

ICAR GUIDELINES FOR INTELLECTUAL PROPERTY MANAGEMENT AND TECHNOLOGY TRANSFER/COMMERCIALIZATION

(Revised 2018)



भारत
ICAR

INDIAN COUNCIL OF AGRICULTURAL RESEARCH
Krishi Bhawan, New Delhi

2018

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INTELLECTUAL PROPERTY MANAGEMENT AND
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August, 2018

Citation

ICAR, 2018. ICAR Guidelines for Intellectual Property Management and Technology Transfer/ Commercialization (Revised in 2018). Indian Council of Agricultural Research, New Delhi.

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TRILOCHAN MOHAPATRA

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Foreword

Indian Council of Agricultural Research (ICAR) as the apex public research organization has been playing a key role in the innovation processes concerning agriculture. It has been appreciated that the focus of the R&D efforts should not only be limited to increasing the productivity, but the priorities need to be oriented towards devising strategies to enhance agricultural diversification and value addition of agricultural products. It is pertinent that the research outcomes are transformed into marketable products and services that can be leveraged to generate revenue which can be pooled to further enhance R&D pursuits in ICAR. The ICAR implemented comprehensive guidelines for Intellectual Property Management and Technology Transfer/Commercialization from 2nd October 2016. These Guidelines were meticulously conceptualized by the drafting Committee constituted under the Chairmanship of Dr. Rita Sharma, the then Additional Secretary and Financial Advisor ably assisted by Dr. Sudhir Kochhar, then Principal Scientist and Member Secretary of the Committee. The implementation of these Guidelines not only created an enabling policy framework but also facilitated in establishing the desired institutional mechanisms for systematic management of the intellectual property in ICAR. Thus, these provide the researchers in the ICAR institutes with procedures for operationalization and management of ICAR's intellectual properties as per the new IP regimes.

Nevertheless, the accelerated dissemination of innovative technologies requires their efficient transfer, to stakeholders whether in the private or public sector. The academic institutions in ICAR have several limitations in dealing with the commercialization of technologies and there are disconnects around mindset, attitude and skill sets. Realizing these constraints, Agrinnovate India Limited (AgIn) a registered Company, was established by Government of India in Department of Agricultural Research and Education (DARE). It aims to work on the strengths of ICAR and promote the development and spread of R&D outcomes through commercialization and forging partnerships both in the country and outside for the public benefit. Accordingly, the AgIn has developed its Guidelines for commercialization of technologies.

In the changing global scenario, it is important to have an increased emphasis on fostering linkages between ICAR institutes and industry which requires a much more effective communication and

understanding between the institutes and industry partners. Further, undertaking market analysis, marketing of ICAR products and services, identifying potential partners, developing technology transfer deals/agreements and accessing proof of concept funding through partnerships, are best entrusted to professionals rather than scientists and innovators. It is in this context that it was felt necessary to revise the existing ICAR Guidelines for Intellectual Property Management and Technology Transfer/ Commercialization, and harmonizing them with the AgIn Guidelines. I am sure the professional and transparent approach followed by AgIn would increase the pace of successfully converting research outputs generated in ICAR Institutes into commercially viable products and services that would contribute towards economic development and growth.

I greatly appreciate the concerted efforts made by Shri Chabilendra Roul, Special Secretary (DARE) and Secretary, ICAR in bringing out this revised version of the Guidelines, responding to the contemporary needs. The Governing Body of the ICAR in its 241st meeting held on 20th July' 2017 has appreciated and approved the new guidelines for adoption in the Council. I am sure that this initiative would further encourage a culture of innovation in ICAR and ensure that technologies developed by R&D institutions would reach the farmers at the earliest thereby providing them real equity and livelihood security.



(TRILOCHAN MOHAPATRA)

New Delhi, Dated The 9th August, 2018



CHHABILENDRA ROUL

Special Secretary (DARE) & Secretary (ICAR)
Ministry of Agriculture and Farmers' Welfare
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Preface

The ICAR Guidelines for Intellectual Property Management and Technology Transfer/ Commercialization which were approved by Governing Body (GB) of ICAR on 19th September 2006 have tremendously served the ICAR in establishing a fairly robust IPR-led innovation system by strengthening the institutional policy and creating the institutional mechanism. In these Guidelines, it was envisaged to establish the Agro-Technology Management Centre (ATMC) that would function as an independent arm of the ICAR. It was to be headed by a Chief Executive Officer (CEO) and, professionals with legal, business and various technical expertise on full-time or part time basis were also to be engaged depending upon their requirement. The ATMC was to operate with functional autonomy and flexibility to facilitate the IP management and technology transfer/ commercialization pursuits of ICAR. However, the ATMC could not be established as the posts which were proposed and sanctioned in the XI Plan SFC of the Intellectual Property Management and Transfer/ Commercialization of Agricultural Technologies Scheme could eventually not be created.

Meanwhile the IPR Unit was re-designated as Intellectual Property and Technology Management Unit under the ICAR Headquarter and working under the Secretary, DARE and Director General, ICAR. The existing IP&TM Unit at the ICAR headquarters has been providing key facilitation/ coordination and monitoring functions for the implementation of the scheme as stipulated in the ICAR Guidelines. Further, Agrinnovate India Limited (AgIn.), was incorporated under the Companies Act, 1956 (No. 1 of 1956) on 19th October 2011 as a “For Profit” Company owned by Government of India in Department of Agricultural Research and Education (DARE). It aims to work on the strengths of DARE’s (ICAR), as an independent arm, to promote the development and spread of R&D outcomes through IPR protection, commercialization and forging partnerships both in the country and outside for the public benefit.

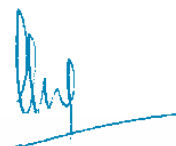
Therefore, it was felt appropriate to revise the ICAR Guidelines for Intellectual Property Management and Technology Transfer/ Commercialization, harmonizing them with the AgIn Guidelines for commercialization. It is pertinent to mention that the existing ICAR Guidelines elaborately and comprehensively deal with issues of IP protection and technology management and commercialization. However, in view of the establishment of AgIn, it has been proposed to remove

the establishment of ATMC in the Revised Guidelines; and the roles expected to be performed by it have been delegated to be performed by IP&TM Unit and AgIn, either independently or jointly. The process of technology acquisition/evaluation/ valuation, preparation of standard terms, negotiation to be followed by AgIn with the involvement of the concerned ITMU/ZTMC/SMD/IP&TM Unit, as required have been incorporated in the revised Guidelines.

The finalization of these guidelines has involved much-valued guidance/input of Shri Sunil Kumar Singh, Former Additional Secretary & Financial Advisor (DARE/ICAR) in finer aspects of the financial issues involved. I also appreciate the efforts of IP&TM Unit and AgIn led by Dr. Sanjeev Saxena, ADG (IP&TM) and Shri Ravinderjit Singh (CEOAgIn), respectively. While the Guidelines were developed through wider formal and informal consultations inputs provided by Dr. Shiv Datt, Principal Scientist; Dr. Vikram Singh, Scientist (SS); Dr. S. K. Yadav, Chief Technical Officer from IP&TM Unit; and also Dr. (Mrs) Sudha Mysore, Principal Scientist & In-charge ZTMC, Indian Institute of Horticultural Research Bengaluru; Dr. P.C. Bargale, Principal Scientist & In-charge ZTMC, Central Institute of Agricultural Engineering, Bhopal; and Dr. T E Sheeja, Principal Scientist, Indian Institute of Spices Research, Kozhikode, are gratefully acknowledged. I also acknowledge the involvement of Shri Devendra Kumar, Director (Finance); and Mrs Rashmi R. Rao, then Deputy Director (Finance) from the Internal Finance Division.

I am also grateful to all the Governing Body members of the ICAR Society for adopting the framework of these guidelines for implementation in the ICAR set up in its 241st meeting held on 20th July' 2017. Lastly, I would extend my gratitude to Dr. Trilochan Mohapatra, Secretary (DARE) & Director General (ICAR) whose vision and guidance could make us to complete the task.

I expect that implementation of these guidelines would lead to the systematic management of the Intellectual Property and would also provide appropriate incentives for science and commerce to better serve the nation's farmers.



New Delhi, Dated The 9th August, 2018

(CHHABILENDRA ROUL)



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F. No. IP&TM-21(5)/2017-IPR

Dated the 9th August, 2018

To,

The Directors of all ICAR Institutes/Bureaux/Project Directorates/NRCs and Project
Coordinators

Sir,

Reference is invited to the 'ICAR Guidelines for Intellectual Property Management and Technology Transfer/Commercialization' implemented in ICAR from October 2, 2006. These guidelines were sought to be reviewed and revised in view of the development of AgrInnovate India Limited (AgIn.) Guidelines for commercialization of technologies.

Accordingly, 'ICAR Guidelines for Intellectual Property Management and Technology Transfer/Commercialization' have been revised. These have since been approved for adoption and implementation by the Governing Body of ICAR on 20th July' 2017.

In view of this approval from the competent authority, the earlier guidelines will stand withdrawn and the "Revised ICAR Guidelines for Intellectual Property Management and Technology Transfer/Commercialization (Revised in 2018)" submitted herewith will be made operative with immediate effect.

This issues with the approval of Secretary DARE and Director General ICAR.

Yours faithfully,

(Sanjeev Saxena)

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Acronyms

ADG	Assistant Director General
AICRP	All India Coordinated Research Project
AgIn	Agrinnovate India Limited
ASEAN	Association of South East Asian Nations
CBD	Convention on Biological Diversity
CD-ROM	Compact Disk-Read Only Memory
CDs	Compact Disks
CEO	Chief Executive Officer
CG Institutions	The International Agricultural Research Centres of CGIAR
CGIAR	Consultative Group on International Agricultural Research
CSIR	Council of Scientific and Industrial Research
CTRI	Central Tobacco Research Institute
CDRI	Central Drug Research Institute
DARE	Department of Agricultural Research and Education
DDG	Deputy Director General
DG	Director General
DNA	Deoxyribose Nucleic Acid
DOR	Directorate of Oilseed Research
DU	Deemed University
DUS	Distinctness, Uniformity, Stability (essential criteria for protection of a new plant variety)
EDV	Essentially Derived Variety
EOL	Extra Ordinary Leave
FAO	Food and Agricultural Organization
GB	Governing Body (of ICAR)
GI	Geographical Indications
GMO	Genetically Modified Organism
GOI	Government of India
GURT	Genetic Use Restriction Technology
HRD	Human Resource Development

IC	Integrated Circuit
ICAR	Indian Council of Agricultural Research
IDA	International Depository Authority
IICT	Indian Institute of Chemical Technology
IMCs	Institute Management Committees (of ICAR institutions)
IMTECH	Institute of Microbial Technology
IP	Intellectual Property(ies)
IPAC	Intellectual Property Advisory Committee in Agricultural Research
IPR	Intellectual Property Right(s)
IP&TM	Intellectual Property & Technology Management
IT	Information Technology
ITMC	Institute Technology Management Committee (Short form of Institute Intellectual Property Management and Technology Transfer/ Commercialization Committee, i.e. IIPM&TCC)
ITMU	Institute Technology Management Unit (Short form of Intellectual Property Management and Technology Transfer Unit at an ICAR Institution, i.e. IPM&TTU)
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IVRI	Indian Veterinary Research Institute
JIPMP	Joint Intellectual Property Management Plan (in collaborative research)
KVK	Krishi Vigyan Kendra(s)
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MTA	Material Transfer Agreement
NAARM	National Academy of Agricultural Research Management
NAAS	National Academy of Agricultural Sciences
NARS	National Agricultural Research System
NASC	National Agricultural Science Complex
NBAGR	National Bureau of Animal Genetic Resources
NBFGR	National Bureau of Fish Genetic Resources
NBPGR	National Bureau of Plant Genetic Resources
NRI	Non-Resident Indian
PC	Project Coordinator
PCT	Patent Cooperation Treaty

PD	Project Director
PG	Post Graduate
PGRFA	Plant Genetic Resources for Food and Agriculture
Ph.D.	Doctorate of Philosophy
PI	Principal Investigator
PPV&FR Act	Protection of Plant Varieties and Farmers' Rights Act
PVP	Plant Variety Protection
R&D	Research and Development
SAARC	South Asian Association of Regional Countries
SAU	State Agricultural University(ies)
SMD	Subject Matter Division
TIFAC	Technology Information Forecasting and Assessment Council
TK	Traditional Knowledge
TM	Trade Mark
TRIPS Agreement	Agreement on Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNDP	United Nations Development Programme
USA	United States of America
VB	Visual Basic
VCU	Value for Cultivation and Use
WIPO	World Intellectual Property Organization
WTO	World Trade Organization
ZTMC	Zonal Agro-Technology Management Centre (Short form of Zonal Intellectual Property Management & Technology Transfer/Commercialization Centre, i.e. ZIPM&TTC)
ZITMC	Zonal Institute Technology Management Committee (Short form of Zonal Institute Intellectual Property Management and Technology Transfer Committee, i.e. ZIIPM&TCC)

POLICY FRAMEWORK FOR INTELLECTUAL PROPERTY MANAGEMENT AND TECHNOLOGY TRANSFER/COMMERCIALIZATION

1.1 Introduction

- 1.1.1 The Indian Council of Agricultural Research (ICAR)¹ is the apex body for planning, promoting, coordinating and undertaking research and its application in agriculture and allied sciences in the country. It is funded by Government of India (GOI) through the Department of Agricultural Research and Education (DARE) in the Ministry of Agriculture. It is the nodal agency of the National Agricultural Research System (NARS) comprising Central and State Agricultural Universities, Central Universities and affiliated colleges of agriculture, and other organizations - public and private, national and international - dealing with agricultural research. ICAR envisions harnessing science through generation, refinement and assessment of appropriate technologies that will ensure comprehensive sustained physical, economic and ecological access to food, nutrition and livelihood security for all.
- 1.1.2 India as a member of the World Trade Organization (WTO) is obliged to comply with the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement), which requires since 1 January 1995 that member countries provide for intellectual property rights (IPR) in one form or the other in all fields of technology, including agriculture. ICAR recognizes that research in frontier sciences will require intellectual property (IP) protection through patents, plant variety protection and other forms of IPR. Public-private partnerships will play an increasing role in the advancement of agricultural research under the IPR regime. The transfer of IPR enabled agricultural technologies through commercial route will gain greater importance. In response to the changing scenario of technology generation and dissemination, ICAR has developed a policy framework that will guide the management of IP created by its scientists/innovators at its institutions or elsewhere, and that developed with its support. The policy framework could also apply to the Central Agricultural Universities (CAUs), established and funded by GOI through DARE.
- 1.1.3 In the past, ICAR pursued its IPR endeavors on a case-to-case basis. Accordingly, several of its policy elements framed herein have been derived from relevant actions/ decisions taken in the ICAR from time to time. Accordingly, the ICAR Rules and Guidelines for Training, Consultancy, Contract Research and Contract Services, 1997², the Rules and Bye-laws of the

1 Indian Council of Agricultural Research (ICAR), Krishi Bhawan, 1, Dr. Rajendra Prasad Road, New Delhi - 110 001, established in 1929, is a Registered Society, incorporated under the Societies Registration Act, 1860. ICAR organization consists of a network of institutions comprising national institutes including deemed to be universities and an academy of agricultural research management, national bureaus, project directorates, national research centres, All India Coordinated Research/Network Projects, Agricultural Technology Application Research Institutes and Krishi Vigyan Kendras (Farm Science Centres).

2 Based on the Johl Committee Report, 1997.

ICAR Society, 2000, the ICAR Guidelines for Filing Patent Applications, 2001 as amended in 2003, and Guidelines for Intellectual Property Management and Technology Transfer/Commercialization (IPMTT/C) in the ICAR system were developed. These IPMTT/C guidelines, implemented in 2006, included a policy framework for systematic management of the intellectual property available and created by researchers in the ICAR institutes, and provide the institutional mechanism with procedures for a professional approach to ICAR's intellectual properties.

- 1.1.4 Even though the ICAR has established the institutional mechanisms for technology management and transfer it is to be realized that these activities require professional inputs and a very different set of skills from those, which the scientists of ICAR as a Research and Development (R&D) organization are expected to possess. In this context, Agrinnovate India Limited (AgIn) a registered Company owned by Government of India in DARE has been established. It aims to work on the strengths of ICAR and promote the development and spread of R&D outcomes through IPR protection, commercialization and forging partnerships both in the country and outside for the public benefit.
- 1.1.5 Further, responding to the contemporary needs, it has become imperative to work more closely with the wider community, through mutually beneficial relationships by extending professional services such as training, consultancy, contract research and contract service. Accordingly, the ICAR has revised and reoriented the ICAR Rules and Guidelines for Professional Service Functions (Training, Consultancy, Contract Research and Contract Service) from October 2014. These guidelines not only provide the key policy elements but also define the obligations and privileges as an individual and as a team, towards the ICAR while developing relationships with external agencies to cater to the organizational, national and international requirements. In addition, Guidelines for Internal Evaluation and Forwarding Research Papers to Scientific Journals and Data Management in ICAR have been implemented from September 2014.
- 1.1.6 This document presents the revised Guidelines for Intellectual Property Management and Technology Transfer/Commercialization (IPMTT/C) as referred to in para 1.1.3 above. These revised Guidelines integrate the experiences gained over the last decade in implementation of earlier Guidelines and incorporate contemporary policy and institutional changes. These are to be implemented in conjunction with the policy framework provided in the revised ICAR Rules and Guidelines for Professional Service Functions, 2014 and Publications and Data Management, 2014 as referred to in para 1.1.5 in a manner that the ICAR institutes and staff are equipped for addressing the contemporary needs of technology generation and transfer while upholding and respecting ICAR's public sector role. The Intellectual Property and Technology Management (IP&TM) Unit at ICAR headquarters shall be the nodal unit for implementation of these guidelines.

1.2 ICAR Intellectual Property Regime

- 1.2.1 The technological assets of ICAR include a number of high yielding and resilient crop varieties, animal and poultry breeds and fish strains, packages of improved crop and animal husbandry

practices, natural resource management technologies, improved tools, equipment and farm machinery, improved dairy, poultry and fisheries technologies, post harvest technology, computer software and data sets, and several other processes and products of agriculture and the allied sectors. Agricultural science has been the engine of growth and led to quantum jumps in productivity in the past. Application of ICAR technologies in farmers' fields and backyards has increased agricultural output and farm incomes. These technology packages have been the major contributors to the green, white, blue and yellow revolutions that brought out spectacular gains in Indian agriculture. It is clear that the NARS must continue to produce significant research output to enable further enhancement of agricultural productivity and help meet the future needs.

- 1.2.2 Protecting or patenting research output in agriculture was not customary in India and other developing countries prior to the establishment of WTO in 1995. Few of the ICAR technologies were patented or commercialized. The prevailing ethos was to place technologies in the public domain for access by all. The TRIPS Agreement has led to the evolution of IPR regimes in WTO member countries. The Indian IPR laws were also made TRIPS compliant. ICAR recognizes that TRIPS compatible IPR laws in India and in other member countries are important for management of agricultural research results. Once protected, these IPR enabled ICAR technologies, by way of licensing, could be transferred to end users through private, cooperative, non governmental and public channels. Licensing could be for commercial use or for research or both. Application of incentives and benefit sharing with scientists/innovators and human resource development in ICAR would improve the overall research environment and provide impetus for greater creativity and knowledge generation.
- 1.2.3 This document comprises the IPR policy framework of the ICAR and the guidelines for IP management and technology transfer/commercialization. The management approach as described in the guidelines will conform to the national IPR laws and policies in force in the country. It will be in line with the legal framework required as per the TRIPS Agreement. The provisions of the Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) will be recognized. Review/reassessment, revision and/or harmonization of the guidelines with the related national laws and international agreements/conventions/treaties/undertakings/protocols will be undertaken from time to time so that the system remains contemporary and up-to-date.

1.3 Importance of Intellectual Property Management

- 1.3.1 An effective IP management regime would have in-built incentive for scientists/ innovators to engage in knowledge creation. This would lead to a greater professional recognition for them. Through licensing fees and royalties a proportion of the monetary gains would flow to the researchers. By sharing of monetary incentives with its staff and institutions, ICAR will encourage greater creativity in the research system. This is likely to lead to further innovations thus resulting in faster technological progress.
- 1.3.2 Commercialization of technologies and other know-how, through public-private partnership would lead to their accelerated and efficient transfer. Improvement in the rate of adoption of

technologies by producers will in turn lead to increase in productivity, production, farmers' incomes and employment. The process of technology transfer through commercialization will be rational and selective. Key considerations would be (i) national priorities relating to food security, (ii) sustainable use of natural resources, (iii) enhancing the incomes of small and marginal farmers, and (iv) entrepreneurship and employment generation.

- 1.3.3 Protection of public sector research can be used as defence mechanism to keep innovations in the public domain. ICAR technologies could be utilized to negotiate/bargain access to strategic research tools and technology from the private sector.
- 1.3.4 Income generation will not be the primary motive for IP protection in ICAR, since only a handful of patents earn significant revenues. Nevertheless, resources generated through commercialization of technologies would be useful for important gap filling requirements for research and development purposes.

1.4 Management of Intellectual Properties

- 1.4.1 The IP rights accruing to ICAR in various forms would be embodied in the following Indian Acts, as amended from time to time³.
 - 1. The Copyright Act, 1957 as amended in 1983, 1984, 1992, 1994, 1999 2012 along with Rules 1958, 2013 and 2016
 - 2. The Patents Act, 1970 as amended in 1999, 2002, 2004 (Ordinance), 2005, along with Rules 1972, 2003, 2005, 2006, 2010 and 2016
 - 3. The Trade Marks Act, 1999 as amended in 2010 and 2013 along with Rules 1999, 2002, 2010, 2013 and 2017
 - 4. The Industrial Designs Act, 2000 along with Rules 2001, 2008 and 2014
 - 5. The Geographical Indications of Goods (Registration and Protection) Act, 1999 along with Rules 2002
 - 6. The Semiconductor Integrated Circuits Layout-Design Act, 2000 along with Rules 2001
 - 7. The Protection of Plant Varieties and Farmers' Rights Act, 2001 along with Rules 2003, 2006 and 2009
- 1.4.2 The Biological Diversity Act, 2002 along with Rules 2004 (Biodiversity Act) specifies procedures for access to biological/genetic materials for agricultural research and their IPR protection.
- 1.4.3 Of the various IPRs covered under the respective IPR Acts, ICAR will have most common recourse to patents, protection of plant varieties, copyright and trademark. Protection of undisclosed information (trade secrets) will be through entering into suitable confidentiality agreements on case-to-case basis.

³ The latest known amendments in various IPR related Acts and Rules are given. However, interpretation of these guidelines should not be limited to anyone of these versions alone. Rather, the latest amendment in the respective Act/Rules that has been notified and made effective at any point of time should be followed.

- 1.4.4 The PPV&FR Act is in harmony with the provisions of the Article 27.3(b)⁴ of the TRIPS Agreement. All extant varieties of ICAR that were notified under section 5 of the Seeds Act, 1966 that have not completed 15 years from their notification date are registerable and can be protected as IP under the PPV&FR Act.
- 1.4.5 Copyright, whether registered or not, will exist in all creations of ICAR scientists/ innovators and its institutional works. However, registration of copyright of the concerned works of ICAR, particularly the new software and databases, etc. can be more effective. Trademarks and collective marks and industrial designs will also be important to ICAR. Geographical indications (GIs) are indirectly important in broader contexts rather than being of direct consequence to ICAR research. The layout designs for integrated circuits (ICs) could also be of interest albeit in few disciplines of agricultural research.
- 1.4.6 National Authorities have been established under the PPV&FR Act and the Biodiversity Act. These bodies are responsible for certain actions and duties as prescribed in the respective Acts. ICAR recognizes and respects the domain boundaries of the above mentioned statutory bodies and will take care not to impinge in their sphere of work. It will, however, if required, contribute to inter-departmental assessment of scenarios, technical fact-finding and provision of scientific advice and technical backstopping in the interest of farmers and Indian agriculture. In cases of IPs such as geographical indications of goods, ICAR will appropriately play facilitation and advisory roles in public interest.
- 1.4.7 ICAR will manage its IPR portfolio and technology transfers as per the prevailing national IPR and other related laws/rules/policy⁵. Its scientists and institutions will act in conformity with the key elements of its IPR policy framework and general guidelines for IP management and technology transfer/commercialization. However, in emergent situations or where there appears to be ambiguity and further clarification is required, the competent authority at the ICAR headquarters may be approached for case-specific decisions.

1.5 Key Elements of Policy Framework for IP Management & Technology Transfer/ Commercialization

- 1.5.1 ICAR will secure IPR protection as per the Indian laws, rules and regulations in conformity with the international agreements to which India is a signatory. It will promote transfer of its IPR enabled technologies, including finished processes, products, creations/works and other know-how, through commercial and public routes to farmers. Systematic management of its IPR regime will promote a commercial ethos in public sector research helping to transform agriculture from a predominantly subsistence mode to a globally competitive one.
- 1.5.2 **IP Ownership.** Ownership of IP generated in ICAR or caused to be generated by ICAR shall vest in the ICAR⁶. It will be either the sole owner or a joint owner of an IP depending upon

4 According to TRIPS Agreement Art. 27.3(b), "Members may also exclude from patentability: plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof..."

5 This includes National Intellectual Property Rights Policy, released by Department of Industrial Policy & Promotion, Ministry of Commerce and Industry, Government of India on 12th May 2016 and consequent rules and guidelines.

6 However, ownership of copyright on the literary and scientific creations by ICAR scientists and other staff published by them as per CCS (Conduct)

mutually agreed terms that would be set out prior to the generation of that IP along with other collaborators/partners. Individual scientists/staff of ICAR responsible for the creation of its IP shall be recognized as the True and First Inventors/ Innovators.

- 1.5.3 **IP Protection.** Protection of all IPs generated in ICAR that are protectable and worth protecting will be sought in the first place in India as per the respective IPR laws. Where national IPR laws do not have enabling provisions to safeguard a strategic or commercial interest in an IP, but laws outside the country provide for this and the market prospects are favorable, ICAR may seek IPR protection in those respective countries. ICAR shall selectively secure protection of its specific IP abroad on the merits of each case based on strategic or commercial interest to India as well as the research and development interests. For seeking protection of its IP abroad ICAR will use the appropriate multilateral fora of which India is a member, e.g., the Patent Cooperation Treaty (PCT). Where such a multilateral platform is not available, the bilateral route will be followed⁷.
- 1.5.4 **Harmonization.** ICAR will closely monitor the evolution of IPRs at the national and international levels and act accordingly. Its IP management approach will be in harmony with developments in the national legislations and the relevant international agreements, conventions/protocols, and treaties/undertakings concerning IPR. ICAR will amend its policy framework and guidelines from time to time to continue to remain compatible.
- 1.5.5 **Technology Transfer by ICAR.** ICAR shall transfer its IPR enabled and other technologies under the new regime in conformity with national priorities. Case-specific decisions will be taken regarding which technologies will be placed in public domain for open access and which others will be commercialized through non-exclusive or exclusive licences. All decisions on the mode of technology transfer will be preceded by the filing and recording of applications for protection of its IP.
- 1.5.6 **Patenting versus Publishing.** ICAR scientists/innovators may publish such research results of academic or public significance as do not impinge upon ICAR's interests in the protection of IP. They will not reveal inventive steps, if applicable, in such publications. They shall defer any publication of inventive steps/potential IP with commercial or strategic implications until an application for their IPR protection has been filed and recorded.
- 1.5.7 **Public Domain Knowledge.** Wherever ICAR decides not to apply for IPR protection, efforts will be made to quickly publish the research results and thereby bring the information/ knowledge into public domain. This will also be done through digitalization and electronic dissemination of the publications creating widely accessible prior art so that any unacknowledged use of the public domain information generated in ICAR is forestalled.
- 1.5.8 **Registration and Documentation of Genetic/Biological Resources.** Protection and facilitated access to plant varieties and plant germplasm is granted under the PPV&FR Act and the Biodiversity Act. The ICAR has a system in place for plant germplasm registration and

Rules shall respectively vest in them.

7 In case of plant varieties, where the Union for Protection of New Varieties of Plants (UPOV) provides for a multilateral mechanism for their protection in the countries party to it, India is presently not a member.

documentation at its National Bureau of Plant Genetic Resources (NBPGR), New Delhi, much before the aforementioned legislations came into force. In addition to NBPGR, ICAR has established National Bureau of Fish Genetic Resources, Lucknow; National Bureau of Animal Genetic Resources, Karnal; National Bureau of Agriculturally Important Microorganisms, Mau; and National Bureau of Agriculturally Important Insects, Bengaluru. These Bureaus have been recognized as designated repositories by the National Biodiversity Authority of India. Accordingly, a system of registration and documentation of genetic/biological resources has been established in the respective Bureau.

- 1.5.9 **Safeguarding ICAR's IP.** ICAR in association with AgIn will put in place an IP watch system. This will include creating a detailed IP database and appropriate facilities for patent/IP search together with establishing a mechanism of market watch. Subject matter specialists in ICAR with the help of experts from legal and business backgrounds will monitor the internal, national and global scenario. Wherever requisite professional expertise is not available within ICAR/AgIn such expertise will be obtained through engagement of consultants or outsourcing the task. The IP watch system will identify the IP that may require safeguarding from infringement as well as that which may have to be defended when challenged. Initial action can be taken according to the normal practice and procedures at respective levels. If, however, advanced legal action is required this will be taken with the approval of competent authority at the ICAR headquarters.
- 1.5.10 **Incentive and Stimulation for Research.** ICAR will provide incentive and share the benefits accrued from commercialization of its technologies with its scientists/innovators to encourage innovativeness. ICAR will follow the approach that is presently being applied by other public sector science and technology organizations⁸. With the evolution of its IPR regime more incentives will accrue to ICAR researchers for greater innovativeness. However, all research results would not be amenable to commercialization. Areas of national interest and farmers' welfare may require technologies to be placed in the public domain from which no monetary incentives would flow to scientists/innovators. ICAR will, therefore, expand the scope of its existing rewards and awards system so that researchers addressing areas of public interest are suitably recognized and encouraged.
- 1.5.11 **Research Funding to ICAR.** In addition to budgetary support from central government ICAR receives research funding from other public and private sector agencies as well as externally aided projects. In all such cases, IPR will be shared on mutually agreed terms. In the collaborative projects where more than one partner is involved, multilateral agreement/memorandum of understanding (MoU) will be signed and implemented together with a joint intellectual property management plan (JIPMP).
- 1.5.12 **Research Funding from ICAR.** The largest recipients of research funding from ICAR are the state agricultural universities (SAUs). The All India coordinated research in SAUs is governed by the umbrella MoUs between ICAR and the respective SAUs. To sustain partnerships, ICAR will review and modify the standing MoUs with SAUs from time to time. Further specific

8 ICAR guidelines will be evolved in harmony with any national legislation that may emerge in due course.

collaborative programmes funded by ICAR will be covered as per respective memoranda of agreement (MoA).

- 1.5.13 **IPR Compatible System of Research.** To harness the benefits under the IPR regime, there will be IPR compatible formulation, execution, reporting and monitoring of research projects in ICAR. Whenever IP generation is contemplated, patent search will be a pre-requisite. Also, through the prior art search, duplication of efforts will be avoided. Research priority setting will be attuned to the scope of IP contemplated as well as freedom to operate for further/commercial use of research results, if required. ICAR recognizes and will continue to support the principle of research exemption for use of protected plant varieties and patented IP as stipulated in the Indian IPR laws. The research system will be sensitized to the judicious use of technology tools acquired under licensing arrangements (in-licences) for generating cutting edge technologies as well as pooled public IP for research use in the NARS (public IP pools). Necessary use of instruments such as confidentiality agreement⁹ material transfer agreement¹⁰ (MTA) and MOU/MOA¹¹, , licence agreement, etc., will be made to pre-record the mutually agreed terms of collaboration under the IPR regime.
- 1.5.14 **In-Licensing of Research Tools.** Several high cost, proprietary research tools may be necessary to ICAR institutions to conduct research in frontier areas of agricultural science. The terms of acquisition of such IPR protected tools would vary on a case-to-case basis, e.g. the licences could be for research alone or also for commercial use of the research results. ICAR recognizes that the economic and legal stakes in acquiring these tools and risks of freedom to operate could be high. Therefore, it will centralize the procurement and build up of proprietary research tools of strategic importance. Procurement will be facilitated/made by the AgIn in consultation with the concerned SMD/IP&TM Unit at ICAR headquarters on behalf of the ICAR in the form of multiple use licences/purchase (in-licensing) for various institutions. ICAR institutions will not procure proprietary research tools, especially from abroad, on their own but will communicate such requirements with justification through the SMD to IP&TM Unit in advance to enable timely procurement. The SMD/IP&TM Unit/AgIn will obtain appropriate technical, business and legal advice for in-licensing through central procurement; and reach agreements on IPR ownership, commercialization rights, publications, etc., with the technology proprietors/vendors on mutually agreed terms with due approval of competent authority of ICAR/DARE.
- 1.5.15 **Pooling IP Resources for Public Use.** ICAR recognizes that various NARS partners and related public research organizations in the country may be in possession of IPs that could be useful as resource/tool to enhance the overall research output. It may be cumbersome and expensive to procure and use such IP resources under the IPR regime if each partner of a network or a

⁹ See Annexure 1: Confidentiality Agreement (indicative)

¹⁰ See Annexure 2: Material Transfer Agreements for International Bilateral Exchange under Collaborative Research Programmes/Projects (MTA 1) and for Research Use within Country for Public and Private Entities (MTA 2) Biological Resources notified by DARE vide File No. E-04-26/2014-IC-II dated 5th September, 2017 (or as modified from time to time) will be followed.

¹¹ See Annexure 3: In cases of signing of MoU/MoA relating to agricultural research and education with foreign country or its organisation, CGIAR and other International Organisations, DARE letter F.No. 12020/2/2015-DARE (IC CG) dated 30th August 2016 (or any other recent order/guidelines) will be followed.

consortium has to enter into separate legal agreements with each of the other partners. ICAR will establish a cost-effective and transparent mechanism of pooling IP resources for research in the NARS and by other public sector organizations in the country. ICAR will contribute to the development of a multilateral system of pooling and utilization of IP resources by interested partners. It may hire legal/IPR and business experts to draw up multilateral agreements and work out other modalities. ICAR may volunteer its genetic resource bureaus or other selected institutions to act as repositories for custody and management of the pools. Simple retrieval mechanisms for use of pooled resources by partners will be worked out.

- 1.5.16 **Information Technology.** ICAR will increasingly use information technology for IP generation and management. It will develop its patent/IP search capacities. It will also streamline its IP database through intranet, establish patent/IP search facilities at its headquarters and at the identified zonal institutes. ICAR may also start on-line training and on-line publishing to disseminate awareness and knowledge on IPR issues, IP generation, management of IPR portfolio, and transfer of IPR enabled technologies.
- 1.5.17 **Human Resource Development.** There is an urgent need for creating skilled human resources so as to build capacity and develop the agricultural research system that is compatible with IPR and commercialization requirements. Therefore, suitable HRD and training programmes will be organized for enhancement of knowledge, know-how and skill in IPR portfolio management and technology transfer, including the areas, such as, patent/IP search, IPR compatible record keeping, drafting MoUs, patent documents, licence agreements, confidentiality agreements, enhancing negotiation skills, patent/IP/market watch, dispute prevention/settlement, substantive and procedural aspects of litigation, etc. ICAR will make adequate allocation for training/HRD/ capacity building in areas relevant to IP management and commercialization of IPR enabled technologies.
- 1.5.18 **IP Management Budget.** ICAR will earmark up to 5 per cent of its Plan budget for IP management and technology transfer/commercialization¹².
- 1.5.19 **Institutional Arrangement for IP Management.** The following centres/units/ committees will be established at the ICAR headquarters and its institutions for the management of its IPR regime.
1. **Intellectual Property & Technology Management (IP&TM) Unit.** The IP&TM Unit will be the central facilitating decision-making body at ICAR headquarters. The IP&TM Unit will oversee and provide necessary advice and support to all ICAR institutes. All matters of policy concerning IPR portfolio management and technology transfer/commercialization will be decided by the IP&TM Unit in consultation with the concerned SMDs and approval of Director General, ICAR.
 2. At the respective ICAR institutions, the Institute Technology Management Committee (ITMC) chaired by the Director of the Institution, will be final decision making body for

¹² In the XI Plan 'Intellectual Property Management and Transfer/Commercialization of Technology Scheme' was initiated at ICAR headquarters to establish the three-tier system to manage the intellectual property as per IPMTT/C Guidelines. The scope of the Scheme was further enhanced from XII Plan onwards as 'National Agriculture Innovation Fund' to firmly settle the best practices of IP Management in ICAR.

IP related matters/progress/concerns. Institute Technology Management Unit (ITMU) will be designated/established to act as Secretariat for the respective ITMCs.

3. At the zonal level the Zonal Institute Technology Management Committee (ZITMC) will take decisions for the IP and technology management of the ICAR institutions in the zone and also the inter-institutional matters. Zonal Technology Management Centre (ZTMC)¹³ will be designated/established and act as secretariat for the respective ZITMC. The ZTMC will advise the institutions in the zone regarding their IP and technology management..

These central, zonal and institute level committees will take steps to coordinate, harmonize and synergize with other relevant committees at the ICAR headquarters/ institutions.

- 1.5.20 **Agriinnovate India Limited (AgIn).** The AgIn established by DARE will function as an independent arm of the ICAR. It will be headed by a Chief Executive Officer (CEO) and may engage professionals with legal, business and various technical expertise on full-time or part time basis depending upon requirement. The AgIn will operate with functional autonomy and flexibility to facilitate the IP management and technology transfer/commercialization pursuits of ICAR. It will efficiently liaise with ICAR technology users in all sectors - private, cooperative, non-governmental and public sectors. The AgIn will evolve mechanisms for the disclosure of IP generated in ICAR, its assignment for commercialization, valuation, pricing, licensing, patent/IP watch, market watch, and preventive and legal action to safeguard/defend the IP. It will also facilitate in-licensing of proprietary research tools and explore licensing of ICAR's IP abroad. AgIn will maintain/cause to maintain a centralized database. AgIn will also suitably support any future consortia of ICAR institutions in specific fields of research and IP generation.
- 1.5.21 **Functional Decentralization.** ICAR will promote functional decentralization of its IP protection and technology management efforts. The ITMUs and ZTMCs will be delegated the necessary powers. The IP&TM Unit will oversee the implementation and advise the institutions and zonal centres.
- 1.5.22 **Confidentiality.** ICAR will respect and also expect reciprocal treatment regarding all confidentiality aspects in its IP management. It would protect the confidentiality of its IP/ information. ICAR and AgIn will take up all matters relating to valuation, evaluation, validation and transfer of technologies only under appropriate confidentiality agreements¹⁴.
- 1.5.23 **Dispute Resolution.** ICAR/AgIn will seek to resolve any dispute arising under its IPR regime through the arbitration mode under the Indian law. It would also be open to mediation and reconciliation. Decision to appoint an arbitrator and of the mode of arbitration will be that of the Director General, ICAR.

13 Subject specific zonal units, as the middle tier, have been established to facilitate institutes with similar research activities and technologies. Thus, from XII Plan onwards ten ZTMCs have been identified, SMD wise these are: Crop Science (2), Horticultural Science (2), Animal Science (2), Agricultural Engineering (1), Natural Resource Management (1), Fisheries Science (1), and Agricultural Education (1).

14 See Annexure 1: Confidentiality Agreement (indicative)

- 1.5.24 **ICAR-Private Sector Partnership.** ICAR recognizes that public-private partnership has the potential to improve agricultural research and technology transfer in the IPR regime. Such partnership will be useful in areas of mutual interest such as (i) joint validation of agricultural production technology, (ii) scaling up process, (iii) cost-effective quality production, (iv) mechanization of production technologies, and (v) joint exploration of local and global markets for the commercialization of technologies, etc. ICAR in association with AgIn will develop and strengthen partnerships in identified areas with private sector. It will consider requests by the private sector R&D establishments and allow for use of the private sector its laboratory facilities/equipment on a case-by-case basis and as per terms and conditions of ICAR.
- 1.5.25 **Scientist Entrepreneurship.** ICAR recognizes that the laboratory scale technologies generated by its scientists/innovators require scaling up for their commercialization. The commercial use of some of the ICAR technologies may also require validation, production and quality control under expert supervision. Some ICAR scientists/innovators involved in the development of these technologies may themselves be interested in taking up commercial ventures based on these technologies. ICAR, in principle, will encourage such entrepreneurship by its interested scientists.
- 1.5.26 **Awareness of IP Management Policy.** ICAR will promote general awareness, understanding and importance of IP management/technology transfer/commercialization among its staff, NARS and other partners, and stakeholders. ICAR will use various awareness tools and communication means, including media and Internet for the purpose.
- 1.5.27 **Reports and Monitoring.** The Governing Body of ICAR as well as the Institute Management Committees at the institution level will be informed of the IP progress/key developments for appropriate guidance from time to time. IP&TM Unit/institutions will develop suitable reporting and monitoring mechanisms for IP management related matters in a way as to rapidly secure protection and facilitate commercialization of IPR enabled technologies but not to compromise with the secrecy/confidentiality requirement.
- 1.5.28 **Review and Update.** ICAR will periodically review and update the IP Management and Technology Transfer/Commercialization Guidelines.
- 1.5.29 **Ad interim/Ad infinitum.** If there are any issues which appear to fall short of or outside the provisions described in these guidelines, such cases, with full justification shall be referred to the IP&TM Unit for consideration of the competent authority for decision.

1.6 Operationalization

The operationalization of the policy framework is described in the following chapters of these guidelines.

Chapter-2

DEFINITIONS

2.1 Introduction

This chapter describes the various terms and their definitions used for the purpose of these guidelines.

2.2 Definitions

Assignment of IP to ICAR means *inter alia* transfer of deemed intellectual property right in invention/work by the scientists/innovators of ICAR to the Council. It will be done through an undertaking duly signed by the concerned scientist(s)/innovator(s) and witnessed by two other persons.

Benefit Sharing in ICAR means the sharing of monetary benefits accrued from commercialization of its technologies among its scientists/innovators, institutions and headquarters including that for staff welfare fund.

Benefit Sharing would also mean, in relation to plant varieties where applicable, any sharing of the commercial benefits by ICAR from its registered/protected variety as may be determined by the PPV&FR Authority under section 26 of the PPV&FR Act. The benefit share thus determined shall be settled by the ICAR, being the institutional breeder and applicant/owner of PVP title.

Breeder within ICAR means a researcher belonging to any discipline/institution who has made principal contribution in the development of a variety.

Commercialization in ICAR means the transfer of its IPR enabled technologies or other know-how through licencing under the terms and conditions specified in the licence agreement entered into for the purpose or through auction or sale.

Confidentiality Agreement means a document (in any format) signed by persons who have agreed to keep the particular information (whether already shared/to be shared in the course of collaboration) among them, whether oral, written or otherwise, as confidential and not to reveal it to any other party without each other's consent.

Director means the Director of an ICAR institute/bureau/national research centre and includes the Project Director of an ICAR directorate.

Exclusive Licence of an IPR enabled technology means a licence which will entitle the licensee, or the licensee as well as person(s) authorized by him, to exclude all other persons (including the patent holder himself) in the commercial use of the technology covered in the licence.

Foreign Client for ICAR means a client seeking to use ICAR's IP/know-how knowledge base abroad when it enters into a contract or agreement with ICAR for that purpose. It will deem to be (i) a legal entity registered/situated outside India, or (ii) a company registered in India with more than 50%

equity holding by a foreign entity, or (iii) all United Nations and World Organizations/Bodies such as FAO, UNDP, CG institutions, foreign universities, foreign academic institutions, etc., or (iv) a Non Resident Indian (NRI).

Freedom to Operate means the extent (e.g. research use only, commercial use of the product or both) to which a licensee is [legally] free to use a proprietary research tool or IP acquired by him/her whether through a grant or a licence agreement or purchase.

ICAR Institutions (or '**Institutions**') mean the network of institutions of the Indian Council of Agricultural Research (ICAR), including the Institutes designated with the prefixes Indian/National/Central, the National Academy, the National Bureaus, the Project Directorates, and the National Research Centres. These also include the Coordinating Units of All India Coordinated Research Projects/All India Network Projects (AICRP), Agricultural Technology Application Research Institutes (ATARI) and the *Krishi Vigyan Kendras* (KVK).

Infringement of ICAR's IPR will occur/deem to occur when someone willingly/unwillingly uses the IP/know-how without its permission.

In-Licensing means acquiring research-tools that are already protected by patents/IPR for research and technology generation under specific terms and conditions, e.g. research/commercial use.

Innovators in ICAR means its employees/post graduate research scholars who have made an invention/innovation or have authored a work or developed the variety or generated IP in any other form.

Institute Technology Management Committee (ITMC) means the committee constituted at the level of an ICAR institution, chaired by the Institute Director, for addressing IP related matters of the institution.

Institute Technology Management Unit (ITMU) means the unit designated/set up in the ICAR institutions for management of its IP/deemed IP and transfer/commercialization of technologies.

Intellectual Property (IP) in ICAR constitutes the research results derived by its scientists/ innovators which could be protected by patents, plant variety protection or any other form of intellectual property rights such as copyright, trade mark, design, etc. This also includes know-how that may be protected as undisclosed information by suitable agreements.

Intellectual Property & Technology Management (IP&TM) Unit means the Unit established at ICAR headquarters to manage its IPR portfolio and commercialize its IPR enabled technologies.

IPR Enabled ICAR Technologies means the technologies available at ICAR which have been protected by patents, plant variety protection or any other form of IPR in India/abroad over which ICAR has exclusive right for commercialization.

Joint Intellectual Property Management Plan (JIPMP) means a document embodying the mutually agreed terms concerning the IP aspects of collaborative research jointly carried out by the research partners. This includes the ownership details and conditions for use of IP resources already available with different partners, mutually agreed terms for in-licencing of proprietary research tools, sharing

the ownership of IP generated, licencing of IPR enabled technologies, and sharing of commercial benefits, etc. Joint IP management plan can be altered mid-way with mutual consent of research partners.

Know-How means steps in the use of an IP that have strategic or commercial value. Know-how may be protected as undisclosed information (a standard/form of IPR) by suitable agreements.

Licence means the document embodying legal permission from ICAR to the other party(ies) to use its technologies/IP/Knowledge for commercial or other purposes under the terms and conditions and limitations, including a licence fee and/or royalty, as negotiated and specified in the licence.

Material Transfer Agreement (MTA) means a document embodying the mutually agreed terms in the transfer of a material (any genetic resource or IP) from ICAR to another organization/ establishment/ person or vice versa. It may be in a standard or a specific format.

Non-Exclusive Licence of an IPR enabled technology means a licence which will confer on the licensee the right to commercially use that technology whereas, at the same time, the same right could also be made available to other licensee(s) on same, similar or different terms.

Partnership by ICAR in research with other research organizations/establishments means undertaking research in togetherness, by agreement. Deemed agreement of partnership is set out in the project document which covers details of objectives, work plan, activities by each partner, respective rights and obligations of each party, other terms, conditions and limitations, if any. Partners would share the ownership of research results as per the mutually agreed terms. They also owe each other the responsibility of good faith and shall be jointly and severally (Separately, singly or respectively) liable for the debts of the partnership, whether or not they were concerned in incurring them. ICAR partnerships with state agricultural universities are based on broad Memorandum of Understanding rather than separate agreements for each research project.

Principal Investigator (PI) for a research project carried out in ICAR means the lead scientist involved in and responsible for it.

Project Coordinator (PC) for the purpose of these guidelines means the officer-in-charge of an All India Coordinated Research Project (AICRP); and this also includes the officer-in-charge of All India Network Project i.e. 'Network Coordinator'; or a 'Nodal Officer' in-charge of an All India Network Project of ICAR.

True and First Inventor means a scientist/innovator who has created/generated the patentable research results and whose name is recorded in the patent application accordingly.

Zonal Technology Management Centre (ZTMC) means the centre established at the identified zonal institute to manage IP protection/ maintenance and technology transfer/ commercialization of the institute and to coordinate and facilitate/ manage IP for ICAR institutions in the zone.

Zonal Institute Technology Management Committee (ZITMC) means the committee constituted at the identified zonal institute to facilitate/ manage IP protection/ maintenance and technology transfer/ commercialization for ICAR institutions in the zone.

INTELLECTUAL PROPERTIES GENERATED IN ICAR

3.1 Introduction

This chapter describes the IP generated in the ICAR in terms of (i) nature of IP ownership whether exclusive or joint with other partners/collaborators, and (ii) different forms of IP.

3.2 Exclusive Ownership of IP

ICAR will be the sole owner of IP generated from research work conducted in ICAR in the following cases:

1. Using funds received from Central Government (DARE) through the budgetary process¹⁵.
2. Using external funds, public or private where ICAR has been assigned sole ownership by the funding agency or where such prior agreement with the funding agency does not exist, e.g. (i) Funds received from sponsoring agencies under grants-in-aid¹⁶, (ii) Funds received as donation/ endowment¹⁷, (iii) Funds received for scholarships¹⁸, and (iv) Funds received under bi-lateral or multi-lateral funding arrangements¹⁹.

3.3 Joint Ownership of IP

3.3.1 **Collaborative Research.** IP generated by ICAR institutions under collaborative research projects will be jointly owned by the ICAR and its collaborators/partners on mutually agreed terms IP is generated from any collaborative research efforts carried out in ICAR or in any other institution/ university/any other entity, whether Indian or foreign, would require a JIPMP between ICAR the collaborator²⁰. In case collaborative research with a foreign partner requires exchange of biological resource(s) the guideline of NBA²¹ will be followed.

3.3.2 **Post Graduate Research.** IP generated in research by post graduate research scholars in ICAR will, in principle, be jointly owned on mutually agreed terms in the following cases:

1. If the terms and conditions of scholarship from the external funding agency so require²².

15 IP generated by scientists/ innovators as part of their service/ employment in ICAR belongs to the employer, i.e. ICAR. Ownership of research results obtained by research scholars in ICAR vests in ICAR.

16 For example, Department of Bio Technology (DBT), Department of Science and Technology (DST), etc., Government of India.

17 Chair such as B.P. Pal chair.

18 For example, ICAR Fellowship, Commonwealth Fellowship, Fulbright Scholarship, etc., awarded to ICAR scientists as in-service students or regular students in deemed universities/institutions of ICAR.

19 The research carried out may include collaborative or contract research. ICAR may accept funding for some agricultural research projects from others on the considerations which are larger than IPR alone. However, in some cases, the sole input for IP generation is to be given only by the ICAR. In such cases, it is logical that ICAR owns the IP generated. However, the mutual agreed terms other than this reached between ICAR and the funding agency, if any, should be clearly spelt out in a written Agreement.

20 Annexure 4: Joint Intellectual Property Management Plan for Research Collaborations Projects

21 Refer Guidelines notified by Ministry of Environment & Forests (MoEF), S.O.1911(E).-dated 8th November, 2006 or any other latest regulation/ order as applicable.

22 In most cases post graduate research in ICAR is carried out under ICAR fellowships. However, in few cases post graduate scholars in ICAR may

2. If the post graduate research is conducted at more than one institutions/laboratories in/outside ICAR²³.

3.3.3 **Shared Research Facilities.** When ICAR shares its research facilities with another party as per the guidelines but does not provide any scientific/technical input in the use of these facilities, it may not seek a share in the IP generated. However, in cases where the other party also avails scientific/technical input from ICAR, the IP thus generated will be jointly owned on mutually agreed terms.

3.3.4 **Scientist/Scholar Entrepreneurship.** When ICAR permits any scientist/scholar to proceed on scientist-entrepreneurship to either set-up his/her own enterprise or to work with some private agency for up-scaling/commercial venture with the IP generated by him/her in ICAR, the terms of use of such IP shall be clearly spelt out in the agreement between the ICAR and the concerned scientist/scholar.

3.4 Event of Conflict of Interest

In the event of any conflict of right or interest related to sharing of IP, it will be resolved as per mutually agreed terms set out in the agreement signed between ICAR and the other party. To arrive at a settlement use will be made of mediation, reconciliation or arbitration. Arbitrator will be appointed by Director General, ICAR. Arbitration clause may be incorporated in the agreement.

3.5 Forms of IP Generated in ICAR

3.5.1 The research results obtained in ICAR may be patentable, protectable in any other form of IP or not protectable under the law. Further, issues such as know-how and traditional knowledge may be important in the context of IP.

3.5.2 **Patentable IP.** Research results in any field of technology, whether processes or products, which are new, inventive (non-obvious) and useful (industrially applicable), and are patentable under the Patent Act, constitute the patentable IP of ICAR. The following research results in ICAR, for example, will constitute the patentable IP:

1. Various microorganism based formulations, such as those of bio-control agents, bio-fertilizers, specific dairy catalysts, etc., and the processes for their use.
2. Various genetically engineered microorganisms for an array of specific uses, such as bio-degraders, bio-stimulants, bio-protectants, etc., and the processes related to their application/use.
3. Novel dairy and horticultural products, bye-products, such as enzymes, and processes for their production and use.

avail scholarships from other agencies. The terms and conditions of some of these scholarships may require that the IP generated will be jointly owned with the funding agency. In such cases, with the approval of competent authority, ICAR may accept this condition or negotiate/work out any other terms and conditions with the concerned agency.

23 Where post graduate research is carried out in more than one institution/laboratory, including one outside ICAR, the IP generated may be jointly owned, in principle, on mutually agreed terms with the concerned institutions/universities from which the other research guidance/supervision emanates.

4. Plant based agro-chemicals, their purification and testing processes, and various formulations.
5. Diagnostic kits.
6. Agricultural machinery, implements, and laboratory equipment.
7. High value compounds from terrestrial, aquatic and living systems, such as animal rumen, internodal cavities of bamboos, etc.
8. Novel genes from microbial and higher biological systems; research tools of genetic engineering, such as gene primers, constructs, and gene transfer tools like gene gun, etc.
9. Patentable part of know-how, for scaling up of research results or manufacture of prototypes/ commercial products, etc.

3.5.3 **Patents on Microorganisms.** ICAR will seek patents on microorganisms as per the Patents Act. In particular, it will not seek patent on a microorganism in the same form in which it is retrieved from its natural habitat.

3.5.4 **Protection of Plant Varieties.** ICAR varieties of field, horticultural and agro-forestry crops, including the new, extant, essentially derived varieties (EDV), and transgenic plant varieties protected as per the PPV&FR Act/ plant variety protection (PVP) laws of other countries will constitute its protectable IP. These include:

1. All extant varieties of ICAR, i.e., the previously notified varieties under section 5 of the Seeds Act, 1966, which have not completed 15 years from date of their notification. Protection of these varieties will be secured at the earliest as per the PPV&FR Rules.
2. New plant varieties identified for their worth (value for cultivation and use) in ICAR, which fulfill the essential criteria of distinctiveness, uniformity, and stability under the PPV&FR Act.
3. ICAR plant varieties and transgenic plants, protectable as per corresponding PVP laws of other countries, in the form of PVP certificate, plant patent, etc.

3.5.5 **Improved Breeds/ Strains of Animals/ Poultry/ Fish Cannot be Protected.** Animal/ poultry breeds, fish strains, etc., cannot be protected in India as patents or variety protection. Improved breeds/strains developed in ICAR, however, constitute valuable assets. To check their misuse or exploitation, their registration and documentation is to be undertaken at the respective Bureau for placing them through disclosure in the public domain thereby forestalling any unforeseen patenting in other countries.

3.5.6 **Collective Mark/Trademark.** The ICAR emblem is distinct/distinguishable and well known for a long time. It will be used/registered as the collective mark of ICAR. Other marks already used in good faith by ICAR institutions, for example 'PUSA' by Indian Agricultural Research Institute or 'Arka' by Indian Institute of Horticultural Research, which are also well known for a long time, may be used/registered and used as their respective trademarks along with the collective ICAR mark.

- 3.5.7 **Copyright.** ICAR's copyright exists in all its institutional creations/works, viz., publications, audio-visuals, designs, computer programmes, etc., whether unregistered or registered. Scientists and other staff of ICAR will, however, have copyright over their individual, literary and scientific creations/works.
- 3.5.8 **Designs.** Designs of any commercial value, developed in ICAR, may be protected as registered designs under the Designs Act or under the Copyright Act as per law.
- 3.5.9 **Any other IPR Form.** On a case-to-case basis, any research result of ICAR, which is protectable as IPR in any other form under the Indian law, shall be protected and maintained for its IPR enabled transfer and use.
- 3.5.10 **Know-How.** A know-how available with ICAR, which could lead to development of prototype/commercial product from an IP generated by its scientists/ scholars, constitutes an important, potentially useful property, irrespective of whether it is patentable or not. Such know-how may be utilized for strategic commercial use in the technology production chain. ICAR may protect such know-how as trade secret. Therefore, a confidentiality agreement with the other party shall be entered into before any demonstration of the technology or its validation or scaling up is undertaken.
- 3.5.11 **Traditional Knowledge.** The Indian Patents Act and some other IPR Acts require a disclosure of traditional knowledge used in the invention/ innovation. Accordingly, ICAR shall also disclose the traditional knowledge related to the innovations made in its set up in all its patent/ IPR applications to the best of its knowledge and information.
- 3.5.12 Isolation of indigenous genes from plant and animal systems and their application for specific target traits will have special significance and prospects. Therefore, ICAR genetic resources bureaus for plants, animals, fish, insects and agriculturally important microorganisms will make efforts to register, document and index these knowledge items in public domain. This is to discourage any patenting of the public domain traditional knowledge.

GENERAL PROCEDURES FOR IP MANAGEMENT

4.1 Introduction

This chapter describes the general procedures for management of the IPR portfolio in ICAR. Procedures specific to patents, protection of plant varieties, trademarks, copyrights, etc., are discussed in subsequent chapters.

4.2 Claims of IP Ownership

- 4.2.1 **ICAR/Institutions.** All claims of IP ownership, as applicable, will be made only in the name of the legal entity, viz. the 'Indian Council of Agricultural Research' even though the research is conducted by scientists/ innovators working in its various institutions. The institutions shall not claim the IP ownerships in their own names.
- 4.2.2 **Scientists/Innovators.** ICAR scientists/innovators shall assign the IP rights in the research results obtained by them to their employer, viz. the 'Indian Council of Agricultural Research'. While they will not be entitled to claim ownership of the IP generated by them, they shall be recognized as 'True and First Inventor(s)/ Innovator(s)' of that IP. However, they will have their own copyright over the publications authored by them as per rules²⁴.

4.3 Institutional Arrangement

- 4.3.1 **Institute Technology Management Units (ITMUs).** ICAR institutions²⁵ will designate/ establish ITMUs. The ITMUs will pursue all IP protection, maintenance and transfer/commercialization related matters at the institute level as per these guidelines and any other administrative or policy decisions taken in the ICAR from time to time. They will seek any specific, case-to-case basis advice/assistance from the Zonal Technology Management Centres (ZTMCs) at the zonal level or the IP&TM Unit at the ICAR headquarters or AgIn.
- 4.3.2 **Zonal Technology Management Centres (ZTMCs).** ICAR will establish ZTMCs at selected national/central institutions²⁶ identified as the zonal level institutes. The ZTMCs will function as Secretariat of the respective ZITMCs to advise on, coordinate and pursue the IP protection, maintenance and transfer/commercialization related matters at other ICAR institutions²⁷ in the zone. The ZTMCs will be supported by ICAR for enhancing IP management capacities. The ZTMCs will follow the guidelines and policy decisions taken in the ICAR from time to

24 Central Civil Services (Conduct) Rules [CCS(Conduct)Rules]

25 National/Central/Indian Institutes, Bureaus, Project Directorates and National Research Centres of ICAR.

26 XII Plan onwards ten ZTMCs have been identified, SMD wise these are: Crop Science (2), Horticultural Science (2), Animal Science (2), Agricultural Engineering (1), Natural Resource Management (1), Fisheries Science (1), and Agricultural Education (1). The identified zonal institutes will also have their respective ITMUs for the management of IP generated within the institute.

27 Including the AICRPs, ATARI and the ICAR KVKs.

time and will assist other NARS institutions in the zone/subject domain on a case-to-case basis in matters relating to IP management and technology transfer/commercialization as and when required by ICAR/DARE.

4.3.3 **Intellectual Property and Technology Management Unit.** The IP&TM Unit has been established at the ICAR headquarters for IP management and technology transfer/commercialization in India and abroad in association with AgIn. It will render advice and support to the ZTMCs and the ITMUs as required. It will undertake documentation with the help of ITMUs/ZTMCs and maintain IP database of ICAR. The IP&TM Unit/AgIn will arrange for necessary legal and business expertise through empanelment/engagement of experts or outsourcing etc. It will also organize/support the IP management training and HRD programmes.

4.3.4 **Preliminary Steps.** The following steps will be taken to seek IP protection in ICAR:

1. All inventors/innovators/breeders/authors shall assign the IP rights in their research results to ICAR.
2. All applications shall be made in the name of “Indian Council of Agricultural Research”.
3. Patent/PVP/IPR applications filed by ICAR, shall mention the names of all concerned scientists/innovators as True and First Inventors/Innovators.
4. Patent/PVP/IPR applications will be signed by the Authorized Signatory (Director of the concerned institution/zonal institute).
5. Processing of all patent/ PVP/copyright/other IPR applications and maintenance of IPR titles will be undertaken as per the respective IPR laws.

4.4 Procedures for IP Management

4.4.1 **Delegation of Powers/Authorized Signatories.** ICAR will delegate its powers as per rules for the protection/maintenance/commercialization/licensing of IP to its institutions. Directors of the institutions and the Assistant Director General (IP&TM) shall appropriately act as the Authorized Signatories of ICAR²⁸. In this context, the Directors of the institute shall also discharge the obligations of National Biodiversity Authority (NBA) related to IP protection.

4.4.2 **Disclosure of IP Contemplated.** The ICAR scientists/innovators at its institutions shall appropriately/confidentially disclose²⁹ the IP contemplated from their research results for IPR protection under the law.

4.4.3 **IP Protection and Maintenance.** All action pertaining to the filing of IPR applications and their follow up under the law including the maintenance of IPR, and the further management of IP, will be initiated/undertaken by the ITMUs of the respective institutions, where IP is generated in the course of research/work.

²⁸ ADG (IPR) is already the Authorized Signatory; and ICAR has further issued instructions vide Office Order F. No. 6(2)/2001-Cdn(A&A) Dated 1.12.2005 to all Directors/Project Directors of ICAR Institutes/National Research Centres/ Bureaux/ Project Directorates to file their patent applications at the respective patent offices in whose jurisdiction the concerned institution is located.

²⁹ See Annexure 5; indicative.

1. The ICAR institutions having IP management capabilities of their own may file the patent/ IPR applications as per the delegation of powers.
 2. ITMUs that do not have adequate IP management capabilities of their own will approach the ZTMC in their zone/IP&TM Unit/AgIn for protection and management of IP generated by them, which is also recommended by their ITMCs as being protectable and worth protecting. The respective ZTMCs will manage IPR protection and maintenance for the institutions in the zone.
 3. The foreign patent cases in ICAR will be managed through the IP&TM Unit or AgIn depending upon strategic/commercial potential. Accordingly, Institutions/zonal institutes will approach IP&TM Unit through concerned SMD, giving justification for seeking international patent and the designated countries where IP protection is required.
- 4.4.4 ***IP Generated in more than one Institution.*** Where IP is generated as a result of research in more than one ICAR institution, the IP protection will normally be secured by the institution where Principal Investigator (PI) of the project was posted. In any other situation, the action for IP protection will be taken in mutual consideration and consent of the concerned institutions. The IP&TM Unit ICAR headquarters/AgIn will be informed accordingly. In case of any difference of opinion or discrepancy³⁰, the institution, where PI of the project was posted will refer the matter to the ICAR headquarters for guidance/decision.
- 4.4.5 ***IP Generated in a Coordinated Project located in an ICAR Institution.*** Where IP is generated under an All India Coordinated Research/Network Project (AICRP) whose coordinating unit is located in an ICAR institution, the IP protection will be secured by the institution where the AICRP Unit is located. The Project Coordinator/Network Coordinator/ Nodal Officer (PC) of the AICRP where the IP is generated will inform the Director/ITMU of its host Institution of the IP which needs protection. The respective ITMU will then initiate action for securing/maintenance of IPR as per guidelines/respective IPR law.
- 4.4.6 ***IP Generated in a Coordinated Project located outside an ICAR Institution.*** Where IP is generated under an AICRP whose coordinating unit is not located in an ICAR institution, the IP protection will be secured by the ZTMC in whose domain the AICRP unit is located. The Project Coordinator of the AICRP where the IP is generated will inform the concerned ZTMC the details of the IP required to be protected with a copy to ICAR headquarters/IP&TM Unit. The ZTMC will then initiate action to secure and maintain the IPR with the involvement of the concerned Project Coordinator.
- 4.4.7 ***IP Generated in Agricultural Technology Application Research Institute / Krishi Vigyan Kendra.*** Where IP is generated in Agricultural Technology Application Research Institute (ATARI) or *Krishi Vigyan Kendra* (KVK), the IP protection will be secured by the ZTMC in whose domain the subject of invention/technology falls. The In-charge KVK where the IP is generated will inform the concerned ZTMC the details of the IP required to be protected with

³⁰ All individual IPR related cases involving the transfer or retirement of an inventor/innovator in the mid-course of research, where decision making has been constrained due to a difference of opinion or discrepancy, shall be referred with details to respective ZTMC/IP&TM Unit for decision of the competent authority.

a copy to ICAR headquarters. The ZTMC will then initiate action to secure and maintain the relevant IPR with the involvement of the concerned ATARI/ KVK.

- 4.4.8 **IP Generated in Post Graduate Research in ICAR.** Where IP is generated as a result of post graduate research the IP protection in such cases will be secured by the institution where the research was carried out. The research supervisor/guide will facilitate action for seeking the IPR protection. The concerned post graduate research scholar will be recognized in the patent/IPR application as one of the ‘True and First Inventors/Innovators’.
- 4.4.9 **IP Generated in Collaboration with a Foreign Partner.** Protection of IP shall be undertaken by the concerned ICAR institution. Application shall be filed in India to secure the priority date. The IP ownership and further course of action will be decided on the basis of policy framework for IP management and mutually agreed terms with the foreign partner.
- 4.4.10 **IP Generated in all other cases.** In all other cases of IP contemplated, the IPR protection will be undertaken as appropriate by the concerned ZTMCs on their own or in consultation with IP&TM Unit and with the approval of the competent authority at the ICAR headquarters.

4.5 Procedure for Shared IP

- 4.5.1 IP shared between ICAR and other collaborator(s)/partner(s) will be processed for protection and maintained by ICAR or as per the mutually agreed terms.
- 4.5.2 In case a joint owner is not interested in the IP it can be assigned back exclusively to ICAR. In that case the protection and maintenance of IP shall be taken up by the concerned ICAR institution with assistance from the respective ZTMC/IP&TM Unit.

4.6 Decision Making Bodies

- 4.6.1 **Technology Management Committees** will be constituted at different levels in ICAR to act as the decision making bodies for addressing the matters related to IP management and technology transfer/commercialization, including monitoring. While the core structure of these committees at the institution level will remain the same, the technical experts will be drawn from different areas/disciplines depending upon whether the Committees are discussing patents, protection of plant varieties or other forms of IP. While operationalizing the decision making process involving the three tier technology management committees at the institutes, zonal and central levels, care will be taken to ensure that these bodies have the facilitator function as the prime motive.
- 4.6.2 **Zonal Institute Technology Management Committee (ZITMC).** At the zonal level, the ZITMC chaired by Director of the identified zonal institute will address specific and emergent IP related matters/ concerns with respect to the ICAR institutions in the zone. The ZITMC will have the following composition³¹:

³¹ In addition, Director of the concerned institution whose IPR/commercialization related matter figures in the agenda item of a meeting of the committee or his representative shall participate in that meeting as member.

Director (of the identified zonal institute)	Chairman
1 Director of another ICAR institution in the zone	Co-Chairman
1 Director/Representative of another ICAR institution in the zone	Member
1 Chief/ Senior Finance Officer	Member
2 Technical Experts (Scientists of ICAR institutions) ³²	Members
1 Representative of IP&TM Unit/ICAR headquarters	Member
2 Expert Members, one each in Business Management/ Commerce, and / or Law	Member
In-charge Zonal Technology Management Centre	Member Secretary

1. Chairman may invite experts/officers from the concerned institutions in the zone/ICAR/ AgIn and/or from outside, as per requirement.
2. The ZITMC will consider issues/cases of concern to the institutions in the zone.
3. The ZITMC may seek advice of IP&TM Unit/ICAR headquarters for wherever required.
4. The ZITMC will meet at least twice a year.
5. Non official members/ invitees for individual meetings will be entitled to TA/DA and honorarium/consultation fee.

4.6.3 **Institute Technology Management Committee (ITMC).** At the institution level, the ITMC chaired by Director of the Institution will be the highest decision making body relating to all issues of IP management and technology transfer/commercialization. The identified zonal institutes will also respectively have their regular ITMCs for IP/technology management at the institute level in addition to the ZITMC. The ITMC will have the following composition³³:

Director	Chairman
1 Head of Division	Member
2 Technical Experts (Scientists of the institution)	Member
1 IPR Expert (Scientist from ICAR institutions in the zone)	Member
Member Secretary, Staff Research Council (SRC)	Member
Member Secretary Prioritization, Monitoring & Evaluation (PME)	Member
Officer-in-charge, ITMU	Member Secretary

1. Director may invite experts/officers at the institution/ICAR/AgIn and/or from outside, as per requirement.
2. The ITMC will consider the issues/cases of concern to the institution/scientists as per the delegation of powers and shall recommend for action/help/assistance by ZITMC/ /SMD/ IP&TM Unit at ICAR headquarters as and when required.

³² The Committee may have experts from the respective disciplines as members to consider specific matters brought before it in respect of different forms of IPR, viz. patents, plant variety protection or other IP.

³³ In addition, the committee may have experts from the respective disciplines as members to consider different matters brought before it in respect of patents, plant variety protection, other IP, etc.

4.7 Confidentiality Agreement

All concerned scientists/innovators and other employees of ICAR institutions shall enter into appropriate confidentiality agreement³⁴ before divulging any undisclosed information/research results/know-how even if it is to be disclosed for a short term. Confidentiality of the technological aspects/IP of ICAR must be ensured.

4.8 Progress Reports

Concerned institutions shall maintain proper and authenticated records/database with respect to the IP generated and disclosed/reported by the scientists/innovators, securing/maintenance of IPR protection, commercialization and incentives, and sharing of commercial benefits with the concerned staff. They shall submit progress report to ICAR headquarters, periodically and as and when required in the prescribed proforma.

4.9 Monitoring and IP/Market Watch

The ITMUs/ ZTMCs at the respective institutions, in consultation with AgIn and IP&TM Unit at the ICAR headquarters will monitor the IP and technology management activities including proper market watch.

³⁴ See Annexure 1: Confidentiality Agreement (indicative)

PROCEDURES FOR MANAGEMENT OF PATENTS

5.1 Introduction

This chapter describes procedures for seeking patents and their maintenance in Part A. Part B deals with some general issues related to patenting.

Part - A

5.2 Procedure for Patent Protection

- 5.2.1 All research results in ICAR which are patentable under law and have scope for technology transfer or for advancement of basic and strategic research, will be taken up for patent protection as per these guidelines.
- 5.2.2 All ICAR scientists/innovators who consider that they are in possession of a patentable IP from their research results, or that such a result is likely to emerge soon from their research/work, whether individually or jointly with other scientists/innovators, shall proceed to take steps through the ITMU/ZTMC of their respective institutions as per the patent law.
- 5.2.3 The ITMU/ZTMC will arrange meeting of the concerned ITMC/ZITMC to consider/recommend the patent proposal. They may also invite expert opinion under a confidentiality agreement with empanelled patent attorney/IPR expert. The ITMC/ZITMC will duly record the reasons for acceptance/ rejection of each patent proposal in the proceedings of their meetings and such information will be linked to central database.

5.3 Preparatory Work

- 5.3.1 **Initial Action by Innovators.** The interested scientist/innovator may approach Director or ITMU/ZTMC of the institution where he/she is posted and indicate his interest in making a confidential disclosure³⁵ of the patentable IP generated/likely to be generated soon by him/her.
- 5.3.2 **Initial Patent Search.** Each application by scientists/innovators for seeking patent on an invention shall be accompanied with an initial patent search³⁶ report and the declaration as to the novelty of invention.
- 5.3.3 **Early Action by Institutions.** The concerned ITMU/ZTMC will fix a confidential meeting at

³⁵ See Annexure 5: Check-List for Invention/IP Disclosure (suggestive only)

³⁶ Initial patent search can be carried out at the free Internet sites, including, ipindia.nic.in, for foreign patents provided by wipo.int, uspto.gov and espacenet.com, etc in cases required paid search engines or services may also be availed.

Concerned scientists must gain a good background on the subject area of invention, particularly about the inventions from the subject area if already patented in any country. This will help in recognizing whether the results of present study/ experiment qualify for the essential criterion of novelty or not. In case it is considered that the invention is novel, and the patent search is reasonably made to fortify the claim, one may safely conclude that ICAR is in possession of a patentable invention.

a convenient date and time for discussion, and the matter shall be pursued as follows:

1. In case research results are known to the scientist/ innovator and he/she believes that the IP generated can qualify for IPR protection, he/she shall not publish or divulge any information on the results till before the confidential meeting. Subsequently, he/she should act as per the outcome of the meeting.
2. The ITMU/ZTMC will arrange a confidential meeting of the scientist with ITMC/ZITMC and other invited persons from the institution. Before initiating discussion in relation to the deemed IP, all participants of the meeting shall sign an undertaking to maintain confidentiality of the information divulged by the scientist.
3. Based on recommendations of ITMC/ZITMC the ITMU/ZTMC will pursue the matter for further action.
4. If it is required to file a patent application outside India or it is decided to claim priority date to convert them into PCT applications the ITMU/ZTMC will approach IP&TM Unit through the SMD providing justification. IP&TM Unit shall seek advice of AgIn regarding the commercial potential of the technology and accordingly process it further, for seeking financial concurrence by Internal Finance Division (IFD) and approval of Secretary DARE & DG, ICAR. These applications should reach IP&TM Unit at least 3 months before the last date of application to ensure timely action.

5.3.4 **Submission of Particulars by Scientists/Innovators.** The Principal Investigator/ Project Leader (PI) shall furnish particulars³⁷ for making the application (specification, claims and other particulars excluding the know-how) with due signatures of all Inventors/Innovators together with the following to the ITMU/ZTMC:

1. An Undertaking covering the bona fides of the deemed IP, including title; novelty, non-obviousness/inventiveness, industrial applicability/commercial usefulness aspect; project/activity under which the IP was generated; dates/duration of the project/activity, etc.
2. A Certificate mentioning that there is no lawful ground for objection to the grant of patent on the innovation/work.
3. An Affirmation to keep ICAR informed about any further developments in relation to the deemed IP.
4. Assignment of the innovation/work to ICAR, with signatures, names and address of two witnesses.

5.3.5 **Information to Central Database.** The ITMU/ZTMC will document a copy of the forwarding letter of the information provided by the PI/Inventor, including the title of invention, name(s) of true and first inventor(s), and date, in the institutional/zonal/central database for information and record.

³⁷ The particulars shall also include mention of transfer or retirement cases where an inventor/innovator has left the institution in the mid-course of research, and his/her relative contribution to the invention/innovation further, in cases where the individual involved in the invention are transferred or leave the institute due to resignation/superannuation, all information/documents including the know-how should be handed over to the ITMU before leaving.

5.3.6 **Disclosure Requirements.** It is necessary that the concerned PI/scientists/innovators make sufficient disclosure that fully defines the invention, its feasibility and application so that patent can be granted on that disclosure without any objection. They will also make sure that the source and geographical origin of the biological material used in research or mentioned in the complete specification and also any traditional knowledge of India, which may be the basis of the invention is disclosed in the application as per the requirement of the Patents Act. Similarly, it will be necessary that the absence of any Genetic Use Restriction Technology (GURT) is declared in all applications based on biotechnological invention/genetic engineering.

5.4 Record Keeping

5.4.1 All ICAR scientists/innovators shall maintain appropriate and adequate work records and duly authenticated/countersigned log books while conducting research leading to patentable invention. It should be possible to re-construct on time scale from those records as to when the work related to the invention was conceived and actually started, when the inventive step was taken and when the result was first successfully demonstrated in the laboratory.

5.4.2 Data may be assembled, organized and analyzed, if necessary, and the results worked out as usual on the research/ experiment elucidating the steps/dates in the inventive process. Drawings may also be made and photographs taken, wherever necessary/appropriate, to effectively document the dates and claims of invention.

5.4.3 A copy of the representative information set of the data maintained in the concerned laboratories will be documented at the institutional/zonal/central database.

5.5 Screening/Scrutiny of Cases by the Institution

5.5.1 The ITMU/ZTMC will scrutinize and process the cases brought before it for filing of patent applications. The following points must be ascertained in the scrutiny:

1. The application is made in the Prescribed Form/ Performa/ Format.
2. The applicant named in the application is “Indian Council of Agricultural Research”.
3. The Innovation is assigned to “Indian Council of Agricultural Research”.
4. Names of all True and First Inventor(s) are duly mentioned³⁸ in the application.
5. Address for Service is mentioned in the application (Note: This will constitute Postal Address including email and contact number(s) of the Director who will sign the application as Authorized Signatory of ICAR).
6. Other particulars/information are in conformity with the requirements of the patent law/ these guidelines/other specific instructions as may be issued by ICAR from time to time.

5.5.2 **Correction/Rectification/Updation of Primary Information.** Any mistake/anomaly/ discrepancy found in the scrutiny of the application shall be corrected/rectified by the concerned PI/Inventor when informed to do so by the ITMU/ZTMC. Similarly, before

³⁸ Including the relevant retirement and transfer cases, if any.

finalization of the patent document if the PI/other inventors/innovators consider that some addition/amendment/deletion will add value to the patent application then the same will be done with the consent of ITMU/ZTMC.

5.6 Writing a Patent Document

5.6.1 The primary information collected as above shall be collated to prepare the patent application (patent document) for filing in the patent office. ITMU may hire the services of an empanelled patent attorney for preparing the patent document, particularly in the complete specification and claims³⁹.

5.6.2 All patent applications will be filed in Form 1 and Form 2, along with the required fees as prescribed by Indian Patent Office (IPO)⁴⁰. The patent application can also be filled through online system at <https://ipindiaonline.gov.in/epatentfiling/goForLogin/doLogin>. The applicable fee for ICAR applications for patents will be as mentioned in the First Schedule of the Patents Act under the column “For other than natural person(s)”. The application will be accompanied by the following.

1. Provisional or complete specification (in Form 2) and drawings (if any).
2. Statement/undertaking regarding foreign filing details in respect of same invention (in Form 3)⁴¹.
3. Declaration as to Inventorship (in Form 5) (e.g. in cases of convention applications, complete applications following the earlier filed provisional applications, etc.).
4. Priority document (Copy of the proof of filing date of provisional application if a complete application is to be filed following a provisional application for the same invention).
5. Proof of right: The declaration signed by the inventor(s) and two witnesses assigning the invention to “Indian Council of Agricultural Research” will be the proof of right to file the patent application by ICAR, which must be complied with.

39 In case where services of Patent Attorney are required Form 26: Authorization of a patent agent/ or any person in a matter under the act (Section 127 & 132; and rule 135) is to be duly filled

40 Refer website of the IPO (www.ipindia.nic.in/form-and-fees.htm)

41 The requirement of the disclosure on Form 3 in the form of statement and undertaking under the Indian Patent Act is governed by Section 8 of the Indian Patents Act.

Under Section 8(1) of the Indian Patents Act, applicant for the patent has to provide a statement disclosing the detailed particulars of application(s) filed outside India corresponding to its Indian patent application. According to the Clause (b) of this section the applicant provides an undertaking that he would keep the controller updated about the progress of applications filed elsewhere in the world relating to the same or substantially the same invention upto the grant of patent in India. The time within which the applicant has keep the Controller informed regarding the aforesaid details is six months from the date of such filing.

In addition, Section 8(2) states that the applicant must furnish the Controller with details of the processing of applications filed elsewhere in the world if and when the Controller requests such updates.

DECLARATION BY INVENTOR(S)

I/We _____ (Name(s) of Inventor(s) with Designation and Address) declare that all rights for the invention _____ (Title of Patent as given in the Application) _____ are assigned by me/us to the applicant "Indian Council of Agricultural Research (ICAR), Krishi Bhawan, 1, Dr. Rajendra Prasad Road, New Delhi – 110001." and the application is signed on behalf of the assignee by the authorized official of ICAR.

Dated this day of 20.....

Inventor Name	Signatures
_____	_____
_____	_____
_____	_____

Witnesses (Two):

Name	Designation	Signatures
1.
2.

6. The patent application (Form 1) shall also essentially include the following information:

- i. Mention of "Indian Council of Agricultural Research" in column 3 of Form 1 (to ensure that all applications are made by the ICAR institutions/zonal institutes in the name of the Council and not in their own name).
- ii. Name(s) of True and First Inventor(s) in Form 1 (to ensure that all scientists/innovators responsible for the invention are recognized).
- iii. Complete Address of the concerned ICAR institute filing the application in column 7 (it is to be ensured that Address for Service duly incorporates a primary and secondary email address as the correspondence including notices shall be sent to the applicant/agents by the controller ordinarily by electronic communication).
- iv. Signatures, Name (in brackets), Designation and complete Address of the Director/Project Director of the institution filing the application as per the delegation of powers by ICAR. Further delegation of the powers delegated to the Directors of the institutes, if required, may be done with prior approval of the competent authority/as per ICAR Rules⁴².

⁴² Memorandum of Association: Rules and Bye-Laws of the Indian Council of Agricultural Research Society, 2000.

5.6.3 **Strengths of a Patent Document.** The patent application should be such that it can stand successful scrutiny and examination in the patent office. The following questions may be appropriately addressed in the patent document:

1. Whether the information being given is sufficient for the patent examiner to understand the invention?
2. Whether “patentability of the subject matter” is discernible? Are the provisions of non-patentable subject matter (sections 3 and 4 of the Patents Act, 1970) clearly ruled out?
3. Whether the specifications meet the criteria of “sufficiency of disclosure”?
4. Whether the application clearly indicates the source of the geographical origin of the biological material used in the specification wherever applicable? Where a biological material (e.g. a genetically engineered microorganism) is used in the invention, is the referral sample of the same deposited in the international depository authority (IDA)⁴³? Further, if the application pertains to the biological material obtained from India, the applicant is required to submit the permission from the National Biodiversity Authority before the grant of the Patent.⁴⁴
5. Whether the claims clearly reflect “unity of invention”? Are the principal claim (First Claim) and subordinate claims (Subsequent Claims) properly worded and hierarchical?
6. Whether the appraisal of Industrial applicability of the invention is clearly made? (Industrial applicability includes commercial or non-commercial utility but it has nothing to do with commercial success).
7. Whether classification of the invention and point of novelty is made clear? This would be important from the viewpoint of prior art search. In case of ambiguity, expert opinion on patent classification and / or point of novelty should be obtained.
8. Whether result of the novelty search carried out has been mentioned/ elaborated if necessary?
9. Whether the disclosure made (in the specification) is appropriate in the determination of the inventive step and sufficient information supporting the claims (such as drawings in case of mechanical devices, best mode of the technical invention in case of chemistry related inventions etc.) are mentioned in the complete specification?
10. Whether the validity of claims is discernible?

Whether the declaration and the necessary permission of the competent authority regarding the use of biological material in the invention including the geographical location from where it has been sourced is duly considered.

For more details on writing the provisional and complete specification, claims, abstract,

⁴³ At present MTCC, Chandigarh and MCC, Pune are the recognized IDA in India under the Budapest Treaty.

⁴⁴ Refer National Biodiversity Authority: Form III, Applying for Intellectual Property Rights for the Inventions for any research or information only biological resource obtained from India.

and preparing drawings etc, Manual of Patent Office Practice and Procedure version 01.11 as modified in March 2011, or any other latest version, published by IPO may be consulted. Need based help of expert may be taken wherever required.

5.7 Filing a Patent Application

5.7.1 **Filing a Provisional Application.** A provisional application will be filed by the ITMU/ZTMC to secure the Priority Date for the invention. This will be done at the earliest, with minimum loss of time between the meeting of ITMC/ZITMC and the date of filing. The following points may be observed by ITMU/ZTMC. The application will be filed at the patent office under whose jurisdiction the institute' headquarters fall. State wise jurisdictions of the four patent offices in India are given below:

Patent Office	Territorial Jurisdiction (States and Union Territories)
Mumbai	The States of Maharashtra, Gujarat, Madhya Pradesh, Goa and Chhattisgarh; The Union Territories of Daman & Diu, Dadra & Nagar Haveli
Chennai	States of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Telangana; and the Union Territories of Puducherry, Lakshadweep
Delhi	The States Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, Delhi; and the Union Territory of Chandigarh
Kolkata	Rest of India.

5.7.2 **Filing a Complete Application in India.** Complete applications will be filed on the recommendations (decisions) of the ITMC/ZITMC either directly or after the respective provisional applications have been filed. The ITMU/ZTMC shall scrutinize the application. If there is scope for improvement with some external help, the same will be arranged by the concerned ITMU/ZTMC from the panel of patent attorneys. When the document is finalized, and it appears to be well in order, the Complete Application will be filed by the ITMU/ZTMC in the relevant patent office as per procedure under the patent law.

5.7.3 **Filing a Patent Application Abroad.** If a patent application is to be filed outside India, the concerned ITMU/ZTMC will approach IP&TM Unit through the SMD providing justification. IP&TM Unit shall seek advice of AgIn regarding the commercial potential of the technology and accordingly process it further, for seeking financial concurrence by IFD and approval of Secretary DARE & DG, ICAR. These activities have predefined timeline, therefore, it should be ensured that at least 3 months time is given for critical examination and further processing of the application at the ICAR headquarters before approval of the competent authority.

5.8 Types of Patent Applications (under the Patents Act, 1970)

- 5.8.1 **Ordinary/Standard Application.** It is the most common type of application filed for obtaining patents without making any reference to another application to claim priority. It may be made with provisional or complete specification.
- 5.8.2 **PCT International Application.** India is a member of the Patent Cooperation Treaty (PCT). Under this treaty, there is an international filing system for patents. It is a simple and economical procedure for seeking protection for the inventions in many countries. In this system, the applicant gains an international filing date in all the designated countries, and can confer late entry (the period of national phase entry may vary in different countries, however, generally it ranges from 20 to 31 months) to the national offices without affecting the priority date. Indian Patent office is a receiving office for international applications under PCT by nationals or residents of India. A PCT international application may be filed in India as per law, either in English or in Hindi. However, a PCT International Application can also be filed in the World Intellectual Property Office (WIPO) in Geneva.
- 5.8.3 **PCT-National Phase Application.** It is not applicable for the PCT international applications filed by ICAR in India. However, for entering the national phase in other designated countries, separate applications will have to be made within 31 months from the filing of international application to claim the priority date in these countries under their respective patent laws. It is not mandatory for the applicant to submit all the documents while entering the national phase of individual countries as it is obligatory on the part of WIPO to send the published application along with search report etc., to the designated offices. However, copies of original documents should be submitted for the sake of convenience and faster processing. Services of international patent attorneys and legal translators shall be hired as per need.
- 5.8.4 **Application for Patent of Addition.** When ICAR is in possession of another invention, which is a slight modification on an invention for which patent application is already made or patent is already granted in India, the concerned institution may file an application for patent of addition. There is a benefit of seeking a patent of addition because there is no separate renewal fee for this patent during the term of the main patent. It can be made independent according to the provisions in the patent law during the term of the main patent; otherwise, it will expire along with the main patent. A specific reference to the main patent or the application for the main patent will have to be made in the complete specification of the application for patent of addition. Also, a definite statement must be provided in Form 1 that the invention comprises an improvement in, or a modification of the invention claimed in the specification of the main patent granted or applied for.
- 5.8.5 **Divisional Application.** When it is observed that a patent application made by ICAR claims more than one invention, from the single application the concerned institution may file divisional application so that separate applications are ultimately filed for separate inventions in the original application. The priority date for all the divisional applications from a single application will be same as that claimed by the original application. This is also called *Ante Dating*. The complete specification of the divisional application should not include any

matter which has not been substantively disclosed in the complete specification of the first application. Also, the reference of parent application should be made in the body of the specification.

- 5.8.6 **Convention Application.** This is an application claiming priority under the Paris Convention from an application filed in another convention country after obtaining permission under section 39 of the Indian Patents Act. Normally, this type of patent application will not be applicable for ICAR but it is also not ruled out. This can be useful in exceptional cases for unpatentable or difficult to patent subject matter in India, which is patentable in other jurisdiction.

5.9 Patent Application under the Patent Cooperation Treaty (PCT)

- 5.9.1 ICAR institutions will forward the proposal with full justification for patentable inventions, which have scope for patenting/commercialization abroad, to the concerned SMD. The SMD would examine and forward the recommended application to IP&TM Unit for further processing as given in para 5.7.3.
- 5.9.2 The institutions may normally assign the prospective patentable inventions to IP&TM Unit for filing the PCT/national phase applications, after the filing of Indian application in their respective jurisdictions. Nevertheless, the assignment may be made in the very first place for specific cases, with the approval of the competent authority.
- 5.9.3 The ITMUs/ZTMCs may also file PCT applications for ICAR inventions in specific cases on merit grounds and any specific justification, with the approval of the competent authority.

5.10 Direct Filing in a Foreign Country with Priority Date of an Indian Application

If it is considered appropriate to directly file a patent application in a foreign country, the invention should be forwarded to IP&TM Unit or action should be taken at the level of ZTMCs, with the approval of the competent authority. All action for filing of patent application abroad should be taken up with suitable legal expertise.

5.11 Maintenance of Patents

The concerned ITMUs/ ZTMCs will maintain the patents obtained by them by paying the requisite fees at the respective patent offices. Initially, they will pay the renewal fees over a five years period and depending upon some headway in the process of technology transfer/commercialization they may renew the patent for any further period. A judicious view on the maintenance of the patents has to be taken by ITMC/ZITMC keeping in view the returns expected by maintaining the patent. Any decision to discontinue the maintenance of the patent may be duly documented in the ITMC/ZITMC proceedings under intimation to concerned SMD/IP&TM Unit.

5.12 Patent Watch

- 5.12.1 A system of patent watch will be developed in ICAR. The mechanism will cover pro-active monitoring/watch for all ICAR patents that require to be protected or defended when

challenged, by concerned ITMUs/ZTMCs/IP&TM Unit/AgIn. This will be done primarily with in-house expertise and in special circumstances through outsourcing.

- 5.12.2 The AgIn will assist the ITMUs/ZTMCs in taking any preventive/initial action with the assistance of legal and business experts/patent managers. In cases where further legal action is required, approval of the competent authority at the ICAR headquarters will be obtained. Specific cases of larger interest to the national agricultural research and education system, if noticed, will be referred to the IP&TM Unit for seeking any case-specific advice.

Part - B

5.13 Patentability of Biological Inventions

- 5.13.1 Whereas all patent cases will be addressed only as per the patent law, the following provisions of the Indian Patents Act should be clearly understood.

5.13.2 According to section 3(i) of the Patents Act, “*any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human being or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products*” cannot be patented. In this context, prophylactic treatment such as vaccination, inoculation (prophylactic immuno-therapy) in animals is to be regarded as therapy, which includes treatment, and is not patentable. Patent may, however, be obtained for surgical therapeutic or diagnostic instruments or apparatus.

5.13.3 According to section 3(j) of the Patents Act, “plants and animals in whole or any part thereof other than microorganisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals, for example, clones and plant varieties” are not patentable..

5.13.4 Any clarification on the patentability of biotechnological inventions may be seen from the Manual of Patent Office Practice and Procedure version 01.11 as modified in March 2011, or any other latest version, along with guidelines for search and examination of patent application, 2015 published by IPO may be consulted (www.ipindia.nic.in). The guiding points for the examination of patent applications by the patent examiners given in this manual could be helpful in a pre-judgment on the patentability of inventions in ICAR, before a patent application is to be filed.

5.13.5 **Biological Material Used in the Invention.** Specific attention will be given to the following points:

1. The source or geographical origin of biological material used in the invention disclosed in the patent application will be mentioned in the specification.
2. New biological materials used in the invention disclosed in the patent application are required to be deposited in any of the International Depository Authorities (IDA)⁴⁵ recognized under the Budapest Treaty on or before filing of the application, to supplement

⁴⁵ At present MTCC, Chandigarh and MCC, Pune are the recognized IDA in India under the Budapest Treaty.

the description for sufficiency of disclosure of the invention. Reference of such a deposit has also to be made in the patent specification. Further, if the application pertains to the biological material obtained from India, the applicant is required to submit the permission from the National Biodiversity Authority (NBA) before the grant of the Patent.⁴⁶ Accordingly, the agreement of benefit sharing as required by the NBA need to be complied by ITMU/ZTMC.

3. The reference samples deposited at the Genetic Resources Bureaus of ICAR will be helpful for internal reference only. However, in case of any litigation it is likely that the evidence in the form of such duly characterized and documented referral sample can be held valid at the discretion of the Court of Law. Therefore, all ICAR institutions must take individual initiative of depositing a referral sample at the respective National Bureaus before filing a patent for any invention based on biological material.

5.13.6 **Patents on Value Addition.** Patents can be secured on inventive steps irrespective of whether these steps are big or small. Therefore, patents can be obtained on incremental research results provided these qualify the patentability criteria, and have scope and worth.

5.14 Discovery *versus* Invention

According to section 3(c) of the Patents Act, “the mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living substances occurring in nature” is not patentable.

5.15 Method of Agriculture or Horticulture

According to section 3(h) of the Patents Act, “a method of agriculture or horticulture” does not constitute patentable invention. Some specifically construed patent claims on processes and products related to agriculture and horticulture could be found in order for acceptance by the patent offices⁴⁷.

5.16 Monitoring

The monitoring and follow up activities on patenting/patents in ICAR will be undertaken on a regular basis. A monitoring system will be developed at the ITMUs/ZTMCs with the help of bioinformatics units at the ICAR institutions and linking the information built by them to the IP&TM Unit at ICAR headquarters.

⁴⁶ Refer National Biodiversity Authority: Form III, Applying for Intellectual Property Rights for the Inventions for any research or information only biological resource obtained from India.

⁴⁷ The Indian Patent Office did not grant patents on “A method for cultivation of an algae” (264/Cal/79) and “A method for producing mushroom plant or production of mushrooms” (445/Del/93) for the reasons that the production of mushrooms and cultivation of an algae are analogous to agriculture, since they belong to plant kingdom and therefore fall within the provisions of non patentability. These were held not patentable also for the reasons that the purpose of applicants’ inventions was to achieve varying degree of growth promotion, increased output, improved quality which increases their economic value. On the other hand, an ICAR Patent No. 183679 dated 15 January 1998 on “A new bed for mushroom cultivation by utilizing biogas waste slurry and straw for improved mushroom cultivation” from National Institute for Research on Jute and Allied Fibre Technology, Kolkata, was granted. Thus, there is need to further explore more critically and judiciously, on a case-to-case basis, a legitimate securing of the IP contemplated.

PROCEDURES FOR MANAGEMENT OF PLANT VARIETY PROTECTION

6.1 Introduction

This chapter describes the procedures for seeking and maintaining IPR protection of plant varieties developed in ICAR.

6.2 Plant Variety Protection

- 6.2.1 The IP protection of plant varieties of ICAR, including the extant varieties, will be secured under the PPV&FR Act. This in turn will enable a more rapid and effective transfer of plant varieties to the end users. However, a decision can be taken by the ICAR even after the plant variety protection (PVP) certificate has been obtained as to whether a particular variety will be transferred for commercial use through exclusive/ non-exclusive licences or it will be placed solely in public domain to meet some specific national need/situation. Where it is considered necessary in public interest to specifically promote some ICAR varieties for food and nutritional security or for diversifying agriculture, special steps will be taken as may be deemed fit by the competent authority.
- 6.2.2 Protection of all extant varieties of ICAR, which have not completed 15 years from the date of notification shall be taken up under the PPV&FR Act as a priority activity in a time-bound manner.
- 6.2.3 Registration and protection of plant varieties of field, horticultural and agroforestry crops, developed by ICAR institutions, which meet the essential criteria for their protection, will be obtained by them in the name of ICAR, under the PPV&FR Act. The period for which the PVP title of the protected varieties will be maintained will depend on the actual performance/ adoption of the variety. This will be periodically reviewed by the concerned ITMU/ZTMC and decided by the respective ITMC/ZITMC.
- 6.2.4 ICAR will maintain the IPR portfolio of its varieties/hybrids/transgenics in a transparent manner.
1. ICAR may file PVP applications for sole ownership over its plant varieties for (i) the varieties developed in ICAR institution(s)⁴⁸, (ii) the hybrids developed in ICAR where the parents of hybrid belong solely to ICAR, and (iii) the transgenics where the transgenic events are carried out in ICAR institution(s) and the initial variety and gene sequence(s)/ events belong solely to ICAR.
 2. ICAR may also file joint applications with others, such as, SAUs or other concerned

⁴⁸ For the varieties developed in the breeding programmes of the institutions using their own pool of genetic stocks.

organizations/institutions/research establishments in the public or private sector for varieties which have been developed through collaborative efforts⁴⁹.

- i. Where it has been decided to file joint applications, the same will be taken up on mutually agreed terms between ICAR and the other collaborators/research partners.
- ii. Where the collaborator(s)/research partner(s) assign a jointly developed plant variety to ICAR for protection and further management, ICAR will file the PVP application as sole applicant. However, it shall include the names of the research partners as the breeders of the candidate variety in the PVP application. In other cases, ICAR as well as the other collaborators jointly responsible for developing a plant variety will be the co-applicants. ICAR will share benefit accrued from commercialization of that variety with the collaborator(s)/research partner(s) on mutually agreed terms⁵⁰.
- iii. Where the collaborator/research partner is an international agency or a foreign client, and the variety/hybrid/transgenic is developed in ICAR, the ownership and the licensing rights will be determined on mutually agreed terms. The MoU with the collaborator/partner will be executed at the ICAR headquarters. Other terms and conditions, and limitations of the MoU will be entered as per the mutual agreement.

6.2.5 As ICAR will be the institutional breeder and the applicant in the PVP application for each of the plant varieties developed in its set up, it will also consider/discharge any liability in respect of the following:

1. Benefit sharing as may be determined by the PPV&FR Authority under section 26(5).
2. Compensation for under performance, if any, under section 39(2).
3. Any other liability that may be fixed by the PPV&FR Authority or the PVP Appellate Tribunal, or any court of law, under the PPV&FR Act.

6.3 Registration and Protection of Extant Varieties

6.3.1 **Extant Varieties.** As per the PPV&FR Act, an extant variety is the variety available in India which is either (i) notified under section 5 of the Seeds Act, 1966 (54 of 1966), or (ii) a farmers' variety, or (iii) a variety about which there is common knowledge, or (iv) any other variety which is in public domain. The following procedure may be followed for registration and protection of extant varieties of ICAR in relevant cases.

6.3.2 **Varieties Notified Under the Seeds Act, 1966.** ICAR will, on first priority, apply for the registration and protection under the PPV&FR Act of its extant varieties of different crops which are already notified under the Seeds Act, 1966 but have not completed 15 years from the date of notification. NBPGR will act as the Nodal Institute to facilitate this action.

⁴⁹ In cases where the collaborative efforts requires sharing of germplasm with the partner such exchange would be through appropriate material transfer for agreements and would limit the MoUs for subsequent commercialization with the conditions agreed to by the partners in the MTA. See Annexure 2: Material Transfer Agreements for International Bilateral Exchange under Collaborative Research Programmes/Projects (MTA 1) and for Research Use within Country for Public and Private Entities (MTA 2) Biological Resources notified by DARE vide File No. E-04-26/2014-IC-II dated 5th September, 2017 (or as modified from time to time) will be followed

⁵⁰ Sharing of commercial benefits accrued with the individual breeders of the collaborator/research partner will be generally done in the same proportion/manner as it will be done with the ICAR scientists recorded as breeders on the PVP application.

- 6.3.3 ICAR institutions shall provide all the necessary information required under the PPV&FR Act/Rules for registration of extant varieties developed by them to NBPGR. This will include the particulars required for the National Register of Plant Varieties, such as the denomination of the variety, names of breeders⁵¹ involved in its development, pedigree details, salient features of identity vis-à-vis most similar varieties, zone(s) of adaptation, performance limits under specified situations particularly for DUS traits, etc. along with a referral seed sample. NBPGR will further verify the database of extant varieties developed and maintained at the Bureau with the information received from different institutions and supplement the information with the molecular profile of the variety, if available.
- 6.3.4 Authenticated seed samples of the variety will also be deposited in the active and base collections at the national gene bank at NBPGR. Availability of adequate quantity of nucleus/breeder seed will be simultaneously ensured. NBPGR will also ensure that the seed samples of all extant varieties are available with the Bureau for registration as well as conservation purposes.
- 6.3.5 **Varieties of Common Knowledge.** In a specific case where there is common knowledge about a variety developed by ICAR which is not notified under the Seeds Act, 1966, or it is already in public domain, such matters will be brought before the competent authority at the ICAR headquarters for decision.
- 6.3.6 **Any Other Extant Variety.** For the extant varieties other than those described above, e.g. farmers' varieties or some varieties of common knowledge no direct role of ICAR is stipulated as per the PPV&FR Act⁵².

6.4 Registration and Protection of New Varieties/Hybrids/Essentially Derived Varieties

- 6.4.1 **Early Action by Breeders.** The Principal Investigator (PI)/Plant Breeder will inform the respective ITMU/ZTMC at the institution about the availability of any prospective material developed by him/her which can qualify for a new, distinctive, uniform and stable crop variety as per the requirements of the PPV&FR Act.
1. The salient DUS particulars of the prospective varietal material along with name(s) of most similar varieties will be provided by the PI/Breeder.
 2. In case of a hybrid, similar/appropriate information on parental lines shall also be provided by the PI/Breeder.
 3. In case of transgenic variety, information will be provided with respect to the initial variety (and its parents), the gene sequences (including the promoters) and their source, and the transgenic events.
 4. In case of seed propagated crops, the above early information will be given at least four

⁵¹ Scientists belonging to any discipline/institution who have made principal contribution in the development of a variety.

⁵² ICAR will take suitable action in conformity with the PPV&FR Act/Biological Diversity Act if required to advise/assist in the matter in public interest.

months prior to the next crop season; after duly completing the harvest, seed processing and storage, appropriate statistical analysis and interpretation of results of the previous crop season. In case of vegetatively propagated crops like sugarcane such information will be given while the crop is still standing⁵³.

- 6.4.2 **Follow Up Action by Institutions.** The ITMU/ZITMC will prepare the crop-wise lists of prospective varieties of their respective institutions proposed by PIs/Breeders, and prepare schedule of assessment of these materials in the next crop season involving ITMC/ZITMC and other co-opted crop specialists from within or outside the institution.
- 6.4.3 The ITMC/ZITMC will make necessary recommendations for follow up by the concerned scientist(s)/institution on the basis of the following:
1. Assessment of the potential varietal materials in the experimental plots as per given schedule.
 2. Consideration of the performance data in station and cooperative trials in the previous years.
 3. DUS parameters *vis-à-vis* the most similar varieties.
 4. Some extraordinary or exceptional merit seen in the varietal material, if any, based on which it can be taken up for filing PVP application at an early date.
- 6.4.4 ITMC/ZITMC will also advise on the finalization of a suitable denomination for the deemed variety, which should be unambiguous and in conformity with the requirements of PVP law.
- 6.4.5 **Decision to File PVP Application.** Normally, the process of filing application for registration and protection of varietal materials recommended by the ITMC will be taken up by the concerned institution as soon as the variety has been identified in the AICRP workshop. Therefore, the basic information required for filing the PVP application as per the PPV&FR Act should be kept ready by the respective ITMUs in consultation with the concerned PIs/Breeders. ICAR will thus normally prefer filing its applications for variety protection only when there is satisfaction with respect to the outcome of value for cultivation and use (VCU) of identified varieties from the AICRP trials.
- 6.4.6 In exceptional cases, on a case-specific merit basis, early application can be filed by ICAR institutions for registration and protection of prospective varietal materials.
- 6.4.7 In case of new varieties and hybrids, PVP application will be filed under section 14 and that for the essentially derived varieties under section 23 of the PPV&FR Act.
- 6.4.8 **Nucleus and Breeder Seed.** The PI/Breeder will accord priority to the production/maintenance of nucleus seed of the prospective varietal material(s) reported to the ITMU/ZITMC as candidate varieties for PVP.
- 6.4.9 The concerned institutions shall take up production of breeder seed of prospective varieties,

⁵³ ITMU/ZITMC of the concerned institutions will circulate the specific norms for their crops, if any, with the recommendations of their respective ITMC/ZITMC.

i.e., most promising varieties in advance varietal trials, one year prior to filing the application for their registration.

6.4.10 **Performance Limits.** All concerned breeders/scientists shall specifically provide the performance limits under each of the different environments/situations that are considered suitable for cultivation of the variety proposed for registration and protection under the PPV&FR Act. This would be necessary to avoid any uncalled for litigations/compensation for under-performance provided for in the PPV&FR Act.

6.4.11 **Maintenance of Seed/Propagules of Protected Plant Varieties.** Concerned institutions/breeders will be responsible for the maintenance of varietal purity, and will ensure the availability of breeder seed for public supply or commercial use, as applicable.

6.4.12 **Variety Registration and Protection.** Concerned ITMU/ZTMC will undertake and pursue the needed steps under the PPV&FR Act required for seeking registration and protection of plant varieties.

6.4.13 **Maintenance of Title of Protection.** The ITMU/ZTMC will maintain the PVP titles secured by them by payment of requisite recurrent fees to the Registrar as per the PPV&FR Act. The ITMCs will undertake periodical reviews and decide on further the maintenance of titles by payment of requisite fees based on (i) actual performance of variety, (ii) further licensing potential of the variety in India or abroad, (iii) potential use of the variety for further variety development programme, or (iv) any other specific/relevant criteria considered appropriate for the purpose.

6.4.14 **Rectification of Register or Alteration of Denomination.** Application for rectification and correction of National Register of Plant Varieties can be made under section 37 and that for alteration of denomination, if required, under section 38 of PPV&FR Act. Action may be taken in the following manner:

1. Concerned scientists will bring all such cases to the ITMU/ZTMC, specifying reasons, and justification.
2. The ITMU/ZTMC will obtain approval of the ITMC/ZITMC on case-to-case basis and shall take further necessary action under the PPV&FR Act.

6.4.15 **Revocation of PVP Certificate.**

Cases pertaining to surrender of certificate (section 33) or revocation of protection (section 34) on certain grounds will be brought with full justification to the ITMU/ZTMC who, in turn will take up the matter for suitable action under PPV&FR Act with the approval of competent authority.

6.5 Dispute Prevention and Settlement

6.5.1 In each ICAR institution, the ITMU/ZTMC will address the following matters to avoid/settle any dispute/possible dispute.

1. Critically examine the ownership issues pertaining to the initial varieties, breeding materials, germplasm, landraces, farmer varieties, genes, events, processes used in the development of a variety/hybrid/ transgenic variety. For this purpose the concerned PIs/ breeders/scientists⁵⁴ shall maintain in their breeding programmes an inventory of genetic resources/stocks and other IP assets belonging to the institution/others.
 2. Monitor unauthorized use of a protected variety and initiating necessary action, if needed, with the outside legal help or assistance from ZTMC/IP&TM Unit/AgIn.
 3. Highlight the performance limits and ranges of performance of the protected varieties in specific situations/conditions/environments, particularly for DUS parameters. Concerned PIs/breeders/scientists shall build up and provide the necessary information.
 4. Consider and discharge any liability as may be determined under the PPV&FR Act by the PPV&FR Authority or the Appellate Tribunal, or any court of law.
- 6.5.2 Mediation, reconciliation or arbitration, as appropriate, will be used as mode of dispute settlement. The arbitrator will be appointed by the Director General, ICAR.

6.6 Farmers' Rights

All matters related to farmers' rights arising in the protection of plant varieties by ICAR will be taken up/resolved as per the provisions of the PPV&FR Act.

6.7 IP Monitoring, Watch and Litigations

- 6.7.1 A mechanism of IP monitoring and watch will be developed. The IP&TM Unit/AgIn may assist the ITMU/ZTMC and wholly or partially outsource the task of IP watch.
- 6.7.2 In the event of suspected infringement of a protected ICAR variety, the concerned institution(s) will take initial action at their own, or in consultation with the ZTMC/IP&TM Unit/AgIn.
- 6.7.3 All cases of litigations where ICAR is required to defend will be taken up by the concerned institutions that have protected/maintained the IP under the disputed case. Institutions will, if required, seek assistance of IP&TM Unit/AgIn in the engagement of legal experts. In all cases the institutions will notify and keep the ICAR headquarters informed of any such dispute.
- 6.7.4 In all cases of litigation where major stakes of ICAR are involved, IP&TM Unit/AgIn will take up the matter with the assistance of empanelled experts or other competent experts on need basis.

⁵⁴ Scientists moving away from the institution on transfer or retirement shall hand over the inventory and the materials to the Head of the Division under intimation to the ITMU/ZTMC. They shall also inform in writing their contribution in the ongoing breeding programme where a direct contribution has been made by them and a prospective variety is likely to be produced in near future.

Chapter-7

PROCEDURES FOR MANAGEMENT OF OTHER FORMS OF IP

7.1 Introduction

This chapter describes procedures for securing IPRs in forms other than patents and plant variety protection. Specific procedures with respect to copyright, trade marks, geographical indications, industrial design, and others are highlighted in parts A to E.

Part - A

7.2 Copyright Protection

7.2.1 Copyright protection will be sought in ICAR under the Copyright Act/copyright law.

7.2.2 **Recognition of Copyright.** Irrespective of whether the copyright has been registered under the copyright law or not, it subsists in any original literary work, including scientific publications, popular articles, and other published material; computer programme/ software database; audio/ video and multimedia products, websites, material on a CD-ROM, etc., of ICAR as well as individual works of all its scientists/innovators and other staff. Nevertheless, registration of copyright work under the Copyright Act will be its prima facie proof.

1. Copyright also subsists in translations, abridgements or compilations of other works. All these are also considered to be literary works.
2. The author of a translation, abridgement or compilation of copyright works will have separate copyright in his translated, abridged or compiled work provided that the consent of the original copyright holder had been obtained.
3. Right for adapting or performing the copyright work also subsists in the adaptation or performance, which is called "Related Right".
4. A breach of copyright would occur if the written description or any of its substantial part has been copied by someone without the permission of the author/institution.

7.2.3 **Expression of Copyright.** Ownership of copyright on a publication or any other copyright work as explained above may be expressed by merely putting the symbol "©". It is more appropriate to use the word copyright along with its symbol "©", the year of publication and the name of the author⁵⁵.

1. Expression of copyright may also be made by using such statements on body of the work

⁵⁵ For example, mention "Copyright © 2004, Indian Council of Agricultural Research (ICAR)" on a work so intended. Sometimes, the title of the work may also be given. In such cases, it is normally placed at the beginning of the copyright notice, for example, "Handbook of Agriculture. Copyright © 2006, Indian Council of Agricultural Research (ICAR)"

as “All Rights Reserved”, “Permission granted to reproduce for academic use only”, “For reproduction of this document or any part thereof permission of Indian Council of Agricultural Research (ICAR), New Delhi must be obtained”, etc.

2. In the cases of works which are updated from time to time, for example a web site or a database, the year of publication may be shown as a period from first publication until the most recent update, e.g. 2001-2006, or the date of first publication and that of the last update may be clearly expressed.
3. In case the copyright work can be broken up into several parts or pieces, then the copyright notice should appear on its each part.
4. The following specific examples are given to cite the expression of copyright notice on any one of the mentioned copyright works:
 - i. On a book, only one copyright notice will be printed inside the title page as per customary practice.
 - ii. On leaflets, brochures, hand outs, etc. one copyright notice will be printed on each item.
 - iii. On web pages, copyright notice will be printed on every page.
 - iv. On CDs and cassettes, one copyright notice will be printed on each CD and cassette and also on any accompanying sleeve or booklet.
 - v. On photographs and designs, a copyright notice will be printed at the bottom or on the reverse of the photograph or the design work as appropriate.
 - vi. On manuscripts like invited lectures or keynote addresses, a single copyright notice on the front will be normally sufficient.
5. It will be important to put date/year along with copyright notice. In cases of any ownership dispute or disputes for novelty (originality) of a work, the display of date may be a determining factor in establishing the claim.

7.2.4 **Ownership and Claim of Copyright:** ICAR/institutions or its scientists/staff will hold the copyright as per the following illustrations:

1. ICAR will own copyright over its regular publications and registered copyright works.
2. In cases of commissioned work, in the absence of any agreement to the contrary, the ICAR and/or the sponsoring agency/organization will jointly own the copyright.
3. ICAR scientists/innovators/other staff can claim their individual copyright, whether registered or not, over their creations/work published by them as per rules⁵⁶.

7.2.5 **Copyright Registration.** Any copyright registration shall be taken up as per the provisions of the Copyright Act. ICAR institutions and Scientist/staff may submit application on Form IV (including Statement of Particulars and Statement of Further Particulars) as prescribed in the

first schedule to the rules and accompanied by requisite fee prescribed in the second schedule to the rule. Separate applications should be made for application of each work. Online applications can be made by visiting the website of the copyright office at www.copyright.gov.in. Alternatively, application may be sent by speed/registered post to the copyright office in the prescribed format. Further details of the procedure for filing of application, amount of fees to be paid for various purposes, and also forms to be filled for application and other copyright matters can be referred to the website of copyright office, Government of India. .

- 7.2.6 **Enforcement of ICAR's Copyrights.** A system of monitoring and watch will be evolved in ICAR with internal capabilities as well as outsourcing for legal experts to enforce its copyright cases as appropriate. The enforcement will include both economic right and moral right of ICAR over its works under the copyright law.
- 7.2.7 **Using Other Party's Copyright Work in ICAR.** Scientists/institutions using a copyright material will obtain permission of the owner(s) before using that work or its substantial part in their own work. Petty use of a copyright work is allowed without permission but it is better to acknowledge such use in the ICAR publications.

7.3 Copyright in Digital Multi Media Products including Software, Databases & CD-ROMS

7.3.1 **Provisions of the Copyright Act.** The following provisions may be of relevance/interest:

1. It is illegal to make or distribute copies of copyrighted software⁵⁷ without proper or specific authorization. Back-up copy purely as a temporary protection against loss, distribution or damage to the original copy is allowed as an exception.
2. Sale or hiring, or any offer for sale or hiring of any copy of the computer program without specific authorization of the copyright holder is prohibited.
3. A civil and criminal action may be instituted for injunction, actual damages (including infringer's profits) or statutory damages for infringement, etc. The Copyright Act (section 63 B) has provision of awarding heavy punishment as fine and/or jail for the copyright infringers.

If there is a major revision then separate copyright may be registered for their new version.

⁵⁷ *Free software:* Broadly, free software is free to use and copy, free to distribute with or without modifications, free to distribute with or without fee, but Source Code must be available. Free software may be mainly categorized into two types, based on the type of redistribution licence (permissions) that accompanies the free software:

*Copylefted*⁷ free software: Redistributions, with or without modifications, must also be free. (*A copyleft licence tries to give you more things you can do. A copyright licence tries to say more about things you cannot do. Typically copyrights take away freedoms; copyleft preserves them.)

Non-copylefted free software: Redistribution, with or without modifications, with permission to add additional restrictions (e.g. A software company can compile the programme, with or without modifications, and distribute the executable file as a proprietary software product)

Public domain software is a special case of non-copylefted free software, which means that some copies or modified versions may not be free.

Freeware: This type of software is commonly used for packages, which permit redistribution but not modification. No Source Code is available, and these packages are not free software.

Shareware: Shareware is a software, which comes with permission for people to redistribute copies, but says that anyone who continues to use a copy is required to pay a licence fee.

Non-free: It involves the licensee to use the software, which has to be paid for. The source code is not given away.

7.3.2 **Securing Copyright on Digital Multi Media Products** . Digital technologies have become principle tools for creating and storing information today for speed and easy access. In the digitized world multimedia content development has become very important. All ICAR software/databases/CD-ROMs//DVDs/video/audio/multimedia products/or source codes shall carry a copyright notice. ITMUs in consultation with ZTMCs will decide whether to formally register a specific copyright with Copyright Office or not. If yes, further necessary action will be taken by the concerned ITMU as per the copyright law.

1. In case the soft copyright products are developed in collaboration with other organizations on mutually agreed terms, the concerned ICAR institutions will take appropriate authorization/assurance from the collaborators in the agreement with them that the material is not subject to any confidentiality agreement and does not infringe any copyright. In these agreements, collaborator should also indemnify ICAR in the event of any such infringements.
2. The ICAR scientists/other staff responsible for contributing to such products shall also themselves not violate any confidentiality obligations or copyright provisions.
3. It may be declared by concerned ICAR institutions with the recommendations of ITMC and approval of competent authority in each of its copyright software or self contained programme making use of programmes (like VB, .Net, JSP, etc.) and databases (in EXCEL, ACCESS, Oracle, SQL, etc.) as to the intended form in which it may be used depending on its public/academic utility or commercial use. If any copyrighted/proprietary software/programme/material of any third party has been used for development of the product, then exclusion of those copyrighted material must clearly be mentioned in the copyright application form. The part of the product for which copyright protection is sought should also be clearly spelt out.
4. All websites/web pages of ICAR maintained by its headquarters/institutions will have the copyright link in the ICAR Home Page <<http://www.icar.org.in>>. Full copyright statement will be pinned at the Home Page. The website will contain a notice that ICAR/institution has the copyright on all materials generated in ICAR/at the institute. Web Masters will ensure proper authorization and indemnity from the copyright owner of the outside material which appears on the website of ICAR/institutions.
5. For any ICAR technology product/software/database access and distribution on Digital Media, CD-ROMs, these CD-ROMs shall be copyrighted with a note that it shall be used for non-commercial purposes only; proper citation will be required and modification shall be prohibited. Permission to make digital or hard copies of part or all of the work for personal or classroom use will be granted without fee and without a formal request, provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page.
6. Mostly multimedia content developed would be computer based interactive communication processes that may include a combination of text, software, graphics, pictures, images,

drawings, audio, animation, videos, etc., generally embedded in web pages using various web browsers that support the multimedia formats. Thus, Copyright in multimedia would involve compilation of different other copyrighted work, that may be original, pre-existing or commissioned. Under the Copyright Act, 1957 different elements of multimedia work can be protected as copyright of various owners under section 14. Copyright protection in a multimedia shall subsist for different terms, depending on different categories of works which has been used in its compilation. Although the original work in a multimedia will be protected in the name of different owners/authors in separate category, the author of the multimedia work has to take permission to use a previously copyrighted work.

7. While the digital environment makes access, use, duplication or modification of the original work much easier, it also enables widespread cost effective distribution of the original works, posing serious threats to the interest of the creator. These threats are too different from those encountered earlier in the physical publications and many techniques have been developed to make digital works difficult to copy, distribute and/or access without necessary permission. For academic and non-commercial use one may refer ICAR data use license https://krishi.icar.gov.in/PDF/ICAR_Data_Use_Licence.pdf. Indian Copyright Act has also been amended to counter the threats posed by the technological developments. These techniques are covered under the head of Digital Rights Management (DRM)⁵⁸.

Part - B

7.4 ICAR Trade Mark

- 7.4.1 Registration of Trade Marks (TM) will be sought under the Trade Marks Act.
- 7.4.2 ICAR will use a Trade Mark as its goodwill sign vis-à-vis IPR, for commercialization/marketing of ICAR products/ technologies. This will have a two-fold advantage. First, with the use of trade mark by ICAR and its licensees, marketing of the ICAR technology can be secured from unfair competition/trade practices through free ride. Secondly, by insisting upon use of its Trade Mark by licensees, ICAR will also emphasize on the product quality control of its technologies/seeds/propagules.
- 7.4.3 ICAR emblem is well established and in use for a long time. It may be registered as its Collective Mark under section 63 of the Trade Marks Act. The application may be accompanied by regulations governing the use of the collective mark, including the persons (institutions) authorized to use the mark, conditions for its use and any sanctions against its misuse.
- 7.4.4 ICAR institutions may further register other marks already used by them in good faith for long time, for example 'PUSA' by Indian Agricultural Research Institute or 'Arka' by Indian Institute of Horticultural Research. Such marks may be used as their respective trade marks along with the collective mark of ICAR. Institutions will also lay down condition before the licensees of ICAR technologies to essentially use the registered mark of ICAR/institution on

⁵⁸ Copyright Amendment Act, 2012 incorporated certain DRM provisions (Section 65A and 65B comprise the DRM provisions, the former dealing with protection against circumvention of technological measures and the latter with protection of rights management information).

the packing of its licensed seeds/products.

- 7.4.5 ICAR may also suitably evolve its trade marks regime over the time. It may explore registration of its trade marks as a series (section 15) or as associated trade marks (section 16) as provided in the Trade Marks Act.

Part - C

7.5 Geographical Indications of Agricultural Goods

- 7.5.1 The GI Act governs the protection of agricultural goods indicated to specific geographical territories/regions. Geographical indications, as a distinct form of IP are not related to ownership/usership interest to ICAR but can be of broader relevance.
- 7.5.2 Like trade mark, GI is a form of IPR used in product marketing, represented in words, figures, graphics, diagrammatic presentations or any specific combination of these indications, but it essentially governs a collective rather than individual right that represents a specific link between goods (whether agricultural, natural or manufactured goods) and place of their production.
- 7.5.3 GI is an indication that the good which is being commercialized under that indication has originated from a definite geographical territory either as agricultural produce (e.g. Nagpur orange) or natural produce such as from mining (e.g. Mussourie Rock Phosphate) or by manufacturing (production or processing or preparation e.g. *Banarasi saree*, Kannauj perfume or some specific local brews of tribal areas or *Agre ka petha*) and it has a special quality or reputation or other characteristics attributable to that origin.
- 7.5.4 GI is the collective intellectual property of the entire community or society or organisation of the geographical region to which the good belongs. However, only the registered users can independently exploit the GI for commercial purposes. Therefore, appropriate promotion of GI registrations of important agricultural goods of specific territories will depend on both collective initiative of concerned potential beneficiaries and the government policy in notification of specific zones for particular goods.
- 7.5.5 GI as collective intellectual property of the community is not in the ICAR's IPR domain. The GI Act provides for the facilitator role by some other relevant bodies in the registration and protection of GIs. ICAR will not encroach upon their area domain. However, assistance and advice will be tendered when required in the technical assessment of the scientific grounds and market realities of certain agricultural GIs of specific national or regional interests.
- 7.5.6 The TRIPS Agreement has special protection of GI of certain categories like wines and spirits whereas the developing countries seek greater recognition for their agricultural and handicraft goods of interest in global trade. ICAR will appropriately assist Government of India for building the technical grounds in the negotiations favouring inclusion of GIs of agricultural goods of interest to India/developing countries in the special protection category in the world trade order.

Part - D

7.6 Registration and Use of Designs in ICAR

- 7.6.1 ICAR may seek Design protection for technologies involving considerations of shape (like shape of moldboard plough), configuration (like hitched implements, mounted implements) and pattern (like straight type harrow or triangular hoe) under the Designs Act.
- 7.6.2 A design covers only features of shape, configuration, pattern, ornamentation or composition of lines or colors applied or applicable to an article by any industrial process. The features of the design in the complete article should appeal to and are judged solely by the eye. Thus, design protection is primarily of an aesthetic nature (showcase value) and it does not protect any technical or functional features of the article to which it is applied.
- 7.6.3 Any new farm machine or any process equipment in prototype stage can also be registered as design if considered suitable. Its further refinements shall be updated for the same design.
- 7.6.4 In order to be eligible for registration, a design must be new or original and not previously published in India or elsewhere before the date of application for registration. The word 'new or original' involves the idea of novelty either in the pattern, shape or ornament itself or in the way in which an old pattern, shape or ornament is to be applied to some special subject matter. Original in relation to a design, means originating from the author of such design, and includes the cases which though old in themselves are yet new in their application.
- 7.6.5 Design can also be protected in certain cases under the copyright law. For example, under section 13 (5) of the Copyright Act, design of a work of architecture (but not its method of construction) can be protected as copyright. Agricultural structures can be covered in this category.

Part - E

7.7 Other Forms of IP

For addressing any specific matters related to IP in any other form than those described in Part A to Part D, the ITMU/ZTMC will take case-specific decisions, and proceed as per the delegation of powers to ICAR institutions and the relevant IPR law, if appropriate. In case any further guidance, assistance, clarification etc., is required, they will consult the ZTMC or ICAR Headquarter on a case-to-case basis.

7.8 Monitoring and IP Watch

The ITMU/ZTMC/IP&TM Unit/AgIn will evolve a system of IP monitoring and watch as per the guidelines. Whereas initial/preventive action may be taken at the level of institutions, litigation for IPR infringement cases, if required, will be initiated after necessary approval of the competent authority.

TECHNOLOGY TRANSFER: COMMERCIALIZATION OF IP/TECHNOLOGIES

8.1 Introduction

This chapter describes the procedures for technology transfer through commercialization.

8.2 Procedures for Technology Transfer/Commercialization

- 8.2.1 **Central Database of Technologies.** A central database of all technologies will be maintained at the AgIn with facilitation from IP&TM Unit. The concerned institutions/zonal institutes will make entries of all new cases in their respective datasets as soon as the process of technology and variety identification is switched on by institutes. The concerned ITMU/ZTMC shall communicate a data set to the AgIn for linking with the central database keeping IP&TM Unit in the loop. They shall also update the status of IPR protection/maintenance in the data set from time to time. The entire database shall be suitably inter-linked through intranet at the earliest.
- 8.2.2 **Transfer of Technologies.** Notwithstanding the fact that only a small proportion of protected IP generally meets with commercial success world-wide, the AgIn in association with ZTMCs/ITMUs will make efforts for technology commercialization with the primary objective of technology transfer to end-users. Depending upon factors such as the nature of technology, public need or marketing prospects, scale of technology etc. a decision will be taken by the competent authority whether the technology will be placed in the public domain through open access, or it will be transferred to end-users through commercialization.
- 8.2.3 **Registration of Commercial Entities.** The ITMUs/ZTMCs/AgIn shall develop a system of registering industry/enterprises/cooperatives for technology transfer/ commercialization of ICAR technologies.
1. Registration of area/discipline/zone-wise potential licensees from industry/enterprises/cooperatives will be undertaken by inviting applications through advertisement.
 2. The registered entities will be informed of the technologies available from time to time for transfer through commercialization.
 3. A nominal registration fee may be charged and the registration renewed annually.
- 8.2.4 **Disclosure of ICAR Technologies.** Concerned ITMU will disclose⁵⁹ the salient features of

⁵⁹ See Annexure 5; suggestive only

technology ready for commercialization. The technology disclosure for commercialization will be made in a confidential agreement. The ITMUs shall supply the catalogue/information to AgIn in the prescribed Technology Disclosure⁶⁰ form giving its details/specification and potential benefits.. The duly completed form shall be submitted by concerned innovator to ITMU which would seek approval of competent authority for nominating the Technology to AgIn. The terms and conditions in the technology disclosure form shall be used as basis for preparation of standard terms.

8.2.5 **Commercializing Technologies.** Commercialization will be undertaken by AgIn in association with the concerned ITMU/ZTMU as per the procedure laid down.

8.2.5.1 *Techno – Commercial assessment.* After receiving the Technology Disclosure Form from concerned institute, AgIn shall constitute a techno-commercial assessment committee. The committee shall comprise:

1. Director of the concerned Institute or their nominee
2. Co-opt a technical expert from SMD, if required
3. Special Invitee: Inventor of the technology
4. ITMU/ZTMC-in charge
5. Commercial Expert
6. CEO, CFO & BM AgIn
7. Others as nominated by AgIn

The senior most member of the committee shall chair the meeting. Meeting can be convened over skype/video conferencing or any other communication medium which is most efficient and effective for the purposes.

The above committee shall determine the technical feasibility, commercial viability and handholding requirement of the technology. The committee shall also recommend mode of commercialization of technology. In cases where the technology has limited commercial potential, region specific relevance, requires higher level of technical handholding or any such similar requirement for transfer, the committee may recommend its commercialization by the concerned ITMU/ZTMC. However, the procedure as laid down by these guidelines will have to be followed and AgIn should be informed of any progress of commercialization.

8.2.5.2 *Technology evaluation and Standard Terms.* The expert committee constituted by AgIn shall evaluate⁶¹ and value⁶² the technology/knowhow/process for its operation, economic, legal and environmental feasibility to develop the standard terms⁶³ in consultation with concerned institute.

In case of new technology for domestic commercialization, to evaluate and value the

60 See Annexure 6; suggestive only

61 Annexure 7 evaluation proforma

62 As mentioned in the section 8.3 cost and pricing of technology

63 Annexure 8 standard terms tentatively

technology, an expert committee shall comprise of

1. Director of the concerned Institute or their nominee
2. Co-opt a technical expert from SMD, if required
3. Special Invitee: Inventor of the technology
4. ITMU/ZTMC-in-charge
5. Commercial Expert
6. CEO, CFO & BM AgIn
7. Others as nominated by AgIn

In case of all the International commercialization, the committee members shall be as follows:

1. Director of the concerned Institute or their nominee
2. ADG (IP&TM) or his nominee
3. Co-opt a technical expert from SMD, if required
4. Special Invitee: Inventor of the technology
5. ITMU/ZTMC-in-charge
6. Commercial Expert
7. CEO, CFO & BM AgIn
8. Others as nominated by AgIn

The senior most member of the committee shall chair the meeting. Meeting can be conveyed over skype/video conferencing or any other communication medium which is most efficient and effective for the purposes.

8.2.6 ***Business Development Activities and Prospecting Clients.*** AgIn shall carry out the Business Development activities to reach the potential clients in the following ways,

- a) Web based public announcement/ Newspaper advertisement (Mandatory)
- b) Carry out Business Presentations to interested clients in respective domains.
- c) Mass mail marketing
- d) Participating in industry specific seminars/meets/melas/exhibition
- e) Organizing industry meets with concerned institutes
- f) Others

AgIn/ITMU's/ZTMC's may follow any of the above approaches to prospect the clients through business development activities. However, AgIn shall go by the recommendations of the techno commercial assessment committee regarding the mode of commercialization of the technology.

8.2.7 **Expression of Willingness.** Interested clients shall express their willingness to license the technology to AgIn. In case willingness is received by ITMU/ZTMC the same shall be duly forwarded to AgIn. On receipt of the willingness, AgIn shall take the process to next level as per the guidelines. The expression of willingness shall also contain how the client proposes to produce and market the products using the technology.

8.2.8 **Due Diligence of Clients.** AgIn/ITMU/ ZTMC shall obtain a brief proposal from the client on how the client propose to commercialize the technology. AgIn/ITMU/ ZTMC shall constitute a committee comprising.

- Innovator of the technology
- Concerned Business Manager, AgIn
- Other experts as per requirement

The committee shall:

- Decide the broad technical capabilities, financial capabilities, marketing acumen and other parameters to select the client.
- Examine the proposal from client on the broad pre-defined terms to decide on “go” or “no-go” to next stage.

Starts-ups shall be encouraged to apply with certain flexibility in their proposal.

Meeting can be conveyed over skype/video conferencing or any other communication medium which is most efficient and effective for the purposes.

8.2.9 **Testing/validation of Products by Clients.** The clients selected as above may be allowed to carry out due diligence of technology/products for validation of claims made by concerned institute. In case the client is interested in getting a sample of the material/product for carrying out testing/validation/others, then the Client shall sign a Material Transfer Agreement with concerned institute along with Confidentiality and Non-Disclosure Agreement. The Client may visit the concerned laboratory/facility with prior approval of competent authority of the institute. However, it is the discretion of innovator to decide the extent of the information to be discussed/disclosed. In case the client shows disinterest, AgIn shall proceed further to prospect other clients.

8.3 Cost and Pricing of Technology

8.3.1 Broadly, the worth⁶⁴ of a technology will be derived from the likely benefits that may accrue to its end-users. The worth can be best determined on the judgment of technical experts, producers of technology and business managers. There is no standard method or formula for assessing the worth of a technology. Costs and pricing of technology may be determined on a case-to-case basis.

64 To determine/assess the worth of ICAR technology or any know-how or in fixing its price, the following factors may also be worth a consideration, (i) expected adoption level and expected benefits accruing to the end-users, (ii) cost associated with scaling up and commercial product development, (iii) alternative competing sources (national and international), (iv) impact of technology on innovation market, (iv) end-users and socio-economic impacts of IP, etc.

- 8.3.2 As no standard formulae are available or can be provided for all ICAR technologies and situations, the licence fee and/or royalty may be fixed taking into account the considerations of “what the market can bear”, cost factors and public interest issues, if any. The decision of the AgIn, based on holistic assessment and judgement will be final.
- 8.3.3 The life of a technology in the market will vary and so will its popularity and sales. The recurring royalties will be mainly based on these factors. Therefore, the modes of payment (licence fee and/or royalty) will be on mutually agreed terms with the licensee, and flexible/determined on a case-to-case basis rather than rigid. The terms of commercialization may also be revised over time.
- 8.3.4 **Technology Valuation.** The Techno – Commercial assessment committee and /or committee for developing standard terms will determine the licence fee and royalty and/or sale price of its IPR enabled technologies either on a fixed basis, through negotiations with the licensee, or through an open bidding process as appropriate. Expert opinion and judgment viewpoint together with the following points will be considered in determining the price/licence fee.
1. Cost of IPR protection and maintenance.
 2. Cost of production and handling.
 3. Other institutional costs as appropriate.

The committee may follow any one or combination of following methods for valuation of the technology:

- *Market Approach:* It measures the present value of technology based on the selling price of similar product/technology in the market.
- *Cost Approach:* The cost approach is based on covering costs of developing a new technology.
 - a) The anticipated future costs of developing similar technologies using the proceeds from the sale of this technology to pay for developing the next one.

Cost plus pricing method may be used to determine the price of raw materials and services.

- *Income Approach:* This approach focuses on estimating the value of the intellectual property/technology based on the income-producing capability of the technology.

With any of the above approaches as a foundation, the license fee range for the technology/product/services shall be estimated by the committee. In addition to the concerned institute AgIn may involve other ICAR ITMU/ZTMC or outside experts in the process as and when required.

8.4 Licensing of IP

8.4.1 Licences will be case-specific non-exclusive or exclusive licences. Appropriate joint commercialization agreements would also be entered into.

8.4.1.1 *Terms of Trade.* Upon the receipt of expression of willingness, AgIn/ITMU/ZTMC shall

constitute a committee which shall discuss with client within the parameters set in standard terms. The committee comprises

- Director of the ICAR Institute/ or their nominee
- CEO, AgIn
- CFO, AgIn
- BM, AgIn

The proceedings of the committee (i.e. terms of trade) shall be comprehensive enough to cover all the agreed terms and conditions for the transactions. The term of trade shall include a short outline of the key terms focusing on the business terms in plain, non-legal language. The terms of trade, along with other terms, shall include:

- a) Roles of stakeholders
- b) Licence fee and payment schedule
- c) Royalty and payment schedule
- d) Timelines for commercialization
- e) Duration of license and its renewal
- f) Training, handholding and its cost

The proceeding shall also serve the basis for preparation of draft MoU. The terms of trade shall be signed by all the parties.

8.4.1.2 *Draft Agreement Preparation and Legal Vetting.* The draft agreement shall be prepared on the basis of term of trade⁶⁵. The draft agreement shall be communicated with the concerned institute and the client for their consent. On receipt of their consent, AgIn shall arrange for legal vetting of draft agreement. Legal vetting of agreement shall be entrusted with to any empaneled lawyer/ law firm.

8.4.1.3 *Signing of Agreement.* The agreement shall be signed in presence of all concerned parties through their respective authorized signatories. The transaction shall be presented before the AgIn board for taking note.

8.4.1.4 *Handholding Support by Concerned Institute.* Technology shall be transferred and handholding support shall be provided by the concerned institute as per terms and conditions of the Licensing agreement. AgIn shall facilitate and coordinate in the matter.

8.4.1.5 *Acknowledgement of completion of technology transfer.* AgIn/ITMU/ZTMC shall form a committee to review the post signing of agreement. The committee shall comprise

- a. ITMU Incharge
- b. Concerned BM AgIn

⁶⁵ The agreements or MoU with clients will be executed on behalf of ICAR by the institute and not by individual(s).

c. Others (External experts)

An acknowledgement shall be taken by AgIn/ITMU/ZTMC regarding completion of the process of transfer of technology, material transfer (if any), the required handholding support etc., The acknowledgement shall be signed by all stakeholders.

- 8.4.2 Normally, non-exclusive licences will be executed for technologies such as inputs (e.g. bio-pesticides or bio-fertilizers) so that these can lead to their wider adoption and thereby maximize research benefits to farmers and other end users. For non-exclusive licences there will be flexibility in fixing the licence fee.
- 8.4.3 When a technology is licensed through an open tendering/bidding process it will normally be given to one licensee. But depending upon the licensee's manufacturing capacity and size of business, other interested parties from outside the territory of his business/interest may also be considered if the technology has to be rapidly and widely disseminated. Alternately, a sub-licensing clause will be incorporated, which may require the licensee to share a part of the licence fee and/or royalty from any sub-licences that he may enter into with that technology.
- 8.4.4 Exclusive licence will also be issued when (i) an ICAR technology is to be commercialized in countries abroad, and (ii) the technology is to be disseminated in difficult areas offering low incentives. As exclusive licences are preferential, commensurate licence fee and/or royalty will be negotiated and settled on mutually agreed terms with the licensee.
- 8.4.5 The duration for which ICAR will issue licences will also be negotiated with the licensee and settled on mutually agreed terms.
- 8.4.6 The AgIn will empanel professional consultants and agencies having the necessary experience and proven track record at the national and zonal levels as Licence Managers for licensing the ICAR technologies. Their services will be utilized as and when required by AgIn/ZTMC/ITMU.
- 8.4.7 Joint commercialization of ICAR technologies will be undertaken on mutually agreed terms with another commercial enterprise when a close scientific supervision of scaling up or product development is required or in any other appropriate situation.
- 8.4.8 The framework for licensing will be developed/refined/evolved by AgIn. In evolving the process, AgIn may also support studies for developing indicative models/case studies for valuation⁶⁶, costing and pricing of ICAR technologies of different fields. Suitable models/case studies can be published as reference material.

8.5 Implementation of Licences

Transfer of technology by AgIn and payments by the licensees will be in accordance with the terms and conditions, including the time limits recorded in the licensing contracts/agreements. If required, the concerned scientists/innovators will demonstrate the technology on lab scale to the licensee under a confidentiality agreement⁶⁷.

⁶⁶ Valuation of IPR enabled technologies will contribute to the determination of overall assets of ICAR.

⁶⁷ See Annexure 1; indicative

8.6 Use of ICAR knowledge/IP by Foreign Clients

In cases of use of ICAR knowledge base by foreign clients for research and/or commercial purposes, all issues relating to contracting, target domain, pricing, payment and ownership of intellectual property will be pre-determined in a Memorandum of Agreement (MOA) signed by AgIn/ICAR and the foreign client. The terms and conditions, and limitations of the Agreement with prospective foreign client will be set/negotiated by AgIn through IP&TM Unit at ICAR headquarters. Wherever required Technology Managers/ Licence Managers or IP Consultants may be engaged. Approval of the competent authority in the ICAR shall be essential to proceed for any agreement with foreign clients for commercialization. Nevertheless, all international commercialization/transfer of knowledge shall be managed by AgIn as per the procedure mentioned above.

8.7 Monitoring and IP & Market Watch

A mechanism of monitoring the licensing/commercialization activities in ICAR will be developed by AgIn. This mechanism will include IP and market watch with a view to safeguard ICAR interests and to bring further refinement in their approach to commercialization.

8.8 Socio-Economic Impact

The IP&TM Unit /AgIn will arrange/ assign case-specific studies to assess socio-economic impact of the commercialized ICAR technologies and any other know-how.

8.9 Time-frame for commercialisation of ICAR technologies

8.9.1. The standard operating framework as applied from 8.1 to 8.8 above has several sequential activities. The time-frame for various activities as per the standard operating frame-work is given below:

S.No.	Details	Timeline
1	Submission of Technology and Disclosure Form and Costing Sheet to Agrinnovate	Zero
2	Clarifications regarding TDF and costing sheet of technologies	1 Month
3	Techno-Commercial Assessment Committee Meeting	1 Month
4	Standard Terms Committee Meeting	
5	Approval of Minutes	
6	Uploading of Standard Terms	2 Days
7	Advertisement and Business Development	1 Week
8	Expression of Willingness	21 Days
9	Due Diligence of the Client	1 Month
10	Terms of Trade Preparation	
11	Approval of Terms of Trade	
12	Draft Legal Agreement and Vetting	
13	Signing of Agreement	

- 8.9.2. Following steps 2 to 4, the AgIn with the help of its technical commercial assessment committee, shall take the following decisions:
- i. Whether the technology is technically and commercially viable for commercialization
 - ii. Mode of commercialization
 - iii. Valuation
 - iv. Standard terms for offering terms of commercialization
 - v. Decision regarding whether the commercialization will be carried out by the AgIn or by the institute itself.
- 8.9.3. Once the AgIn takes a decision to commercialize the technology itself, the rest of the steps shall be followed by AgIn for commercialization of technology. In case a decision has been taken that the technology shall be commercialized by the concerned ICAR institute, the institute shall follow the remaining steps. Whenever they feel that technical expertise is required from AgIn, same may be solicited.
- 8.9.4. In case no party comes forward expressing willingness for commercialization or in case a party has expressed willingness but does not complete all the required formalities and drops out from the process, the technology can be again posed in the next cycle.

Chapter-9

TECHNOLOGY TRANSFER: COMMERCIALIZATION OF PLANT VARIETIES

9.1 Introduction

This chapter describes the procedures for improving access to plant varieties by end users. Based on national priorities and issues of food and nutritional security, ICAR may decide to place a plant variety solely in the public domain or else it may be licensed for commercial use on exclusive or non-exclusive basis. However, registration and protection of all protectable varieties will be ensured under the PPV&FR Act before placing them in public or commercial domain.

9.2 Commercialization of Plant Varieties

- 9.2.1 **General Considerations.** For commercialization of plant varieties broadly the general guidelines for technology transfer/commercialization of ICAR technologies described in Chapter 8 may be followed.
- 9.2.2 **Specific Considerations.** ICAR will make the specific considerations⁶⁸ in the commercialization of its plant varieties as they can have direct impact on issues of food and nutritional security and farm incomes.
- 9.2.3 **Other Considerations.** All the registered varieties will be transferred for cultivation and use through open access or commercialization. No plant variety will be transferred/commercialized before its registration and protection under the PPV&FR Act.
1. ICAR may consider any appropriate proposal for the grant of exclusive licence to a private seed company or public seed agency for commercialization of its protected plant variety abroad. All such varieties of ICAR which have commercialization potential abroad, shall be assigned to AgIn and licensed under suitable arrangements/agreement keeping in view the interest of Indian farmers and national priorities.
 2. Advance breeding material or parental lines shall not be transferred/licensed on exclusive basis. These will first be registered with NBPGR before any material transfer/licensing agreement is to be negotiated/entered into.

⁶⁸ ICAR plant varieties will be commercialized in a manner that their quality seed is available to farmers of respective areas of varietal adaptability through local/regional multiplication and sales. To achieve this, ICAR will grant non-exclusive licences to all interested licensees from private, public or non governmental sectors or the farmers' cooperative that may have capabilities for quality seed production and distribution/sale. The commercialization approach will be compatible with the PVP&FR Act/Seeds Act/Biological Diversity Act. It will be made obligatory on the part of all licensees that they use the variety denomination registered by ICAR under the PVP&FR Act. They will also be obliged to maintain the seed quality/purity; and use ICAR collective mark/trademark on seed packets/bags. To this effect, these points will be expressly mentioned in the licensing contracts. The licensees, subject to their fulfilling the above terms and conditions of licence, will also be free to use their own trademark/trade name for the seed/propagule of the ICAR plant varieties commercialized by them.

3. Normally, commercialization of an ICAR variety will be done by AgIn with the help of same institution/zonal institute that has secured the PVP title. However, where more than one ICAR institutions are involved/interested in the commercialization of the same variety, or where they are given this specific responsibility in public interest by the ICAR, these institutions the sharing arrangements shall suitably be mutually settled before commercialization by AgIn.
4. ICAR institutions will obtain assistance/advice of AgIn, if needed, particularly for any legal opinion or market information.
5. The parametric values of all successful licences will be recorded in the institutional/ zonal/ central databases.
6. AgIn will evolve a suitable mechanism for quick disposal of plant variety licensing cases at different levels in ICAR.

9.3 Licensing of Seed and Planting Material

9.3.1 **Licensing.** As the ICAR technologies like seed and planting/propagating material have direct impact on the productivity and production in agriculture, their transfer on priority through licensing to various seed producers and distributors shall be facilitated.

9.3.2 **Non-Exclusive Licences.** ICAR will provide commercial licences, preferably non-exclusive licences, for the commercialization of seed/planting material of registered and protected ICAR varieties⁶⁹ to any interested party such as the following.

1. Central and State Departments of Agriculture on national/state basis for wide dissemination, popularization and public distribution of seeds/propagules for development and cooperation.
2. Public Seed Agencies – Central and State Seed Corporations for multiplication and distribution widely.
3. Private/Cooperative seed producers on regional basis for encouraging local multiplication and promoting use of specific varieties.
4. Other contracting parties including foreign clients in seed business who may be interested in commercializing ICAR seed/propagules in other countries. The terms and conditions of the licence will include, among other things, securing protection of ICAR varieties in the respective countries by the foreign client.

9.3.3 **Exclusive Licences.** Exclusive licences⁷⁰ may be given after negotiations and on mutually agreed terms as indicated in Chapter 8. In the licence agreement for an exclusive licence, a sub-licensing clause will be negotiated/incorporated so that a part of the licence fee and/or royalty from sub-licences given by the licensee is provided to ICAR. Also, negotiation will be undertaken for a time-line for re-negotiation of the licence, if needed, which will be recorded in the agreement.

9.3.4 **Compulsory Denomination.** The ICAR seed and planting/propagating material shall be

⁶⁹ This includes registered parental lines of hybrids.

⁷⁰ Exclusive licenses for commercialization of ICAR varieties in difficult areas or in foreign countries will be considered on priority.

licensed under only the registered denomination. The licensee will be required to print the same denomination on the label and to sell the seed/planting material essentially under that denomination. Subsequently, it shall also not be changed by the licensee or by any third party with whom the licensee deals with in that seed.

- 9.3.5 **Use of ICAR Mark.** Along with the use of registered denomination, all licence holders shall be required to use ICAR's Collective Mark/Trade Mark on all packets of seed/propagules of the licensed seed. In this context if the licensee is interested to simultaneously use its own trade name in the licensed seed, the same can also be agreed to.
- 9.3.6 **Seed Quality Assurance.** ICAR would provide breeder seed and will lay down the condition before the licensee to maintain the seed quality and purity. However, it will not be held responsible for the quality of subsequent lots produced and sold by the licensee. Thus, the agreement with the licensee shall also have the following clauses:
1. Assurance clause that the licensee will maintain the seed quality and genetic purity of the plant variety licensed by ICAR.
 2. Disclaimer clause that ICAR will not be held responsible for the seed quality/purity of the subsequent lots commercialized by the licensee.
 3. Indemnity clause that the licensee indemnifies the licensor ICAR from any legal consequences of his deals in subsequent lots of licensed seed/propagules .
- 9.3.7 **Joint Ownership Cases.** Varieties for which ICAR has joint ownership with SAUs or others, the joint owner will be given the first priority to use the variety for commercial purposes on mutually agreed terms. In the absence of any such request for a reasonable time period (6 months from grant of PVP title on the variety), the ICAR institution may award a non-exclusive licence to any other contracting party including in the territory of business interest of the joint owner for dissemination of seed to the farmers of that area.

9.4 Breeder Seed

- 9.4.1 Depending upon the terms and conditions of the licence agreement breeder seed will be supplied by concerned institutions only once or recurrently. Subsequent agreement may also be made with the licensee for making fresh supply of breeder seed.
- 9.4.2 ICAR shall maintain seed purity and health of all their released/registered varieties. Concerned ICAR institution(s) and breeder(s) will maintain and supply the breeder seed of respective registered and protected plant varieties as per licence agreements.
- 9.4.3 Breeder seed will be provided to the licensees under the terms and conditions that the licensee (seed agency/company producing commercial seed of ICAR varieties) will be responsible and liable for maintaining genetic purity of the seed/propagule and seed quality during the entire term of licence and the licensor will not bear any liability for spurious seed.
1. ICAR shall have the right to monitor seed genetic purity of the licensee's seed lots at the cost of the licensee, which will be recorded in the licensing contract.
 2. ICAR may provide consultancies on request to the licensees for technical opinion/assistance/ advice to maintain the genetic purity and seed quality of seed/other propagules.

- 9.4.4 It will be clearly mentioned in the licensing contract as to whether the breeder seed will be given to the licensee on one time basis or on annual basis or on recurrent basis with defined periodicity. The quantity of breeder seed⁷¹ to be given in each case/situation will also be mentioned.
- 9.4.5 A clause will be included in the licence agreement to the effect that no plant variety licence will be valid unless the licensee agrees to produce and distribute/sell quality seed in the respective zone mentioned in the licence agreement on a regular basis “in sufficient quantities and at a reasonable price”⁷².
- 9.4.6 ICAR will use various ways and means to further provide the breeder seed of its licensed varieties in case of any Compulsory Licensing under the PVP law.
- 9.4.7 Breeder seed of jointly owned plant varieties will be produced, maintained and supplied as per mutually agreed terms between ICAR and the other co-owners of the variety.

9.5 Licence Fee/Sale Price of Breeder Seed and Royalty

- 9.5.1 The Committee constituted by AgIn as given in chapter 8 will determine the licence fee and royalty and/or sale price of breeder seed either on a fixed basis, through negotiations with the licensee, or through an open bidding process as appropriate. Expert opinion and judgment together with the following points will be considered to fix the price/licence fee.
1. Cost of seeking and maintaining the plant variety right of the variety to be licensed.
 2. Cost of production, handling and supply of breeder seed.
 3. Other institutional costs as appropriate.
- 9.5.2 The ITMU/ ZTMC in consultation with AgIn may determine the licence fee and/or sale price of the breeder seed at the institute level.
- 9.5.3 For evolving the system of licensing of plant varieties, IP&TM Unit/ZTMC/AgIn with the help of crop-specific institutions and outside experts, will develop and disseminate model agreements/case studies of different sizes and dimensions for reference purposes.

9.6 Research Exemption and Benefit Sharing

- 9.6.1 There will be exemption for research use of all registered and protected plant varieties and registered genetic stocks of ICAR as per the extant national laws/rules/guidelines.
- 9.6.2 Within ICAR, all institutions shall register their elite parental genetic stocks at NBPGR. They will transfer all plant genetic material under MTA through the Bureau; and also deposit a referral seed sample along with passport data set at the National Gene Bank as a pre-requisite.
- 9.6.3 ICAR will not impose any royalty payment for such breeding material maintained by private seed companies without registration and protection under the PPV&FR Act as is developed/

⁷¹ The usual indent based method of breeder seed supply through Seed Division, Department of Agriculture and Cooperation (DAC) may have to be reviewed and made compatible with the system of licensing. The information on the supply of breeder seed in terms of quantities supplied, the licensees to whom supplied, and the places where supplied will be recorded in the institutional/zonal/central database. Another set of such information will also be given to DAC/PPV&FR Authority for statistical records.

⁷² Sufficient quantities and reasonable price conditions may be subjective only, which will be subject to any relevant public interest notification by GOI from time to time.

derived from genetic stocks of ICAR institutions. However, it would be expected that the concerned seed company shares the commercial benefits accrued using these breeding materials⁷³.

- 9.6.4 Condition of any royalty payment will also not be imposed for materials used in All India Coordinated Research Projects/ Network Projects by SAUs and other partners with whom ICAR has standing MOUs. Rather, such cases will be addressed/settled on mutually agreed terms.
- 9.6.5 In accordance with the provisions of the PPV&FR Act, ICAR may charge a royalty on seed sale of a protected variety which is developed by another agency/ company/ breeder by using its genetic material, which will be recurrently required for the commercial production of the protected variety.
- 9.6.6 ICAR will consider/discharge any liability of benefit sharing that may be fixed by the PPV&FR Authority under section 26(5) of the Act. Concerned ITMU/ZTMC shall verify the relevant facts and make a detailed case to IP&TM Unit/AgIn for the consideration/ approval of the competent authority.

9.7 Records and Confidential Information

- 9.7.1 Standard records of genetic stocks at the institution along with confidential records (codes) where applicable shall be maintained in signed and countersigned notebooks/ registers. Suitable data sets will also be documented in the institutional/zonal/central database.
- 9.7.2 All confidential information, such as codes, etc., will be kept safely and would not be revealed by individuals/institutions except through confidentiality agreements⁷⁴ which will expressly mention the purpose for sharing such information and other terms and conditions.

9.8 Infringements

Concerned breeders/other ICAR scientists will report all matters of infringement/suspected infringement of plant variety rights in their knowledge to the respective ITMU/ZTMC/IP&TM Unit/AgIn as appropriate. Concerned ITMU/ZTMC will handle the cases reported to them or other apprehended cases either on their own or with the assistance of AgIn. Further legal action, if required will be taken with the approval of competent authority.

9.9 Monitoring and IP/Market Watch

The commercialization of plant variety portfolio will be monitored by AgIn. The relevant developments/matters of concern, etc. will be critically observed and addressed.

9.10 Socio-Economic Impact

AgIn/IP&TM Unit will plan/organize/assign suitable impact assessment studies on socio-economic impact of the commercialized plant varieties/hybrids of ICAR in different crops and regions of the country.

⁷³ The terms of MTA signed at the time of supply of germplasm/genetic stocks will include benefit sharing from the commercial use of the material or its derivatives.

⁷⁴ See Annexure 1; indicative

PUBLIC-PRIVATE PARTNERSHIP

10.1 Introduction

This chapter describes the mechanisms and manner of transferring ICAR technologies and other know-how to end users through commercialization.

10.2 Scope and Areas of Partnership

The partnership between ICAR and “for-profit”⁷⁵ and “not-for-profit”⁷⁶ private sector organizations will be in all fields of agricultural technology on mutually agreed terms. The scope of public-private partnership will broadly include the following.

1. Dissemination of agricultural technologies.
2. Joint validation of technologies.
3. Up-gradation/incubation/up-scaling for product development/transfer of technologies.
4. Mechanization of production technologies.
5. Cost-effective quality production.
6. Joint exploration of local and global markets for requisite demand
7. Test marketing of new products and market development.
8. Facilitating access to foreign technology
9. Training, consultancies, collaborations, contracts, education etc., in mutually identified areas.
10. Industry Meet which may be further evolved region-wise/sector-wise/ discipline-wise.
11. Identification of other relevant areas of partnership⁷⁷.

10.3 Mechanisms of Partnership

10.3.1 **Partnership on Mutually Agreed Terms.** The partnerships for collaborative activities related to training, consultancy, contract research and contract service shall be processed as per the ICAR Rules and Guidelines for Professional Service Functions, 2014. In case of partnership for collaborations with private entities for commercial purposes, services of AgIn may be

⁷⁵ E.g. the commercial entities.

⁷⁶ E.g. cooperatives, voluntary organizations, NGOs, foundations, trusts, etc.

⁷⁷ E.g. representations on each other's Boards of Management, Scientist Entrepreneurship, etc.

availed⁷⁸. ICAR/ institutions will transfer/ accord access to its technologies and develop collaborations with private sector in the following manner:

1. Identification of areas of partnership.
2. Selection of the clients in transparent manner⁷⁹.
3. Negotiating and entering into relevant agreements with potential partners/ collaborators.
4. Clearly defining the terms and conditions and limitations, if any, and other relevant points of mutual concern in the respective agreements, such as the following:
 - i. Time-lines for each activity/area of cooperation/collaboration for each party.
 - ii. Provision for mid term review, if any.
 - iii. Disclaimers.
 - iv. Indemnity.
 - v. Dispute prevention and settlement (Mediation, Reconciliation and Arbitration).
 - vi. Cost of management of the Agreement/Contract, etc.
5. Executing the partnership deals with the application of relevant tools like material transfer agreement⁸⁰, confidentiality agreement⁸¹, JIPMP⁸², licence agreement/contract, etc., at appropriate steps.

10.3.2 ***IP Ownership and Licensing Rights***. In all agreements with private sector, ICAR will negotiate to arrive at the mutually agreed terms in respect of IP ownership and licensing rights broadly in the following manner.

1. ICAR may not claim any IPR over the protectable IP generated in any validation of technology of the private sector.
2. ICAR will claim IPR over the protectable research results generated from sponsored research where the sponsor has not given any scientific/technical input and no mutually agreed terms are on record. ICAR will also hold the right to licence the IP thus generated.
3. ICAR will give its private partners priority opportunity to seek preferential licence if they so desire. However, a time limit (6 months) will be fixed to wait for any concrete proposal or response from that partner. The time period will be extended for some more time (3 months), if needed, to allow the partner to complete some formalities. Otherwise, the technology may be transferred through other contenders so that it reaches farmers/end users without much delay.
4. Other related/relevant points of mutual agreement, such as, sharing of other benefits, other relevant concerns, etc., if any, will also be negotiated and the mutually agreed terms

78 Refer clause 1.1.13 of ICAR Rules and Guidelines for Professional Service Functions

79 Refer to Procedures for Technology Transfer/Commercialization (clause 8.2 of chapter 8 of these guideline)

80 See Annexure 2; indicative

81 See Annexure 1; indicative

82 See Annexure 4; indicative

incorporated in the agreements/contracts/deeds.

- 10.3.3 **Access to be in Conformity with National Laws.** ICAR/institutions will provide access to the private sector to its technologies for transfer to farmers/end users through commercial route, only in conformity with the provisions of the relevant national Acts like the Biological Diversity Act⁸³, the PPV&FR Act⁸⁴, etc.
- 10.3.4 **Transparency in Providing Access.** ICAR will maintain transparency in providing access to its technologies to the private sector under mutually agreed terms. The relevant agreements will also address the sharing of other benefits, continued IP protection in case of incremental research, obligation to label and maintain quality, warranties and disclaimers, indemnity, and other specific issues/concerns.
- 10.3.5 **Sharing Core Research Facilities.** ICAR will consider specific requests by the private R&D establishments in the country for sharing with them its core research facilities. The facilities will be shared only when these are separable. ICAR will charge rent for the use of its facilities/equipment, which may be fixed on the basis of institutional and overhead considerations and cost of the facilities. ICAR may also consider requests from private sector e.g. trusts for donating/creating/maintaining some core research facilities at the ICAR institutions. In such case, a preferential sharing of these facilities with the donors/private funding agencies will be done as per the terms and conditions of the MOU signed with them. In such cases of contract research/service the ICAR Guidelines for Professional Service Functions, 2014 shall prevail.
- 10.3.6 **Consultancy.** ICAR will allow its scientists/concerned staff to accept consultancy assignment in the private sector in their respective areas of expertise. Such permission will be granted in accordance with the prevailing ICAR Guidelines for Professional Service Functions, 2014.
- 10.3.7 **ICAR Students as Interns in Private Sector.** Post graduate students at deemed universities and institutions of ICAR may undertake internships in various areas of specialization in the private sector.
- 10.3.8 **Student Interns in ICAR.** ICAR institutions will permit students from universities/ law institutes/agribusiness schools to intern with them on a case-to-case basis. Students may avail internships of 2 to 3 months during semester breaks. Prior requests should be made with the recommendation of their university/institute/college. Students would be given a certificate for assisting in the ongoing ICAR projects.
- 10.3.9 **Scholar Entrepreneurs.** Any Ph.D. scholars from a deemed university/institution of ICAR may contribute to the development of an ICAR technology, which has potential for commercialization. There may be few instances where the scholar is interested to venture on that IP but his/her degree work is not finished yet. In such cases, ICAR will suitably consider any request from them to proceed under leave from study.

⁸³ See Chapter II of the Biodiversity Act on 'Regulation of Access to Biological Diversity'.

⁸⁴ In case any plant variety/essentially derived variety has been developed, registered and commercialized by a private entity, which has used an ICAR variety as a patent/initial variety, then the said private entity will be obliged to share a part of the commercial benefit accrued with ICAR under the provisions of the PPV&FR Act.

10.3.10 **Deputation of ICAR Scientists/Innovators to Industry.** ICAR will consider deputing its scientists/innovators to the industry/enterprise for up-scaling or refining its technologies that have been licensed to the particular industry/enterprise. This may be done under a tripartite Agreement on mutually agreed terms between ICAR, the concerned enterprise, and the scientist/innovator.

10.3.11 **Scientist/Innovator Entrepreneurship.** Some ICAR scientists/innovators who have generated an IP in ICAR on which IPR has been already secured, may be interested in a commercial venture with these technologies. Keeping in view that commercial product development, validation and/or quality control of bench-scale technologies may require expert input, the participation of scientist/innovator could enhance the scope of transfer of that technology. Therefore, ICAR may grant case-specific permission for the entrepreneurship. The individual cases will be processed in the following manner.

1. The scientist/innovator shall proceed for the entrepreneurship on Extra Ordinary Leave (EOL) along with a non-exclusive license of the ICAR technology developed by him/her.
2. A maximum of 3 years EOL will be permitted on the analogy of CSIR Scheme vis-à-vis the Ministry of Finance (Department of Expenditure) Office Memorandum No. 11(1)-E. II(B)/69 Dated 25th June 1970. No Earned Leave or Half Pay Commuted leave will be prefixed/suffixed. The period of EOL will not be count towards annual increments or any mandatory period required for promotion.
3. ICAR will not provide any financial assistance for the setting up of the enterprise.
4. It is essential that the scientist has a financial stake in the enterprise and will not be a mere employee. However, he/she may draw the salary as an employee of the enterprise also.
5. During the period of EOL pension/employer's share of contribution as applicable, is to be paid to ICAR by the scientist/innovator as payable under the provisions of fundamental rules by Government Servant sent on deputation on foreign service.
6. The applicant will sign an affidavit accepting the following conditions:
 - i. The period of leave shall be used for commercialization of the technology under reference.
 - ii. If appropriate, ICAR may license the same technology to other interested licensees as well.
 - iii. The scientist/innovator may use ICAR's core shared facilities subject to availability and by making payment of rentals⁸⁵ as may be fixed by ICAR. The decision of ICAR to allow use of particular core shared facilities/equipment and rentals thereof will be final and binding on the scientist.
 - iv. The scientist/innovator shall furnish a half-yearly progress report during the leave period and a final report on the commercial status/progress of the technology at the end of the leave period to ICAR irrespective of whether he/she decides to quit or rejoin ICAR.

⁸⁵ Cost-plus rentals may be charged by ICAR as per existing guidelines ICAR Rules and Guidelines for Professional Service Functions (Training, Consultancy, Contract Research and Contract Service).

7. The scientist/entrepreneur will be entitled to avail the medical facilities provided he/she continues to make payment of the subscription as applicable.
 8. Except for charging a nominal license fee for the non-exclusive license and rentals for using core shared facilities, if applicable, ICAR will not claim any ownership and licensing right in any new IP generated nor a share from commercial proceeds in the entrepreneurship.
 9. The scientist entrepreneur will keep a liaison with the concerned ICAR institution/IP&TM Unit in the leave period and comply with the requirements of the affidavit furnished.
 10. At the end of the leave period, the scientist/innovator may either resign from his/her job in ICAR so as to further pursue the enterprise or rejoin ICAR or his/her lien will be terminated. However, he/she must furnish final report on the status of the technology/commercialization.
 11. At any time prior to the completion of EOL period, the scientist/entrepreneur may rejoin ICAR by giving a 3 months prior notice and submitting a detailed debriefing report within one month of his/her rejoining, giving details of experiences, difficulties faced, if any, success and failures, reasons for rejoining, etc.
- 10.3.12 **ICAR Scientists as Board Members in Private R&D Entities.** ICAR will consider specific requests from private sector/industry and may allow its scientists to be on the Board of Directors of private R&D entities. Such arrangement will be made with due approval of the competent authority in ICAR headquarters. A tripartite confidentiality agreement among ICAR, the private R&D entity and the scientist concerned will also be entered into.

10.4 Empanelment, Outsourcing and Engagement of Consultants

- 10.4.1 **Empanelment.** The AgIn will prepare a panel of experts/entities for various kinds of need-based consultation and counsel. Procedures for empanelment will be decided by the AgIn. The panel prepared by AgIn will also be used by the IP&TM Unit, ZTMCs and the ITMUs whenever required.
- 10.4.2 **Outsourcing.** Work relating to a professional nature, for which adequate expertise is not available in the ICAR may be suitably outsourced by the IP&TM Unit, ZTMCs and ITMUs.
- 10.4.3 **Engagement of Consultants.** The IP&TM Unit will engage consultants as and when necessary or required for assistance to ICAR in various specific matters concerning the IP management and technology transfer/commercialization. The terms and conditions of their engagement and remuneration will be decided by IP&TM Unit as per the procedure at ICAR headquarters.

Chapter-11

INCENTIVES AND BENEFIT SHARING

11.1 Introduction

To provide greater impetus for research and innovation ICAR will share with its scientists/innovators monetary benefits from transfer/commercialization of the ICAR technologies. ICAR will also reward and confer awards upon its scientists and other staff. This chapter describes the procedure for incentives and benefit sharing⁸⁶.

11.2 Awards

ICAR has a system of recognizing the achievements of its meritorious scientists through annual conferment of awards. It will review and expand the scope of its awards and institute new awards, including monetary rewards, so that (i) innovation is stimulated (ii) basic science frontiers are furthered, and (iii) research in neglected crops and underprivileged areas is encouraged.

11.3 Benefit Sharing

- 11.3.1 **Monetary and Non-Monetary Benefits.** ICAR will realize monetary and non-monetary share of benefits from the licensee(s) of its technologies in the following ways, subject to the licence agreement, (i) upfront lump sum payment, (ii) upfront payment plus royalty on actual sale, (iii) royalty on actual sale, (iv) in-licensing/cross licensing of tools of technology generation in frontier areas, (v) research capacity building, (vi) research chair, (vii) research fellowship, etc.
- 11.3.2 **Scientists and Staff.** ICAR will share the income resulting from commercialization of an IP with individual(s) responsible for the innovation. The amount to be distributed/ shared will be the accruals after deduction of statutory applicable taxes and the amount retained by ICAR for augmenting IP management. The payment will be treated as bonus income of the individual and shall be taxable under the Income Tax Act⁸⁷.
- 11.3.3 **ICAR Institutions.** ICAR will share part of the net revenue/benefit money resulting from commercialization with the concerned institution(s).
- 11.3.4 **ICAR headquarters.** ICAR will retain part of the income resulting from commercialization at the headquarters. It will provide these funds to the AgIn as per the agreed terms and conditions for improved management of IP and technology commercialization.

⁸⁶ At present there is no related legislation in the country. ICAR will harmonize/evolve its guidelines as and when any such national legislation emerges in due course.

⁸⁷ These will be in harmony with ICAR Rules & Guidelines for Professional Service Functions (Training, Consultancy, Contract Research and Contract Service), 2014 particularly Chapter 1- Policy Framework

11.3.5 **Staff Welfare.** A share of the monetary benefit will be earmarked for staff welfare and will be placed with the Staff Welfare Fund of ICAR headquarters and concerned institutions⁸⁸.

11.4 Sharing of Net Revenue

11.4.1 The net revenue available for sharing between various stakeholders will be determined as follows.

Stakeholder category	Commercialization through Agrinnovate India Limited	Commercialization directly by ICAR Institute(s)*
Revenue net of Taxes	A	A
ICAR headquarters	10% of A	15% of A
Agrinnovate India Limited	20% of A	--
ICAR Institute	25% of A	40% of A
Innovator & Team	40% of A	40% of A
ICAR Institute (Staff welfare)	2.5% of A	2.5% of A
ICAR headquarters (Staff welfare)	2.5% of A	2.5% of A

**There may be cases, where the technologies developed would have only regional/limited commercialization potential, the same may be referred back by Techno-commercial assessment committee to the institute for commercialization through ITMU/ZTMC as per the standard operating procedure outlined in these guidelines.*

11.4.2 The amount equivalent of 10 per cent and 20 percent of the net revenue will be retained by the ICAR and AgIn respectively, in case of commercialization through AgIn; and 15 per cent by ICAR headquarters in case of commercialization directly by ICAR institute(s). The revenue retained by ICAR will be used in addition to budgetary support towards cost of seeking patent/IPR protection, including the cost of outsourcing for expert assistance, if any, cost of filing, etc., cost of maintenance of patent/IPR; cost of licensing; overhead costs; taxes, other than service tax; reimbursements as may be necessary or required by law, and other costs, if any.

11.4.3 **Apportionment of Scientists' Shares.** The 40 per cent share of the net revenue will be shared among the concerned scientist(s) and other team members based on mutual agreement. In case of any disagreement, the decision of the ITMC will be final. The monetary benefits accrued by the individual scientist/innovator/staff through these guidelines or through the professional service activities will be accounted for in each financial year as the total benefit sharing income of the concerned individual scientist/innovator/staff. The distribution of the share shall be governed by the procedure as laid out in the ICAR Rules & Guidelines for Professional Service Functions, 2014 chapter policy framework.

⁸⁸ Staff Welfare Fund will be used for various on and off campus welfare measures including the amenities in office/labs that would help improve the over all work culture.

- 11.4.4 **Tax Payable by Individuals.** The benefit money received by an ICAR scientist or other team/ staff member will be governed by Income Tax Rules and the disbursing institutions will deduct Income Tax at source as per the prevailing rates.
- 11.4.5 **Institution(s) Share of Revenue .** The amount accrued by ICAR institutions will be governed by the provisions as given in the ICAR Rules & Guidelines for Professional Service Functions, 2014 chapter policy framework.
- 11.4.6 **Apportionment of ICAR Share.** The IP&TM Unit with the approval of Secretary DARE and Director General ICAR at the headquarters will decide regarding further utilization of the benefit money earmarked for ICAR headquarters.
- 11.4.7 **Sharing Between/Among the Institutions.** The IPR/commercialization money will be shared between/among the institutions on mutually agreed terms. In case of any difficulty, mediation by the concerned ZITMC will be done. If differences persist, the proposal shall be duly considered by the concerned SMD and forwarded to IP&TM Unit for approval of Secretary DARE and Director General ICAR whose decision will be final and binding.
- 11.4.8 **Sharing Between Institution and Scientists.** The revenue between the institution and scientists will be shared as follows:
1. **Copyright.** Revenue generated through sale of a copyright publication (e.g., book) published outside ICAR will go entirely to the author(s). Among the authors, the share may be divided based on mutually agreed terms among the authors.
 2. **Consultancy and Contract Services.** Revenue sharing will be as per the existing ICAR Rules and Guidelines for Professional Service Functions, 2014, which may be amended from time to time as appropriate⁸⁹.

89 Training, Consultancy, Contract Research and Contract Service in ICAR: Rules and Guidelines for Professional Service Functions, 2014.

HUMAN RESOURCE DEVELOPMENT

12.1 Introduction

To harness the benefits of the IPR regime, ICAR will place highest priority on building institutional capacities and upgrading competence and skills so that an IPR compatible research environment is created/fostered which is also sensitive and responsive to the ethos of commercialization of agriculture. This chapter describes the strengthening of capacity building and human resource development in management of IP and the ICAR technologies.

12.2 Developing Competence

12.2.1 Capacity building of all cadres of the ICAR will be undertaken to equip them with the knowledge for effective management of IP and commercialization of IPR enabled technologies. Training and skill upgradation programmes will be organized for those engaged in the generation of IP (researchers) as well as for those who provide assistance/support in technical, administrative, financial, and personnel matters⁹⁰.

12.2.2 A multi-pronged approach will be followed for the sensitization and developing competence for IPR management and transfer/commercialization of technologies. This will include (i) awareness generation, (ii) training for IP management, (iii) IP education, and (iv) special skill development.

12.3 Awareness Generation

Programmes and packages will be developed for creating awareness of IP related issues and commercialization of technologies among all ICAR scientists; research managers, administrative, personnel and finance officers, and technical staff.

12.4 IP Related Training

12.4.1 Short sensitization meetings/seminars/workshops on various aspects of IP management and technology transfer/commercialization will be organized for senior officers of ICAR.

12.4.2 **Trainers' Training.** Training of trainers and faculty in various legal, technical, managerial aspects of IP will be conducted to enable core competence/capacity building in IP management

90 Capacity Building Programme in synergy with ICAR HRM Policy: Training and Capacity Building

and technology transfer/commercialization. Centres of excellence will be developed at NAARM and identified zonal institutes. Curricula will be developed covering topics on IP protection/maintenance in India and abroad, IP/technology licensing, patent watch, market intelligence, on-line dialogue, special skills like negotiation, arbitration, etc.

12.4.3 **Foundation Level and Advance Training.** NAARM will reorient its foundation level and higher level training programmes (refresher courses) with a specific component on IP management and technology commercialization for fresh entrants and senior scientific staff. The IPR trained staff from various ICAR institutions will, in turn, contribute towards training of the remaining staff at the respective institutions.

12.4.4 **Training in India.** It will be organized by IP&TM Unit/ZTMC and other centres of excellence. Sponsored trainees will be invited from various ICAR institutions from different categories of staff in different programmes/batches. ICAR institutions will also provide opportunity to its scientific staff to get IPR exposure/orientation training in the country, which may be organized by other organizations such as Management Institutions, Law Schools, Universities, etc.

12.4.5 The following country-wide training courses may be organized at various levels in ICAR:

1. *Short term training courses:* About 2-3 weeks duration courses including hands on experience, may be organized at all ICAR institutions.
2. *Summer and Winter Schools.* Summer and winter schools may be organized for academic, scientific, technical, and administrative staff in the area of IPR and commercialization of technologies in agriculture and allied sectors in order to enhance over all competence.
3. *Long term training courses.* 3-4 months training courses leading to diploma/certificate may be organized at the zonal centres of excellence.
4. *Special training programmes* may be conducted in areas such as patents, protection of plant varieties and farmers' rights, other forms of IPR, with special emphasis on agricultural research and education. Training on regulatory Acts, such as, Seeds Act, Environment (Protection) Act, and Biological Diversity Act may also constitute an important part of the special training programmes. IP&TM Unit may facilitate/support such programmes with the approval of competent authority. Funding by other agencies may be accepted in such collaborative programmes.
5. *International training:* ICAR may organize short to medium duration skill upgrading courses at the zonal centres of excellence. Trainees may be invited from SAARC, ASEAN, Middle East, Africa, and other developing countries. Common sources of funding may be tapped to promote this activity.

6. *Regional priority setting and capacity building workshops* may be organized at NASC by IP&TM Unit/ICAR/DARE from time to time with the approval of competent authority.

12.4.6 **Overseas Training.** ICAR will nominate and support its scientists, senior officers, research managers and others as and when it is considered necessary for obtaining expertise on IPR issues overseas in centres of excellence.

12.5 IPR in Agricultural Education

Post-graduate teaching in IPR and technology management/commercialization in various disciplines of agricultural science will be conducted at the deemed universities of ICAR.

1. One course on IP and technology management in agricultural research and education at the post-graduate level will be included in the curriculum. It will cover skill development for greater participation in agri-business activities by turn-outs; encourage entrepreneurship; and equip the agricultural graduates to become job creators rather than job seekers.
2. ICAR/institutions will publish text books, and compendia on IPR protection and technology transfer in their mandate crop/commodity/areas for use as reference books for teaching in IPR.
3. The ICAR institutions will develop a network of e-libraries to support on-line data search and literature for latest information and data on IPR in the national and global contexts.

12.6 Special Skills in IP Management

Upgradation of special skills will be undertaken towards developing prompt two-way communication between the IP&TM Unit/ZTMC and other ICAR institutions/ scientists for addressing the situations/issues arising from IP/technology management both nationally and globally on a regular basis.

1. Training will be provided to staff by expert professionals in law, commerce and business to upgrade their skills in IP and technology management, including negotiation and arbitration skills.
2. Capacity building will be undertaken for an improved understanding of the industry and market environment through techno-economic market surveys, inventorization of transferable/ marketable technologies, and exploration of marketing channels for products and services.

12.7 HRD Budget

ICAR will make adequate allocation for training/HRD/capacity building in areas relevant to IP management and commercialization of technologies. However, part of the monetary

benefits realized from commercialization of ICAR technologies may also be reinvested in human resource development.

12.8 Research on IP Management

Research project(s) may be initiated by ICAR at its headquarters, institutes and deemed universities to build upon techno-legal aspects of IPR management in agricultural research.

12.9 Monitoring

IP&TM Unit will develop a system of monitoring the planning and implementation of various capacity building programmes on IP management and technology transfer/commercialization and also review the status of implementation of these programmes.



ANNEXURES



CONFIDENTIALITY AGREEMENTS

(There is no set formula or a 'one-size-fits-all' situation for Confidentiality Agreements¹. Such agreements may be entered into in various shapes and sizes, from the short and simple to the long and legalistic. For example, a simple undertaking duly signed by all concerned members may be sufficient for internal use of a Committee. On the other hand, the confidentiality agreement for transfer of IP/know-how has to be elaborate. The following example illustrates the types of clauses that may be incorporated in these agreements. Nevertheless, it is merely an example and one may have to consider the particular circumstances in which any confidentiality agreement is to be reached.)

CONFIDENTIAL DISCLOSURE AGREEMENT

Signed on [Date]

Between

[ICAR/institution name and address] as the First Party

And

[Organization/Company name and address] as the Second Party

1. On the understanding that both parties are interested in meeting to consider possible collaboration in developments arising from [ICAR]'s intellectual property it is agreed that all information, whether oral, written or otherwise, that is supplied in the course or as a result of the said meeting shall be treated as confidential by the receiving (Second) party.
2. The receiving (Second) party undertakes not to use the information for any purpose, other than for the purpose of considering the said collaboration, without obtaining the written agreement of the disclosing (First) party.
3. This Agreement applies to both technical information and know-how communicated by either party.
4. This Agreement does not apply to any information in the public domain. [If appropriate, the relevant public domain information can be listed as annexure to this agreement].

¹ The one-size-does-not-fit-all situation holds true for all type of agreements and, therefore, the information provided in various annexures may be suitably adopted for case-specific situations through in-house expertise or outsourcing.

5. Either party to this Agreement shall on request from the other party return any documents or items connected with the disclosure and shall not retain any unauthorized copies or likenesses.
6. By this Agreement, or the communication of information by ICAR [First Party] referred to in paragraph 1, the Second Party is not entitled to any license or right or interest in respect of any Intellectual Property Rights of the disclosing party [ICAR].
7. After [number of] years from the date hereof each party shall review or be relieved of all obligations under this Agreement.

Signatures [Authorized Signatory of ICAR]
For [Indian Council of Agricultural Research]
Dated _____

Signatures [Representative (Authorized Signatory) of the Organization/Company]
For [Name of Organization/Company]
Dated _____

Material Transfer Agreement (MTA) for international bilateral exchange under Collaborative Research Programmes/ Projects and for Research Use within Country with public and private entities

BY FAX/Speed Post

Govt. of India
Ministry of Agriculture & Farmers Welfare
Department of Agricultural Research & Education
Krishi Bhawan, New Delhi-110 001
Fax No.011-23387293/Ph:23388991/93

F.No..4-26/2014-IC. II
Dated 5th September 2017

- (i) Director, ICAR-National Bureau of Plant Genetic Resources (NBPGR), PUSA, New Delhi-110012.
- (ii) Director, ICAR-National Bureau of Animal Genetic Resources (NBAGR), P.B. No. 129,G.T. Road Bye-Pass, Near Basant vihar, Karnal-132001.
- (iii) Director, ICAR-National Bureau of Fish Genetic Resources (NBFGR), Canal Ring Road, near Telibagh, P.O.Dilkusha, Lucknow-226002. U.P.
- (iv) Director, ICAR-National Bureau of Agricultural Insect Resources (NBAIR), P.B. No. 2491, H.A. Farm Post, Hebbal, Bellary Road, Bengaluru-560024, Karnataka.
- (v) Director, ICAR-National Bureau of Agriculturally Important Micro-organisms(NBAIM), Kushmaur, Mau Nath Bhanjan-275103, U.P.
- (vi) Director, ICAR-Indian Agricultural Research Institute (IARI), Pusa-110012, New Delhi.

Subject: Replacement of the existing MTAs by new model standard of MTA1 for international bilateral exchange of plant genetic resources under Collaborative Research Programmes/ Projects and MTA 2 for Research Use within Country exchange with public and private entities approved by MoEF and NBA-reg.

Sir,

I am directed to say that MTA 1 for international bilateral exchange of plant genetic resources under Collaborative Research Programmes/ Projects (Copy enclosed) and MTA2 for Research Use within Country exchange with public and private entities (copy enclosed) will replace the existing MTA as the same is in accordance with the provision of the National Biodiversity Act 2002. A copy of both the MRAs are enclosed with the request that the same may be used/implemented while entertaining the existing requests of exchange of germplasm material which are approved by the Secretary, DARE & DG (ICAR), Ministry of Environment, Forest & Climate Change (MoEF) and National Biodiversity Authority (NBA).

Yours faithfully,

Sd/-

(A.G. Subramanian)

Under Secretary to the Government of India

Encl: As above

Copy to:

1. DDG(CS), Krishi Bhawan, New Delhi
2. DDG(AS), Krishi Bhawan, New Delhi
3. DDG(FS), KAB-II, Pusa, New Delhi
4. DDG(HS), KAB-II, Pusa, New Delhi
5. DDG(Engg.), KAB-II, Pusa, New Delhi
6. DDG(Edn.), KAB-II, Pusa, New Delhi
7. DDG(Agri. Extn.), KAB-I, Pusa, New Delhi
8. DDG(NRM), KAB-II, Pusa, New Delhi

FILE NO. E-04/1/2017-IC-II

Receipt No. : 1347/2017/IC-II SECTION

Material Transfer Agreement for International Bilateral Exchange under Collaborative Research Programmes/ Projects

PREAMBLE

Being signatory to the Convention on Biological Diversity, 1993² (CBD), the Government of India enacted the Biological Diversity Act, 2002³ (BDA) hereinafter referred to as BDA, 2002 and notified the Biological Diversity Rules, 2004. Access to genetic resources from India is now regulated by BDA, 2002. Reiterating the fact that genetic resources (hereinafter referred to as GR) are the essential raw material for all genetic improvement programmes and facilitating their exchange would promote their use in developing better diversity aimed at ensuring food and nutrition security.

The purpose of transfer of GR here in only for research. This MTA shall be executed by Indian council of Agricultural Research (hereinafter referred to as ICAR)/ Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India for transfer of GR covered under International Collaborative Research Programmes/ Projects, as per the provisions of Section 5 of BDA, 2002 and its Guidelines notified by Ministry of Environment, Forest and Climate Change (MoEFCC), S.O.1911 (E)⁴.

MTA agreed between

ICAR, Krishi Bhawan, New Delhi- 110001, a Society registered under the Societies Registration Act (Act XXI of 1860) which shall include its successors or assignees) being the **First Party** (Provider of the Material)

And

2 Convention on Biological Diversity signed at Rio de Janeiro, vide NA92-7807, dated 5th June, 1992 and came into force on 29th December, 1993 (<https://www.cbd.int/>)

3 The Biological Diversity Act, 2002 (18 of 2003)

4 Guidelines for International Collaboration Research Projects involving Transfer or Exchange of Biological Resources or information relating thereto between institutions including Government sponsored Institutions and such Institutions in other countries S.O. 1911 (E) dated 08.11.2006

Being the **Second Party** (Recipient of the Material)

Description of the material (Annexure-X):

I/ We agree to abide by the following terms of the MTA and certify that:

- i. The germplasm material transferred herein as above shall be used only for the purpose of research under my/our close supervision and shall not be used for commercial purposes or for profit making whatsoever. The germplasm material accessed shall not be used for chemical, pharmaceutical and/ or other non-food/ feed and industrial uses.
- ii. All information and material supplied by ICAR shall be made available to the recipient in confidence. The recipient agrees to maintain the confidential status of the material and the information.
- iii. The Recipient shall not claim any intellectual property or other rights on the material provided under this agreement 'in the form received'.
- iv. Access to GR protected by intellectual and other property rights shall be consistent with the extant national laws⁵.
- v. The intellectual property protection or benefit sharing in respect of derivatives of the material(s) received/ accessed, wherever applicable, shall be as per the Biological Diversity Act 2002 and Guidelines on ABS Regulation, 2014⁶.
- vi. Permission from National Biodiversity Authority (NBA) shall be sought through ICAR/DARE, if the accessed germplasm is intended to be transferred to any third party for commercial utilization.
- vii. The recipient also agrees not to claim any intellectual property right over the product derived from the material received, including its related information and knowledge without prior written approval of the NBA, India.
- viii. Commercialization of any product based on this material shall be undertaken with the prior approval of National Biodiversity Authority⁷ (NBA). Such permission shall be sought only through ICAR/DARE, Government of India. For commercialization, a separate Memorandum of Agreement (MoA) shall have to be entered into with conditions of mutually agreed benefit sharing with the owner/ developer of the material as per ICAR⁸/ NBA Guidelines⁵.
- ix. The recipient agrees to acknowledge explicitly the name, original identity and source in all publications brought out from the work carried out on this material.
- x. On completion/ suspension/ termination of the research involving, the material accessed, wherever available shall be conserved by adopting suitable measures including deposition with the supplier.

⁵ Patent Act 2005. the Protection of Plant Varieties and Farmers' Rights Act, 2001

⁶ Guidelines on access to Biological Resources and associated Knowledge and Benefit Sharing, 2014

⁷ National Biodiversity Authority established under sub-section I of section 8, BDA, 2002

⁸ ICAR (2006), ICAR Guidelines for Intellectual Property Management and Technology Transfer/ Commercialization. Indian Council of Agricultural Research, New Delhi

- xi. The MTA is non-assignable and non-transferable.
- xii. Every dispute, difference, or question which may at any time arise between the parties hereto or any person claiming under them, touching or arising out of or in respect of this agreement or the subject matter thereof, shall be amicably settled between the parties. In case the same is not amicably settled, the dispute shall be referred to the Sole Arbitrator to be appointed by the Secretary DARE, Government of India. The decision of the Sole Arbitrator shall be final and binding on the parties. The seat of the Arbitration shall be at New Delhi, India and the proceedings shall be governed by the Arbitration and Conciliation Act, 1996 as amended from time to time and the substantive Indian Law will apply.
- xiii. In case of misuse/ transfer of material by the recipient and use other than intended purpose, as stated under Clause (i) of MTA, the recipient shall be liable for penalties as defined under Section 55 of BDA, 2002.

Agreed and Accepted
(To be signed in duplicate)

RECIPIENT	PROVIDER
Name: Designation: Institution/ Organization:	Name: Designation: Institution/ Organization/:
Full Address with PIN Code:	Full Address with PIN Code:
Phone/ Fax/ E-mail: Signature: Date:	Phone/ Fax/ E-mail: Signature: Date:
Authorized Institutional Official	Authorized Institutional Official
Name: Designation: Institution/ Organization:	Name: Designation: Institution/ Organization:
Full Address with PIN Code:	Full Address with PIN Code:
Phone/ Fax/ E-mail: Signature: Date:	Phone/ Fax/ E-mail: Signature: Date:
Official Seal	Official Seal

DEFINITIONS

In **this Agreement**, the expressions set out below shall have the following meaning:

“**First Party**” means the provider of the material under the MTA

“**Germplasm**” means whole plant, animal, insect, fish, fungi, microbes or in parts, and their propagules including seeds, vegetative parts, tissue cultures, embryo, ova, semen, spawn, colonies, cultures, cell lines, genes and DNA based sequences etc, that are held in a repository or collected from wild as the case may be and are utilized in research, genetic studies or breeding programmes for improvement of relevant agricultural - biodiversity component.

“**Genetic Material**” means any material including reproductive and vegetative propagating material, containing functional units of heredity.

“**Genetic Resources**” means any genetic material of actual or potential value.

“**Product**” means genetic resource that incorporates the material provided under the MTA or any of its genetic parts or components that are ready for commercialization.

“**Second Party**” means the recipient of the material under the MTA

“**Third Party**” means recipient of the material from the Second party

“**To commercialize**” means to sell a Product or Products for monetary benefits in the open market, and “commercialization” has a corresponding meaning.

ACRONYMS

BDA	:	Biological Diversity Act
CBD	:	Convention on Biological Diversity
DARE	:	Department of Agricultural Research and Education
DNA	:	Deoxyribonucleic Acid
ICAR	:	Indian Council of Agricultural Research
IPR	:	Intellectual Property Rights
MTA	:	Material Transfer Agreement

Annexure-X

List and Description of the GR provided under this Material Transfer Agreement

1. Type of the Genetic Resource (plant/ animal/ fish/ microbe/ insect etc.):
2. Common name and Scientific name:
3. Type of propagule (depending on the type of resource) :
4. Number of accessions:
5. Details of the accessions:
6. Quantity required (per accession/ per sample):
7. Purpose (screening/ breeding/ evaluation/ augmentation/ multiplication/ others (please specify).
8. Enclose a copy of duly signed approved collaborative research project:

Recipients Signature..... Date

FILE NO. E-04/1/2017-IC-II

Receipt No.: 1347/2017/IC-II SECTION

**Material Transfer Agreement for Research Use within Country
for Public and Private Entities****PREAMBLE**

Being signatory to the Convention on Biological Diversity, 1993⁹ (CBD), the Government of India enacted the Biological Diversity Act, 2002 (BDA) hereinafter referred to as BDA, 2002 and notified the Biological Diversity Rules, 2004. The access to biological resources of India is now regulated by BDA, 2002.

Whereas, the National Bureaux of Genetic Resources under the aegis of Indian Council of Agricultural Research¹⁰ hereinafter called ICAR have the mandate for collecting, conservation, characterization, evaluation and exchange of genetic resources (GR) in a network mode, the Bureaux encourage the researchers in the country to make use of germplasm for their effective utilization. Reiterating the fact that GR are the essential raw materials for all improvement programmes and, hence, extremely important for food and nutritional security, their exchange and utilization need to be promoted in accordance with national laws and regulations and in compliance with international agreements.

Emphasizing the fact that the purpose of supply of GR under this agreement would be solely for research and no deviation from the proposed objectives is permitted. Access shall be provided for the germplasm available with the National Agricultural Research System (NARS), which is duly designated by concerned institute/National Active Germplasm Sites (NAGS). Such exchange shall be done under the conditions of the following Material Transfer Agreement (MTA). The private entities falling under Section 3 (2) of BDA, 2002¹¹ can access germplasm after signing the MTA, subject to approval of National Biodiversity Authority (NBA)¹².

9 Convention on Biological Diversity signed at Rio de Janeiro, vide NA92-7807, dated 5th June, 1992 and came into force on 29th December, 1993 (<https://www.cbd.int/>)

10 <http://www.icar.org.in/en/node/325>

11 Entities listed at Section 3 (2) of Biological Diversity Act : a person who is not a citizen of India; (b) a citizen of India, who is a non-resident as defined in clause (30) of section 2 of the Income tax Act, 1961; (c) a body corporate, association or organization- (i) not incorporated or registered in India; or (ii) incorporated or registered in India under any law for the time being in force which has any non-Indian participation in its share capital or management.

12 National Biodiversity Authority established under sub-section 1 of section 8, BDA, 2002

MTA agreed between

ICAR, Krishi Bhawan, New Delhi-110001, a Society registered under the Societies Registration Act (Act XXI of 1860) which shall include its successors or assignees) being the First Party (Provider of the Material)

And

.....
Being the Second Party (Recipient of the Material)

Description of the material (Annexure-Y):

I/We agree to abide by the following terms of the MTA and certify that:

- i) The germplasm material and associated knowledge transferred herein as listed in annexure shall be used only for the purpose of research under my/our close supervision and will not be used for commercial purposes or for profit making whatsoever. The germplasm material accessed shall not be used for chemical, pharmaceutical and/ or other non-food/feed, industrial uses.
- ii) All the information and the material supplied by ICAR shall be made available to the recipient in confidence. The recipient agrees to maintain the confidential status of the material and the information.
- iii) The Recipient shall not claim any intellectual property or other rights on the material provided and associated information under this agreement 'in the form received.'
- iv) Access to GR protected by intellectual and other property rights shall be consistent with the extant national laws¹³.
- v) The intellectual property protection or benefit sharing in respect of derivatives of the material(s) received/accessed, wherever applicable, shall be as per the Biological Diversity Act 2002 and Guidelines on ABS Regulations, 2014¹⁴.
- vi) Permission from National Biodiversity Authority (NBA) shall be sought through ICAR/ Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare (MoAFW), Government of India, if the accessed germplasm is intended to be transferred to any third party for commercial utilization
- vii) The recipient shall not claim any intellectual property right over the products derived from the material accessed including its related information and knowledge without prior written approval of the NBA, India.

¹³ Patent Act 2005, The Protection of Plant Varieties and Farmers' Rights Act, 2001

¹⁴ ICAR (2006). ICAR Guidelines for Intellectual Property Management and Technology Transfer/ Commercialization, Indian Council of Agricultural Research, New Delhi.

- viii) Commercialization of any product(s) based on this material shall be undertaken with the prior approval of NBA/ concerned State Biodiversity Boards (SBBs). Such permission shall be sought only through ICAR/DARE. A separate Memorandum of Agreement (MoA) shall have to be entered into with conditions of mutually agreed terms for benefit sharing with the owner/ developer of the material as per ICAR and NBA Guidelines^{15, 16}.
- ix) The recipient agrees to acknowledge explicitly the name, original identity and source in all publications brought out from the work carried out from the accessed material.
- x) The recipient agrees to supply the feedback information on the performance/ utilization/ research outcome of the material to the provider institute depending on crop on a seasonal/ yearly basis.
- xi) The recipient agrees to pay the handling and processing charges for material received/ accessed as decided on case-to-case basis.
- xii) On completion/ suspension/ termination of the research involving, the material accessed, wherever available shall be conserved adopting suitable measures including deposition with the supplier
- xiii) The MTA is non-assignable and non-transferable.
- xiv) Every dispute, difference, or question which may at any time arise between the parties hereto or any person claiming under them, touching or arising out of or in respect of this agreement or the subject matter thereof, shall be amicably settled between the parties. In case the same is not amicably settled, the dispute *shall* be referred to the Sole Arbitrator to be appointed by the Secretary DARE, Government of India. The decision of the Sole Arbitrator shall be final and binding on the parties. The seat of the Arbitration shall be at New Delhi, India and the proceedings shall be governed by the Arbitration and Conciliation Act, 1996 as amended from time to time and the substantive Indian Law will apply.
- xv) In case of misuse/ transfer of material by the recipient and use other than intended purpose, as stated under Clause (i) of MTA, the recipient shall be liable for penalties as defined under Section 55 of BDA, 2002.

15 Guidelines for International Collaboration Research Projects involving Transfer or Exchange of Biological Resources or information relating thereto between institutions including Government sponsored Institutions and such Institutions in other countries S.O.1911 (E) dated 08.11.2006

16 Guidelines on Access to Biological Resources and associated Knowledge and Benefit Sharing, 2014.

Agreed and Accepted
(To be signed in duplicate)

RECIPIENT	PROVIDER
Name : Designation: Institution/ Organization:	Name : Designation: Institution/ Organization:
Full Address with PIN Code:	Full Address with PIN Code:
Phone/ Fax/ E –mail: Signature: Date:	Phone/ Fax/ E –mail: Signature: Date:
Authorized Institutional Official	Authorized Institutional Official
Name : Designation: Institution/ Organization:	Name : Designation: Institution/ Organization:
Full Address with PIN Code:	Full Address with PIN Code:
Phone/ Fax/ E –mail: Signature: Date:	Phone/ Fax/ E –mail: Signature: Date:
Official Seal	Official Seal

DEFINITIONS

In **this Agreement**, the expressions set out below shall have the following meaning:

“Benefit sharing,” means sharing of benefits arising from use of genetic resources.

“Germplasm” means whole plant, animal, insect, fish, fungi, microbes or in parts, and their propagules including seeds, vegetative parts, tissue cultures, embryo, ova, semen, spawn, colonies, cultures, cell lines, genes and DNA based sequences etc, that are held in a repository or collected from wild as the case may be and are utilized in research, genetic studies or breeding programmes for improvement of relevant agricultural – biodiversity component.

“Intellectual Property Rights” refer to inventions, new products, processes derived from use of genetic resources.

“Genetic Resources” means any genetic material of actual or potential value.

“Product” means genetic resource that incorporates the material provided under the MTA or any of its genetic parts or components that are ready for commercialization.

“To commercialize,” means to sell a Product or Products for monetary benefits in the open market, and “commercialization” has a corresponding meaning.

List and Description of the GR provided under this Material Transfer Agreement

1. Type of the Genetic Resource (plant/ animal/ fish/ microbe/ insect etc.):
2. Common name and Scientific name:
3. Type of propagule (depending on the type of resource):
4. Number of accessions:
5. Details of the accessions:
6. Quantity required (per accession/ per sample):
7. Purpose (screening/ breeding/ evaluation/ augmentation/ multiplication/ others (please specify)).
8. Enclose a copy of approval of NBA (if applicable):

Recipient's Signature..... Date.....

ANNEXURE 3

Memorandum of Understanding (MoU) and Memorandum of Agreement (MoA) relating to agricultural research and education with foreign country or its organization, CGIAR Centres and other International Organizations



भारत सरकार
Government of India
 कृषि एवं किसान कल्याण मंत्रालय
Ministry of Agriculture and Farmer's Welfare
 कृषि अनुसंधान एवं शिक्षा विभाग
Department of Agricultural Research & Education
 कृषि भवन, नई दिल्ली-110 001
Krishi Bhawan, New Delhi - 110 001

F.No. 12020/2/2015-DARE(IC CG)

Dated the 30th August, 2016

To

1. All the Chief Secretaries of the State Government;
2. All the Vice-Chancellors of the State Agriculture Universities;
3. All the Deputy Director Generals, ICAR;
4. All Directors/Project Directors/NRSs/Zonal Coordinators, ICAR;

Subject: Signing of Memorandum of Understanding (MoU) and Memorandum of Agreement (MoA) relating to agricultural research and education with foreign country or its organisation, CGIAR Centers and other International Organisations - reg.

This is with reference to Department of Agricultural Research & Education's communication No. 12-7/2011-IC (CG) dated 25.2.11 (copy enclosed) wherein all the Vice-Chancellors of the State Agriculture Universities were requested to obtain approval of this Department before signing an MoUs/MoAs relating to agricultural research and education with foreign countries or its organization.

2. As mentioned in the above said letter, Item No. 10 of the Union List, given in the VII Schedule of the Indian Constitution, provides that foreign affairs, including all matters which bring the Union into relation with another foreign country, is the exclusive jurisdiction of the Central Government. In other words, no State/Organ of the State in India can deal directly with foreign countries or its organizations. Government of India's Allocation of Business Rules, made under Article 77(3) of the Constitution of India, inter alia allocates the following to the Department of Agricultural Research and Education (DARE):

'International cooperation and assistance in the field of agricultural research and education including relations with foreign and international agricultural research and education institutions and organizations.'

3. However, instances have come into notice where some of the States/SAUs and other agencies including NGOs have entered into/signed MoUs/MoAs with Consultative Group on International Agricultural Research (CGIAR) Centers and other foreign agencies/organizations without prior approval of DARE making such agreements ab initio void as these are in violation of the provisions of the Constitution of India as envisaged in ibid letter dated 25.2.11.

Contd.....2/-

-2-

4. It is, therefore, re-iterated that all the proposals relating to signing of Memorandum of Understanding (MoU)/Memorandum of Agreement (MoA) by States/SAUs and other organisations including NGOs with foreign countries, their institutions or International Organizations, CGIAR and NGOs etc. need prior approval of this Department.

5. Department of Agricultural Research and Education obtains requisite approval on such matters from other Government appraisal agencies viz. Ministry of External Affairs, Ministry of Home Affairs, Ministry of Environment, Forests & Climate Change and Department of Industrial Policy and Promotion, before issue of 'No Objection'. Procedures being followed in this Department for giving approval in such cases are annexed (Annexure -I & II).

6. Accordingly, it is requested that these instructions be strictly followed and prior approval of the Deptt. of Agriculture Research & Education may be obtained while entering into any MoU/MoA relating to agricultural research and education with foreign countries, International Organizations or with other Government/Departments in Centre, State Governments, NGOs etc.

7. Further, in cases where State/SAUs or other Departments/institutions have already done so, such agreement should not be acted upon and should either be ended or got regularized by getting permission of DARE before these are acted upon.


(Chhabindra Roul)
Addl. Secretary, DARE

Copy to:

1. All the Director Generals and Liaison Officers of CGIAR Centers;
2. Director General, Borlaug Institute for South Asia(BISA);
2. Joint Secretary (IC), Deptt. Agricultural, Co-operation & Farmers Welfare;
3. Joint Secretary (IC), Deptt. of Animal Husbandry, Dairying & Fisheries;
4. Joint Secretary (IC), Ministry of Environment, Forests and Climate Change;
5. Joint Secretary, Deptt. of Science & Technology;
6. Joint Secretary, Deptt. of Scientific & Industrial Research;
7. Joint Secretary(IC), Deptt. of Food and Public Distribution;
8. Joint Secretary (IC), Ministry of Food Processing Industries

Copy also to for information:

1. Sr. PPS to Secy. (D) & DG ICAR

ANNEXURE-3 (CONT.)



भारत सरकार
कृषि मंत्रालय
कृषि अनुसंधान एवं शिक्षा विभाग
कृषि भवन नई दिल्ली-110 001
Government of India
Ministry of Agriculture
Department of Agricultural Research & Education
Krishi Bhawan, New Delhi - 110 001
Ph: 011-23070821 Fax:23387293

F. No.12-7/2011-IC(CG)
Dated the 25th Feb. 2011

To,

1. All Vice-Chancellors of State Agricultural Universities
2. All Directors/Project Directors/NRCs/Zonal Coordinators.

As you are no doubt aware, Item No.10 of the Union List, given in the VII Schedule of the Indian Constitution, provides that foreign affairs, including all matters which bring the Union into relation with another foreign country, is the exclusive jurisdiction of the Central Government. In other words, no State/organ of the State in India can deal directly with foreign countries or its organisations.

2. As you are also perhaps aware, Government of India's Allocation of Business Rules, made under Article 77(3) of the Constitution of India, allocate the following, amongst others, to Department of Agricultural Research & Education (DARE):


International cooperation and assistance in the field of agricultural research and education including relations with foreign and international agricultural research and education institutions and organisations.

3. Read together, it can be seen that any relationship that an agricultural university wants to establish with an entity abroad, would require to be "gateway-ed" through DARE, Govt. of India.

4. In recent past, it has come to notice that certain agriculture universities signed agreements with international organisations directly, including even allotment/earmarking of land without consulting DARE. Not only are such agreements ab initio void, as they are in violation of the provisions of Constitution of India.

5. All agricultural universities are requested to take note that:
- i. They may not enter into any agreement with any foreign or international organisation nor even organise international conferences, without the approval of DARE.
 - ii. In cases where universities have already done so, such agreements should not be acted upon, and should either be ended, or got regularized by getting permission of DARE before they are acted upon.
 - iii. In future, whenever there is doubt about how an agricultural university should deal with foreign countries or organisations or international organisations, it is best to refer the matter to DARE seeking clarification from them

6. As this is an important matter, it is hoped that the Vice-Chancellors would take particular care at their level


(RAJIV MEHRISHI)
Addl Secretary DARE

Annexure-I (of Annexure-3)

{to letter No. 12020/2/2015-DARE(IC-CG) dt. 30.8.2016 }

PROCEDURE FOR APPROVAL OF MoU/MoA BETWEEN DARE/ICAR AND A FOREIGN UNIVERSITY/INTERNATIONAL ORGANIZATION ETC.

1. The draft MoU/MoA may emanate/originate either from DARE/ICAR or from a foreign University/Organization etc. interested in collaboration with DARE/ICAR in the field of agricultural research and education;
2. As a first step, it may be ensured that the proposed draft MoU/MoA between DARE/ICAR with foreign University/Organizations etc., conforms to the standard template MoU (Annexure-III) including the financial clauses and IPR issues.
3. Thereafter, MoU/MoA will be referred to OSD (IR)/ADG (IR) for comments /views who, in consultation with the Subject Matter Division(SMDs), will provide technical clearance for the MoU/MoA suggesting necessary changes, if any.
4. Subsequently, the DARE will solicit approvals of Ministry of External Affairs (to the concerned Territorial Division) for clearance from Political and Legal & Treaties angles; Ministry of Home Affairs (to the Policy Planning Division) for clearance from policy planning angle; Department of Industrial Policy and Promotion for clearance from IPR angle; and Ministry of Environment, Forests & Climate Change for prior approval of the MoU in cases where exchange of germplasm is involved (as envisaged in DARE Circular No. 5-40/2014 IC.III dated 16.12.2015).
5. After clearance/suggestions are obtained from the concerned appraisal agencies, finalized draft MoU/MoA (incorporating modifications suggested by the Govt. appraisal agencies, if any) will be shared with the foreign party for concurrence. In case the original draft was received from the foreign party and no substantial modifications have been suggested in the draft MoU/MoA, the same need not be shared with foreign party.
6. The MoU/MoA so finalized will be submitted for approval of the competent authority (as envisaged in DARE Circular No. 6-3/2014-Estt. dated 13.6.2014) as indicated below:

MoU/MoA of DARE : Hon'ble Minister for Agriculture and Farmers Welfare

MoU/MoA of ICAR : Secretary, DARE & DG, ICAR

Annexure-II (of Annexure-3)

(to letter No. 12020/2/2015-DARE(IC-CG) dt. 30.8.2016)

PROCEDURE FOR GRANTING APPROVALS TO THE STATE/STATE AGRICULTURAL UNIVERSITIES (SAUs), OTHER DEPARTMENTS/ INSTITUTIONS FOR SIGNING OF MoUs/MoAs WITH FOREIGN PARTIES/ORGANIZATIONS ETC.

1. Prior approval of DARE is to be sought by the State/State Agricultural Universities other Departments/Institutions for signing Memorandum of Understanding (MoU)/Memorandum of Agreement(MoA) with foreign Universities/Organizations etc., as per DARE's communication No. 12-7/2011-IC.(CG) dated 25.2.2011 and letter No. 12020/2/2015-DARE(IC-CG) dt. 30.8.2016.
2. As a first step it may be ensured that the draft MoU/MoA to be entered into conforms to the standard template MoU (Annexure-III) including financial clauses and IPR issues.
3. The proposed MoU/MoA will be sent to the Director, DARE, Krishi Bhawan, New Delhi – 110001.
4. International Cooperation Section of DARE will refer the MoU/MoA to OSD (IR)/ADG (IR) for comments /views who, in consultation with the Subject Matter Divisions(SMDs), will provide technical clearance for the MoU/MoA suggesting necessary changes, if any. Comments/views of DDG (Edn.) will be necessarily sought for such an MoU/MoA.
5. Subsequently, DARE will solicit approvals of Ministry of External Affairs (to the concerned Territorial Division) for clearance from Political and Legal & Treaties angles; Ministry of Home Affairs (to the Policy Planning Division) for clearance from policy planning angle; Department of Industrial Policy and Promotion for clearance from IPR angle; and Ministry of Environment, Forests & Climate Change for prior approval of the MoU/MoA in cases where exchange of germplasm is involved (as envisaged in DARE Circular No. 5-40/2014 IC.III dated 16.12.2015).
6. After clearance/suggestions are obtained from the concerned appraisal agencies, **the same are to be forwarded to the State/State Agricultural University other Departments/Institutions for their consideration/incorporation in the draft MoU/MoA. The revised draft MoU/MoA will be resubmitted again to DARE for obtaining the approval of the Competent Authority.**
7. The finalized draft MoU/MoA will then be submitted for approval of Secy. (DARE) & DG, ICAR. The approval of the Department may then be conveyed to the State/SAU etc. requesting them to furnish a copy of the signed MoU, for records.

Annexure-III (of Annexure-3)

Model Draft

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE INDIAN COUNCIL OF AGRICULTURAL RESEARCH,
NEW DELHI, INDIA
AND
.....,
FOR COOPERATION IN AGRICULTURAL RESEARCH AND EDUCATION**

This Memorandum of Understanding (MoU) is made between the Indian Council of Agricultural Research (ICAR) having its office at Dr. Rajendra Prasad Road, Krishi Bhawan, New Delhi-110 001, India, a Society registered under the Societies Registration Act, 1860 (hereinafter called "the Council") of the one part, and the (hereinafter called ".....") of the other part;

WHEREAS the Council is charged with the responsibility in India to undertake, aid, promote and coordinate agricultural and animal husbandry education, research and its application in practice; to act as a clearing house of information, in regard to agricultural research and related matters generally and to do all other things as it may consider necessary, incidental and conducive to the attainment of these objectives;

AND WHEREAS THE; and

NOW THEREFORE, the Council and inspired by their common objectives to promote and accelerate the progress of research and training in various disciplines of agricultural research;

HAVE decided to enter into this MoU and agree as herein contained:

ARTICLE -I
Objectives

1. The Parties hereby agree to promote cooperation in the field:
 - (i) Exchange of scientists and technologists;
 - (ii) Exchange of germplasm and breeding material;
 - (iii) Exchange of scientific literature, information and methodology;
 - (iv) Exchange of scientific equipment as available and required in programme of common interest as may be mutually agreed upon.
 - (v) Development and implementation of collaborative research projects, the areas and methodology to be as mutually agreed upon and subject to IPR clause in Article IV.

2. Such cooperation shall be implemented by the following means:
 - (i) establishment of mutual relation between the scientific and technical divisions of the organizations of the respective Parties;
 - (ii) creation of facilities for exchange of scientific, technologists and experts and their proper placement;

*Annexure-III (of Annexure-3)***ARTICLE –II**
Implementation

3. The Council and may name any member of their staff to work out the practical details of cooperation between the two organizations and in general to ensure proper and effective implementation of this MoU.

ARTICLE –III
Work Plans

4. This MoU will be implemented through development of biennial Work Plans to be developed jointly, which describe specifically the activities to be carried out under this Cooperative Programme and which set forth the intended contributions of each party. These Work Plans may originate from either party but will require the full approval of both the Parties for implementation.

ARTICLE –IV
Publication & Intellectual Property Rights**General clauses:**

5. Each Party will ensure appropriate protection of Intellectual Property Rights generated from cooperation pursuant to this MoU, consistent with their respective laws, rules and regulations and international agreements to which both parties are committed.

6. In case research is carried out solely and separately by one Party or the research results are obtained through the sole and separate effort of one Party, the Party concerned alone will apply for grant of IPR and once granted, the IPR will be solely owned by the concerned Party.

7. In case of research results obtained through joint activities, the grant of intellectual property rights will be sought by both Parties jointly and once granted these rights will be jointly owned by the Parties.

8. The Parties shall not assign any rights and obligations arising out of the IPR generated to inventions/activities carried out under the MoU to any third party without the consent of the other Party.

Commercialization:

9. In case of research results obtained through joint activities under this MoU both the ICAR and the will apply as co-applicants for the protection of intellectual property rights subject to exclusive rights of both the parties to commercialize the technology in their respective countries. Commercialization in any other country shall be done jointly through a separate agreement.

Publication:

10. Any publication, document and/or paper arising out of joint work conducted by the Parties pursuant to this MoU will be jointly owned. The use of the name, logo and/or official emblem of the Parties on any publication, document and/or paper will require prior permission of both the Parties. It may however be ensured that the official emblem and logo is not misused.

Annexure-III (of Annexure-3)

Confidential Information:

11. All information and documents to be exchanged pursuant to this Memorandum of Understanding will be kept confidential by the Parties and will be used subject to such terms as each Party may specify. A Party will not use the information for purposes other than that specified without the prior written consent of the other Party.

12. All Confidential Information shall remain the exclusive property of the disclosing Party. The Parties agree that the disclosure of the Confidential Information do not grant or imply any license, interest or right to the Recipient in respect to any intellectual property right of the other Party.

13. Unpublished information, whether oral, in writing or otherwise, discovered or conceived by the scientists or technicians and exchanged under the provisions of this MoU will not be transmitted to a third party, unless otherwise agreed by the Parties.

ARTICLE--V

Disclosure of Information

14. ICAR and agree that except for a Court Order requiring disclosure, neither shall disclose to any third party without the written consent of the other, any information made available to the Parties, in the performance of work and/or generated by the performance of work, under this Agreement, except information which at the date hereof was:

- (i) in the public domain
- (ii) known to either prior to the date hereof as evidenced by written documents subsequently.

15. All data generated through this Memorandum of Understanding with assistance by ICAR or a collaborating institute in India from’s work programme shall be subject to explicit written approval signed by before publication of same by ICAR and/or the collaborating institute.

16. All data generated through this Memorandum of Understanding with assistance by from ICAR’s work programme or the work programme of a collaborating institute in India shall be subject to explicit written approval signed by ICAR or the collaborating institute before publication of same by

17. The provisions in this Article shall survive termination or completion of the Memorandum of Understanding.

ARTICLE--VI

Amendments

18. The Parties to this MoU may, by mutual consent, add, modify, amend or delete any words, phrases, sentences or Articles in this MoU.

*Annexure-III (of Annexure-3)***ARTICLE –VII
Institutional Links**

19. Both Parties will establish inter-institutional links between their respective similar scientific research institutes and centres.

**ARTICLE –VIII
Joint Working Group**

20. A Joint Working Group will be set up with representatives from both Parties to meet once in two years alternately in New Delhi and to follow up the execution of this MoU and suggest necessary measures for its development.

**ARTICLE –IX
Financial Arrangements**

21. In the case of exchange of scientists for study visits on the basis of reciprocity, the sending Party shall meet the to- and fro- international travel costs whereas the receiving side shall meet the costs of board, lodging and internal transport.

22. For Training and consultancy of Scientists financial arrangement shall be decided by mutual consent of both the Parties.

**ARTICLE –X
Validity / Termination**

23. The MoU shall be effective from the date of its signing by both the Parties. It shall be valid for a period of five years. Thereafter it shall be automatically renewed for a period of five years unless either Party serves notice on the other of its intention to terminate it, in which event, the Memorandum of Understanding shall stand terminated at the end of one calendar month from the date of issue of such a notice. But the termination of this Memorandum of Understanding shall not affect the validity or duration of specific collaborative programmes already being undertaken thereunder, unless decided otherwise by the Parties by mutual consent.

24. IN WITNESS, whereof, the two Parties hereunto have signed at New Delhi on this Day of 20....., in two originals in English and Hindi, both text being equally authentic but, in the event of any doubt, the English text shall prevail.

()
Designation
FOR AND ON BEHALF OF THE

()
Designation
FOR AND ON BEHALF OF THE

JOINT INTELLECTUAL PROPERTY MANAGEMENT PLAN FOR RESEARCH COLLABORATIONS PROJECTS

(To be developed and implemented by ICAR/institutions in respect of sharing the research results/
intellectual property generated from Research Collaborations, including their IP protection and
Commercialization)

Before starting a research collaboration programme, the concerned ICAR institutions shall ensure that a joint IP Management Plan (JIPMP) is prepared in consultation with the collaborating partner(s) and submitted to the committee for approval. A copy of the JIPMP shall be appended to the project proposal document and submitted to ICAR/DARE for information/concurrence. If needed, the concerned ICAR institutions and collaborating partners in consultation with each other may modify and/or complete the JIPMP later, in a timely fashion. However, if it is felt imminent, a mention to this effect shall be made in the initial JIPMP. A copy of the modified/completed JIPMP shall also be submitted to ICAR/DARE/AgIn for information/concurrence.

The following illustration describes how the objectives, scope, conditions, modalities and other features will be included in the JIPMP.

1. Joint Intellectual Property Management Plan

Nature of Research Collaboration:

Objective Set by: ICAR/Contracting Party

Funding: Fully/Partly

Project Title: _____

–

Collaborating Institutions: _____

Investigators: _____

2. Objectives

These guidelines define the modalities of protection, maintenance, and commercial utilization of joint IP, and allocating the rights, interests and royalties among the ICAR/its institutions and the collaborating partners.

3. Scope

This joint IP management plan will be applicable to the management of intellectual property generated from joint research/efforts, from the above titled project and shall include the protection and maintenance of IPR, and the commercialization of IP.

4. Definitions

The following terms hereinafter referred to in these guidelines correspondingly mean as follows:

ICAR. The Indian Council of Agricultural Research (ICAR), Krishi Bhawan, 1, Dr. Rajendra Prasad Road, New Delhi – 110 001, a registered body incorporated under the Registration of Societies Act (Act XXI of 1860).

Project or Programme. The externally aided as well as the ICAR funded collaborative research project/programme approved by ICAR/DARE and jointly carried out by ICAR institutions with collaborating partners.

Partners. The ICAR institutions and their collaborators carrying out a Project or Programme.

Intellectual Property (IP). Includes, *inter alia*, patents, plant variety protection (plant breeder's rights), copyrights, trademarks, industrial designs, etc., in accordance with the Indian IPR laws and the corresponding IPR laws of the respective countries.

Background Information. The technical information and the know-how owned or controlled by either of the partners before the start of the project/programme in the same or related fields as the subject matter of the project/programme and necessary for the execution of the project/programme.

Background Intellectual Property. The IP owned or controlled by either of the partners before the start of the project/programme, in the same or related field as the subject matter of the project/programme and necessary for the execution of the project/programme.

Results. All kinds of information (knowledge) and IP generated by the partners in the execution of the programme.

5. Rights and Obligations of Partners in Protection of joint IP

The partners shall ensure adequate and effective protection of IP resulting from the project/programme as and where applicable and elaborate the same in JIPMP. The text of JIPMP shall further include mention of the following:

1. *Anticipation:* IP likely to be generated from collaborative efforts,
2. *Flexibility of Anticipation:* Likelihood of joint modification and/or completion of JIPMP during the course of implementation of the project/programme.
 - i. If mid-course review and modification of JIPMP is considered necessary, a timeline shall be indicated.
 - ii. Both initial and the modified/completed JIPMP documents will be treated as part of the Final Project Document/Database.
3. *Intimation of the Results/IP Generated:* It will be obligatory on the part of each partner to notify other partner(s) and their parental organizations (ICAR and the other) immediately of any result which can be protected as IP and take appropriate action for such protection.
4. Sharing of IP and Commercialization rights:

- i. Contract Research:** (Objective Set by Contract Party)
 - a) Fully funded by contracting party, at no cost to ICAR whatsoever
 - b) Full ownership and commercialization rights to Contracting party
- ii. Sponsored Research:** (Objective set by ICAR)
 - a) Fully Funded by sponsoring agency: Joint IP ownership rights and exclusive commercialization rights to sponsoring agency for limited period with appropriate revenue sharing arrangements with ICAR.
 - b) Partly Funded by sponsoring agency: Joint Ownership and commercialization rights.
- iii. Collaborative Project** (Objective set by Contracting Party)
 - a) Fully Funded by External Agency: Full IP ownership and commercialization rights to External Agency.
 - b) Partly Funded by External Agency: Joint IP Ownership and commercialization rights.
- iv. Grant-in-Aid Projects:** Full ownership rights to ICAR Institutes
- v.** The rights of joint encumbered IP arising from the project/programme will be shared equally, or in any other proportion, or otherwise, which will be expressly mentioned in the JIPMP.
- vi. Within each partner entity:** The respective partner shall be free to determine the sharing of the rights, interests and royalties as well as the liabilities between itself and its employees as per its internal practices/guidelines.

6. Modalities of Securing and Maintaining IPR and Know-How

The modalities of protecting the IP generated from the project/programme as well as the responsibility of securing the background IP/information (knowledge) will be determined as per the following:

1. The ICAR institutions and their collaborating partners shall decide the modalities of protecting/securing the IP rights for each background IP/information (knowledge) as well as the protectable IP generated from the project/programme, under the respective IPR laws.
2. For the genetic resources/germplasm declared/to be used as background knowledge/IP, the relevant access and benefit sharing related provisions of the Biological Diversity Act, 2002 and the Protection of Plant Varieties and Farmers' Rights, 2001 shall be applicable.
3. *In respect of each background IP or know-how*, the respective ICAR institution or the concerned collaborating partner shall have the following obligations:
 - i. Maintaining the IPR titles of the background IP during the entire course of the project/programme by making necessary payment for maintenance/renewal fee.

- ii. Secure and maintain IPR on declared background IP, in case the protection is yet to be granted (e.g. provisional application is already filed).
- iii. Secure the know-how for specific use in the project/programme without compromising its ownership, by entering into Confidentiality Agreement with the collaborating partners(s).
4. *In respect of each result which is to be protected*, the concerned ICAR institution in mutual consultation with the collaborating partner(s) shall prepare the necessary techno-legal documents for securing the protection. Advice/assistance of AgIn may be obtained for availing the legal assistance of patent managers/IPR managers'/technology managers.
5. *Applicants*: The application for securing the rights of the intellectual property shall be made in the names of all the partners, under prior intimation to their respective parental organizations.
6. *Inventorship*: In all applications for securing IPR, the persons who have directly contributed intellectual inputs shall be mentioned as inventors by the partners. Their names may be mentioned in the JIPMP or the revised JIPMP.
7. *Application Procedure*: The application for securing the patents will be made under the patent law by the concerned ICAR institution or the contracting party as per mutually agreed terms with the collaborating partners.
8. *Application for securing other forms of IPR* shall be similarly made as above in case of patents. It will be filed under respective IPR laws of countries concerned or international procedure, if any, where applicable.
9. *Reasons of not filing in India/home jurisdiction of the collaborating partner*: In case the ICAR institution has decided not to file the first patent application in India or the other partner(s) has decided not to file patent application in its/their respective country(ies), the decision and the reasons therefore shall be intimated to ICAR and/or the parental organization(s) of the respective partner(s).
10. *Intimation of Progress*: Within one month from the date of filing of the application, the partners shall forward to one another, and to ICAR/respective parental organizations, copies of the application filed including all appended documents. Similarly, the details of progress of such application from time to time, the grant of patent/IPR and maintenance of the rights shall also be intimated by the concerned ICAR institution and the collaborating partners, as and when they become available, to one another and to ICAR/respective parental organizations.
11. *Patent/IP Watch*: The concerned ICAR institution and other collaborating partners shall forward to ICAR/respective parental organizations details of applications, if any, relating to the same or substantially the same subject matter of the programme, filed after the completion of the programme. The ICAR institution/partners shall suitably initiate action to deal with the alleged infringement cases in consultation with AgIn and/or through outsourcing.

7. Commercial Exploitation of IP

The ICAR institutions and their collaborating partners shall take all necessary steps for the commercial exploitation of the IP secured, to the fullest possible extent that is reasonably practicable, without undue delay in the following manner:

1. *Commercialization/Licensing arrangement:* The committee shall determine the modalities of commercialization of the IP secured in India and other countries on mutually agreed terms. They may entrust the commercialization work to one of them, carry it out jointly, entrust it to a third party or seek the assistance of ICAR/parent organization of a partner. The ICAR institutions shall mention the mutually agreed terms in the JIPMP.
2. The period of commercial exploitation by a partner and the right of preemption, if any, will be decided mutually by the partners with the concurrence of ICAR/parent organization of other partner.
3. While making the commercialization/licensing arrangement on mutual agreement with the collaborating partners, the ICAR institutions shall also settle the proportion and terms of sharing the licensing fees and/or royalty and/or other commercial returns with the collaborating partners.
4. The net returns from the commercialization of IP shall be shared by the partners and ICAR/parent organization(s) of other partner(s) on mutually agreed terms or as per the guidelines, which shall be explicitly mentioned in the JIPMP.
5. In cases where any one of the ICAR/parent organization(s) of other partner(s) have provided the financial/other assistance for securing/maintaining the IPR, the expenditure incurred therefore by the ICAR/parent organization(s) of other partner(s) shall be reimbursed before the sharing of the revenue.
6. Within six months from the end of each financial year, the partners shall send a declaration of any shareable revenue to each other and parent organizations of all partners.
7. The concerned partners shall remit the respective shares of the other partner(s) and parent organizations of all partners to them along with the declaration made as above.
8. The ICAR institutions shall share the net returns from the commercializing efforts among the scientists/innovators, institutions and ICAR headquarters as per its guidelines.

8. Expenditure and Accounts

1. The expenditure connected with securing and maintaining the rights of intellectual property shall be borne by the partners.
2. Appropriate/adequate funding provision of securing IPR for the anticipated IP, as may be reflected from JIPMP, shall be proposed in the in-built project costs.
3. The partners may make a joint request to the main funding agency or ICAR or parent

organization of the other partner to consider providing assistance including finances for securing and maintaining the IP rights.

4. The ICAR institutions along with their collaborating partners may also decide to seek assistance for securing and maintaining the IP rights from an external source in specific circumstances. However, they shall do so if appropriate only with prior approval of the Competent Authority in the ICAR headquarters.
5. The partners shall maintain separate detailed accounts in respect of (i) Expenditure incurred in securing and maintaining the IP rights on each application filed, and (ii) Commercial proceeds from each IP commercialized.
6. The partners shall exchange duly authenticated annual statements of accounts between them before the end of the subsequent financial year, and send copies to ICAR/parent organization of the other partner.
7. ICAR/parent organization of the other partner may call for any additional or more detailed information on the accounts, which the partners shall be obliged to provide without any undue delay.

9. Renunciation

1. In case any of the partner's renounces obtaining the IP protection for the joint encumbered IP or ensuring its maintenance or declines participating in the relevant expenditure, it/they shall immediately notify the same to the other partner(s)/their parent organizations.
2. The ICAR institutions/other partner(s) may proceed to obtain such IP protection in its/their sole name(s) and/or to ensure its maintenance. The expenditure connected therewith shall be exclusively borne by the said ICAR institutions/other partner(s).
3. The renouncing partner(s), in any such event of renunciation, shall, however, extend all assistance to the other partner(s) for completing the above said actions, and this shall be included as an essential clause in the JIPMP.
4. The ICAR institutions/other partner(s), who may obtain the IP protection and/or ensure its maintenance, shall be entitled to the revenue accrued by the commercialization, subject to the detailed provisions of JIPMP, including the setting aside of the share of parent organizations of all partners.
5. The JIPMP will include a list of the countries where the partners agreed to seek intended IP protection. It will also be mentioned that if one partner does not desire to seek protection in countries other than those identified in the above-mentioned list, the other partner(s) may proceed for seeking such protection in the said countries solely in its/their own name(s).
6. The ICAR institutions/other specific partner(s) commercializing the IP in countries other than those mentioned in JIPMP, where another specific partner has declined to seek IP

protection, shall have the right to share the net returns from the commercialization of such IP rights in the said countries.

7. The sharing of such revenue shall be made among the partners after deducting the service tax and the 30% share earmarked for the parental organizations of all partners.

10. Publications

1. Each of the partners shall have the right to publish the results emanating from the project/ programme. However, before any such publication(s) of the results of the project/ programme, the partners shall ensure in consultation amongst themselves that no rights are compromised.
2. The publications resulting from the programme shall bear the names of all the authors unless any author explicitly declines to be named.
3. Due acknowledgement shall be given in all such publications to the support extended by Grantor/Sponsor/Funding Agency and Parent Organizations in carrying out the project/ programme resulting in such publications.

11. Confidential Information

1. The ICAR institutions/other partners shall identify as soon as possible, or correct in the framework of a project/programme, the information furnished that needs to be preserved from being disclosed. In doing so, it will be ensured that (i) The information is not generally known by experts in the field or easily available to them through legal means; (ii) The information has an effective or potential commercial value related to its confidentiality; and (iii) The partners have taken due steps to protect the confidentiality of the information.
2. The partner receiving, in the framework of a project/programme, information not to be disclosed, shall respect the confidentiality of such information.
3. A Confidentiality Agreement may be separately entered into among the partners for the protection of such confidential information. The JIPMP itself will also be deemed to be Confidential Agreement.
4. Without prior written consent, none of the partner(s) shall disclose any confidential information provided by the other partner(s) except to (i) The concerned employees, who shall be bound to keep it confidential and liable for any fault, and (ii) Any concerned legal/regulatory authorities who shall also be similarly bound under the law/regulations.
5. The (confidential) information, whose disclosure has been authorized for the activities and purposes of the project/programme, shall be used solely within the limits of the project/programme.

12. Infringement

1. ICAR shall not be liable to the consequences of any infringement of the IPR.
2. Any expenditure and/or damages, on account of such infringement shall be borne by the partners.
3. The partners may make appropriate provisions for dealing with apprehended or alleged infringements in the JIPMP.
4. ICAR institutions may seek appropriate assistance of IPM&TTC and/or outside experts to deal with infringement related matters.

13. Dispute Settlement

1. The foremost effort by partners in case of any IPR/commercialization related dispute arising from the project/programme shall be to resolve it through mutual discussions.
2. If the partners fail to reach any agreement through mutual discussions, the dispute shall be referred to the Director General, ICAR for settlement.
3. An arbitrator shall be appointed as per Indian Laws to amicably resolve the dispute.

14. Any Other Information

1. **Modified JIPMP.** If needed, a modified JIPMP shall be jointly prepared and documented by the collaborating partners. However, the original JIPMP shall continue to remain a classified document of the project/programme.
2. Any other relevant information, irrespective of whether in affirmative or negative (e.g. Do's or Don'ts), concerning protection/commercialization of joint IP in the ICAR set up will be appropriately included in the JIPMP.

Check-List for Invention/IP Disclosure¹⁷ (Confidential)

(To be submitted by PIs/Inventors/Innovators to ITMUs/ZTMCs as Confidential Information)

(Note: Select information from this check-list may also be furnished as technology disclosure to the interested commercial entities who shall sign a confidentiality agreement with ICAR/ institution)

File No. _____

1. **Title of invention.** The title should describe what the invention does but not how it is made or how it works.
2. **Patent/IP search report.** A report of the Patent Search carried out in common, free patent search engines for granted patents in USA (USPTO web site; <http://www.uspto.gov/>), Europe/World (EPO web site; <http://www.espacenet.com/>), etc., including the PCT Applications (WO).
 - i. **Search Terms.** A short list of words, phases and/or categories should be provided that may help in making internet searches related to the invention/innovation.
3. **Brief overview of the invention (3 to 4 paragraphs).**
 - i. Provide a short, general overview of the invention including what it does in such a manner that a lay person would understand.
 - ii. What is the purpose of invention e.g. what problems does it solve?
 - iii. Is it a new product, process or composition of matter or is it an improvement over an existing product, process or composition of matter?
 - iv. What are the features and benefit of the invention?
4. **Technical description, details and supporting data.** Provide results, data or other indicative evidence that may explain how the invention works. Attach any papers or visual material that may be already available, whether published or unpublished.
5. **Prior Methods, apparatus, developments and publications.**
 - i. Provide description of the closest known methods/processes or apparatus/substances

¹⁷ Disclosure could also be an oral, written or electronic dissemination of the invention to a person outside the ICAR that may enable someone working in the field to practice the invention or repeat its development. However, any communication with colleagues and students within the ICAR community do not count as disclosures unless they have already used that communication for any public disclosure or publication, etc. It is important to disclose any such occurrences to the ITMU/ITMC for helping to arrive at best course of further action. Such disclosure may have to be made by the concerned institution to the enterprises/companies towards commercialization of the technology. In such cases, Director of the concerned institution must sign a declaration of field worthiness of the technology at the end of the disclosure document.

in existence along with disadvantages or problems of each of these methods/processes/apparatus/ substances that are solved by the application of the present invention.

- ii. Cite publications and patents, whether own or those of any one else, that may disclose the ideas/events/products closely related to the invention. e.g. most similar variety(ies) in case of PVP. (Attach all relevant papers, patents, advertisements etc. if available).
6. **Stage of development (2-3 paragraphs).** Describe the development status (whether it is at 'concept only' stage or it is already 'laboratory tested', or 'prototype', etc.). Also briefly indicate what further development would be necessary to commercialize it.
7. **Potential licensees.** Mention enterprises/companies that you think could benefit from the use this invention for commercial purposes.
8. **Publications/presentations/other forms of public communication.** Identify past and future seminars, talks, abstracts, publications and web postings that would be describing the invention¹⁸.

Type of disclosure (Publications, Seminar, etc)	Dates (s)

9. **Dates of conception and reduction to practice.** Describe the circumstances and dates surrounding development of the invention. The dates must be well documented so that any challenge to patent, if ever, shall be met. In this context, conception is the formulation in the mind of the PI/inventors of the ultimate working invention. Reduction to practice can be accomplished either actually or constructively¹⁹.

Is the date for the following documented in writing? If so, where?	0.3937 in	Date
Conception of invention		
First reduction to practice		

10. **Sponsorships.** Mention/identify all grants²⁰, contracts and other sources of funds contributing to research that led to the invention.

Agency or sponsor	Grant/contract	File No. /Subject

¹⁸ These types of disclosures may affect the scope of patent protection and the timing of filing and, therefore, must be thoroughly shared to arrive at best-fit judgment viewpoint.

¹⁹ 'Actual reduction to practice' is the physical creation of the invention whereas 'constructive reduction to practice' is a detailed written description that demonstrates the invention will work as conceived.

²⁰ List all agencies that you would acknowledge in a publication. Be liberal in the interpretation on your part to help arrive at suitable conclusions at the institution level.

11. **Other agreements and interactions.**

- i. Mention/Identify any agreements²¹ or interactions that have been/may have been entered into, which relate/could relate to the invention and might grant rights to an enterprise/ company/ any other party outside the ICAR.
- ii. Provide the details of MTA entered into or other agreement/consent details if the invention is based on any material(s) obtained from another institution/ organization/company.
- iii. Did you transfer to any researcher outside of your institution any new materials (DNA, peptides, cell lines, vectors, catalysts, alloys, etc.) related to the invention? Provide the details.
- iv. Is there any other group, lab or researcher in the institution or in any other institution of ICAR or outside ICAR using your invention in their research programme? If so provide the details.

12. **Inventors.** Provide list of all those individuals who helped/contributed to the conception of the ultimate working invention. The people you include ultimately may or may not be legal inventors, Please place an asterisk (*) next to the name of the inventor to whom correspondence should be sent. If any person holds a sole or joint appointment with any other university, company or government agency, please note that fact.

Name of helping/ contributing individual	Whether recognizing as Inventor or Not (Yes/ No)	Name of any other institution/ university/ organization/ company to which affiliated (also affiliated)	Name & Signatures along with Date, of the Inventors	Name & Signatures along with Date, of the Unit/Division Heads of the Inventors

13. **Declaration of Field Worthiness²² of Technologies/ Products/ Substances/ Processes.** Where needed, Director of concerned ICAR institution shall sign the declaration, stating that the technology/ product/substance/process is field worthy for the purpose of obtaining IPR and for commercial use.

21 These may include MTAs, research sponsorship agreements, collaborative research agreements (e.g. for consortia, networks, etc.), agreements for consultancy, outsourcing, etc.).

22 Information on field worthiness shall be provided by the PI/inventor (s) and recommended by the concerned ITMU/ITMC and the declaration will be signed by the Director.

ANNEXURE 6**TECHNOLOGY DISCLOSURE FORM (CONFIDENTIAL)**

(To be submitted to AgIn for commercialization of Technology)

Technology Number: (To be provided by AgIn)

Name of Technology

Name of the Institute

Ownership of the technology:

Section 1: Contact Information

Contact details:

- Name:
- Title:
- Telephone:
- Mobile Phone:
- Email:

Section 2: Technical Description

1. Problem Description: Please explain the problem / situation that this innovation was created to solve or address. (Please limit your problem description to 70 words or less.)
2. Solution Description: Please explain (in simple terms) how this innovation addresses or solves the problem.

Section 3: Intellectual Property Status

Has this innovation been granted any patents?

Section 4: Additional Information

1. What is the total cost (including manpower, equipment and all other resources) required to complete this innovation?
2. Has this technology/ innovation being commercialized by the institute? (Yes/No)
3. If Yes, please attach the signed agreement
4. If No, please elaborate on the tentative nature of the license to be granted by the institute for this commercial purpose.
 - a. Nature of License: Exclusive/non-exclusive
 - b. Duration of the License:

- c. Licensee fee:
- d. Royalty:
- e. Licensed territory: India/other countries
- f. Raw material to be transferred. If any
- g. Cost to be charged to raw material. If any
- h. Time line to transfer the raw material
- i. Handholding and training support required
- j. Cost for handholding and training
- k. Any other specific requirements

Section 5: Certifications and Approvals

It is certified that the above information about the Technology Nominated for Transfer of Technology is correct and no Security Sensitive/ Confidential and Proprietary information has been provided.

Competent Authority

ANNEXURE 7

TECHNOLOGY EVALUATION

The expert committee must deliberate the following and arrive at the final decision of Evaluation in the following areas.

Technical Attributes (30%)		Weightage	Committee
1	Innovative technology (Innovation level)	6	
2	Technical compatibility (new systems/modifications/small modifications/no modification)	2	
3	Ease to implement/work	2	
4	Process advantage	2	
5	Developmental maturity (theoretical/lab scale/bench scale/pilot scale/full scale)	5	
6	Technology benefits (to end user)	2	
7	Future scope for improvement / next level	3	
8	Technical expertise availability	4	
9	Technology Readiness Level	4	
Subtotal		30	
Business Attributes (60%)			
1	Market demand	10	
2	Business opportunity	8	
3	Revenue potential	7	
4	time to reach market	8	
5	Competitive advantage	5	
6	Competitor entry barriers	3	
7	Cost advantage	5	
8	Geographical market reach	4	
9	Regulatory Acceptability	6	
10	Public Perception	4	
Subtotal		60	

Social attributes (10%)		
1	Benefit farmers (directly/indirectly)	3
2	Create job opportunities	2
3	Impact society	2
4	Health benefits	2
5	Social recognition	1
	Subtotal	10
	Grand Total	100

Note:

- Pl. Give score for each tech 1, 2, 3....10...n
- Scores (Nil-0, Low-1-4, Neutral-5, Medium-6-8, High - 9,10)
- Technology whose average is above 55 will be taken up for commercialization.
- Expected roles and responsibilities of AgIn, ICAR Institute/SAU & Client shall also decide by this committee.

Annexure 8**TENTATIVE STANDARD TERMS TEMPLATE**

1. Background of the technology
 - a. Why does the problem exist and who is impacted by the problem?
 - b. How does the technology solve the problem?
 - c. Is the technology/product is tested either against other technologies and products, or against standards and specifications?
2. Territory/Territory restrictions:
3. Licence fee and Duration:
4. Degree of Exclusivity:
5. General indemnity:
6. Compliance/legal/statutory clearance required:
7. Branding:
8. Any other important terms & conditions:



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ICAR

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Krishi Bhawan, New Delhi