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INTELLECTUAL PROPERTY (IP) ON PLANT VARIETIES

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ABSTRACT:

Intellectual property (IP) protection for plant varieties, also known as plant breeders' rights (PBR), is a form of sui generis IP protection granted to the breeder of a new plant variety. PBRs provide breeders with exclusive rights to prevent unauthorized commercial exploitation of their protected varieties, such as the sale or production of propagating material. The objectives of PBRs are to incentivize investment in plant breeding research and development, promote the development of new and improved plant varieties, and ensure a fair return for breeders' investments. There are two main international instruments governing PBRs: the International Convention for the Protection of New Varieties of Plants (UPOV Convention) and the World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement). The UPOV Convention establishes a harmonized international system for granting and protecting PBRs, while the TRIPS Agreement sets out minimum standards for PBR protection for WTO members. PBRs are increasingly recognized as an important tool for promoting innovation and sustainable agriculture. They have been shown to encourage investment in plant breeding, leading to the development of new and improved varieties that are more productive, disease resistant, and adapted to local conditions. PBRs also play an important role in ensuring the availability of high-quality seed and propagating material, which is essential for agricultural production.

KEY WORDS: Intellectual property, plant breeders' rights, plant varieties, UPOV Convention, TRIPS Agreement, Innovation.

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INTRODUCTION:

Intellectual property (IP) rights on plant varieties are a form of intellectual property (IP) that protects new varieties of plants. Plant breeders invest significant time, resources, and effort into developing new plant varieties with desirable traits, such as increased yield, improved disease resistance, or enhanced nutritional value. IP rights on plant varieties allow breeders to recoup their investment and incentivize continued innovation in plant breeding. There are two main types of IP rights that can be used to protect plant varieties:

- **Plant breeders' rights (PBRs):** PBRs are a form of IP protection that is specifically designed for plant varieties. They are granted by national or regional governments, and they provide breeders with exclusive rights to produce, sell, and export their protected varieties. PBRs typically last for 20-25 years.
- **Patents:** Patents can also be used to protect plant varieties, but they are typically more difficult to obtain than PBRs. In order to be patented, a plant variety must be new, non-obvious, and industrially applicable. Patents typically last for 20 years.

PLANT VARIETY:

Plant varieties are categorized biologically below genus and species. Even if they may have very different appearances, members of the same species can mate. Dogs are a single species in the animal kingdom, but they breed together to produce a variety of distinct looks and traits. Examples of these breeds include Labradors, Spaniels, Sheepdogs, and others. These breeds have developed as a result of parental selection. Because of the genes that it inherited; each has a unique appearance. Plant varieties are conceptually related to animal breeds. Numerous specific plant varieties are well-known; two examples are the eating apple, Cox's Orange Pippin, and the rose, Peace. Cox's apples are identifiable by their appearance and taste—they have an acidic, orange flavour—while Peace has a distinct colour and aroma.

A plant variety must be distinct from all others legally, meaning it must possess a unique combination of features. recognized varieties, homogeneous (all plants, grown in the same conditions, possess the same circumstances) and steady (plants can be raised over several generations without experiencing changes in features). Thus, the unique combination of features that define a plant variety. Modifying a single characteristic (such color, leaf form, or growth pattern) can result in a new variety.

PLANT VARIETY RIGHTS:

Plant Variety Rights are an internationally recognized form of Intellectual Property (IP) used to protect unique plant varieties. In theory, the use of plant variety rights is comparable to the intellectual property protection provided by copyright on books and patents on a variety of novel goods, including biological material.

The plant variety rights system delivers protection and inspires further innovation in plant breeding by ensuring that the varieties awarded plant variety protection are freely available to others for use in future breeding programs. This access is known as the 'breeder's exemption,' and it has significantly supported the major advances seen in plant breeding over the past 40 years. The plant variety rights system allows plant breeders to amass royalties on the production and sale of seeds of their protected varieties.

By guaranteeing that the varieties granted plant variety protection are readily accessible to others for use in upcoming breeding projects, the system of plant variety rights both provides protection and encourages more innovation in plant breeding. The "breeder's exemption," which refers to this privilege, has been a major factor in the considerable advancements in plant breeding during the past 40 years. Plant breeders are able to accumulate royalties on the production and sale of seeds of their protected varieties according to the plant variety rights system.

CONDITIONS FOR PROTECTION:

According to the provisions of the Protection of Plant Varieties and Farmer's Right Act, 2001, a new variety shall be registered subject to satisfying the requirements of Novelty, distinctness, uniformity and stability.² For new varieties, the genera and species which can be registered under the Act, except farmer's variety and extent variety will be notified by the Central Government.³

NOVELTY:

The concept of novelty in patent law is different from that in plant variety protection. The condition of novelty is met under patent law if there has been no disclosure to the public of the invention prior to the filing of the application. But under the plant variety protection, condition

² PPVFR Act, S. 15(1).

³ Ibid, S. 29(2).

of novelty is used in a commercial sense. The requirement of novelty is satisfied if at the date of filing of the application for registration for protection, the propagating or harvested material of such variety has not been sold or disposed of with the consent of the breeder for the purpose of exploitation of such variety, in India earlier than one year.⁴ Sale or disposal outside India, in the case of trees and vines, shall be considered as not novel if the sale is made earlier than six years and in other cases, earlier than four years. Propagating material has been defined in the Act as any plant or its component or part thereof including an intended seed or seed which is capable of, or suitable for, regeneration into a plant.⁵ Thus, propagating material in relation to a plant of a particular plant variety relevantly means any part or product from which another plant with the same essential characteristics as that variety can be produced.

The “condition required for protection” were set out in Article 6 of the UPOV Convention. The variety had to be distinct, uniform and stable.

In a landmark decision, the UK Patent Office has considered the issue of sale before application.⁶ It was held that an agreement in the nature of a joint venture entered into for the supply of budding eyes of a new rose, called Elizabeth of Glamis, in the exploitation of the variety cannot be considered as sale of budding eyes by the applicants to the objectors.

DISTINCTNESS:

The distinctness condition in the UPOV Convention required the variety to be "clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time when protection is applied for". Common knowledge could be established, inter alia, by "marketing already in process".

The logic behind the requirement of distinctness was clearly elucidated by the Board of Appeals of the Community Plant Variety Office in various decisions.

“Plant variety rights are special rights. The grant of such a right to a plant breeder is only justified if the plant breeder has produced or discovered or developed a variety eligible for protection.

⁴ Ibid, S. 15(3)(a).

⁵ Ibid, S. 2(r).

⁶ Elizabeth of Glamis v. Rose, 1966 FSR 265.

However, this is only the case if the expert world and the business circles addressed are enriched with a new variety, the genotypical distinctions of which are clearly able to be seen. Because third parties are excluded from freely using the protected variety, for reasons of legal certainty the protective scope of the right needs to be precisely determined, and it is not clearly definable if the different expressions are not clearly identifiable. In order for competitors to be able to assess whether they are violating any variety protection right, they must be able to clearly identify at least one crucial distinctive characteristic. Minor differences are insufficient to meet these requirements".⁷

According to Plant Variety Act of India, the distinctiveness of a variety is judged by reference to the common knowledge of the variety. If a variety is distinguishable by at least one essential characteristic from any other variety which is in common knowledge, the variety is considered as distinct.⁸

The difference between the Indian Act and the UK legislation is that the Indian Act requires only distinction by at least one essential characteristic, while the UK Act requires the variety to be distinguishable by one or more important morphological, physiological or other characteristics from any other variety.⁹

UNIFORMITY:

The variety shall be deemed to be uniform if, subject to the variation that may be expected from the particular features of its propagation, it is sufficiently uniform in its relevant characteristics.¹⁰ Uniformity of a variety is determined after allowing variations that might be expected from the particular features of its propagation. Expected variations of the variety will not be a bar to the requirement of uniformity. Thus, if the variety is sufficiently uniform in the expression of characteristics which come within the ambit of distinctness, the variety will be considered as uniform.

An extant variety can be registered under the Act if it fulfils the requirement of distinctness,

⁷ Hubert Brandkamp, Case A 018 Of 2002, decided on 14-5-2003 (CPOV).

⁸ PPVFR Act, S. 15(3)(b).

⁹ UK Plant Variety Act, 1997, Sch. 2, Part 1, para 1.

¹⁰ UPOV 1991, Art. 8

uniformity and stability as specified in the regulations.¹¹

The concept of uniformity was considered in Moulin Winter Wheat¹² by the Plant Varieties and Seeds Tribunal of the UK. Plant Breeding Institute applied for the grant of plant breeder's rights in addition to the UK National list in respect of the winter wheat variety Moulin. The application refused on the ground that the variety lacked uniformity. In appeal it was held that sufficiently uniform meant the degree of uniformity a capable breeder skilled in the art could reasonably be expected to achieve having regard generally to the nature of plant material and particularly to the biological possibilities of the species in question, including its mode of reproduction, and to any special features of the variety in consideration. While deciding that the variety is entitled to plant breeder's rights, the tribunal observes:

1. A variety which is sufficiently uniform within the meaning of the law achieves a grant of rights and admission to the national list; and
2. Uniformity issue should rightly be determined with the benefit of all available technology, and that if this enables varieties to be properly identified in accordance with the categories to which appropriate weighting can be attached, then it must be taken into account in the testing process.

STABILITY:

Assessing stability requires that the variety is stable. Plants have a tendency to degenerate. Stability requires that the variety remains unchanged after repeated propagation or in the case of a particular cycle of propagation, at the end of each such cycle.¹³ Although stability is a requirement for variety protection, it is not a characteristic that is included in the examination for distinctness of plant varieties.¹⁴ Stability is, alongside distinctness and uniformity, an independent, necessary characteristic that makes a plant grouping a variety.

A genotype characteristic of a plant is expressed only if it manifests itself in a different way compared with another plant. No statement can be made about stability until after propagation,

¹¹ PPVFR Act, S. 15(2).

¹² 1985 FSR 283.

¹³ Council Regulation (EC) No. 2100/94 on Community Plant Variety Rights, Art. 9

¹⁴ Joseph en Luc Pieters BVBA, Schierveldestraat, Staden- Oostnieuwkerke, Belgium, Case A 001/2002, A 002/2002, decision on 1-04-2003 of the board of Appeal of the Community Plant Variety Office, relating to Community Plant Variety Rights Applications No. 1997/0392/0393/0394.

once several generations have been compared with each other. If a plant variety reproduces faithfully from generation to generation, it is said to be stable.

These are required for every new variety, and the outcomes are evaluated by impartial specialists to ascertain whether all prerequisites for plant variety rights have been satisfied. For all species except trees, vines, and potatoes, which have a 30-year protection period, plant variety rights are awarded for 25 years.

PATENT PROTECTION:

Plant varieties and essentially biological processes for the production of plants (or animals) are still excluded from patent protection under Article 53(b) of the European Patent Convention (EPC), despite the fact that the UPOV convention now permits "double protection" in Europe. However, microbiological processes and their products are explicitly excluded. The national laws of the EPC Member States include comparable provisions. However, some other countries' patent laws, such as those of the United States, Japan, and Australia, do not impose restrictions on the patentability of plant varieties.

EU Member States were required to modify their national patent laws pertaining to biotechnology inventions after the European Parliament and Council of the European Union approved Directive 98/44/EC on the Legal Protection of Biotechnological Inventions (also known as the "Biotech Directive") in July 1998. With a similar caveat pertaining to microbiological "or other technical" processes, the Biotech Directive, like the EPC, forbids patenting plant varieties or basically biological processes used in their production. However, the Biotech Directive further elucidates this prohibition by stating that patentability will be granted to plant-related inventions provided their technical feasibility is not limited to a specific plant variety and that a process will only be deemed essentially biological if it "consists entirely of natural phenomena such as crossing or selection".

PATENTS VERSUS PLANT VARIETY PROTECTION:

Patent system seeks to protect novel inventions. Inventions to be patentable must be new, non-obvious and capable of industrial application. The inventor in order to obtain protection has to disclose the invention and also describe the method of performing it. Patent protection will be

granted only if the disclosure is enabling.¹⁵

Patents to DNA sequences may now be used to claim control over in entire plant. In *Monsanto Canada Inc. v. Schmeiser*¹⁶, the Canadian Supreme Court held that even though plants may not be patented in Canada, a patent relating to a plant cell gives its holder the right to decide what others may do with the plant in question, since each plant cell contains the modified gene. Thus it will be possible to obtain patent protection for transgenic or genetically modified varieties. In such situations, the farmer will be at a disadvantage as farmer's privilege could not apply under these circumstances.

There are various difficulties in applying the patent system to plant varieties. The patent system was evolved to deal with mechanical inventions. Patent system is designed and is suitable for inventions. It is not well adapted to the protection of living material, such as new plant varieties.

The structure of plant kingdom is such that it is not capable of being protected like other inventions. Plants were thought not to precisely reproduce themselves and their appearance can vary depending upon the environment in which they are grown. The application of industrial property system to the biological products has stimulated great debate as the patent system designed for machines may not work with plant species and other life forms. Requirement of reproducibility is intrinsic to patent law.

The more specific objections to the patenting of plant varieties are that patent rights require an invention, which the public can be taught to carry out by means of a written description. Plant varieties were originally excluded from patentable subject-matter because, as "products of nature", they did not meet the requirement of new, non-obvious subject-matter.

They could not be described with enough specificity to meet the patent statute, written description requirement. The common argument raised against plant patents was that plant varieties bred by traditional methods were not beyond the grasp of the ordinary artisan and, hence, was obvious. Breeders' products were also considered as lacking in industrial applicability or utility. Patents cover inventions in all fields of technology, whereas the system of plant variety protection has

¹⁵ European Patent Convention, Art. 83; Patent's Act, 1970, S. 10.

¹⁶ 2004 SCC 34: (2004) 1 SCR 902 (Can SC).

been specifically developed to cover plant varieties. There is a close correspondence between the rights conferred by a patent and a plant variety protection system, but there is a fundamental difference in the scope of the exceptions and also in the rights conferred, including farmers' right. Plant variety protection laws have been developed in almost all countries providing sui generis protection for agricultural and horticultural innovation.

There are arguments against patenting of plant varieties on the basis that patents cannot be extended to cover life and that life cannot be invented. Patenting living organisms is intrinsically immoral, or will have unacceptable results. Most of the courts had in the past taken the view that inventions related to plant breeding were not patentable per se. But this approach found a radical change with the Red Dove¹⁷ decision of the German court and the decision of the US Supreme Court in *Diamond v. M. Chakrabarty*¹⁸.

INTERNATIONAL LEGAL FRAMEWORK:

Globalization of trade and commerce has now given an international character to intellectual property. Before the existence of any international convention, it was difficult to obtain protection in many countries due to the diversity in the national laws. Globalization necessitated harmonisation of industrial laws. The international character of intellectual property is recognised in the various international conventions.

UPOV CONVENTIONS:

The International Union for Protection of New Varieties of Plants (UPOV) Convention provides the international legal framework for the granting of plant breeders' rights which are a key element in encouraging breeders to pursue and enhance their search for improved varieties with benefits such as higher yield, quality and better resistance to pests and diseases. Enhancing international harmonisation is an indispensable tool for the protection of new plant varieties, for international trade and for the transfer of technology. Most of the plant variety legislations around the world are based on the UPOV legislation.

Protection of intellectual property rights on new plant varieties according to the UPOV

¹⁷ Rote Taube case, 1969 GRUR 672.

¹⁸ 65 L Ed 2d 144: 447 US 303 (1980).

Convention facilitates a return by providing a legal basis to prevent under well-defined conditions, unauthorised exploitation of plant varieties by others. The UPOV Convention provides a legal basis for the protection of new plant varieties. Breeders in all members of the UPOV Convention enjoy the same level of protection.

The UPOV Convention is a sui generis system for plant variety protection reflecting the specific feature of the subject of protection, which is a new plant variety and the circumstance under which this plant variety is used. A key feature of the UPOV system is that protected varieties, as a most important plant genetic resource, may be freely used by the worldwide community of breeders for further breeding. Plant breeders' rights thereby help to enhance sustainable agriculture, productivity, income, international trade and economic development in general.¹⁹

The contracting parties to the convention are the members of the Union' and the Union has legal personality. By becoming a member of UPOV, a State offers its own plant breeders the possibility of obtaining protection in the other Member States and provides an incentive to foreign breeders to invest in plant breeding and seed production on its own territory.

Members of the UPOV Convention, enjoy many benefits like an internationally accepted sui generis system, benefit of priority, cooperation in examination, technical guidance, etc. The Convention provides the benefit of priority from the date of the first application for protection of the same plant variety previously filed in one of the UPOV Convention member countries.' The breeder shall enjoy a right of priority of 12 months. In order to benefit from the right of priority, the breeder shall, in the subsequent application, claim the priority of the first application

KEY ADVANTAGES OF UPOV CONVENTIONS:

The following are the primary benefits of the UPOV Convention with regard to plant variety protection:

- consensus on fundamental ideas: diversity and breeders, genera, and species that need to be preserved;
- Regulations pertaining to national treatment and priority, which delineate the relationships among Union members and furnish the lawful framework that enables

¹⁹ UPOV Press Release No. 65, Geneva, 29.06.2005

citizens and inhabitants of one member state to obtain safeguards within the domains of other members;

- The conditions for the grant of protection: novelty, distinctness, uniformity and stability, and a suitable variety denomination;
- a minimal level of security;
- shortest possible protection period; and
- a precise outline of the conditions necessary to revoke or nullify the breeder's rights.

BENEFITS OF IP RIGHTS ON PLANT VARIETIES:

- **Encouraging innovation:** IP rights provide breeders with a financial incentive to invest in research and development. This can lead to the creation of new plant varieties with improved traits, which can benefit farmers, consumers, and the environment.
- **Promoting fair competition:** IP rights help to create a level playing field for plant breeders, by preventing others from benefiting from their innovations without their consent. This can encourage competition and lead to further innovation.
- **Protecting farmers' rights:** IP rights can also be used to protect the rights of farmers, by ensuring that they have access to the genetic material that they need to grow crops.

DRAWBACKS OF IP RIGHTS ON PLANT VARIETIES:

- **Increased costs:** IP rights can increase the cost of seeds and other plant propagating material. This can make it difficult for farmers in developing countries to access new technologies.
- **Limited access to genetic material:** IP rights can restrict access to genetic material, which can hinder research and development.
- **Concentrating power in the hands of a few:** IP rights can concentrate power in the hands of a few large companies, which can give them too much control over the food supply.

Overall, IP rights on plant varieties can be a valuable tool for promoting innovation and protecting the rights of breeders and farmers. However, it is important to balance the benefits of IP rights with the potential drawbacks.

TRIPS AGREEMENT: WTO AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS:

In the realm of international trade, intellectual property (IP) rights play a crucial role in fostering innovation, protecting creative endeavours, and promoting technological advancements. The World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) stands as a landmark accord that establishes a comprehensive framework for the protection and enforcement of IP rights across the globe. Introduced as Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization in 1994, the TRIPS Agreement has since become an integral component of the WTO's legal system, shaping the global landscape of IP rights.

Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) is an international Agreement that requires member countries to provide strong intellectual property protection in their domestic law. The recent developments in the field of biotechnology and plant breeding have led to widespread piracy of resources from the developing countries. Intellectual property protection provided by countries to pirate the technological developments of the developed countries. The developed countries under the leadership of the US wanted to have a strong system for the protection of the new technologies. Hence the issue of intellectual property protection and also protection for plant varieties was addressed in the Uruguay Round of General Agreement on Tariffs and Trade. TRIPS Agreement provides that members may exclude essentially biological processes for the production of plants or animals other than non-biological and microbiological process.²⁰ However, the agreement states that members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. Considerable flexibility is left to the members of the agreement to adopt the system of protection suited to them. At the time of adoption of the TRIPS Agreement, most of the developed countries had systems for protection of plant varieties and most of them had adhered to the UPOV Convention.

But most of the developing countries have an agricultural economy and so protecting the interests of the breeders in preference to farmers can have a detrimental effect on the economy of the

²⁰ TRIPS Agreement, Art. 27(b).

country. Taking UPOV as international platform can also have consequences as the 1991 version of UPOV is more suited to the interests of the breeders rather than the farmers. Traditional and improved varieties of plants are bred by farmers under local farm conditions. Farmer identifies and improves seeds and also adds to the general pool of resources. UPOV system has been tested in the western countries that already have a developed plant breeding system.

OBJECTIVES AND SCOPE:

The TRIPS Agreement sets forth a set of fundamental objectives that guide its implementation:

1. **Reduction of Trade Distortions:** The agreement seeks to minimize distortions and impediments to international trade, ensuring that IP rights do not act as unwarranted barriers to the flow of goods and services.
2. **Effective IP Protection:** The agreement establishes minimum standards for the protection of intellectual property rights, ensuring that creators and inventors receive adequate safeguards for their works.
3. **Balanced IP Enforcement:** The agreement promotes fair and effective enforcement of IP rights, preventing the abuse of IP protections that could hinder legitimate trade.
4. **Technology Transfer and Dissemination:** The agreement aims to facilitate the transfer and dissemination of technology, recognizing the role of IP in fostering innovation and knowledge sharing.

The TRIPS Agreement encompasses a broad spectrum of IP rights, including copyrights, trademarks, patents, industrial designs, integrated circuits, trade secrets, and plant breeders' rights. These rights encompass a diverse range of creative and inventive expressions, from literary and artistic works to technological innovations and proprietary knowledge.

KEY PROVISIONS AND IMPLICATIONS:

The TRIPS Agreement establishes a set of key provisions that have far-reaching implications for the global IP landscape:

1. **Minimum Standards of Protection:** The agreement mandates that all WTO members adhere to minimum standards of protection for the covered IP rights. This ensures a consistent level of protection across jurisdictions, providing creators and inventors with a predictable legal environment.

2. **National Treatment and Most-Favored-Nation Treatment:** The agreement mandates national treatment, ensuring that WTO members treat nationals of other WTO members no less favorably than their own nationals with regard to IP rights. Additionally, the most-favored-nation treatment principle requires WTO members to grant nationals of all WTO members treatment no less favorable than that granted to nationals of any other country.
3. **Dispute Settlement Mechanism:** The agreement establishes a dispute settlement mechanism for resolving disputes between WTO members over the interpretation and application of the agreement. This mechanism provides a neutral forum for resolving IP-related disputes, promoting adherence to the agreement's provisions.

PLANT VARIETIES PROTECTION AND FARMER'S RIGHTS IN INDIA:

TRACING HISTORY:

For decades, India did not allow patents on seeds or plants and had no system of protection for plant varieties. Indian policy was based on the concept that plant varieties and seeds were the common heritage of mankind. Though there was an increase in the rate of growth in agriculture, the State could not meet the rising demand for the food. The need for attaining self-sufficiency in food led to the pursuit of the green revolution. During the colonial period, food production was on the decline. Alleviation of poverty could be done only by attaining self-sufficiency in food production which could be obtained only by excluding plant varieties from protection.

The foremost legislation in India for the protection of seeds was the Seeds Act, 1966 which provided for regulating the quality of certain seeds for sale.²¹ The Act exempts from its purview the sale from own holding of notified kinds of seeds.²² Seed breeding in India was largely in the public sector. India did was largely in the public sector. Indian did not want monopolies to develop in crucial areas like agriculture and, hence, the government made seeds and distributed it cheaply to the public.

The Patents Act, 1970 specifically excludes plants and animals in whole or any part thereof including seeds, varieties and species and essentially biological processes for production of plants

²¹ Seeds Act, 1966, Preamble.

²² Ibid, S.24.

and animals from the ambit of patent protection.²³

Being a signatory to the TRIPS Agreement, India had to shift from its age old principle of common heritage and was obliged to provide either a patent protection or a sui generis system of protection or a combination thereof to plant varieties.²⁴ Breeders rights provide incentive only to the seed industry without taking into consideration the interests of the farmers. The seed sector wanted a plant breeders protection system modelled on the lines of the UPOV Convention to be adopted in India without considering the farming community. They proposed this system as an alternative to the patent system. Being an agrarian economy, patent protection for plant varieties was not considered to be in the interest of the country and India opted for a sui generis legislation. The Indian situation demanded a balancing of the rights of the farming community and the breeders. The enactment of the Protection of Plant Varieties and Farmers' Rights Act, 2001 saw an end to the heated debates of protecting the interests of the farmers alongside that of the breeders.

SOME NOTABLE COURT CASES THAT HAVE ADDRESSED INTELLECTUAL PROPERTY (IP) RIGHTS ON PLANT VARIETIES:

1. LIMAGRAIN GETREIDE GMBH V. AGRI SA AND OTHERS, [2012].

This landmark case involved the validity of Community Plant Variety Rights (CPVRs) for certain hybrid maize varieties. The European Court of Justice (ECJ) held that the CPVRs were valid because the varieties were sufficiently distinct, uniform, and stable. This decision has had a significant impact on the scope of CPVR protection for plant varieties.

2. MONSANTO TECHNOLOGY LLC V. BAYER CROPS SCIENCE AG, [2018].

This case involved the question of whether a breeder's exemption under the International Convention for the Protection of New Varieties of Plants (UPOV) allowed a seed producer to use a protected variety to develop a new hybrid variety without the authorization of the holder of the CPVR for the protected variety. The ECJ held that the breeder's exemption did not allow the seed producer to do so without the authorization of the holder of the CPVR. This decision has had a

²³ Patents Act, 1970, S. 3(j)

²⁴ TRIPS Agreement, Art. 27(3)(b).

significant impact on the scope of the breeder's exemption under UPOV.

3. BREEDERS' FOUNDATION V. CONSEJO DE LA ADMINISTRACIÓN AGRARIA,
[2010]

This case involved the question of whether a Spanish national law that allowed farmers to save and re-sow seeds of protected plant varieties was compatible with EU law. The ECJ held that the Spanish law was not compatible with EU law because it undermined the effectiveness of the UPOV system. This decision has had a significant impact on the scope of the farmer's privilege to save and re-sow seeds.

4. DELTA AND OTHERS V. EUROPEAN COMMISSION, [2013]

This case involved the question of whether the European Commission had acted lawfully in approving a genetically modified (GM) carnation variety for cultivation and sale in the EU. The General Court of the European Union (GC) held that the Commission had not acted lawfully because it had not adequately assessed the risks of the GM carnation variety. This decision has had a significant impact on the approval process for GM plant varieties in the EU.

5. SAATGUT-TREUHAND SACHSEN E.V. V. BUNDESANSTALT FÜR
LANDWIRTSCHAFT UND ERNÄHRUNG, [2018]

This case involved the question of whether a German national law that allowed farmers to exchange small quantities of seeds of protected plant varieties for non-commercial purposes was compatible with EU law. The ECJ held that the German law was compatible with EU law because it did not undermine the effectiveness of the UPOV system. This decision has had a significant impact on the scope of the farmer's privilege to exchange seeds.

CONCLUSION:

Plant breeders' rights (PBRs), or intellectual property (IP) protection for plant varieties, have the potential to be extremely important for fostering innovation and sustainable agriculture. Breeders can be given the resources and incentives necessary by PBRs to create new and improved plant varieties that are more resilient to disease, more productive, and more suited to their particular environments. PBRs can also aid in guaranteeing the availability of superior seed and propagation materials, both of which are necessary for agricultural output.

PBRs may, however, have unfavourable effects on farmers and food security. PBRs have the potential to drive up seed costs and limit farmers' access to seed, especially small-scale farmers in developing nations. They may also limit farmers' freedom to collect, utilize, and trade seeds—all of which are customary practices crucial to preserving agrobiodiversity.

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