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Recognition and Registration of Plants Varieties & Farmer' Rights under Geographical Indications Law

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ABSTRACT

This article proposes to discuss the problems pertaining to farmer's rights in the light of intellectual property rights of genetically engineered (GE) crops and seeds on which patents are being increasingly available and their effect on farmer's rights. Basically, the idea of farmer's rights violates the values of intellectual property. Intellectual property rights are meant to offer rewards as a reward for creativity for a limited time. By evolving IPR regimes that concurrently safeguard the interests of breeders and growers, developing countries are attempting to address these demands. While TRIPS does not officially recognise the rights of farmers, it does facilitate the adoption of PVP sui generis legislation. In support of sui generis legislation that safeguards farmers and their plant varieties, there are several articulations and enactments at the national level.

Keywords: Farmers rights, Plant Varieties, Geographical Indications, IPR

I. INTRODUCTION

“Nothing that Congress could do to help farming would be of greater value and permanence than to give the plant breeder the same status as the mechanical and chemical inventors now have through the law.”

- Thomas Edison

This article proposes to discuss the problems pertaining to farmers' rights in the light of intellectual property rights of genetically engineered (GE) crops and seeds on which patents are being increasingly available and their effect on farmers' rights. Basically, the idea of farmers' rights violates the values of intellectual property. Intellectual property rights are meant to offer rewards as a reward for creativity for a limited time.²

A retrospective award of indefinite period for the protection of plant genetic resources is the right of farmers. The rights provide credit for the inventions made in the sector. Between 1988

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² Elizabeth Verkey, 'Law of Plant Varieties Protection', (2007) Eastern Book Co., Lucknow, p. 145.

and 1991, the Keystone International Dialogue on Plant Genetic Resources included recommendations for the implementation of a scheme of acknowledgment and compensation for informal creativity described by the idea of farmers' right. The interests of farmers are the countervailing factor against the interests of breeders and patents on seeds and plants. In order to protect our habitats, the awareness and rights of the local population have to be improved. The idea of the right of farmers emerged in the FAO International Plant Genetic Resources Undertaking.³ "The Resolution describes the rights of farmers as "rights resulting from farmers' past, present and future contributions to the protection, development and making available genetic resources for plants, particularly those in centres of genetic diversity. Such rights are vested as trustees for present and future generations in the international community." Farmers' invention started from the time of settled ages.

Although the farmer's invention process does not adhere to the strict terms of the criterion for separation, durability and uniformity, they also have definite requirements for defining improved varieties they create. Yet they seldom consider these inventions. Farmers do not breed in optimal laboratory settings, but by natural selection and constant changing processes on the basis of real knowledge of environmental settings. Many varieties which are resistant to salt, flood, drought etc. have been produced by Indian farmers. If breeders who grow a new variety from established genetic resources have the right to own and manage the new variety by means of labour, farmers are also entitled to find, conserve and improve the conventional variety. It is the farmer who has safeguarded the vast biodiversity used as raw material for breeders and seed industries. At the international level, numerous attempts have been made to recognise the role of farmers.

India has evaluated the sui generis option provided for in the TRIPS Agreement to fulfil its WTO task. India has created a plant variety protection law known as the Plant Variety Protection and Farmer's Rights Act of 2001. The goal of the Act is to create an efficient framework for preserving plant varieties, farmers' and breeders' rights and to facilitate the production of new varieties in compliance with the TRIPS Agreement. The preamble of the Act states that, for the agricultural production of the country, the protection of plant breeders is necessary. Farmers' commitment to the protection, enhancement and accessibility of plant genetic resources for the production of new plant varieties is also covered by the Act.

Thus the Effective Plant Variety Protection Laws should ensure that the rights of the breeder take into account the interests of the farmers. Legislation should ensure that the farmers who

³ Twenty-fifth Session of the FAO Conference - Rome, 1989, Resolution 5/89.

have identified, conserved and subsequently bred the genetic diversity are also given due share.

II. FARMERS' RIGHTS

By evolving IPR regimes that concurrently safeguard the interests of breeders and growers, developing countries are attempting to address these demands. While TRIPS does not officially recognise the rights of farmers, it does facilitate the adoption of PVP sui generis legislation. In support of sui generis legislation that safeguards farmers and their plant varieties, there are several articulations and enactments at the national level. For example, India, which had no current sui generis rule, established its own version of PVP, respecting both the rights of plant breeders and the rights of farmers.

The interests of farmers are a precondition for preserving the genetic diversity of crops, which is the foundation of all food and agriculture in the world. The very core of farming is the genetic diversity of agricultural plants. It provides the reservoir from which plant characteristics that face the challenges of crop pests and diseases, marginal soils, and, not least, changing climate conditions can be identified, and it is important for smallholder farmers to distribute risks.

In general terms, the definition of farmers' rights signifies the rights of farmers over their land and information in basic terms. In popular parlance, the phrase 'resources and knowledge' may have general sense and variety. It can contain a range of questions relating to all essential agricultural development variables, such as land, water, crops, conventional farming methods, harvesting, and traditional knowledge of agriculture. However, all these facets of farmers' rights are not covered by the contemporary legal regime. Usually, the rights of farmers as a legal principle have established borders. In the current legal sense, there are usually two key concerns that are covered by the definition of farmers' rights. They are genetic tools for plants and conventional expertise for agriculture.

For agriculture, plant genetic diversity is perhaps more important than any other environmental factor, simply because it is the aspect that makes it possible to respond to evolving environmental conditions. The key players interested in preserving crops, cross breeding to produce new varieties with better adapted genes, biodiversity conservation and so on have been farmers in most developed countries. The collective position of manufacturer, customer and conservator has been played by them. Thus, they are the original holders of agricultural property rights, especially in developing countries. This was the beginning of the concept that farmers are also intellectual property rights-holders in a significant, if not more influential way, because the modern biotechnologically aided plant breeders are in general, it was recognition that while commercial breeders were covered either by PBRs or by patents on plant varieties, the efforts

of farmers as preservers and developers of the gene pool, on which was based much of the incremental changes that were made by commercial breeders, remained unrewarded and unprotected. There was no plan for the farmers to pay or offer benefits.⁴

The inequity and exploitative consequences of agricultural intellectual property rights, PBRs or patents have contributed to the acknowledgement that farmers have a prior right, both in terms of their expertise and genetic pool, to be fairly paid for the commodities they possess. Therefore, the farmers' subsistence rights had to be secured by protecting their access to genetic resources at risk of patents and Plant Breeders' Rights (PBRs).

The inequitable treatment between the owners of germplasm and the owners of technology spawned a debate at various international forums. The result was the institutionalization of farmers' rights in the form of two main instruments:

a) The demand for farmers' rights formally got incorporated in 1983 in Food and Agricultural Organization (FAO) as an International Undertaking on Plant Genetic Resources (IU). The IU⁵ resolutions 4/89, 5/89 and 3/91, were negotiated by the Commission on Plant and Genetic Resources and were unanimously approved by more than 160 countries in the FAO conferences held in 1989 and 1991.

b) The International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA)⁶ in November 2001.

Plant Variety Protection and Farmers' Rights Act expressly provides for the farmers rights. These have been included in the legislation as a result of the determined and sustained campaign by NGOs, spearheaded by the Gene Campaign. Gene Campaign's position right from the start was that if the status quo had to be changed and India had to grant Plant Breeders' Rights, our legislation would have to grant a strong Farmers' Rights at the same time. Although, it's provided in the UPOV that farmer rights can be granted only as exceptions which are known as Farmers' 'privilege' but under the Indian law, it was insisted persistently that farmers should be granted exclusive 'rights'. Thus, farmers' rights are the following:-

Right to Sell Seeds:- In section 39 (iv) of the chapter on Farmers' Rights, the right to sell seed—even protected seed, has finally been provided. This right is crucial to maintaining the livelihood basis of the farming community and the nation's self-reliance in agriculture. Denying

⁴ See, for e.g., GRAIN, Plant Variety Protection to Feed Africa, 16/4 Seedling 2 (1999).

⁵ IU for Plant and Genetic Resources, Resolution 8/83, Text available at <ftp://ftp.fao.org/ag/cgrfa/iu/iutextE.pdf>. visited 15-09-2020.

⁶ International Treaty on Plant Genetic Resources for Food and Agriculture Resolution 3/2001 <ftp://ftp.fao.org/ag/cgrfa/it/TPGRE.pdf> visited 15-09-2020.

the farmer the right to sell seed would displace the farming community as the country's major seed provider.

Permission from Farmers:- Breeders wanting to use farmers' varieties for creating Essentially Derived Varieties (EDVs) cannot do so without the express permission of the farmers.

Exemption from Fees:- Further protecting farmers from the new set of provisions being put in place, the new Act stipulates that if farmers wish to examine documents and papers or receive copies of rules and decisions made by the various authorities, they will be exempt from paying any fees.

Disclosure:- Explicit and detailed disclosure in the passport data about the parentage of the new variety is required. If concealment is detected in the passport data, the Breeders certificate stands to be cancelled.

Terminator Technology Forbidden:- Breeders will have to submit an affidavit that their variety does not contain a Gene Use Restricting Technology (GURT) or terminator technology.

Protection against Innocent Infringement:- Rightly assuming that farmers may unknowingly infringe Breeders' Rights since they will not be used to the new situation, the law provides for protection from prosecution for innocent infringement.

Compensation to Farmers:- A farmer/farmer's organization can claim compensation if a variety fails to give the expected performance under given conditions. Such a claim may have to be paid by the breeder as directed by the Authority after giving due hearing to both the parties, namely the farmer and the breeder.

III. EVOLUTION OF FARMERS' RIGHTS

Developed countries began awarding PBR and patent rights to plant varieties during the 1960s and 1970s. In developing countries, plant breeding by the private seed industry has been gaining momentum. The award of a patent on varieties absolutely privatises the production of seed, without farmers getting the right to conserve seed from their field. The PBR is fairer since it will satisfy the right of farmers to preserve, sow, swap, transfer or sell seeds at the same time. For farmers in wealthy developed and poor developing countries, the effect of farmers' rights on seeds or their rejection is very different. The agriculture sector of rich countries varies in many respects from that of India.

Just less than 4% of the population of rich countries is engaged in agriculture, while India accounts for more than 65%. In rich countries, the average farm size is a few hundred acres, while in India, it is less than one acre. In rich countries, the wealth and technical capabilities of

farmers are much superior to those of Indian farmers. In India, the diversity of crops and the resources of agricultural-related varieties is considerably richer than in the agriculture of rich countries. Therefore, farmers in rich countries are much less deprived than their poor counterparts in India by the denial of the conventional right of farmers to crop.

The first use of Farmers' Rights as a political definition dates back to the early 1980s, when the phrase was invented by Pat Roy Mooney and Cary Fowler of the then Rural Advancement Foundation International to highlight farmers' important but unrewarded contributions to food and agricultural plant genetic wealth. As articulated in international negotiations, the concept emerged as a countermeasure to the growing demand for the rights of plant breeders, to call attention to the unpaid inventions of farmers that were considered as the base of all modern plant breeding.⁷ Pat Roy Mooney argued that any legal agreement that could prohibit farmers from recycling, re-using, enhancing and growing seeds in their practise should be condemned. According to Cary Fowler, the idea of FR can be traced back to the work of Jack R. Harlan (1917-1988), a noted plant explorer, geneticist and plant breeder, who spoke to farmers as 'amateurs' who had actually developed the contentious genetic diversity. Today's FR, in truth, represents all these aspects.

Farmers' Rights formally, first took place with the Food and Agriculture Organisation (FAO) of the U.N., in relation to the making of the International Undertaking on Plant Genetic Resources for Food and Agriculture (IUPGRFA). FRs were addressed in an FAO forum for the first time at the First Meeting of the Working Group in Rome, in 1986, which focused on legal and technical matters in addition to discussing the feasibility of establishing an international fund for plant genetic resources. In their analysis of country reservations to the IUPGRFA, the Working Group identified various categories of reservations, one of which involved PBR and considered ways and means to reach negotiated solutions to the problem so as to achieve widest possible adherence to the IUPGRFA. One solution found was to recognize the rights of plant breeders. It was in this context that FRs were addressed for the first time. The working Group emphasized that, in addition to the recognition of PBR, specific mention should be made of the rights of the farmers of the countries where the materials used by the breeders originated. These materials were the result of the work of many generations and were a basic part of the national wealth. On the basis of the discussion in the Working Group on how to deal with country reservations to the IUPGRFA and attract greater adherence, a report was produced for the Second Session of the Commission on Plant Genetic Resources (CPGR), held in Rome in March

⁷ Available at http://www.farmersrights.org/about/fr_history_part1.html. visited on 16-09- 2020.

1987.

The second meeting of the Working Group of the Commission on Plant Genetic Resources took place in Rome in 1987. At this meeting, FR was addressed in greater detail, and thus this report is a milestone in the history of FR. The most important parts of the same are reproduced below:

“During the discussion of document CPGR/87/4, the Working Group agreed that the breeding of modern commercial plant varieties had been made possible first of all by the constant and joint efforts of the people/farmers (in the broad sense of the word) who had first domesticated wild plants and conserved and genetically improved the cultivated varieties over the millennia. In recent years some countries had incorporated the rights of the latter group into laws as 'Breeders' rights', i.e. the right of professional plant breeders or the commercial companies which employ them to participate in the financial benefits derived from the commercial exploitation of the new varieties. However, as document CPGR/87/4 pointed out, there was presently no explicit acknowledgement of the rights of the first group, in other words, no 'Farmers' rights'. The Working Group considered such rights to be fair recognition for the spade-work done by thousands of previous generations of farmers. And which had provided the basis for the material available today and to which the new technologies were in large measure applied. Alternative names such as 'right of the countries of origin' or 'gene donors' were proposed, but the conclusion was that the name 'Farmers' Rights' was the most expressive”.

IV. LAW OF GEOGRAPHICAL INDICATIONS IN INDIA

A Geographical Indication (GI) is a symbol which is used, whether in the form of a name or a symbol, on products having a certain geographical origin and possessing characteristics or a prestige attributable to the place of origin. Geographical signs are precious rights which, if not properly secured, may be misused to the detriment of both customers and legitimate users by deceptive commercial operators. Minimum levels of GI protection and extra protection for wines and spirits are recommended by the TRIPs. Section III of Article 22 to 24 of Part II of the TRIPs lays down minimum security requirements for geographical signs to be given by WTO members. By enacting the Geographical Indications of Goods (Registration and Protection) Act, 1999, which came into force on September 15, 2003, and the Geographical Indications of Goods (Registration and Protection) Regulations, 2002, India, in accordance with its TRIPs obligations, has taken legislative steps.

As per the (Indian) Geographical Indications of Goods (Registration and Protection) Act, 1999 "Geographical Indication", in relation to goods, means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or

manufactured in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin and in case where such goods are manufactured goods one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be.

GIs have been used in India for a wide variety of products, such as Basmati Rice, Darjeeling Tea, Kangra Tea, Feni, Alphonso Mango, Alleppey Green Cardamom, Coorg Cardamom, Kanchipuram Silk Saree, Kohlapuri Chappal, etc. By registering a geographical indication in India, the rights holder can prevent unauthorized use of the registered geographical indication by others by initiating infringement action by way of a civil suit or criminal complaint. Registration of the GIs in India is not mandatory as an unregistered GI can also be enforced by initiating an action of passing off against the infringer. It is, however, advisable to register the GI as the certificate of registration is prima facie evidence of its validity and no further proof of the same is required.

Registration of Geographical Indications

An application for the registration of a GI is to be made to the Registrar of Geographical Indications in the form prescribed under the Geographical Indications of Goods (Registration and Protection) Act, 1999 (the GI Act) read with the Geographical Indications (Registration and Protection) Rules, 2002 (the GI Rules).

Duration of Protection

A Geographical Indication is registered for a period of ten years and the registration may be renewed from time to time for a period of 10 years at a time.

Infringement of Geographical Indications

The remedies relating to the infringement of Geographical Indications are similar to the remedies relating to the infringement of Trademark. Similarly, under the (Indian) Geographical Indications of Goods (Registration and Protection) Act, 1999, falsification of a Geographical Indication will carry a penalty with imprisonment for a term which may not be less than six months but may extend to three years and with fine which may not be less than INR 50,000 (approx. US\$ 1075) but may extend to INR 2,00,000 (approx. US\$ 4300).

V. LAW OF PLANT VARIETIES IN INDIA

India, having ratified the TRIPS and in order to give effect to it, have enacted the Protection of Plant Varieties and Farmer's Rights Act, 2001 (the "Plant Act") (based on the recommendations

of the International Union for Protection of New Varieties of Plants, Geneva). The Plant Act provides for setting up of a Protection of Plant Varieties and Farmers' Rights Authority (the "Authority") that shall be responsible for promoting the development of new varieties of plants and protecting the plant varieties and rights of the farmers and breeders.

The Plant Act contains elaborate provisions to safeguard the rights of Indian farmers in addition to plant breeder's rights and researcher's rights. Presently, the Government of India has notified the following crops with their genera eligible for registration of varieties:

"Black gram, Bread wheat, Chickpea, Field pea, Green gram, Kidney bean, Lentil, Maize, Pearl millet, Pigeon pea, Rice, Sorghum"

VI. REGISTRATION OF PLANT VARIETIES

A variety is protected under the Act, only when it is registered.⁸ The benefits of this act are extended only to the persons who register the variety. Applications for registration of varieties can be made by the breeder of the variety, his successor, or assignee, any farmer or group of farmers.⁹ Every application shall be made in writing and signed by the applicant and delivered to the Registrar or the Authority at its office.¹⁰ Application and all other documents have to be filled in triplicate.

Criteria for Protection

A new plant variety shall be protected by registration if it is **novel, distinct, uniform and stable.**

- **Novel:** A new variety shall be deemed to be novel if at the date of filing of application for registration for protection, the propagating or harvested material of such variety has not been sold or otherwise disposed of by or with the consent of the breeder, for the purposes of exploitation of such variety (a) in India, for more than one year or (b) outside India in the case of trees or vines, earlier than 6 years or, in any other case, earlier than four years. However, a trial of a new variety, which has not been sold or otherwise disposed of to others, shall not affect the right to protection. Further, the fact that on the date of filing of the application the propagating material or harvested material of such variety has become a matter of common knowledge other than through the aforesaid manner shall not affect the criterion of novelty. The filing of an application for the granting of a breeder's right to a new variety or for entering such variety in the official

⁸ PPVFR Act, S.14

⁹ S.16(1)(d)

¹⁰ PPVFR Rules, R.6(1)

register of varieties in any convention country renders the said variety a matter of common knowledge from the date of the application, in case, the application is filed before the granting of the breeder's right or to the entry of such variety in such official register, as the case may be.

- **Distinct:** A new variety shall be deemed to be distinct if it is clearly distinguishable by at least one essential characteristic from any commonly known variety. The description of distinctiveness under the Act is quite similar to the claims in a patent specification which distinguishes the applicant's invention from the prior art. The reference to *common knowledge* as the yardstick to measure distinctiveness under this Act is similar to notion of *prior art* in the patent law. However there is no requirement similar to the *inventive step* necessary to patent an invention under the Act.
- **Uniform:** The new 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 essential characteristics. What is required from a breeder is a degree of uniformity in its essential characteristics and not the requirement of absolute identity of all plants belonging to the new variety.
- **Stable:** A new variety shall be deemed to be stable if its essential characteristics remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle. The requirement of stability means that a variety must remain true to its description/character even after repeated propagation

Non-Registrable Varieties

A new variety shall not be registered if the denomination given to such variety

- is not capable of identifying such variety; or
- consists solely of figures; or
- is liable to mislead or to cause confusion concerning the characteristics, value, identity of such variety, or the identity of breeder of such variety; or
- is not different from every denomination which designates a variety of the same botanical species or of a closely related species registered under this Act; or
- if it is likely to hurt the religious sentiments of any section of the citizens of India; or

- is prohibited for use as a name or emblem for any of the purposes mentioned in the Emblems and Names (Protection of Improper Use) Act, 1950; or
- is comprised solely or partly of geographical name.

However, in the case of a geographical name the Registrar may register a variety, if satisfied that such denomination is an honest use under the circumstances of the case.

VII. PROCEDURE FOR REGISTRATION

Who can apply for registration?

An application for registration can be made either individually or jointly with any other person by following:

- person claiming to be the breeder of the variety or his successor or assignee;
- a farmer or a group of farmers claiming to be the breeder of the variety;
- any person authorized by any of the persons specified above to make application on their behalf;
- any university or publicly funded agricultural institution claiming to be the breeder of the variety.

Under the Act breeder means a person or group of persons or a farmer or group of farmers or any institution, which has bred, evolved or developed any variety. The variety for which registration is sought must be one which is a farmers' variety; or an extant variety; or of such genera or species as the Central Government may specify by notification in the official Gazette other than the farmers' varieties and the extant varieties.

Form of application

An application for registration of a variety must be filled in prescribed Performa. It must be in respect of a variety, must state the denomination assigned to the variety and must be accompanied by an affidavit stating that such variety does not contain any gene or gene sequence involving terminator technology. It must further contain a complete passport data of the parental lines from which the variety has been derived along with the geographical location in India from where the genetic material was taken. The application must also be accompanied by a statement containing a brief description of the variety bringing out its characteristics of novelty, distinctiveness, uniformity and stability. The application must contain a declaration that the genetic material or parental material acquired for breeding, evolving or developing the variety has been lawfully acquired.

The application for registration of a variety must be accompanied with prescribed fees and enough quantity of seeds of the said variety for the purpose of conducting tests to evaluate whether seeds along with parental material conform to the specified standards.

The Registrar may accept the application absolutely or with limitations on being satisfied about the particulars contained in such application. If the Registrar is satisfied that the application does not comply with the requirements of this Act, the application may be either rejected by him or the applicant may be required to amend the application to the satisfaction of the Registrar. However, the Registrar cannot reject the application for registration without affording an opportunity to the applicant to defend the case. Once the application for registration of a plant variety is accepted, the Registrar will advertise the application with limitations, if any, and the specifications of the variety including its photographs or drawing in the prescribed manner for calling objections from the persons interested in the matter.

Test to be Conducted

The applicant is required to make available to the Registrar such quantity of seeds of a variety for registration along with the application as may be prescribed, for the purpose of conducting tests to evaluate whether seeds of such variety , along with parental material , conform to the standards as may be specified by regulations.

The Registrar or any person or test centre to whom such seed has been sent for conducting test, is required to keep such seed during his or its sent for conducting test, is required to keep such seed during his or its possession in such manner and in such condition that its viability and quality remains unchanged. The test is to be conducted in prescribed manner and by prescribed method. The applicant is required to deposit prescribed fee for conducting tests.¹¹

Manner and Method for Conducting Tests

The Authority is to charge separate fees for conducting distinctiveness, uniformity and stability (DUS) test and special test on each variety. The special tests are to be conducted only when DUS testing fails to establish the requirement of distinctiveness. The DUS testing is to be filed and multi-location based for at least 2 crop seasons and special tests to be laboratory based.

After initial scrutiny of the application for registration, if the Registrar is satisfied that the application is in order, he shall notify the applicant to deposit the requisite fee within 2 months for conducting the DUS test. On receipt of such fee , the Registrar shall consider the application for further proceedings. The DUS test is necessary for all new varieties except essentially

¹¹ PPVFR Act 2001,Sec. 19

derived variety and shall be conducted on a minimum of 2 locations. The manner of testing EDV is to be decided by the Authority on a case to case basis. The Authority may recognize and empanel institutions having adequate facilities for conducting DUS or special tests in the country for conducting such tests. The Authority is to develop and publish in its journal guidelines for the DUS test for each crop.

VIII. GEOGRAPHICAL INDICATION IN AGRICULTURE

Seed or planting material is basic to all agricultural production. Seed costs minimum in total cost of crop production but has maximum impact. Having reaped the benefit through the seeds of green revolution varieties, farmers were quick to realize the importance of good seeds of new and better varieties of crops. For such superior seeds, farmers were even more willing to pay a higher price. Seed companies and technology developers saw this as an opportunity to convert plant varieties and important plant genes as profit – making products. Global strategy, pesticides and seed companies merged to consolidate capital and technology to dominate the market. In various countries the need to conserve biodiversity, farm level variation, giving credit to farmers for their traditional crop varieties, folk varieties, farmers varieties, access to benefit sharing, extending consumer assurance by way of geographic indications, appellation of origin, traditional knowledge etc. were attempted to be protected. Global commodity trade is now dominated by several such new issues, which in India are now understood and applied. Other aspect of GI in agriculture is related the plant-based products or by-products. Plant-based products could be raw material for production or its processing or the preparation. After the GI became effective on 15th September 2003, Darjeeling Tea became the first GI tagged product in 2004 in India. After that landmark, many GI-labelled agricultural products have been added in India.

The Indian Parliament enacted in 1999, ‘The Geographical Indications (GI) of Goods (Regulation and Protection) Act’ for registration and better protection in relation to goods. This Act came into effect on 15th September 2003. Under Section 1(e) it is defined that ‘Geographical Indication’ in relation to goods, means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating or manufactured in the territory of a country or a region or locality in that territory, where a given quality reputation or other characteristic of such good is essentially attributed to its geographical origin and in case where such goods are manufactured goods, one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality as the case may be. The focus of the Act is on quality reputation or other characteristic

of such goods, which is essentially attributed to its geographical origin. In doing so, the geographical domain can be a territory of a country or a region or locality in that territory. The quality of the product is attributed essentially to its geographical origin. If it is goods, either the raw material production or processing or the preparation, shall take place in such territory. The Registrar of the GI shall construe the GI in the Registry.

These approaches involve differences with respect to important questions, such as the conditions for protection or the scope of protection. On the other hand, two of the modes of protection — namely sui generis systems and collective or certification mark systems — share some common features, such as the fact that they set up rights for collective use by those who comply with defined standards.

IX. RELATIONSHIP BETWEEN FARMERS' VARIETIES (FV) AND GEOGRAPHICAL INDICATIONS (GI)

The PPV & FR Act 2001 provides certain rights to farmers, such as to save, use, sow, re-sow, exchange, share or sell his farm produce including that of the registered variety. Farmers cannot multiply the seeds of the notified variety on their own or market seeds of registered variety as branded seed with packing, label, etc. and such violation may invite infringement action. The Act recognized farmers as plant breeders and therefore has extended the benefit of entitlement for developing commercial varieties though unaided calls for advanced scientific knowledge, access to diverse germplasm and meticulous experimentation to access the commercial potential of the material. Farmers who do develop new varieties of plants like any other plant breeder can apply their material for the conduct of Distinctness, Uniformity and Stability (DUS) testing and registration. This de-centralization of variety development is one benefit that would spin-off from the PPV& FRA.

The PPV&FRA 2001 provides breeders certain ownership claim of their varieties subject to meeting in the case of Novelty in the case of new variety; and Distinctness, Uniformity and Stability. In many cases uniformity invariable provides a window for the assessment of stability. In open pollinated crops the uniformity depends on the nature of the inbred line. That apart, it also depends on the plant breeding methodology followed (top cross, two ways cross, etc.). If genetic male sterile systems (GMS) are used in hybrid development then the level of uniformity may pose a limitation. The private seed companies tend to focus their attention on the endowed areas where farming is efficient, diverse and productivity levels are high. Crops grown under marginal, suppressive soils or under arid conditions may not get the same type of attention from private breeders. However, gradually, over an extended period of time the benefit reaches out

to all farmers.

In the last hundreds years there has been a drive for improved agriculture and that has replaced farmer's variety in several crops with new varieties developed by the plant breeders. Yet farmer's variety is still dominant in pulses, vegetables, melons, etc. The GI for agricultural goods like Basmati rice, coffee, tea, wine, etc. revolve around consumer preferences for the palate feeling, aroma and physical appearance that enhances the appetite. An ideal mixture of all these attributes raises the value of the product due to reasons of consumer preference. India has a GI Act in place and a number of agricultural and handicraft products have been given the GI. India should examine the GI for its agricultural produce like Basmati rice, Alphonso mango, etc., seriously to give it a comprehensive protection of the plant material as FV under the PPV & FR Act 2001 and at the same time give GI protection for produce such as rice, mango fruit and fruit products, etc. Such a double coverage will enable intellectual property protection of the plant material and market advantage to the quality produce through GI.

X. CONCLUSION

GI is a powerful tool to protect the ownership right on the natural resources, natural product and by-products based on plants and animals. It started with the developing countries like U. K., France and others. Now these countries are even registering their products like Scotch whisky and Champagne in developing countries like India under International Registration. They want to protect their products being labelled elsewhere. For the developing countries GI is a boon as it has limited costs and simpler procedure compared to the other forms of IPR. Whole community in the GI area can benefit. There is no hidden cost or hidden danger to it. After 10 years, it can be kept renewed indefinitely.

Thus developing countries must go ahead for GI before someone else can stake their claim on it. GIs are embedded in a territory means that they can be effective tools for promoting local knowledge and locally based development. They can also be protected in many countries by International Registration using Madrid System. Mexican Tequila, Thai Silk, Nepal Himalayan Tea, Darjeeling Tea are many such examples of GI multi-country registered products from developing countries.

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