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Ganesh Motiram Kapse

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**Intellectual Property Rights in
Indian Agriculture**



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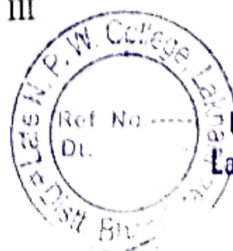


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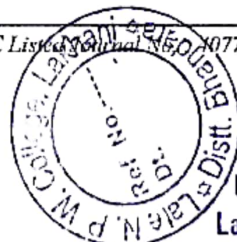
22. Intellectual Property Rights in Indian Agriculture

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Abstract

In this present study the analysis of classical IPRs relevant to agriculture are patents, particularly on biotechnological inventions, plant breeders' rights, trademarks and geographical indications. Trade secrets and the protection of undisclosed test data are also considered to be part of IPRs now and these are relevant to the agricultural sector also. Farmers' rights and community IPRs are the forms of intellectual property at the stage of initial conceptualisation at the international or national level. India is not a member of the Paris Convention or UPOV but is a member of the WTO and is therefore, obliged to implement the TRIPS Agreement within the time limits set out therein. Most of the TRIPS obligations on these relevant IPRs, including strong process patents for biotechnological inventions, have to be in place by 1.1.2000, and it is only for product patents on micro-organisms that India has time up to 1.1.2005. Although legislative exercises on a sui generis system of plant variety protection began almost five years back, in 1993, the draft legislation is yet to be finalized. More recently, India has proposed the enactment of a biodiversity law to implement the CBD and this is in the process of being debated and finalized. An important question is whether the farmers' rights and community rights need to be included in the plant variety protection law or in the biodiversity law or both. Since the government of India wants to encourage investment by private seed companies, as evidenced from its policies since the mid-'80'S, plant breeders' rights would help in giving incentives for private research. The issue of whether public sector research institutions should be allowed proprietary rights over their research is still controversial, although having such rights and yet disseminating these technologies at reasonable prices are not necessarily contradictory. More importantly, steps would have to be taken to ensure the diffusion of the results of this research such that reasonable compensation is allowed to plant breeders. This study helpful of deployment of skilfully drafted provisions on compulsory licensing and government use and the recognition of



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the mutual interdependence between public sector and private sector research efforts, may resolve the dilemma of incentives for generation and the subsequent diffusion of such technologies.

Keyword:- Property, Rights (IPRs), Agriculture, Law

Introduction


The Intellectual Property Rights for deployment of skilfully drafted provisions on compulsory licensing and government use and the recognition of the mutual interdependence between public sector and private sector research efforts, may resolve the dilemma of incentives for generation and the subsequent diffusion of such technologies. Intellectual property rights (IPRs) can be broadly defined as legal rights established over creative or inventive ideas. Such legal rights generally allow right holders to exclude the unauthorized commercial use of their creations/inventions by third persons (Bhattacharjee, Abhijit, 1988; Menon Usha, 1991; Khade A. M., August 2017). The rationale for the establishment of a legal framework on IPRs is that it is a signal to society that creative and inventive ideas will be rewarded. This does not mean that there is no other way of rewarding such ideas or that this system is absolutely necessary, even less sufficient, to reward inventiveness or creativity. Nevertheless, it would be difficult to deny that IPRs do have a role to play in setting up of any such reward system. There are two broad categories of IPRs: one, industrial property 2 covering IPRs such as patents, trademarks, geographical indications and industrial designs; two, copyright and related rights covering artistic and literary works, performances, broadcasts and the like. IPRs that do not fit into this classical division are termed sui generis, meaning one-of-its-kind. Such sui generis rights include those covering lay-out designs of semi conductor chips and plant breeders' rights (Kapse G. M., 2019, 2020; Kudnar N.S., 2015; 2017; Asker, John and Andrew, Stoeckel., 1999).

This paper will in the next section distinguish the IPRs relevant to agriculture and explain these rights. In Section 2. the international intellectual property law for these rights will be described. Section 3. sets out India's international obligations vis-a-vis her own IPR laws and Section 4. Goes on to an analysis of the public debate in India on the controversial IPRs and the status of the legislation on these.

Study Objectives

The present study has the following objective, i) To study the Discussion of the IPRs relevant to Indian Agriculture & explain these Rights. ii) To understand in the International Intellectual Property Law.




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Data Base & Methodology

The data has been furnished from the related articles, research paper. Some data has furnished the websites & as well as time magazine for the present research paper the secondary source have been used. The articles regarding to it have been read thoroughly. The descriptive and analytical research method has been used for this research paper

Result and Discussion

Intellectual Property (IP)


Nowadays, in agricultural trade intellectual property is becoming gradually important. Intellectual property is not a physical property, it solely construct of the mind. In the future, innovation along with product differentiation is likely to be important to agricultural industries. In the world markets there is vast competition, the more benefit may accrue to those producers who adopt intellectual property (IP) to the greatest advantage. In such condition, the way the international trading system treats IP will be significantly essential. Without markets there is little incentive to innovate as there are no means to get a return on innovation. In a market context, innovation and information are both judged to be valuable the government allocates property rights over innovations, brands and other forms of IP. The use of IP may be an important element in the success of the agricultural sector in the future

1. IPRs Relevant to Agriculture

Several of the IPRs mentioned above are relevant to the agricultural sector in that they can be used to protect goods or services produced in the agricultural sector. These are mainly patents, plant breeders' rights, trademarks, geographical indications and trade secrets. It is possible to include lay-out designs for chips that are designed to perform certain functions related to agriculture, but these are assumed to be incorporated in machines produced in the industrial sector. Similarly, scientific papers or television programmes covering ideas related to agriculture are not seen as directly being produced in this sector. The relevant IPRs are dealt with below.

Patents are probably the most important IPR today for agricultural goods and services as they provide, wherever these are available, the strongest protection for patentable plants and animals and biotechnological processes for their production. Patents universally give the patentee the right to prevent third parties from making, using or selling the patented product or process. Patents, however, have to be disclosed to the public through the patent documents. This enables researchers to develop further useful products or services. Patentable products have to meet the





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criteria of patentability, viz., novelty, i.e. that which is not known in the prior art non-obviousness i.e. that which involves an inventive step and usefulness i.e. that which is industrially applicable. With some nuanced differences the patent laws of all countries follow these criteria. However, not all countries allow the patenting of plants and animals or even microorganisms or biotechnological processes (Kudnar N. S., 2018; Kapse G. M., 2020, Kunar N. S., 2020)

Biotechnology is the sector that holds the most potential for advances in agriculture to improve productivity. Biotechnology R&D is mostly concentrated in the hands of large multinational enterprises in the US, Europe and Japan. It is in this field of technology more than others, that proprietary rights over knowledge is getting increasingly important. Today, in the United States, patents are even granted to animal inventions and human gene sequences, if these are eligible for such protection. The case law in the United States developed rapidly since the early '80's with the grant of a patent for a bacteria that 'ate' oil spills. This gave rise to the patenting of micro-organisms found in nature, if it involved a new, inventive and useful technical intervention by man. Another landmark case was the patent granted to the 'Harvard on come use', useful in research on cancer. The European Union has been slower to follow suit on the patenting of plants and animals due to the opposition it faced from environmental activists in the European Parliament. This has now been largely overcome with the imminent finalization of the new Biotechnology Directive by the European Parliament, authorizing the grant of patents to plants and animals, with limited exceptions. Thus, research on the cloning of animals, which is advancing rapidly, would be eligible for patents in at least some developed countries.

Many countries have developed plant breeders' rights to reward conventional plant breeding efforts. Such sui generis protection is weaker than patent protection in that the right holders can only prevent third parties from commercially exploiting the protected material. The criteria used to grant such protection is also lower than that used to determine patentability as these are distinctness, i.e. distinguishable from earlier known varieties, uniformity i.e. display of the same essential characteristics in every plant and stability i.e. the retention of the essential characteristics on reproduction. Such protection encourages breeding efforts in the private sector. Historically, in developing countries, such efforts have emanated from the public sector or from international research institutions. It is only in recent years that developing countries have begun to institute such protection. Marks used in commerce can be applied to both agricultural and industrial products and services. For instance, trademarks are used to market seeds or spraying




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services. The essential purpose of a trademark is to distinguish the goods and services of one enterprise from another, thus preventing deception of the consumer. Such protection prevents the wrongful use of commercial marks and is not limited in time, although registration may have to be renewed from time to time. Almost all countries in the world protect trademarks.

One category of commercial marks more often used in agriculture than industry are geographical indications, including appellations of origin. These are marks associated with products originating from a country, region or locality where the quality, reputation or other characteristics of the product are essentially attributable to its geographical origin. Most geographical indications relate to agricultural products or those derived from them, as in the case of wines and spirits. Protection of such marks prevents third parties from passing off their products as those originating in the given region.

2. International Intellectual Property Law

Until recently the multilateral and plurilateral treaties administered by the World Intellectual Property Organization (WIPO) constituted the bulk of the international law on intellectual property. The relevant treaties for IPRs related to agriculture are the Paris Convention on the Protection of Industrial Property, 1883 as revised up to 1967, and related plurilateral treaties which deal with areas such as patents, trademarks, appellations of origin or unfair competition. The Paris Convention established certain minimum agreed standards and procedures for the treatment of industrial property, the most important of which were national treatment i.e. the same treatment for nationals and foreigners and the right of priority or the according of a grace period in the filing of industrial property applications in member states. However, it still left considerable freedom to individual members to tailor their laws according to their developmental and technological requirements.

The Union International pour la Protections des Ostentations Vegetables (UPOV) or the International Union for the Protection of New Varieties of Plants has a multilateral treaty for the protection of new plant varieties which it administers in cooperation with the WIPO. The UPOV Convention facilitates a uniform formulation of the extent and scope of plant breeders' rights. The UPOV Convention was signed in 1961, came into force in 1968 and was revised in 1972, 1978, and 1991. The 1978 version was in force till April 1998, when the 1991 version entered into force. There are at present 38 members of UPOV. The 1991 version substantially enlarges the scope of breeders' rights and restricts farmers' and researchers' exemptions, provides for a longer

term of protection for the universe of species/genera of plants, although this can be introduced in a phased way. Very few developing countries have instituted plant variety protection and fewer are members of UPOV.

Much of the freedom given under the Paris Convention was taken away by the Agreement on Trade Related aspects of Intellectual Property Rights (TRIPS) of the newly formed World Trade Organization (WTO). There are presently 132 members of WTO, with 30 more, including China and Russia, seeking accession. While TRIPS obliges the adherence to the substantive provisions of the Paris Convention, it goes further in limiting the freedom of countries on several aspects of their intellectual property laws. This agreement is a part of the single package of the results of the Uruguay Round that are binding on all members of the WTO and is intrinsically linked to the most important advantage of the multilateral trading system, namely, the most-favoured-nation (m.f.n.) treatment (Bisen D. K, Kudnar N. S, 2013; Kudnar, 2018) TRIPS obliges no discriminatory treatment in terms of national treatment between nationals and others as well as m.f.n. treatment among nationals of all WTO members. TRIPS also lays down stringent standards for the protection and enforcement of intellectual property. The TRIPS Agreement of the WTO obliges members to either provide protection for plant varieties either through patents or through an effective *sui generis* law or through any combination of the two. While TRIPS calls for the institution of an effective *sui generis* system of plant variety protection, there is no reference to UPOV or a call to adhere to any version of it, making it the only exceptional case in TRIPS where the current international treaty on the subject is not referred to.

More importantly, TRIPS obliges the patenting of micro-organisms and microbiological and non-biological processes for the production of plants and animals. It, however, presently allows the exclusion from patents of plants and animals and essentially biological processes for their production. Considerable freedom is, however, given in interpreting the criteria for patentability viz. novelty, non-obviousness and industrial applicability. Narrow or narrowly interpreted patent claims can resolve some of the issues arising from broad, blocking patents.

It must be noted that TRIPS calls for "strong" process patents, strong in the sense that the rights of the patentee extend to the product made by the patented process and that there is a provision for the reversal of the burden of proof in any infringement proceedings. Such process patents are very similar in effect to product patents. It is yet unclear whether such an extension of rights would imply rights over the product, if where such products are explicitly excluded, as is



the case of plants and animals. In other words, would a process patent for a genetically engineered animal extend to the animal itself? The provisions of Article 273 (b) of TRIPS concerning on biotechnological patents are to be reviewed by 1999 when it can be expected that pressure will build up to delete the exclusion for plants and animals.

3. India's International Obligations on IPRs

India is not yet a Member of the Paris Convention or the UPOV. However, India is a founder member of the WTO and is therefore party to the TRIPS Agreement which came into force on 1.1.1995. Being a developing country, India is entitled to a transition period of five years up to 1.1.2000 for most provisions of TRIPS. An important exception is the introduction of product patents in areas of technology not covered so far, for which time is available up to 1.1.2005. Nevertheless, the so-called process-by-product patents with the reversal of burden of proof would have to be in place by 1.1.2000.

At present the Patents Act, 1970 does not allow the patenting of plants or animals or micro-organisms. Although it does not contain any such specific exclusion, the definition of an invention seems to exclude these. Even microbiological processes are excluded if they involve a method of agriculture or horticulture, as such methods are specifically excluded¹¹. However, such applications have sometimes been granted patents, at least since the mid-80's as is evidenced by the process patent granted to Agracetus, a US company, on genetically engineered cotton cells and lines. This patent was later revoked in public interest by the government of India.

India is thus, obliged to either introduce patents for new plant varieties or have an effective *sui-generis* law to protect them by 1.1.2000. In addition India must make available strong patents on microbiological and non-biological processes for the production of plants and animals by 1.1.2000. However, India has time up to 1.1.2005 to introduce product patents on micro-organisms. India must also bring the protection of trademarks, geographical indications and trade secrets up to TRIPS standards also by 1.1.2000. The current law on trademarks, the Trade and Merchandise Marks Act, 1958 and the current jurisprudence, particularly under the common law tort of passing-off, is, by and large, in line with TRIPS. However, marginal amendments are required, as in the case of the registration of service marks and the recognition of well-known marks.

In the case of geographical indications, the Trade and Merchandise Marks Act, 1958, allows for the registration of certification marks, certifying quality or origin of a product. Such

certification marks can be registered by any body not producing the particular product, as, for instance, any association of producers or traders. In addition, geographical indications are protected under the common law tort of passing-off. Marks such as 'Champagne' for sparkling wine from France and 'Scotch' for whisky from Scotland have been successfully protected under this. However, India would need to legislate in order to give the higher level of absolute protection to wines and spirits required under TRIPS. In doing so, other Indian products or those of interest to India's trading partners can also be given this higher level of protection, perhaps on the basis of reciprocity.

Although trade secret protection is available under common law and also laws on restrictive trade practices, India may have to introduce the legal basis to extend such protection to cover third parties who directly or indirectly induce the breach of trade secrets. India would also have to legislate to protect undisclosed test data submitted for obtaining marketing approvals for new agricultural chemicals.

India also proposes to introduce national legislation to implement the CBD through the Biodiversity Act, under which the terms of access to *in situ* genetic and biological resources would be governed.

4. The Public Debate in India on Legislative Changes on IPRs

Given the importance of agriculture in the Indian economy, there has been extensive public debate of an intensely political nature, on certain legislative changes required to implement TRIPS as related to the agricultural sector. These relate to the institution of plant breeders' rights, patents for biotechnological inventions and geographical indications. In addition, the implementation of the CBD to establish the so-called 'farmers' rights'¹⁵ and the fair and equitable sharing of benefits on commercialization of biological/genetic resources and traditional knowledge and practices originating from India, has also been controversial. This public debate has been characterized by some degree of confusion in intermingling these various issues. Guided by NGO activists (Kudnar N. S., 2016), political parties or at least some leading political personalities, cutting across political affiliations ranging from the left to the right, have taken entrenched positions, forcing policy makers to consult such activists while finalising the legislation on IPRs. It has been well recognized that the initiatives for introducing plant breeders' rights were made by the private seed companies in India in the late '80's after the adoption of the New Seed Policy in 1988. With this policy the government of India liberalized the import of seed



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for joint ventures, including hybrid seeds, for a number of important crops. Empirical studies have shown that such liberalization, including the development of hybrids, does have a positive impact on private research and development in this sector. However, others forecast that the increasingly proprietary nature of plant biotechnologies and the decreasing role of International Agricultural Research Centres (IARCs) and national research centres will adversely affect the diffusion of such technologies. The two aspects of incentives for generation of and for the diffusion of IPRs are not irreconcilable (Kudnar N. S., 2012).


In some circles in India the new policies were seen as a victory for multinational enterprises (MNEs) in spite of the fact that there were certain conditions regarding the transfer of the parent lines and critical breeding materials to the Indian partner of the joint venture. In particular, the TRIPS negotiations of the Uruguay Round of Multilateral Trade Negotiations where US, Europe and Japan were demanding stronger Intellectual property protection, especially in the area of biotechnology, was seen as an attempt by Northern MNEs to privatize the genetic diversity of the South. There were vociferous protests by some NGO activists against India's manner of conducting trade negotiations. The TRIPS proposals were seen as patenting of life itself, raising ethical as well as socioeconomic questions.

Conclusion

This study helpful of deployment of skilfully drafted provisions on compulsory licensing and government use and the recognition of the mutual interdependence between public sector and private sector research efforts, may resolve the dilemma of incentives for generation and the subsequent diffusion of such technologies. The Consultative Group on International Agricultural Research (CGIAR) and the International Agricultural Research Centres (IARCs) can play a constructive role in the two-way transfer of technologies between the (National Agricultural Research Systems (NARs) and private sector seed companies. Several modalities have already been envisaged such as Material Transfer Agreements, licensing or cross-licensing, joint ventures or private funding of basic research in the public sector. On the issue of patents being taken out on the basis of traditional knowledge without acknowledging that this was already known before, there seems to be no other way but to document all such knowledge. The National Bureau of Plant

Genetic Resources has set up a base collection of 1.60 lakh samples of germ plasm of various crop species in a National Gene Bank, aimed at being one of the largest ex-situ collections



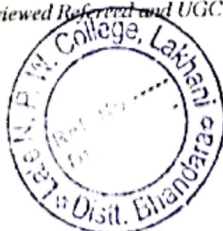

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in the world. The state government of Karnataka, in collaboration with the Indian Institute of Science, Bangalore, has also launched a plan to map the biodiversity and traditional knowledge in its jurisdiction. In addition, the CSIR in India has already begun with a programme to systematically document at least 400 species of plants whose therapeutic, agricultural and other uses. However, much more needs to be done as this is a stupendous task.

India has suggested in the WTO Committee on Trade and Environment that under TRIPS, there should be an obligation on patent applicants of biotechnological inventions based on genetic/biological resources or on traditional/indigenous knowledge, to disclose the country of origin and to reveal whether the applicant has prior informed consent. This suggestion was also made in the European Parliament for inclusion in the proposed Biotechnology Directive but was rejected by the European Commission as going beyond its international obligations. Such a solution is necessary in international intellectual property law if developing countries are to be notified and fairly and equitably compensated for resources and knowledge taken from them for commercial benefit. There is an urgent need to build international consensus on this issue.

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