriculture University, Jobner	SKN Agriculture University, Jobner	No	Unavailable	Unavailable	Unavailable
46	Agriculture University, Kota	Agriculture University, Kota	No	Unavailable	Unavailable	Unavailable
47	Agriculture University, Jodhpur	Agriculture University, Jodhpur	No	Yes, member names available on website but not contact details	Unavailable	Unavailable
48	Tamil Nadu Agricultural University, Coimbatore	Tamil Nadu Agricultural University, Coimbatore	Yes	Unavailable	Unavailable	Unavailable
49	Tamil Nadu Veterinary & Animal Sciences University, Chennai	Tamil Nadu Veterinary & Animal Sciences University, Chennai	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.tanuvas.ac.in/research_products.html
50	Tamil Nadu Fisheries University, Nagapattinam	Tamil Nadu Fisheries University, Nagapattinam	No	Unavailable	Very little information is listed	http://www.tnifu.ac.in/research-patents
51	Sri Konda Laxman Telangana State Horticultural University, Hyderabad	Sri Konda Laxman Telangana State Horticultural University, Hyderabad	No	Unavailable	Very little information is listed	http://skltshu.ac.in/acomplishments.html
52	Sri PV Narsimha Rao Telangana Veterinary University, Hyderabad	Sri PV Narsimha Rao Telangana Veterinary University, Hyderabad	No	Unavailable	Unavailable	Unavailable

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
53	Professor Jayashankar Telangana State Agricultural University, Hyderabad	Professor Jayashankar Telangana State Agricultural University, Hyderabad	No	Unavailable	Yes, But no information about IPR status of technologies	https://www.pjtsau.edu.in/files/publications/2018/AgroTechnologies2018.pdf
54	G.B. Pant University of Agriculture & Technology, Pantnagar	G.B. Pant University of Agriculture & Technology, Pantnagar	No	Yes, IP Cell is present with contact details	Yes, Only Patented technologies have been listed and bidding terms for commercialisation of these technologies have been listed on web	http://www.gbpuat.ac.in/patents/index.html http://www.gbpuat.ac.in/ipmc/Bidding%20Document%20for%20Transfer%20of%20Patented%20Technologies.pdf
55	VCSG Uttarakhand University of Horticulture & Forestry, Bharsar	VCSG Uttarakhand University of Horticulture & Forestry, Bharsar	No	Unavailable	Very little information is listed	https://www.uuhf.ac.in/research/significant-achievements/
56	Chandra Shekhar Azad University of Agricultural & Technology, Kanpur	Chandra Shekhar Azad University of Agricultural & Technology, Kanpur	No	Unavailable	Unavailable	Unavailable
57	Narendra Deva University of Agriculture & Technology, Faizabad	Narendra Deva University of Agriculture & Technology, Faizabad	No	Unavailable	Yes. Information on Plant varieties and registered varieties are listed	http://www.nduat.org/Doc/research18.pdf
58	Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut	Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut	No	Unavailable	Unavailable	Unavailable
59	U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa VigyanVishwa Vidhyalaya Evem Go Anusandhan	U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa VigyanVishwa Vidhyalaya Evem Go	No	Unavailable	Unavailable	Unavailable

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
	Sansthan, Mathura	Anusandhan Sansthan, Mathura				
60	Banda University of Agricultural and Technology, Banda	Banda University of Agricultural and Technology, Banda	No	Unavailable	Unavailable	Unavailable
61	Sam Higginbottom University of Agriculture, Technology & Sciences, Allahabad	Sam Higginbottom University of Agriculture, Technology & Sciences, Allahabad	No	http://shuats.edu.in/dict_ipc.asp	List of technologies not available, but patent application details have been listed	http://shuats.edu.in/dict_research.asp
62	Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur	Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur	No	Unavailable	List of technologies not available, but patent application details have been listed	https://www.bckv.edu.in/bckv.php?page=70efdf2ec9b086079795c442636b55fb11
63	West Bengal University of Animal & Fishery Sciences, Kolkata	West Bengal University of Animal & Fishery Sciences, Kolkata	No	Unavailable	List of technologies not available, but patent application details have been listed	http://wbuafsc.ac.in/patents/
64	Uttar Banga Krishi Viswavidyalaya, Cooch Behar	Uttar Banga Krishi Viswavidyalaya, Cooch Behar	No	Unavailable	Yes, But no information about IPR status of technologies	http://www.ubkv.ac.in/research-initiatives-and-technologies-generated/

CENTRAL AND DEEMED UNIVERSITIES

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
1	Central Agricultural University, P.O.	Central Agricultural University	No	Unavailable	Unavailable	Unavailable

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell Details	Technology lists on Website	Technology Lists Links
	Box 23, Imphal-795004, Manipur					
2	Rani Laxmi Bai Central Agricultural University, Jhansi, Uttar Pradesh	Rani Laxmi Bai Central Agricultural University	No	Unavailable	Very little information is listed	http://www.rlbcu.ac.in/pdf/rachive.pdf
3	Dr. Rajendra Prasad Central Agricultural University, Pusa (Samastipur)	Dr. Rajendra Prasad Central Agricultural University	No	Unavailable	Unavailable	Unavailable
4	ICAR-Indian Agricultural Research Institute, New Delhi	ICAR-Indian Agricultural Research Institute, New Delhi	No (ICAR Policy applicable)	Unavailable	Very little information is listed with no information about patents	Unavailable
5	ICAR-National Dairy Research Institute, Karnal	ICAR-National Dairy Research Institute, Karnal	No (ICAR Policy applicable)	Unavailable	Yes. Information on Patents filed and Technologies developed for commercialisation is listed	http://www.ndri.res.in/ndri/Design/ITMU.html
6	ICAR-Indian Veterinary Research Institute Izatnagar	ICAR-Indian Veterinary Research Institute, Izatnagar	No (ICAR Policy applicable)	Unavailable	Yes. Information on Patents filed and Technologies developed for commercialisation is listed	http://www.ivri.nic.in/research/patents.aspx
7	ICAR-Central Institute on Fisheries Education Mumbai	ICAR-Central Institute on Fisheries Education, Mumbai	No (ICAR Policy applicable)	Unavailable	Yes, But no information about IPR status of technologies	https://www.cife.edu.in/pdf/Technologies-RH.pdf

ICAR RESEARCH INSTITUTES

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
1	Central Island Agricultural Research Institute , Port Blair	Central Island Agricultural Research Institute , Port Blair	No (ICAR Policy applicable)	No	Dedicated slot on Website	Link not working
2	Central Arid Zone Research Institute, Jodhpur	Central Arid Zone Research Institute, Jodhpur	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	Unavailable
3	Central Avian Research Institute, Izatnagar	Central Avian Research Institute, Izatnagar	No (ICAR Policy applicable)	https://icar.org.in/cari/tot.php	Limited information on IP available	https://icar.org.in/cari/patents.php
4	Central Inland Fisheries Research Institute, Barrackpore	Central Inland Fisheries Research Institute, Barrackpore	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	http://www.cifri.ernet.in/technologies.html
5	Central Institute Brackishwater Aquaculture, Chennai	Central Institute Brackishwater Aquaculture, Chennai	No (ICAR Policy applicable)	No	Limited information on IP available	http://www.ciba.res.in/?page_id=1224
6	Central Institute for Research on Buffaloes, Hisar	Central Institute for Research on Buffaloes, Hisar	No (ICAR Policy applicable)	http://cirb.res.in/transfer-of-technology-entrepreneurship/	Limited Information available with no details on IP	http://cirb.res.in/development-of-technologies/
7	Central Institute for Research on Goats, Makhdoom	Central Institute for Research on Goats, Makhdoom	No (ICAR Policy applicable)	http://www.cirg.res.in/setup/sections/ipr/cell	Limited Information available with no details on IP	http://www.cirg.res.in/research/technologies
8	Central Institute of Agricultural Engineering, Bhopal	Central Institute of Agricultural Engineering, Bhopal	No (ICAR Policy applicable)	http://www.ciae.nic.in/Content/1113_1_TechnologyTransfer.aspx	Limited Information available with no details on IP	http://ciae.nic.in/WriteReadData/News/201804050856413207888Recent-Technology-2018.pdf
9	Central Institute for Arid	Central Institute for Arid	No (ICAR	No	Dedicated slot on Website	Link not working

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
	Horticulture, Bikaner	Horticulture, Bikaner	Policy applicable)			
10	Central Institute of Cotton Research, Nagpur	Central Institute of Cotton Research, Nagpur	No (ICAR Policy applicable)	No	IPR Information available	http://www.cicr.org.in/technology_bank.htm
11	Central Institute of Fisheries Technology, Cochin	Central Institute of Fisheries Technology, Cochin	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	http://cift.res.in/technology-and-products
12	Central Institute of Freshwater Aquaculture, Bhubaneswar	Central Institute of Freshwater Aquaculture, Bhubaneswar	No (ICAR Policy applicable)	No	Unavailable	Unavailable
13	Central Institute of Research on Cotton Technology, Mumbai	Central Institute of Research on Cotton Technology, Mumbai	No (ICAR Policy applicable)	No	Unavailable	Unavailable
14	Central Institute of Sub Tropical Horticulture, Lucknow	Central Institute of Sub Tropical Horticulture, Lucknow	No (ICAR Policy applicable)	No	Limited information on IP available	http://www.cish.res.in/patents.php
15	Central Institute of Temperate Horticulture, Srinagar	Central Institute of Temperate Horticulture, Srinagar	No (ICAR Policy applicable)	No	Unavailable	Unavailable
16	Central Institute on Post harvest Engineering and Technology, Ludhiana	Central Institute on Post harvest Engineering and Technology, Ludhiana	No (ICAR Policy applicable)	http://www.ciphnet.in/agriculture_structures.php?getdiv=3	Limited information on IP available	http://www.ciphnet.in/patents.php
17	Central Marine Fisheries Research Institute, Kochi	Central Marine Fisheries Research Institute, Kochi	No (ICAR Policy applicable)	http://www.cmfri.org.in/patents	IPR Information available	http://www.cmfri.org.in/patents

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
18	Central Plantation Crops Research Institute, Kasaragod	Central Plantation Crops Research Institute, Kasaragod	No (ICAR Policy applicable)	No	Limited information on IP available	http://cpcri.gov.in/index.php/2014-07-03-05-53-45/patents
19	Central Potato Research Institute, Shimla	Central Potato Research Institute, Shimla	No (ICAR Policy applicable)	https://cpri.icar.gov.in/?page_id=3658	Limited information on IP available	https://cpri.icar.gov.in/?page_id=84
20	Central Research Institute for Jute and Allied Fibres, Barrackpore	Central Research Institute for Jute and Allied Fibres, Barrackpore	No (ICAR Policy applicable)	No	Unavailable	Unavailable
21	Central Research Institute of Dryland Agriculture, Hyderabad	Central Research Institute of Dryland Agriculture, Hyderabad	No (ICAR Policy applicable)	No	Unavailable	Unavailable
22	National Rice Research Institute, Cuttack	National Rice Research Institute, Cuttack	No (ICAR Policy applicable)	No	Unavailable	Unavailable
23	Central Sheep and Wool Research Institute, Avikanagar, Rajasthan	Central Sheep and Wool Research Institute, Avikanagar, Rajasthan	No (ICAR Policy applicable)	http://www.cswri.res.in/divisions/transfer_of_technology_social_sciences.asp	Limited information on IP available	http://www.cswri.res.in/accolades.asp
24	Indian Institute of Soil and Water Conservation, Dehradun	Indian Institute of Soil and Water Conservation, Dehradun	No (ICAR Policy applicable)	No	Unavailable	Unavailable
25	Central Soil Salinity Research Institute, Karnal	Central Soil Salinity Research Institute, Karnal	No (ICAR Policy applicable)	No	Unavailable	Unavailable

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
26	Central Tobacco Research Institute, Rajahmundry	Central Tobacco Research Institute, Rajahmundry	No (ICAR Policy applicable)	No	Limited Information on IP Available	https://ctri.icar.gov.in/home_research_patents.php
27	Central Tuber Crops Research Institute, Trivandrum	Central Tuber Crops Research Institute, Trivandrum	No (ICAR Policy applicable)	http://www.ctcri.org/tt.html	Limited Information on IP Available	http://www.ctcri.org/patents.html
28	ICAR Research Complex for Eastern Region, Patna	ICAR Research Complex for Eastern Region, Patna	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	https://icarrcer.in/technology-developed/
29	ICAR Research Complex for NEH Region, Barapani	ICAR Research Complex for NEH Region, Barapani	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	http://www.icarneh.ernet.in/technology_developed.html
30	Central Coastal Agricultural Research Institute, Ela, Old Goa, Goa	Central Coastal Agricultural Research Institute, Ela, Old Goa, Goa	No (ICAR Policy applicable)	http://www.ccari.res.in/ipr.html	Limited Information on IP Available	http://www.ccari.res.in/ipr.html
31	Indian Agricultural Statistics Research Institute, New Delhi	Indian Agricultural Statistics Research Institute, New Delhi	No (ICAR Policy applicable)	No	Unavailable	Unavailable
32	Indian Grassland and Fodder Research Institute, Jhansi	Indian Grassland and Fodder Research Institute, Jhansi	No (ICAR Policy applicable)	No	Unavailable	Unavailable
33	Indian Institute of Agricultural Biotechnology, Ranchi	Indian Institute of Agricultural Biotechnology, Ranchi	No (ICAR Policy applicable)	No	Unavailable	Unavailable
34	Indian Institute of Horticultural Research, Bengaluru	Indian Institute of Horticultural Research, Bengaluru	No (ICAR Policy)	No	Limited Information available with no details on IP	https://iihr.res.in/technologies

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
			applicable)			
35	Indian Institute of Natural Resins and Gums, Ranchi	Indian Institute of Natural Resins and Gums, Ranchi	No (ICAR Policy applicable)	https://iinrg.icar.gov.in/tot.html	Limited Information available with no details on IP	https://iinrg.icar.gov.in/Technologies%20-IINRG,%20Ranchi.pdf
36	Indian Institute of Pulses Research, Kanpur	Indian Institute of Pulses Research, Kanpur	No (ICAR Policy applicable)	https://iipr.icar.gov.in/itmu.html	Limited Information available with no details on IP	https://iipr.icar.gov.in/technical.html
37	Indian Institute of Soil Sciences, Bhopal	Indian Institute of Soil Sciences, Bhopal	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	http://www.iiss.nic.in/r%20and%20d.html
38	Indian Institute of Spices Research, Calicut	Indian Institute of Spices Research, Calicut	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	http://www.spices.res.in/pages/commercialization
39	Indian Institute of Sugarcane Research, Lucknow	Indian Institute of Sugarcane Research, Lucknow	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	http://www.iisr.nic.in/research/patents.htm http://www.iisr.nic.in/research/technologies.htm
40	Indian Institute of Vegetable Research, Varanasi	Indian Institute of Vegetable Research, Varanasi	No (ICAR Policy applicable)	No	Unavailable	Unavailable
41	National Academy of Agricultural Research & Management, Hyderabad	National Academy of Agricultural Research & Management, Hyderabad	No (ICAR Policy applicable)	No	Unavailable	Unavailable
42	National Institute of Biotic Stresses Management, Raipur	National Institute of Biotic Stresses Management, Raipur	No (ICAR Policy applicable)	No	Unavailable	Unavailable

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
43	National Institute of Abiotic Stress Management, Malegaon, Maharashtra	National Institute of Abiotic Stress Management, Malegaon, Maharashtra	No (ICAR Policy applicable)	No	Limited Information on IP Available	http://www.niam.res.in/patents
44	National Institute of Animal Nutrition and Physiology, Bengaluru	National Institute of Animal Nutrition and Physiology, Bengaluru	No (ICAR Policy applicable)	No	Limited Information on IP Available	http://nianp.res.in/patent
45	National Institute of Natural Fibre Engineering and Technology, (Formerly National Institute of Research on Jute & Allied Fibre Technology, Kolkata)	http://www.nirjافت.res.in/	No (ICAR Policy applicable)	No	Limited Information on IP Available	http://www.nirjافت.res.in/SubService/view/3
46	National Institute of Veterinary Epidemiology and Disease Informatics, Hebbal, Bengaluru	National Institute of Veterinary Epidemiology and Disease Informatics, Hebbal, Bengaluru	No (ICAR Policy applicable)	https://nivedi.res.in/node/162	Limited Information on IP Available	https://nivedi.res.in/index.php/patents
47	Sugarcane Breeding Institute, Coimbatore	Sugarcane Breeding Institute, Coimbatore	No (ICAR Policy applicable)	https://sugarcane.gov.in/index.php/en/abt-us/other-committees	Limited Information on IP Available	https://sugarcane.gov.in/images/sbi/article/patents_details.pdf?phpMyAdmin=11c501a2a5dt8788ed6
48	Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora	Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora	No (ICAR Policy applicable)	No	IP Information Available	http://vpkas.icar.gov.in/upload/upload_files/files/patentsandVarietiesregisteredunderppv_fra.pdf http://www.circ.org.in/Tenders/11oct19/ICAR-CIRC-

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
						Technology-developed.pdf
49	Central Institute for Research on Cattle, Meerut, Uttar Pradesh	Central Institute for Research on Cattle, Meerut, Uttar Pradesh	No (ICAR Policy applicable)	No	Limited Information on IP Available	http://www.circ.org.in/patents.html
50	National Institute of High Security Animal Diseases, Bhopal	National Institute of High Security Animal Diseases, Bhopal	No (ICAR Policy applicable)	http://www.nihсад.nic.in/ITMU2.htm	Unavailable	Unavailable
51	Indian Institute of Maize Research, New Delhi	Indian Institute of Maize Research, New Delhi	No (ICAR Policy applicable)	No	Limited Information on IP Available	https://iimr.icar.gov.in/index.php?option=com_content&view=article&id=25&Itemid=125
52	Central Agroforestry Research Institute, Jhansi	Central Agroforestry Research Institute, Jhansi	No (ICAR Policy applicable)	No	Unavailable	Unavailable
53	National Institute of Agricultural Economics and Policy Research, New Delhi	National Institute of Agricultural Economics and Policy Research, New Delhi	No (ICAR Policy applicable)	No	Unavailable	Unavailable
54	Indian Institute of Wheat and Barley Research, Karnal	Indian Institute of Wheat and Barley Research, Karnal	Yes	https://www.iwbr.org/itmu/	Unavailable	Unavailable
55	Indian Institute of Farming Systems Research, Modipuram	Indian Institute of Farming Systems Research, Modipuram	No (ICAR Policy applicable)	No	Unavailable	Unavailable
56	Indian Institute of Millets Research, Hyderabad	Indian Institute of Millets Research, Hyderabad	No (ICAR Policy applicable)	No	Limited Information available with no details on IP	http://www.millets.res.in/technologies.php
57	Indian Institute of Oilseeds	Indian Institute of Oilseeds	No (ICAR Policy)	No	Unavailable	http://www.icar-iior.org.in/index.php

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
	Research, Hyderabad	Research, Hyderabad	applicabl e)			p/research/achievements/patents
58	Indian Institute of Oil Palm Research, Pedavegi, West Godavari	Indian Institute of Oil Palm Research, Pedavegi, West Godavari	No (ICAR Policy applicabl e)	No	Unavailable	http://dopr.gov.in/Patents.htm
59	Indian Institute of Water Management, Bhubaneswar	Indian Institute of Water Management, Bhubaneswar	No (ICAR Policy applicabl e)	No	Limited Information available with no details on IP	http://www.iiwm.res.in/technology.php
60	Indian Institute of Rice Research, Hyderabad	Indian Institute of Rice Research, Hyderabad	No (ICAR Policy applicabl e)	No	Limited Information on IP Available	http://www.icar-iirr.org/index.php?option=com_content&view=article&id=339&Itemid=106&lang=en
61	Central Institute for Women in Agriculture, Bhubaneswar	Central Institute for Women in Agriculture, Bhubaneswar				
62	Central Citrus Research Institute, Nagpur	Central Citrus Research Institute, Nagpur	No (ICAR Policy applicabl e)	http://www.ccringp.org.in/ccringp/	Limited Information available with no details on IP	http://www.ccringp.org.in/ccringp/PDF/Technologies%20developed.pdf
63	Indian Institute of Seed Research, Mau	Indian Institute of Seed Research, Mau	No (ICAR Policy applicabl e)	No	Limited Information on IP Available	http://seedres.in/patents.html
64	Indian Agricultural Research Institute, Post Box No. 48, Hazaribag 825 301, Jharkhand	Website not known				
65	National Institute for Plant Biotechnology, New Delhi	Website not known				

NATIONAL RESEARCH CENTRES

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
1	National Research Centre for Banana, Trichi	National Research Centre for Banana, Trichi	Yes	http://www.nbpgri.ernet.in/Technologies_and_IPRs.aspx	Limited Information on IP Available	http://www.nbpgri.ernet.in/Technologies_and_IPRs.aspx
2	National Research Centre for Grapes, Pune	National Research Centre for Grapes, Pune	No (ICAR Policy applicable)	https://nrcgrapes.icar.gov.in/Institute%20Technology%20Management%20Unit.htm	Limited Information on IP Available	https://nrcgrapes.icar.gov.in/
3	National Research Centre for Litchi, Muzaffarpur	National Research Centre for Litchi, Muzaffarpur	No (ICAR Policy applicable)	Unavailable	Limited Information available with no details on IP	https://www.nrclitchi.org/uploads/Technology-Developed.pdf
4	National Research Centre for Pomegranate, Solapur	National Research Centre for Pomegranate, Solapur	No (ICAR Policy applicable)	ITMU Cell is present, but no details	Unavailable	Unavailable
5	National Research Centre on Camel, Bikaner	National Research Centre on Camel, Bikaner	No (ICAR Policy applicable)	Unavailable	Limited Information available with no details on IP	https://nrccamel.icar.gov.in/techdevelop.php
6	National Research	National Research Centre on	No (ICAR Policy	Unavailable	Limited Information available	https://iims.icar.gov.in/Institute

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
	Centre on Equines, Hisar	Equines, Hisar	applicable)		with no details on IP	Details.aspx?Inst=70#
7	National Research Centre on Meat, Hyderabad	National Research Centre on Meat, Hyderabad	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable
8	National Research Centre on Mithun, Medziphema, Nagaland	National Research Centre on Mithun, Medziphema, Nagaland	No (ICAR Policy applicable)	http://www.nrcmithun.res.in/	Limited Information on IP Available	http://www.nrcmithun.res.in/
9	National Research Centre on Orchids, Pakyong, Sikkim	National Research Centre on Orchids, Pakyong, Sikkim	No (ICAR Policy applicable)	Unavailable	Limited Information available with no details on IP	https://nrcorchids.nic.in/images/technologies.pdf
10	National Research Centre on Pig, Guwahati	National Research Centre on Pig, Guwahati	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable
11	National Research Centre on Plant Biotechnology, New Delhi	National Research Centre on Plant Biotechnology, New Delhi	No (ICAR Policy applicable)	http://www.nrcpb.res.in/content/committees-0	Limited Information on IP Available	http://www.nrcpb.res.in/content/patents
12	National Research Centre on Seed Spices, Ajmer	National Research Centre on Seed Spices, Ajmer	No (ICAR Policy applicable)	http://nrcss.res.in/Submenu.aspx?SID=4	Unavailable	Unavailable

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website	Technology Lists Links
13	National Research Centre on Yak, West Kemang	National Research Centre on Yak, West Kemang	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable
14	National Centre for Integrated Pest Management, New Delhi	National Centre for Integrated Pest Management, New Delhi	No (ICAR Policy applicable)	https://www.ncipm.res.in/patents.aspx	Limited Information available with no details on IP	https://www.ncipm.res.in/technologies.aspx
15	National Research Centre on Integrated Farming (ICAR-NRCIF), Motihari	Mahatma Gandhi Integrated Farming Research Institute (ICAR-NRCIF)	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable

National Bureaus

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website (Yes/No)	Technology Lists Links
1	National Bureau of Plant Genetics Resources, New Delhi	National Bureau of Plant Genetics Resources, New Delhi	Yes	http://www.nbpgr.ernet.in/Technologies_and_IPRs.aspx	Limited Information on IP Available	http://www.nbpgr.ernet.in/Technologies_and_IPRs.aspx

S. No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/Tech Transfer Details	Technology lists on Website (Yes/No)	Technology Lists Links
				d IPRs.aspx		
2	National Bureau of Agriculturally Important Micro-organisms, Mau, Uttar Pradesh	National Bureau of Agriculturally Important Micro-organisms, Mau, Uttar Pradesh	No (ICAR Policy applicable)	http://nbaim.org.in/pages/organizational-set-up-advisory-committees-itmc-ipr	Limited Information on IP Available	http://nbaim.org.in/pages/research-h-patents
3	National Bureau of Agricultural Insect Resources, Bengaluru	National Bureau of Agricultural Insect Resources, Bengaluru	No (ICAR Policy applicable)	http://www.nbair.res.in/ITMU/index.php	Limited Information on IP Available	http://www.nbair.res.in/ITMU/patent.php
4	National Bureau of Soil Survey and Land Use Planning, Nagpur	National Bureau of Soil Survey and Land Use Planning, Nagpur	No (ICAR Policy applicable)	https://www.nbsslp.in/itmu.html	Unavailable	Unavailable
5	National Bureau of Animal Genetic Resources, Karnal	National Bureau of Animal Genetic Resources, Karnal	No (ICAR Policy applicable)	http://14.139.252.116/itmu.html	Limited Information on IP Available	http://14.139.252.116/patentfile.html
6	National Bureau of Fish Genetic Resources, Lucknow	National Bureau of Fish Genetic Resources, Lucknow	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable

ICAR Directorates

S.No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/ Tech Transfer Details	Technology lists on Website (Yes/No)	Technology Lists Links
1	Directorate of Groundnut Research, Junagarh	Directorate of Groundnut Research, Junagarh	Website not working			
2	Directorate of Soybean Research, Indore	Directorate of Soybean Research, Indore	No (ICAR Policy applicable)	https://iisriindore.icar.gov.in/	Very Little information on IP listed	https://iisriindore.icar.gov.in/#
3	Directorate of Rapeseed & Mustard Research, Bharatpur	Directorate of Rapeseed & Mustard Research, Bharatpur	No (ICAR Policy applicable)	http://www.drmr.res.in/itmu.php	Limited Information available with no details on IP	http://www.drmr.res.in/technologies_developed.php
4	Directorate of Mushroom Research, Solan	Directorate of Mushroom Research, Solan	No (ICAR Policy applicable)	http://www.nrcmushroom.org/html/itmu.html	Limited Information available with no details on IP	http://www.nrcmushroom.org/html/technologycommercialized.html
5	Directorate on Onion and Garlic Research, Pune	Directorate on Onion and Garlic Research, Pune	No (ICAR Policy applicable)	http://www.dogr.res.in/index.php/en/committees	Limited Information available with no details on IP	http://www.dogr.res.in/index.php/en/technologies-developed
6	Directorate of Cashew Research, Puttur	Directorate of Cashew Research, Puttur	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable
7..	Directorate of Medicinal and Aromatic Plants Research, Anand	Directorate of Medicinal and Aromatic Plants Research, Anand	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable
8	Directorate of Floricultural Research, Pune, Maharashtra	Directorate of Floricultural Research, Pune, Maharashtra	No (ICAR Policy applicable)	https://dfr.icar.gov.in/AtaGlance/ITMU	Unavailable	Unavailable
9	Directorate of Weed Research, Jabalpur	Directorate of Weed Research, Jabalpur	No (ICAR Policy)	Unavailable	Unavailable	Unavailable

S.No	Institute Name	Institute Web Portal	IP Policy on Website	IP Cell/ Tech Transfer Details	Technology lists on Website (Yes/No)	Technology Lists Links
			applicable			
10	Project Directorate on Foot & Mouth Disease, Mukteshwar	Project Directorate on Foot & Mouth Disease, Mukteshwar	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable
11	Directorate of Poultry Research, Hyderabad	Directorate of Poultry Research, Hyderabad	No (ICAR Policy applicable)	http://www.pdonpoultry.org/pdpnew/index.php?option=com_content&view=article&id=90&Itemid=32	Limited Information available with no details on IP	http://www.pdonpoultry.org/pdpnew/index.php?option=com_content&view=article&id=101&Itemid=47
12	Directorate of Knowledge Management in Agriculture (DKMA), New Delhi	Directorate of Knowledge Management in Agriculture (DKMA), New Delhi	No (ICAR Policy applicable)	Unavailable	Unavailable	Unavailable
13	Directorate of Cold Water Fisheries Research, Bhimtal, Nainital	Directorate of Cold Water Fisheries Research, Bhimtal, Nainital	No (ICAR Policy applicable)	http://www.dcftr.res.in/org_structure.php	Limited Information available with no details on IP	http://www.dcftr.res.in/institute_technologies.php

LIST OF TARGET INSTITUTIONS AND THEIR COMMUNICATION DETAILS

S.No	Institute	Location	State	Zone	Website	Contact
1	Central Research Institute of Dryland Agriculture	Hyderabad	Telangana	South	http://www.icar-crida.res.in/	Director, ICAR-CRIDA, Santoshnagar, Hyderabad - 500 059 Phone: +91 -040 24532243, 24530161 Email: director.crida@icar.gov.in
2	National Academy of Agricultural	Hyderabad	Telangana	South	https://naarm.org.in/ho	Dr. Ch. Srinivasa Rao 091-40-24581322

S.No	Institute	Location	State	Zone	Website	Contact
	Research & Management				me/	director@naarm.org.in
3	Indian Institute of Millets Research	Hyderabad	Telangana	South	http://www.millets.res.in/	Director: Dr. Vilas A Tonapi E-mail: millets.icar@nic.in director.millets@icar.gov.in Tel: Director : +91 - 040 - 2459 9301 General No. : +91 - 040 - 2459 9300 Fax : +91 - 040 - 2459 9304
4	Indian Institute of Oilseeds Research	Hyderabad	Telangana	South	http://www.icar-iior.org.in/	Director Indian Institute of Oilseeds Research Rajendranagar Hyderabad – 500 030 Ph: 040-24598444, 24016141 Fax : 040-24017969 Email : director.iior@icar.gov.in
5	Indian Institute of Rice Research	Hyderabad	Telangana	South	http://www.icar-iirr.org/	Director: IIRR E-mail: director.iirr@icar.gov.in Phone: +91 - 40 - 24591218
6	National Research Centre on Meat	Hyderabad	Telangana	South	www.nrcmeat.org.in	Dr. V. V. Kulkarni, Director Tel.: +91-40 -27204541, 27201674, Extn: 201 Fax: +91-40 -27201672 Email: nrcmeat_director@yahoo.co.in
7	Directorate of Poultry Research	Hyderabad	Telangana	South	http://www.pdonpoultry.org/pdpnew/	Ph : +91-40-24015651, 24017000 Fax : +91-40-24017002 Email: pdpoult@nic.in
8	Directorate of Sorghum Research	Hyderabad	Telangana	South	www.sorghum.res.in/	Dr. J.V Patil, Director, Tel.:+91 -040 – 24015349, +91 -040 – 24018651 Fax: +91 -040 – 24016378 Email: dsrhyd-ap@nic.in, jvp@sorghum.res.in
9	National Research Centre for Banana	Trichi	Tamil Nadu	South	http://nrcb.res.in/	director.nrcb@icar.gov.in Thogamalai Road, Thayanur Post, Tiruchirapalli - 620 102. Tamil Nadu, India. 0431-2618125
10	Sugarcane Breeding Institute	Coimbatore	Tamil Nadu	South	https://sugarcane.icar.gov.in/index.php/en/	Dr. Bakshi Ram E-mail: director@sugarcane.res.in, Bakshi.Ram@icar.gov.in Off: 0422 - 2472621 (Ext: 203), 0422-2473971
11	Central Institute	Chennai	Tamil	South	http://www.	Phone: +91-044-24618817, 24616948, 24610565

S.No	Institute	Location	State	Zone	Website	Contact
	Brackishwater Aquaculture		Nadu		ciba.res.in/	Director : +91-044-24617523 Fax: +91-044-24610311 Email : director.ciba@icar.gov.in, director@ciba.res.in
12	Central Tuber Crops Research Institute	Trivandrum	Kerala	South	http://www.ctcri.org/	Director, Telephone: (+91)(471) 2598551 FAX: (+91)(471) 2590063 E-mail:ctcritvm@yahoo.com, director.ctcri@icar.gov.in.
13	Central Marine Fisheries Research Institute	Kochi	Kerala	South	http://www.cmfri.org.in	Director Phone: +91 484 2394357 /12, 2391407, 2394867, 2397569, 2394268 /96, 2394750 Fax : +91 484 2394909 E-mail : director.cmfri@icar.gov.in
14	Central Plantation Crops Research Institute	Kasargod	Kerala	South	http://www.cpcri.gov.in /	Phone : 04994-232894 Fax : 04994-232322 E-Mail :director.cpcri@icar.gov.in, directorcpcri@gmail.com, cpcri@gov.in
15	Central Institute of Fisheries Technology	Cochin	Kerala	South	http://www.cift.res.in/	Ph: 0484-2412300; Fax: 091-484-2668212 E-mail:aris.cift@gmail.com; cift@ciftmail.org
16	Indian Institute of Spices Research	Calicut	Kerala	South	http://www.spices.res.in	Director: Dr. Kantipudi Nirmal Babu Email: director.spices@icar.gov.in Ph: 0091-495 2730294
17	Directorate of Cashew Research	Puttur	Karnataka	South	https://cashe.w.icar.gov.in/	Dr. M. Gangadhara Nayake, Director Email: director.dcr@icar.gov.in, dircajures@gmail.com Phone: 08251-231530, 230902 [Office]; Fax: 08251-234350
18	Indian Institute of Horticultural Research	Bengaluru	Karnataka	South	https://iihr.res.in/	Dr. M.R.Dinesh, Director Ph: 080-28466471 , 080-28466353 Email: director.iihr@icar.gov.in
19	National Institute of Animal Nutrition and Physiology	Bengaluru	Karnataka	South	http://nianp.res.in/	Director Phone numbers: 080-25711303 /304 /164, 25702539 /46 Fax: 080-25711420
20	National Institute of Veterinary	Bengaluru	Karnataka	South	https://nivedi.res.in/	ICAR - National Institute of Veterinary Epidemiology and Disease Informatics Ramagondanahalli, Post Box No. 6450

S.No	Institute	Location	State	Zone	Website	Contact
	Epidemiology and Disease Informatics					Yelahanka, Bengaluru-560064 Karnataka, India Fax:+91 80 2309 3222 080 23093100/110/111
21	National Bureau of Agricultural Insect Resource	Bengaluru	Karnataka	South	http://www.nbair.res.in/	Director, +91(080)-2351 1982;98 Fax +91(080)-2341 1961 E-mail directornbair@gmail.com
22	Central Coastal Agricultural Research Institute	Goa	Goa	South	http://www.ccari.res.in/	Dr. Eaknath B. Chakurkar ICAR - CCARI Ela, Old Goa - 403 402 0832-2284677 /78 / 79 0832-2285381 Fax : 0832-2285649 director.ccari@icar.gov.in
23	Indian Institute of Oil Palm Research	West Godavari	Andhra Pradesh	South	http://dopr.gov.in/	Director, Phone: 91-8812-259532, 259524 Fax : 91-8812-259531 Email : director.iioir@icar.gov.in
24	Central Tobacco Research Institute	Rajahmundry	Andhra Pradesh	South	https://ctriicar.gov.in/	Dr. D. DAMODAR REDDY DIRECTOR CENTRAL TOBACCO RESEARCH INSTITUTE BHASKARNAGAR RAJAHMUNDRY - 533 105 ANDHRA PRADESH PHONE: 0883-2448995, 2449871 EMAIL : directorctri@gmail.com, ctri-ap@nic.in FAX: 0883-2448341, 2410555
25	Central Island Agricultural Research Institute	Port Blair	Andaman Nicobar Islands	South	https://ciari.icar.gov.in/	Dr. A Kundu, Director Phone No : 03192- 250341 (O) Mobile No :(+91) 9433285341 directorcaripb@gmail.com; drakundu1@yahoo.com; director.ciari@icar.gov.in
26	Kakatiya University, Department of Biotechnology & Department of Botany	Warangal	Telangana	South	www.kakatiya.ac.in	Dr. A.V. Rao, Head of the Biotechnology Department Tel.: 0091-0870-2461455 Email: vrao_allini@yahoo.com Prof. A Ragan, Department of Botany Email: raganajmeera@yahoo.co.in

S.No	Institute	Location	State	Zone	Website	Contact
27	Institute of Biotechnology, Acharya N. G. Ranga Agricultural University	Hyderabad	Telangana	South	www.angra.u.ac.in	Dr. P. Anand Kumar, Director Email: polumetla@hotmail.com
28	Center for DNA Fingerprinting and Diagnostics	Hyderabad	Telangana	South	www.cdfd.org.in	Dr Ankkur Goel Tel.: +91-40- 24749363 Email: ankkurgoel@cdfd.org.in
29	Centre for Cellular & Molecular Biology	Hyderabad	Telangana	South	www.ccmb.res.in	Dr. M. R. Vishnu Priya Tel.: +91-40-27192587 Email: priya@ccmb.res.in, pme@ccmb.res.in
30	National Institute of Nutrition	Hyderabad	Telangana	South	http://ninindia.org/	Dr. S. Vasanthi, Scientist 'D', Food and Drug Toxicology Research Centre Tel.: 91-40-27197280 Mobile: 09849865053 Email: vasanthi.siruguri@gmail.com, vasanthigm@yahoo.com
31	Center for Bioseparation Technology, VIT University	Vellore	Tamil Nadu	South	http://www.vit.ac.in	Prof. M.A. Vijayalakshmi Tel.: +91-416-2202375 Mobile: +91-9443311374 Email: indviji@yahoo.com, director.cbst@vit.ac.in
32	Indian Institute of Crop Processing Technology	Thanjavur	Tamil Nadu	South	http://www.iicpt.edu.in/	Dr. K. Singaravavel, Director Tel.: + 91-4362-228155, + 91-4362-226676 Mob.: + 91-9750968410 Fax: + 91-4362 227971 Email: director@iicpt.edu.in
33	Institute of Forest Genetics & Tree Breeding	Coimbatore	Tamil Nadu	South	www.ifgtb.icfre.gov.in	Dr. Mathish Nambiar – Veetil Tel.: +91-422- 2450542 Mobile:+91- 9488167842 Email: mathish@icfre.org
34	Bharathiyar University	Coimbatore	Tamil Nadu	South		Dr. R. Sathishkumar, Group Leader/ Asst. Professor, Plant Genetic Engineering Laboratory Department of Biotechnology
35	Department of	Coimbatore	Tamil Nadu	South	http://www.karpagamun	Dr. M. Palaniswamy, Dean i/c, Tel.: 0422-6453777 Fax: 0422-

S.No	Institute	Location	State	Zone	Website	Contact
	Microbiology , Faculty of Arts, Science and Humanities, Karpagam University				iversity.edu. in/	2980022 Mobile: +91-9894736777 Email: m.palaniswamy@gmail.com, m.palaniswamy@karpagam.ac.in
36	Department of Biochemistry , Biotechnolog y & Bioinformati cs, Avinashiling am Institute for Women	Coimbatore	Tamil Nadu	South	www.avinut y.ac.in/	Dr. Kalaiselvi Senthil, Lecturer, Email: kalaisen@gmail.com, kalaiselvi_bc@avinuty.ac.in
37	Tamil Nadu Veterinary & Animal Sciences University	Chennai	Tamil Nadu	South	<a href="http://www.tanuv
as.tn.nic.in">www.tanuv as.tn.nic.in	Director of Research Tel.: +91-44-2555 1583 EPBX: +91-44-2555 1586/1587 Email: dr@tanuvas.org.in drtanuv@rediffmail.com
38	Kerala Forest Research Institute	Thrissur	Kerala	South	http://www. kfri.res.in/	Dr. K Yesodharan, Scientist C, Botany Department, Forest Ecology & Biodiversity Conservation Division Mobile: 9961490250 Email: yesodharan.kfri@gmail.com
39	Kerala Agricultural University	Thrissur	Kerala	South	www.kau.e du/	Dr. Jayashree Krishnankutty, Associate Professor, College of Horticulture Email: jaya_melethil@yahoo.co.in
40	Rajiv Gandhi Centre For Biotechnolog y	Thiruvananthapuram	Kerala	South	www.rgcb.r es.in/	Professor M. Radhakrishna Pillai Tel.: +91-471-2347973 Email: director@rgcb.res.in, mrpillai@rgcb.res.in Dr. Ruby John Anto, Scientist F, Cancer Research Program, Division of Cancer Research Email: rjanto@rgcb.res.in
41	Kerala University of Fisheries & Ocean Studies	Panagadh	Kerala	South	www.kufos. ac.in/	Dr. K. Dinesh, Assistant Professor & Head, Fisheries Station Mobile: +91-9446032977 Fax: +91-484-2502587 Email: dineshkaippilly@gmail.com

S.No	Institute	Location	State	Zone	Website	Contact
	(KUFOS)					
42	Directorate of Cashewnut & Cocoa	Agri	Kerala	South	www.dccd.gov.in/	Dr. Venkatesh N. Hubballi, Director & Transparency Officer Tel.: 0484 - 2377151 (O) Fax: 0484-2377239 Email : dccd@nic.in
43	Central Food Technological Research Institute	Mysore	Karnataka	South	www.cftri.com/	Dr. M.C. Varadaraj, Chief Scientist & Coordinator, International S&T Unit Email: istu@cftri.res.in Dr. Prakash Halami, Senior Principal Scientist, Department of Food Microbiology Email: prakashalami@cftri.res.in
44	University of Agricultural Sciences	Bellary Road, Bangalore	Karnataka	South	www.uasbangalore.edu.in	Dr. M. A Shankar, Director Tel.: +91 80-2333 0206, +91 80-2333 0153 (Ext. 215), +91 94498 66903, +91 80-2333 0206 dr@uasbangalore.edu.in
45	National Bureau of Agriculturally Important Insects	Bangalore	Karnataka	South	http://www.nbaii.res.in/	Dr. Ankita Gupta, Scientist, Division of Insect Systematics Tel.: 080-2351 1982, Extn. 336 Email: ankitagupta.nbaii@gmail.com
46	Central Arid Zone Research Institute	Jodhpur	Rajasthan	West	http://www.cazri.res.in/	Dr. O.P. Yadav, Director director.cazri@icar.gov.in Phone: +91 291 2786584
47	Central Institute for Arid Horticulture	Bikaner	Rajasthan	West	https://ciah.icar.gov.in/	Dr. P. L. Saroj, Director Phone:0151-2250147, Fax:0151-2250145 Email: ciah@nic.in
48	National Research Centre on Camel	Bikaner	Rajasthan	West	https://nrccamel.icar.gov.in/	Phone : +91 151 2230183 Fax : +91 151 2970153 Email : nrccamel@nic.in
49	Directorate of Rapeseed & Mustard Research	Bharatpur	Rajasthan	West	http://www.drmr.res.in/	Dr. P. K. Rai, Director (Acting) Phone: 05644-260379/260495 Fax: 05644-260565 Email: director.drmr@gmail.com
50	Central Sheep and Wool Research Institute	Avikanagar	Rajasthan	West	https://www.cswri.res.in/	Dr Raghvendar Singh, PhD Director ICAR-Central Sheep and Wool Research Institute, Avikanagar- (post) Malpura (Tehsil)

S.No	Institute	Location	State	Zone	Website	Contact
						Tonk (Dist) Via-Jaipur Rajasthan 304501 Phone : 01437- 220162 Fax 01437- 220163 Email raghvendar@gmail.com director.cswri@icar.gov.in cswriavikanagar@yahoo.com
51	National Research Centre on Seed Spices	Ajmer	Rajasthan	West	http://nrcss.res.in/	Dr. Gopal Lal, Director Contact No. : 0145-2684401 Fax: 0145-2684417 Email : nrcss.director@gmail.com
52	National Research Centre for Pomegranate	Solapur	Maharashtra	West	http://nrcpomgranate.icar.gov.in/	R. Jyotsana Sharma, Director(Acting) ICAR - NRCP NH-65, Solapur-Pune Highway, Kegaon, Solapur (Mah.), India jyotisharma128@yahoo.com 0217-2354330 (Office) 0217-2350262 (Office) 0217-2353533 (FAX, Office) nrcpomgranate@gmail.com
53	National Research Centre for Grapes	Pune	Maharashtra	West	https://nrcgrapes.icar.gov.in/	Director (Acting) Dr. Indu S. Sawant Phone: 91-20-26956001 Fax:91-20-26956099 Email:director.nrcg@icar.gov.in
54	Directorate on Onion and Garlic Research	Pune	Maharashtra	West	http://www.dogr.res.in/index.php/en/	Phone: 02135-222026 Fax: 02135-224056
55	Directorate of Floricultural Research	Pune	Maharashtra	West	https://dfrcar.gov.in/	Central Public Information Officer (CPIO) Dr. Prashant G. Kawar (Senior Scientist) Phone: (020)25537024 Email: pkawar@gmail.com
56	Central Institute of Cotton Research	Nagpur	Maharashtra	West	http://www.cicr.org.in/	Dr. V N Waghmare Director (Acting) & Head, Division of Crop Improvement e-Mail:vijayvnw@yahoo.com Office Tel. No.: 07103-275310,09011071214-18 Office Fax No.: 07103-275529 Mobile: 09420565484
57	Central Citrus	Nagpur	Maharashtra	West	http://www.ccringp.org.	Dr. M. S. Ladaniya, Director Phone: 0712-2500813

S.No	Institute	Location	State	Zone	Website	Contact
	Research Institute		shtra		in/ccringp/	0712-2500249 E-mail: director.ccricar.gov.in milind.ladaniya@icar.gov.in
58	National Bureau of Soil Survey and Land Use Planning	Nagpur	Maharashtra	West	https://www.nbsslup.in/	Director, Tel : +91-712-2500386, 2500545 (O) +91-712-2228721 (R) Fax : +91-712-2500534 Email : director.nbsslup@icar.gov.in
59	Central Institute on Fisheries Education	Mumbai	Maharashtra	West	http://www.cife.edu.in/	Director: director@cife.edu.in Telephone Number: +91 22 2636 1446/7/8 Fax: +91 22 2636 1573
60	Central Institute of Research on Cotton Technology	Mumbai	Maharashtra	West	http://circot.res.in/circot/	Dr. P. G. Patil, Director Email: director.circot@icar.gov.in Tel: 24127273/76, 24184274/75 Fax No: 24130835/24157239
61	National Institute of Abiotic Stress Management	Malegaon	Maharashtra	West	http://www.niam.res.in/	The Director, Phone : (02112) 254055/57/58/59 Fax : (02112) 254056
62	Directorate of Groundnut Research	Junagarh	Gujarat	West	http://www.dgr.org.in/	Director Phone: (+91) 0285-2673382 (O); 0285-2675831 (R) Fax: +91 0285 2672550 Email: director@dgr.org.in
63	Directorate of Medicinal and Aromatic Plants Research	Anand	Gujarat	West	http://www.dmapr.org.in/	Contact: director@dmapr.org.in
64	Central Institute of Post- Harvest Engineering & Technology	Ludhiana	Punjab	West	www.ciphnet.in	Dr. R.K. Gupta, Head (FG & OP) Mobile: +91-9872859024 Email: rkguptaciphnet@gmail.com
65	Department of Veterinary Parasitology, College of Veterinary Science,	Ludhiana	Punjab	West	http://www.gadvasu.in/	Prof. Lachhman Das Singla, Professor & Head Tel.: +91-161-2414029 Email: ldsingla@gadvasu.in, ldsingla@rediffmail.com

S.No	Institute	Location	State	Zone	Website	Contact
	Guru Angad Dev Veterinary & Animal Sciences University					
66	Agharkar Research Institute	Pune	Maharashtra	West	www.aripune.org	Dr. K. M. Paknikar, Director Tel.: +91-20-25654357 Email: director@aripune.org
67	Dr. B.V Rao Institute of Poultry Management & Technology	Pune	Maharashtra	West		Dr. Hingane, Director, Tel.: +91-20-26926320, +91- 20-26926321, +91-20- 26926509 Fax: +91-20-26926508, 24332287, 24337760 Email: ipmtpune@venkys.com, ipmtpune@rediffmail.com
68	National Institute of Abiotic Stress Management	Pune	Maharashtra	West	http://www.niam.res.in/	Dr. P.S. Minhas, Director Email: director@niam.res.in
69	Central Institute for Cotton Research	Nagpur	Maharashtra	West	www.cicr.org.in/	Dr. K. R. Kranthi, Director Email: krkranthi@gmail.com
70	Maharashtra Animal & Fisheries Sciences University (MAFSU)	Nagpur	Maharashtra	West	http://www.mafsu.in/	Dr. A. S. Bannaliker Tel.: 0712-2511088, 0712- 2053658, 0712-2513004 Email:pshvcmafesu@gmail.com
71	Tata Memorial Centre	Mumbai	Maharashtra	West	https://tmc.gov.in/	Dr. Rajendra A. Badwe Tel.: +91-22-24168601 Email: badwera@gmail.com Dr. Shyam. K. Shrivastava, Prof. & Head, Department of Radiation Oncology Tel.: 91 22 24177163 Fax: 91 22 24146937 Email: radonco@vsnl.net
72	Directorate of Cold Water Fisheries Research	Nainital	Uttarakhand	North	http://www.dcfres.in/	Phone: +91-5942-247280, 247279 Fax: +91-5942-247693 Email: director.dcfres@icar.gov.in; dcfres@rediffmail.com; dcfres@gmail.com

S.No	Institute	Location	State	Zone	Website	Contact
73	Project Directorate on Foot & Mouth Disease	Mukteshwar	Uttarakhand	North	http://www.pdfmd.ernet.in/	Tel: +91 5942 286004 Fax: +91 5942 286307
74	Indian Institute of Soil and Water Conservation	Dehradun	Uttarakhand	North	http://www.cswcrtiweb.org/	Dr. P.R. Ojasvi Telephone : 0135 2758564; Fax : 0135 2754213 directorsoilcons@gmail.com, director.iiswc@icar.gov.in
75	Vivekananda Parvatiya Krishi Anusandhan Sansthan	Almora	Uttarakhand	North	http://www.vpkas.icar.gov.in/	Director, Office 91-5962-230060 Director 91-5962-230208 (Office) 91-5962-230130 (Residence) director.vpkas@icar.gov.in vpkas@nic.in
76	Indian Institute of Vegetable Research	Varanasi	Uttar Pradesh	North	https://www.iivr.org.in/	Phone: 91-542-2635247; 2635236 91-5443-229007
77	Indian Institute of Farming Systems Research	Modipuram	Uttar Pradesh	North	http://www.iifsr.res.in/	Dr. A.S. Panwar Director, ICAR - IIFSR Modipuram Meerut Email Id: director.iifsr@icar.gov.in Phone: 0121-2888711 Fax: 0121-2888546
78	Central Institute for Research on Cattle	Meerut	Uttar Pradesh	North	http://www.circ.org.in/index.htm	Director . Dr. N.V. Patil Phone . 0121-2657136 Director Phone. 0121- 2645598, 2656021 (EPABX) Fax . 0121-2657134 Email . dirpdc@yaho.com and pdcattle@yahoo.com
79	Indian Institute of Seed Research	Mau	Uttar Pradesh	North	http://seedres.in/	Phone: (+91) (0547) 2530326 Fax: (+91) (0547) 2530325 Email: pddsrm@icar.gov.in, director.seed@icar.gov.in
80	Central Institute for Research on Goats	Makhdum	Uttar Pradesh	North	http://www.cirg.res.in/	M.S. Chauhan, Director, +91 - 565 - 2763380 E-mail: director.cirg@icar.gov.in; chauhanabtc@gmail.com
81	Central Institute of Sub Tropical	Lucknow	Uttar Pradesh	North	http://www.cish.res.in/	E-mail: Cish.lucknow@gmail.com Phone: 0522-2841022, 23 0522-2841027

S.No	Institute	Location	State	Zone	Website	Contact
	Horticulture					
82	Indian Institute of Sugarcane Research	Lucknow	Uttar Pradesh	North	http://www.iisr.nic.in/	Director Ph: 0522-2480726 Fax : 0522-2480738 Email: director.sugarcane@icar.gov.in
83	Indian Institute of Pulses Research	Kanpur	Uttar Pradesh	North	https://iipr.icar.gov.in/	Director Phone 91-512-2580995, 2580994, 2580986 Fax 91-512-2580992 E-mail diriipr.icar@gmail.com, director.iipr@icar.gov.in
84	Indian Grassland and Fodder Research Institute	Jhansi	Uttar Pradesh	North	http://www.igfri.res.in/	0510-2730666, 2730158 0510-2730385 FAX: 0510-2730833 igfri_jhansi@yahoo.co.in igfri.director@gmail.com
85	Central Agroforestry Research Institute	Jhansi	Uttar Pradesh	North	http://www.cafri.res.in/	Dr. Anil Kumar Director (A) Ph: 0510-2730214; Fax: 05102730364 Email: director.cafri@gmail.com
86	Indian Veterinary Research Institute	Izatnagar	Uttar Pradesh	North	http://www.ivri.nic.in/	Dr. Raj Kumar Singh , Director Telephone: 0581-2300096 (O) Email: dirivri@ivri.res.in , director.ivri@icar.org.in , directorivri@gmail.com
87	Central Avian Research Institute	Izatnagar	Uttar Pradesh	North	https://icar.org.in/cari/	Dr. A.B. Mandal, Director (A) Ph: 91-581-2303223; 2300204; 2301220; 2310023; Extn.: 3001 Fax: 0581-2301321 E-Mail:cari_director@rediffmail.com; director.cari@icar.gov.in
88	National Bureau of Agriculturally Important Micro-organisms	Mau	Uttar Pradesh	North	http://nbaim.org.in/	Director Phone : 0547-2530158, Fax : 0547-2530358 Email - director.nbaim@icar.gov.in
89	National Bureau of Fish Genetic Resources	Lucknow	Uttar Pradesh	North	http://www.nbfgr.res.in/	Dr. Kuldeep K Lal, Director Phone: (0522) 2441735, 2440145 Fax: (0522) 2442403 Email: director.nbfgr@icar.gov.in; kuldeepklal@gmail.com; nbfgr@sancharnet.in; director@nbfgr.res.in

S.No	Institute	Location	State	Zone	Website	Contact
90	Central Institute on Post harvest Engineering and Technology	Ludhiana	Punjab	North	www.ciphnet.in	Dr. R.K. Gupta, Head (FG & OP) Mobile: +91-9872859024 Email: rkguptaciphnet@gmail.com
91	Indian Agricultural Research Institute	New Delhi	New Delhi	North	http://www.iari.res.in/	Dr. A. K. Singh, Director Ph: +91-11-25842367 Fax: +91-11-25846420 E-mail: director@iari.res.in Dr. A.K. Singh, Jt. Director Ph: +91-11-25843379 E-mail: jd_research@iari.res.in
92	Indian Agricultural Statistics Research Institute	New Delhi	New Delhi	North	http://www.iasri.res.in/	Dr. L. M. Bhar Director (A) Ph.: 91-11-25841479 (O) Email: director.iasri@icar.gov.in
93	Indian Institute of Maize Research	New Delhi	New Delhi	North	https://iimr.icar.gov.in/	Dr. Sujay Rakshit, DIRECTOR FAX:+911612430038 PHONE: +911612440048 EMAIL : PDMAIZE@GMAIL.COM
94	National Institute of Agricultural Economics and Policy Research	New Delhi	New Delhi	North	http://www.ncap.res.in/	Dr. Suresh Pal, Director Phone: +91-11- 25847628 +91-11- 25848731 Email: director.niap@icar.gov.in ao.niap@icar.gov.in
95	National Centre for Integrated Pest Management	New Delhi	New Delhi	North	https://www.ncipm.res.in/	Dr H. R. Sardana Director (Acting) ICAR-National Research Centre for Integrated Pest Management Pusa Campus, New Delhi-110012 Ph.: 011-25843936, 25843935 *218 E-mail: director.ncipm@icar.gov.in
96	National Bureau of Plant Genetics Resources	New Delhi	New Delhi	North	http://www.nbpgr.ernet.in/	Dr. Kuldeep Singh, Director Telephone: + 91-11 -25843697, Fax:+ 91-11-25842495 Email: director.nbpgr@icar.gov.in; kuldeep.singh4@icar.gov.in
97	Central Institute of Temperate	Srinagar	Jammu and Kashmi	North	http://www.cith.org.in/	Director : Dr. Desh Beer Singh Phone : 01942305044 Mobile : 09858776364 Fax : 01942305045

S.No	Institute	Location	State	Zone	Website	Contact
	Horticulture		r			Email : dircithsgr@icar.org.in
98	Directorate of Mushroom Research	Solan	Himachal Pradesh	North	http://www.nremushroom.org/	Dr. V.P. Sharma, Director Phones: 91-1792-230541, 230767 (Ext. : 201)
99	Central Potato Research Institute	Shimla	Himachal Pradesh	North	https://cpri.icar.gov.in/	Dr SK Chakrabarti, Director Fax: 91-177-2624460, Phone: 91-177-2625073 E-mail: director.cpri@icar.gov.in; directorcpri@gmail.com
100	Central Soil Salinity Research Institute	Karnal	Haryana	North	www.cssri.nic.in	Dr. D. K. Sharma, Director Tel.: +91-184-2290501 Email: director@cssri.ernet.in Dr. T. Damodaran, Regional Research Station, Lucknow Email: damhort@cssri.ernet.in Dr. Parbodh Chander Sharma, Principal Scientist Tel.: +91-184-2209329 Email: pcsharma@cssri.ernet.in
101	Indian Institute of Wheat and Barley Research	Karnal	Haryana	North	https://iiwbr.icar.gov.in/	Dr Pranjib Chakrabarty, Assistant Director General (Plant Protection & Biosafety) Indian Council of Agricultural Research Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi – 110001 Tel: +91(0)11-233-84414 Email: adgpp.icar@nic.in
102	Central Institute for Research on Buffaloes	Hisar	Haryana	North	http://cirb.res.in/	Dr. Inderjeet Singh, Phone No : 01662-281602 E-mail ID: director.cirb@icar.gov.in
103	National Dairy Research Institute	Karnal	Haryana	North	http://www.ndri.res.in/ndri/Design/Index.html	Dr. R.R.B. Singh, Director (Acting) E-mail: dir@ndri.res.in / dir.ndri@gmail.com Ph: +91-184-2252800 / 2259002 (O) Fax: +91-184-2250042
104	National Bureau of Animal Genetic Resources	Karnal	Haryana	North	http://www.nbagr.res.in	Dr. R.K.Vijh, Director (Acting),NBAGR Phone: 91-184-2267918 Email: director.nbagr@icar.gov.in

S.No	Institute	Location	State	Zone	Website	Contact
105	National Research Centre on Equines	Hisar	Haryana	North	http://www.nrce.gov.in/new/index.php/	E-mail - nrcequine@nic.in Ph. - +91-1662-275787, 276748, 276151, 275114 Fax - +91-1662-276217
106	Forest Research Institute (FRI)	Dehradun	Uttarakhand	North	www.fri.icfre.gov.in	Dr. P.S. Rawat, Scientist - D, Research Coordination Section Tel.: +91-135-2224353 Email: rawatps@icfre.org Dr. Sadhna Tripathi, Scientist - F, Tel.: 0135-2224398 Email: tripathis@icfre.org
107	Centre of Advanced Study in Botany, Department of Botany, Banaras Hindu University	Varanasi	Uttar Pradesh	North	http://www.bhu.ac.in/	Prof. Nandita Ghoshal Email: n_ghoshal@yahoo.co.in, nghoshal.bhu@gmail.com
108	National Bureau of Fish Genetic Resources	Lucknow	Uttar Pradesh	North	www.nbfgr.res.in/	Dr. J.K. Jena, Director Tel.: (0522) 2442440, 2442441 Fax: (0522) 2442403 Email: nbfgr@sancharnet.in, director@nbfgr.res.in, jkjena2@rediffmail.com
109	National Botanical Research Institute	Lucknow	Uttar Pradesh	North	www.nbri.res.in/	Dr. Chandra Shekhar Nautiyal, Director Tel.: +91-522-2205848, Fax: +91-522-2205839 Email: director@nbri.res.in, csnbri@yahoo.com
110	Chandra Shekhar Azad University of Agriculture & Technology	Kanpur	Uttar Pradesh	North	http://www.csauk.ac.in/	Dr. Har Gyan Prakash Tel.: +91-512-2534156-60 Mobile: 9412156124 Email: jdr@csauk.ac.in, drhp-k@yahoo.co.in
111	Department of Zoology, University of Delhi	New Delhi	New Delhi	North	www.du.ac.in	Dr. Dileep Kumar Singh Tel.: 91-11-27667191 (Office) Email:dileepksingh@gmail.com, dksingh@zoology.du.ac.in
112	National Institute of	New Delhi	New	North	http://www.	Prof. Akhilesh Kumar Tyagi, Director

S.No	Institute	Location	State	Zone	Website	Contact
	Plant Genome Research (NIPGR)		Delhi		nipgr.res.in/	Tel.: 011-26742267, 26735169 Fax: 011-26741759 Email: director@nipgr.ac.in , akhilesh@genomeindia.org
113	National Centre for Agricultural Economics & Policy Research (NCAP)	New Delhi	New Delhi	North	http://www.ncap.res.in/	Dr. Ramesh Ch&, Director Tel.: 91-11- 25847628, 25848731 Fax: 91-11-25842684 Email: director@ncap.res.in
114	Sri Venkateswar a College, University of Delhi	New Delhi	New Delhi	North	http://www.svc.ac.in/	Dr. Vartika Mathur, Assistant Professor, Dept. of Zoology, Email: vmathur@svc.ac.in, vartika_m@yahoo.com
115	International Centre for Genetic Engineering and Biotechnology (ICGEB)	New Delhi	New Delhi	North	www.icgeb.org	Director Tel.: +91-11-26742317, +91-11-26741358/61, +91-11- 26742357/60 (EPBX) Fax: +91-11-26742316 Email: virander@icgeb.res.in
116	Institute of Genomics and Integrative Biology	New Delhi	New Delhi	North	www.igib.res.in/	Dr. Rajesh S. Gokhale, Director Tel.: +91-11- 27662798, +91-11 - 27662407 Fax: +91-11-27667 471 Email: rsg@igib.in
117	Jamia Hamdard University	New Delhi	New Delhi	North	www.jamiahamdard.edu	Prof. Javed Ahmad, Faculty of Science - Department of Botany Email: jahmad@jamiahamdard.ac.in Prof. Mohd. Ali, Faculty of Pharmacy - Department of Pharmacognosy & Phytochemistry
118	School of Life Sciences, Jawaharlal Nehru University	New Delhi	New Delhi	North	http://www.jnu.ac.in/sls/	Prof. B. C. Tripathy, Dean Tel.: 011-26742916, 26704530, 26704558, 26704559 Fax: 011-26742558 Email: dean_sls@mail.jnu.ac.in, dean_sls@yahoo.com
119	Chaudhary Charan Singh	Hisar	Haryan	North	http://hau.er	Dr. R.K. Patel, Associate Director Tel.: 01662-244700

S.No	Institute	Location	State	Zone	Website	Contact
	Haryana Agricultural University		a		net.in/	Mobile : 94164-74518 Email: rkpatel@hau.ernet.in
120	National Institute of Natural Fibre Engineering and Technology	Kolkata	West Bengal	East	http://www.nirjaft.res.in/	91 33 2471 1807 (Director) nirjaftdirectorcell13@gmail.com director.ninfet@icar.gov.in
121	Central Inland Fisheries Research Institute	Barrackpore	West Bengal	East	http://www.cifri.res.in/	The Director, ICAR - Central Inland Fisheries Research Institute, Monirampur (Post), Barrackpore Kolkata, West Bengal - 700 120, Director: 033-25920177 (O), 033-25920029 (R), Fax: 033-25920388; 033-25450997, E-mail: director.cifri@icar.gov.in, director.cifri@gmail.com, Web: www.cifri.res.in
122	Central Research Institute for Jute and Allied Fibres	Barrackpore	West Bengal	East	http://www.crijaf.org.in/	Director director.crijaf@icar.gov.in crijaf-wb@nic.in 91-33-25356124
123	National Research Centre on Orchids	Pakyong	Sikkim	East	https://nrcorchids.nic.in/index.php/en/	Director, Tele: 03592-267031(O), Fax No 03592-267032 Email: director.nrco@icar.gov.in
124	National Rice Research Institute	Cuttack	Orissa	East	http://icar-nrri.in/	Director ICAR-National Rice Research Institute Cuttack (Odisha) 753 006, India Phone: +91-671-2367757; PABX: +91-671-2367768-783 Fax: +91-671-2367663 Email: director.nrri@icar.gov.in crrictc@nic.in
125	Central Institute of Freshwater Aquaculture	Bhubaneswar	Orissa	East	http://cifa.nic.in/	Director Phone: 91-674-2465421,2465446 FAX: 91-674-2465407 E-Mail: Director.Cifa@icar.gov.in
126	Indian Institute of Water Management	Bhubaneswar	Orissa	East	http://www.iiwm.res.in/	0674- 2300060 (Director) 0674-2300010/2300016/2301815 0674-2301651 director.iiwm@icar.gov.in
127	Central	Bhubaneswar	Orissa	East	http://icar-	E-mail : director.ciwa@icar.gov.in

S.No	Institute	Location	State	Zone	Website	Contact
	Institute for Women in Agriculture	r			ciwa.org.in/	Phone No : (0674)-2387940, 2387241
128	National Research Centre on Mithun	Medziphem a	Nagaland	East	http://www.nrcmithun.res.in/	03862 247340(O) 03862 247341(Fax) e-mail: director.nrcmithun@icar.gov.in
129	Research Complex for NEH Region	Umium	Meghalaya	East	http://www.icarneh.ernet.in/	Dr. B.K Kandpal Director Phone: (0364) 2570257 (O) Fax: (0364) 2570355 Email: basant.kandpal1@icar.gov.in
130	Indian Institute of Agricultural Biotechnology	Ranchi	Jharkhand	East	https://iiab.icar.gov.in/	
131	Indian Institute of Natural Resins and Gums	Ranchi	Jharkhand	East	https://iinrg.icar.gov.in/	Institute email : iinrg.ranchi@gmail.com Director : director.iinrg@gmail.com
132	ICAR Research Complex for Eastern Region	Patna	Bihar	East	https://icarrcer.in/	Dr. B.P. Bhatt, Director Ph.: 0612-2223962 Email :directoricarrcer@gmail.com
133	National Research Centre for Litchi	Muzaffarpur	Bihar	East	http://www.nrclitchi.org/	Fax: 0621-2281162 E-mail: director.nrcl@icar.gov.in nrclitchi@yahoo.co.in
134	Mahatma Gandhi Integrated Farming Research Institute	Motihari	Bihar	East		Dr BP Bhatt, OSD 0612-2223962, 0612-2223956(F) directoricarrcer@gmail.com
135	National Research Centre on Pig	Guwahati	Assam	East	http://www.nrep.in/	Phone: 0361-2847195, 2847221 FAX: 0361-2847195 Email: nrconpig@rediffmail.com
136	National Research Centre on Yak	West Kameng	Arunachal Pradesh	East	https://nrcy.icar.gov.in/	National Research Centre on Yak, Dirang - 790101 West Kameng District, Arunachal Pradesh, India

S.No	Institute	Location	State	Zone	Website	Contact
						E-mail - yakdirector@gmail.com
137	Indian Institute of Science Education & Research	Kolkata	West Bengal	East	www.iiserkol.ac.in	Dr. Punyasloke Bhadury Tel.: +91-9748612934 Email: pbhadury@iiserkol.ac.in
138	Bose Institute	Kolkata	West Bengal	East	www.boseinst.ernet.in/	Director Tel.: (+91) (-33) 23557434 Email: sibaji.raha@jcbose.ac.in, sibaji@jcbose.ac.in
139	Department of Botany, University of Calcutta	Kolkata	West Bengal	East	http://botany.caluniv.in/	Prof. Subir Bera Email: berasubir@yahoo.co.in, subirbera@rediffmail.com
140	Institute of Life Sciences	Bhubaneswar	Odisha	East	www.ils.res.in	Dr. B.P. Shaw Tel.: +91-674- 2300137, Extn.: 213 Email: bpsils@yahoo.com, bpsshaw@ils.res.in
141	Directorate of Weed Research	Jabalpur	Madhya Pradesh	Central	http://www.dwr.org.in/	Dr. P.K. Singh Director (Acting) ICAR - Directorate of Weed Research (DWR) Maharajpur, Jabalpur - 482004, (MP), India Phone : 91-761-2353138 Fax : 91-761-2353129 E-mail : drsinghpk@gmail.com, dirdwsr@icar.gov.in
142	Directorate of Soybean Research	Indore	Madhya Pradesh	Central	https://iisrin.dore.icar.gov.in/	Phone No 0091-0731-2476188, 2478414 Email soybean.director@icar.gov.in, dsradmin@gmail.com, dsrdirector@gmail.com Fax 0091-0731-2470520
143	Central Institute of Agricultural Engineering	Bhopal	Madhya Pradesh	Central	http://www.ciae.nic.in/Content/index.aspx	Director: 91-755-2737191 E-mail: director.ciae@icar.gov.in
144	Indian Institute of Soil Sciences	Bhopal	Madhya Pradesh	Central	http://www.iiss.nic.in/	DR. ASHOK K. PATRA Director, IISS Email: director.iiss@icar.gov.in, ashok.patra@icar.gov.in, patraak@gmail.com Phone: (Off.) : 0755-2730946 Fax: 0755-2733310

S.No	Institute	Location	State	Zone	Website	Contact
145	National Institute of High Security Animal Diseases	Bhopal	Madhya Pradesh	Central	http://www.nihsad.nic.in/	Director's Office: +91 755 2759204 EPABX: +91 755 2754674-75 Fax: +91 755 2758842
146	National Institute of Biotic Stresses Management	Raipur	Chhattisgarh	Central	https://www.nibsm.res.in/	Directors office, Fax No. (0771) 2225351; Telephone No. (0771) 2225352 Office Telephone No. (0771) 2225333
147	Tropical Forest Research Institute	Jabalpur	Madhya Pradesh	Central	www.tfri.icfre.gov.in	Director or Head Extension Division Tel.: +91-761-2840483, 2840627 Fax: +91-761-2840483 Email: dir_tfri@icfre.org

Questionnaires

ABOUT INSTITUTION

1. Institution Name
2. Type of Institution *
 - i. Research Organization
 - ii. Central University
 - iii. State University
 - iv. Academic Institution
 - v. Others, Please Specify
3. Postal Address
4. State
5. City/District

ABOUT INSTITUTIONAL IP POLICY

1. Does your institute have Institutional IP Policy? (Yes/No)
2. If Institution has IP Policy (yes)
 - i. When was the Institutional IP Policy made? (Year)
 - ii. Is your IP Policy available on your official Website? (Yes/No)
 - iii. Does your organisation have a dedicated IP Department or IP Official? (Yes/No) If Yes,
 - a. Name of the IP Official:
 - b. His/her E-mail ID:
 - c. His/her Contact Number:
 - iv. What is the level of awareness about the IP Policy within the Organisation? (on a scale of 1 to 5)
 - v. Is there any provision in the IP Policy to provide incentives to Innovator? (Yes/No/Not Sure)

- vi. IP resources available at your Institute?
 - a. Patent Libraries/IP Databases (Paid Subscriptions)
 - b. Dedicated IP Professionals/Officials
 - c. Dedicated IP Department
 - d. Any others, Pls. specify.
- 3. If Institution has no IP Policy (No)
 - i. Why the Institute doesn't have an IP Policy?
 - a. No awareness about the importance of IP Policy
 - b. Policy Execution challenges
 - c. Insufficient Resources
 - d. Others, Pls. Specify

ABOUT INTELLECTUAL PROPERTY

- Intellectual Properties Filed/granted/Registered in the name of your organisation:
 - Patents
 - Plant Varieties
 - Trademarks
 - Geographical Indication
 - Copyrights
 - Industrial Design
 - Integrated circuits
- Patent Details:
 - Institution Name
 - State
 - Year of Patent Application
 - Date of Patent Application

- Patent Application No
 - Invention title
 - Invention Domain
 - Short Description of the Invention
 - Invention Classification Code
 - Inventor Name (details)
 - Current Legal Status
 - Patent grant No. (If applicable)
 - Applicant Address
-
- Trademark Details:
 - Institution Name
 - State
 - Year of Trademark Application
 - Date of Trademark Application
 - Trademark Application No
 - Trademark
 - Trademark Type
 - Goods/ Services Description
 - Trademark class
 - Registration Status
 - Contact Address and E-mail
 - Photo, if any
 - Additional details, if any
-
- Plant variety Details

- Application Year
 - Registration No
 - Denomination/ Variety Name
 - Crop
 - Scientific Name
 - Characteristics
 - Acknowledgement No
 - Type
 - Applicant
 - Date of Certificate
 - Category
 - Contact address and E-mail
 - Photo, if any
 - Additional details, if any
-
- Industrial Designs
 - Institution Name
 - State
 - Year of Design Application
 - Date of Design Application
 - Design Application No
 - Industrial Design title
 - Short Description of the Design
 - Inventor Name (details)
 - Registration Status
 - Contact Address and E-mail
 - Photo, if any

- Additional details, if any

- Geographical Indications
 - Institution Name
 - State
 - Year of GI Application
 - Date of GI Application
 - GI Application No
 - GI Title
 - Short Description of GI
 - GI Registration Status
 - Contact Address and E-mail
 - Photo, if any
 - Additional details, if any

- Copyrights
 - Institution Name
 - State
 - Year of Copyright Application
 - Date of Copyright Application
 - Copyright Application No
 - Copyright Title
 - Copyright type (Literature/Artistic/ Musical/ Film/ Software/Others)
 - Copyright Registration Status
 - Contact Address and E-mail

- Photo, if any
- Additional details, if any

Pictures

Meeting of 1st LPAC Held at ICRISAT on 2nd May 2019



Brainstorming on Background Paper Study



2nd LPAC Meeting held on 9th November 2019 at ICRISAT

