

RIGHTS AND OBLIGATIONS IN CONTEXT OF THE INDIAN *SUI GENERIS* PLANT VARIETY PROTECTION SYSTEM

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I. BACKGROUND

The developing country members of World Trade Organization (WTO) have been engaged for nearly a decade since its establishment on 1 January 1995 in harmonizing their laws concerning intellectual property rights (IPRs) with package of provisions made under the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs Agreement)¹. A 10-years transitional period had been allowed for such harmonization by developing countries², which ends on 31 December 2004. Eventually, world will have a new trade order, which is more closely influenced by IPR titles in various fields of industrial innovations and intellectual arrangement of ideas in both developed and developing countries. One such field of technology innovation pertains to varieties of plants. The TRIPs Agreement has provided clear option to members for excluding plants and animals from patentability in their respective jurisdictions whereas they have the obligation to provide protection to plant varieties³ and thereby grant IPRs to breeders of these varieties. Broadly, this may affect commercial stakes in seed sector and also access to protected varieties for use in further research and development of new plant varieties.

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¹ <<http://www.wto.org/legaltexts>>.

² Article 65, TRIPs Agreement.

³ Article 27.3(b) of the TRIPs Agreement states: "Members may also exclude from patentability: ... (b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the Agreement Establishing the WTO".

The industrially developed countries have been notably giving importance to IPR on plant varieties in commerce even before the inception of WTO. For instance, legislative instrument for allowing patents on varieties of asexually propagated plants in the USA was put in place in 1930; an International Convention for the Protection of New Varieties of Plants (UPOV Convention) was adopted in Europe in 1961; a German Protection of Plant Varieties Act was passed in 1968⁴, a French Law on the Protection of New Plant Varieties was brought in 1970, and plant variety protection (PVP) laws were enacted in other countries mainly based on UPOV Convention⁵. However, a new world seed trade order that emerges after the expiry of transitional period for the implementation of TRIPs Agreement by developing countries is likely to be highly affected by IPR protection of plant varieties.

II. INDIAN SUI GENERIS PLANT VARIETY PROTECTION SYSTEM

In India, seed trade regulation is governed by the Seeds Act, 1966⁶, the Seeds Rules 1968 as amended from time to time and the National Seeds Policy, 2002. The Act is, however, under revision. On the other hand, IPR on plant varieties will be enforced under the Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPV&FR Act, 2001)⁷ and the Protection of Plant Varieties and Farmers' Rights Rules, 2003. The PPV&FR Act has been considered as first of its kind *sui generis* Act that tends to provide a balance between breeder's right and farmers' rights under Indian PVP system. Plant variety protection is provided under the Act by way of registration of new varieties, and also the extant⁸ varieties, which include *inter alia* farmers' varieties. The new candidate varieties must meet some essential criteria, namely, distinctiveness, uniformity, stability and novelty, and these must be designated with a distinct denomination.

⁴ Pers. Comm.; German Protection of Plant Varieties Act [Sortenschutzgesetz] of 20.5.1968.

⁵ <<http://www.upov.org/>>. UPOV has three versions, namely, UPOV 1961/1972, which means the International Convention for the Protection of New Varieties of Plants of December 2, 1961, as amended by the Additional Act of November 10, 1972; UPOV 1978, which means the Act of October 23, 1978, of the Convention; and UPOV 1991, which means the Act of March 19, 1991, of the Convention.

⁶ <<http://www.agricoop.nic.in/>>.

⁷ S. Kochhar, *IPR Protection in Plant Varieties*, INVENTION INTELLIGENCE, Nov.-Dec. 2003, 254-67.

However, the extant/farmers' varieties need not to be new in commercial sense to qualify their eligibility for registration and protection under the Act⁹. PVP will be granted for varieties of only those genera and species that would be notified in the Official Gazette from time to time. Again, this does not hold good for extant/farmers' varieties and varieties of common knowledge. These varieties can be protected under the Act irrespective of whether the genus/species to which it belongs is notified in the gazette or not. In India, a plant variety having a terminator gene sequence or the genetic use restriction technology (GURT) does not qualify for protection¹⁰.

Recognizing and respecting the politico-historical realities of Indian agriculture, the *sui generis* PVP system in India has been developed in such a manner that breeder's right is balanced with a set of farmers' rights¹¹. The latter may be enumerated as (a) right to register farmer's varieties; (b) entitlement for benefit sharing for the use of biodiversity conserved by the farming community; (c) right to save, use, sow, re-sow,

⁸ As per section 2(j) of the PPV&FR Act, 2001 "extant variety" means a variety available in India which is – (i) notified under section 5 of The Seeds Act, 1966; or (ii) farmers' variety; or (iii) a variety about which there is common knowledge; or (iv) any other variety which is in public domain.

⁹ This may be implied because as per the definition of extant variety, these varieties are already in public domain either by notification or as a matter of common knowledge. Further, as per Rule 24(1) of the PPV&FR Rules, 2003 in respect of registration of extant plant varieties under section 15(2), "The registrar shall register every extant variety within three years from the date of its notification under the Act, with respect to the genera and species eligible for registration subject to its conformity to the criteria of distinctiveness, uniformity and stability as laid down under the regulations; Provided that the Registrar may, for reasons to be recorded in writing, register any extant variety after expiry of the said period of three years." Also, Rule 22(2) of the said rules leaves it to the Authority to determine such period and criteria for registering the extant varieties. The appointment of the Authority and the notification of such regulations are however yet to take place.

¹⁰ As per section 29(3) of the PPV&FR Act, 2001, "Notwithstanding anything contained ... no variety of any genera or species which involves any technology which is injurious to the life or health of human beings, animals or plants shall be registered under this Act. Explanation – For the purposes of this sub-section, the expression "any technology" includes genetic use restriction technology and terminator technology".

¹¹ "Farmers' Rights" as provided in sections 39 to 46 (Chapter VI) of the PPV&FR Act, 2001.

exchange, share or sell farm produce including seed of registered variety but not the branded seed; (d) right to claim compensation for under performance of a right protected variety from its promised level under defined production conditions; (e) mandatory need to secure consent of farmer(s) when a farmer variety is used to develop an essentially derived variety (EDV); (f) protection from legal proceedings related to alleged infringement; and (g) exclusion from paying fee in any legal proceedings under the Act.

The PPV&FR Authority may appoint a Committee to assist in the administration of matters related to farmers' rights¹². A national gene fund will be constituted by the Central Government¹³ to manage benefit sharing arrangements under the Act and a Tribunal will be established¹⁴ for speedy disposal of cases related appeals against orders or decisions of the Authority or Registrar under the Act¹⁵. Broadly, the Indian *sui generis* PVP Act features a combination of provisions from the UPOV 1978 and the UPOV 1991 versions; as it provides for the protection of researchers' rights¹⁶, farmers' rights¹⁷ as well as that for EDV¹⁸.

¹² Sec. 5(1), PPV&FR Act, 2001.

¹³ Sec. 45(1), *id.*

¹⁴ Sec. 54, *id.*

¹⁵ Sec. 56(1), *id.*

¹⁶ According to Article 5(3) of UPOV 1978, "Authorisation by the breeder shall not be required either for the utilization of the variety as an initial source of variation for the purpose of creating other varieties or for the marketing of such varieties. Such authorization shall be required, however, when the repeated use of the variety is necessary for the commercial production of another variety".

¹⁷ According to Article 15(2) of UPOV 1991 there is an optional exception to the breeder's right which states that "... each Contracting Party may, within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder, restrict the breeder's right in relation to any variety in order to permit farmers to use for propagating purposes, on their own holdings, the product of the harvest which they have obtained by planting, on their own holdings, the protected variety or a variety covered by Article 14(5)(a)(i) or (ii) [essentially derived variety]". Further, although there is no direct mention of the word "farmer" in the 1978 version of UPOV, its Article 5(1) implies to acknowledge yet broader farmers' privilege as it restricts the effect of the right granted to the breeder in the sense that that his prior authorization shall be required for the production [of protected variety] "for purposes of commercial marketing". Thus production of seed of protected variety for own use by farmers or for non-commercial purposes is exempted from authorization by breeder. Nevertheless, the issue is still controversial and far from being settled in so far as relationship between PPV&FR Act, 2001 and UPOV is concerned (Pers. comm.).

¹⁸ According to Article (5) of UPOV 1991, breeder's authorization will also be required in respect of "(a)(i) varieties which are essentially derived from the protected

III. *SUI GENERIS* PVP VIS-A-VIS TRIPS AGREEMENT

The TRIPs Agreement does not define or explain as to what would constitute a *sui generis* system. However, such a system implies a 'novel system', or to say a 'system of its own kind'; it must conform to the basics of an IPR system; it must be effective, capable of fulfilling the objectives of TRIPs Agreement, and also fulfilling its various provisions on patents. This is particularly so because the provision for PVP has been made in the TRIPs Agreement in the section on patents¹⁹. Accordingly, a *sui generis* system must expressly provide for protectable subject matter (plant varieties) and that to be excluded from grant of protection. Other provisions, which a *sui generis* PVP system must not ignore include, (i) breeder's rights conferred, (ii) conditions on PVP applicants, (iii) exceptions to the rights conferred, (iv) other use of protected varieties without authorization of breeder, (v) revocation/forfeiture of protected varieties, (vi) term of protection, and (vii) burden of proof. In addition to patent provisions, *sui generis* PVP have to comply with other Articles of TRIPs Agreement concerning enforcement, acquisition and maintenance of IPR, related *inter-partes* procedures, dispute prevention and settlement, and institutional arrangements. At least two models, an existing model (UPOV) and a proposed one (CoFaB²⁰) attempt to interpret as to what could be a TRIPs compliant *sui generis* system. There is strong argument in favour of UPOV, particularly UPOV 1978, being the focus of an effective *sui generis* PVP system (Pers. comm.). Another opinion emerged from Third World Network that a *sui generis* system could be independent of the UPOV system of PVP²¹. Nevertheless, with increasing number of countries

variety, where the protected variety is not itself an essentially derived variety", and Article 5(a)(ii) "varieties which are not clearly distinguishable ... from the protected variety".

¹⁹ Article 27.3(b), TRIPs Agreement.

²⁰ Convention of Farmers and Breeders (CoFaB) was proposed as a developing country alternative by Gene Campaign, a non-governmental organization based in India. URL- <<http://www.genecampaign.org/>>.

²¹ According to the Third World Network "The TRIPs Agreement does not refer to UPOV in the provision dealing with the requirement to provide for the protection of plant varieties, although this Convention was the only instrument in existence at the time TRIPs was formulated. Countries are therefore clearly free to choose any *sui generis* system provided it is effective. This means no more than that it has to comply with the minimum standards set out by TRIPs". Cited from G.S. Nijjar, *Sui generis Law for Plant Varieties: Preserving the Knowledge and Creativity of Traditional Breeders - A Third World View*, Draft (26 April 1999) at URL: <<http://www.twinside.org.sg/index.htm/>>.

including those from third world joining UPOV over the time²², and the Convention already providing an effective multilateral platform for determining the criteria and test guidelines for PVP, it is quite likely that UPOV is brought under direct reference in this context during the TRIPs Agreement review in due course²³.

Out of three choices made available in Article 27.3(b) of TRIPs Agreement for the protection of plant varieties, India has opted for an effective *sui generis* system and has established a legislative instrument, the PPV&FR Act, 2001, to give effect to the PVP as per the intergovernmental commitment and also to safeguard the interests of Indian agriculture. The PPV&FR Act, 2001 envisages protecting the rights of both plant breeders and farmers so as to encourage development and use of new plant varieties. In sum substance, this 'first of its kind' Act simultaneously takes into consideration IPR on plant varieties as well as equitable prior rights on genetic resources. These features of the Act arguably have conformity with the TRIPs Agreement.

The TRIPs Agreement²⁴ clearly mentions the need for balancing IP rights with the obligations of the right holders as per its objectives. It also recognises acts concerning protected subject matter, which were commenced or which become infringing under the terms of Member country's legislation conforming with its provisions, or in respect of which a significant investment was made before the date of acceptance of the WTO Agreement²⁵, and

²² <<http://www.upov.int/>>.

²³ According to Article 27.3(b) of the TRIPs Agreement, which provides for protection of plant varieties, "... The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement". The review process has since already set in.

²⁴ Article 7 of the TRIPs Agreement requires that "The protection and enforcement of IPR should contribute to the promotion of technological innovation and to the transfer and dissemination of technology. Such contribution should be of mutual advantage to the producers and users of technological knowledge. At the same time the protection and enforcement should be implemented in a manner which is conducive to social and economic welfare and to a balance of rights and obligations".

²⁵ Article 70.4 of the TRIPs Agreement states that "In respect of any acts in respect of specific objects embodying protected subject matter which become infringing under the terms of legislation in conformity with this Agreement, and which were commenced, or in respect of which a significant investment was made, before the date of acceptance of the WTO Agreement by that

it requires providing for a limitation of the remedies available to the right holder as to the continued performance of such acts. Nevertheless, it also advocates in favour of an equitable remuneration under the national law.

In light of the foregoing observations, the various provisions in respect of farmers' rights in the envisaged Indian *sui generis* PVP system appear to be in conformity with the TRIPs Agreement. More particularly, the farmers' rights are envisaged to be implemented in a manner that would be conducive to (i) social and economic welfare, (ii) balance of rights and obligations, (iii) recognition of prior acts concerning protected plant varieties, such as the contribution made in the development of donor genetic resources/farmers cultivars for which significant investment was made by the farming/tribal communities in the form of conscious selection or primitive breeding, and (iv) protection from innocent infringement, for example use/cultivation of farm saved stocks of farmers' cultivars. Whereas the first two of the above points clearly match with the objectives of the TRIPs Agreement, inference for the other two points may be derived from a suitable interpretation of Article 70.4 of the TRIPs Agreement.

Further, a key requirement as per the TRIPs Agreement is that the *sui generis* system, which may be opted for providing PVP by member countries, must be an "effective" system. In order to ascertain its effectiveness, it would be important that there is an effective implementation of the mechanism for the realisation of rights and obligations provided for in the system. In respect of the *sui generis* PPV&FR Act, 2001, mechanisms of realization of breeder's and farmers' rights and also the benefit sharing as provided in the Act are discussed below.

IV. IMPLEMENTATION AUTHORITY AND ENFORCEMENT MECHANISM

A Protection of Plant Varieties and Farmers' Rights Authority (PPV&FR Authority) established under the PPV&FR Act, 2001²⁶ shall be responsible for implementation of various legislative provisions. The general functions of the PPV&FR Authority²⁷ include its duty to take

Member, any Member may provide for a limitation of the remedies available to the right holder as to the continued performance of such acts after the date of application of this Agreement for that Member. In such cases the Member shall, however, at least provide for the payment of equitable remuneration".

²⁶ Sec. 3(1), PPV&FR Act, 2001.

²⁷ Sec. 8, *id.*

measures as it thinks fit to promote encouragement and development of new varieties of plants, protect the varieties and also the rights of the farmers and breeders with respect to the protected varieties. These measures may include registration of extant or new plant varieties, developing characterization and documentation of varieties, providing compulsory cataloguing facilities for all varieties of plants, seeds and germplasm, ensuring that seeds of the varieties registered under the Act are available to the farmers, providing for compulsory licensing of such varieties if the breeder of such varieties or any other person entitled to produce any such variety under this Act does not arrange for production and sale of its seed in the prescribed manner, collecting statistics with regard to plant varieties, seeds and germplasm for compilation and publication, and ensuring maintenance *inter alia* of National Register of Plant Varieties.

For the purposes of registration of plant varieties, maintenance of breeder's right and other related provisions, a Registry will be established²⁸ under the Act. The Registrar General shall be *ex officio* Member Secretary of the PPV&FR Authority²⁹. Further, various branch offices of the registry may be established³⁰ by the Authority for facilitating registration of plant varieties. The PPV&FR Authority or Registrar shall have powers of a civil court in all proceedings before them, and orders passed by Authority/Registrar shall be executable as a decree of a civil court³¹. Appeals against the orders/decisions of Authority/Registrar in respect of (a) registration of variety, (b) registration of agent/licensee, (c) claim for benefit sharing, (d) revocation/modification of compulsory license, or (e) payment of compensation made will be made³² to the Plant Variety Protection Appellate

²⁸ Sec. 12(1), *id.*

²⁹ Sec. 3(5)(c), *id.*

³⁰ Sec. 12(2), *id.*

³¹ According to sec. 11 of the PPV&FR Act, 2001, "In all proceedings under this Act before the Authority or the Registrar – (a) the Authority or the Registrar, as the case may be, shall have all the powers of a civil court for the purposes of receiving evidence, administering oaths, enforcing the attendance of witnesses, compelling the discovery and production of documents and issuing commissions for the examination of witnesses; (b) the Authority or the Registrar may, subject to any rules made in this behalf under this Act, make such orders as to cost as it considers reasonable and any such order shall be executable as a decree of a civil court".

³² Sec. 56, PPV&FR Act, 2001.

Tribunal established³³ under the Act. Further, suits for the infringement of the breeder's rights shall be filed in a court, not inferior to the District Court, within the local limits of whose jurisdiction any act of infringement of breeder's right is committed³⁴.

As per transitional arrangements made under the Act³⁵, the Intellectual Property Appellate Board established under the Trade Marks Act, 1999 shall exercise jurisdiction, powers and authority of the Tribunal. Other aspects of the mechanism of implementation of rights (breeder's and farmers') and obligations (benefit sharing) provided under the Act are discussed below under specific heads.

V. RIGHTS OF BREEDER AND FARMERS

In relation to the Indian *sui generis* PVP Act, a breeder means a person who has bred, discovered or developed any variety³⁶. It does not differentiate between a formal breeder (including natural person or institution) or an innovative breeder such as a farmer who adds value to any wild species or a traditional variety through selection and identification of their useful properties³⁷. A farmer as per the Act is also recognized as a crop cultivator, either directly or through any other person, and a conserver/preserver of any wild species or traditional varieties.

A. Mechanism of implementing Plant Breeder's Right

The mechanism of implementation of plant breeder's right (PBR) is well defined in the Act. It shall be administered by the PPV&FR Authority and the Registry. The PVP Appellate Tribunal shall ascertain a speedy

³³ Sec. 54, *id.*

³⁴ Sec. 65, *id.*

³⁵ Sec. 59, *id.*

³⁶ According to sec. 2(c) of the PPV&FR Act, 2001, "breeder" means a person or group of persons or farmer or group of farmers or any institution which has bred, evolved or developed any variety.

³⁷ According to sec. 2(k) of the PPV&FR Act, 2001, "farmer" means any person who – (i) cultivates crops by cultivating the land himself; (ii) cultivates crops by directly supervising the cultivation of land through any other person; or (iii) conserves and preserves, severally or jointly, with any person any wild species or traditional varieties, or adds value to such wild species or traditional varieties through selection and identification of their useful properties.

legal recourse to the persons aggrieved in respect of registration of varieties or agents/licensees. The District Courts in whose jurisdictions any act of alleged infringement occurs will admit such cases of infringement. A plant breeder (including a farmer breeder as the case may be) shall enjoy an exclusive right³⁸ for a limited term³⁹ over his protected variety under the PPV&FR Act, 2001. However, it will be the responsibility of the breeder at his own, or that of his successor or agent or licensee as the case may be, to keep vigil in relation to suspected infringements. The Authority or the Government will do no policing, which is conspicuous of enforcement of broadly the intellectual property rights. Nevertheless, there is a provision of reversal of burden of proof in case of falsely applying the denomination of a registered variety⁴⁰.

A breeder shall enjoy provisional protection of his variety against any abusive act committed by any third party during the period between filing of application for registration and decision taken by the Authority on his application. Any act of such abuse should be brought by the breeder to the notice of Registrar. The Registrar has been vested with power to issue directions in such cases to protect the interests of a breeder⁴¹.

³⁸ According to sec. 28(1) of the PPV&FR Act, "Subject to the other provisions of this Act, a certificate of registration for a variety issued under this Act shall confer an exclusive right on the breeder or his successor, his agent or licensee, to produce, sell, market, distribute, import or export the variety: Provided that in the case of an extant variety, unless a breeder or his successor establishes his right, the Central Government, and in cases where such extant variety is notified for a State or for any area thereof under section 5 of the Seeds Act, 1966 the State Government, shall be deemed to be the owner of such right".

³⁹ According to sec. 24(6) of the PPV&FR Act, 2001, "The certificate of registration ... shall be valid for nine years in case of trees and vines and six years in case of other crops and may be reviewed and renewed for the remaining period on payment of such fee as may be fixed by the rules made in this behalf subject to the condition that the total period of validity shall not exceed – (i) in the case of trees and vines, eighteen years from the date of registration of variety; (ii) in the case of extant variety, fifteen years from the date of the notification of that variety by the Central Government under section 5 of the Seeds Act, 1966; and (iii) in the other cases, fifteen years from the date of registration of the variety".

⁴⁰ As per sec. 69 (3) of the PPV&FR Act, "In any prosecution for falsely applying a denomination of a variety registered under this, Act, the burden of providing the assent of the breeder of such variety shall lie on the accused".

⁴¹ Sec. 24(5), PPV&FR Act, 2001.

The PBR will be substantiated with certificate of registration. The Registrar will issue such certificate on completion of formalities of variety registration⁴². The PBR thus granted shall entitle the breeder or his successor to exclude others from producing, selling, marketing, distributing, importing or exporting propagating material of the protected variety. However, the breeder may choose not to exercise exclusive right available to him on his own and may appoint any agent or contract any exclusive licensee or a number of non-exclusive licensees so as to produce, sell, market, distribute, import or export or otherwise deal with the variety registered under the Act.

It has been clarified in the Act⁴³, in respect of extant varieties⁴⁴, which may be registered under PPV&FR, 2001, that unless a breeder or his successor establishes his right, the deemed ownership of a particular extant variety shall rest with the Central Government (for the varieties released at the national/zonal level), or the respective State Government (for the varieties released at the state level). Where the breeder may authorize any other person to deal with his registered variety, he will have to do it in a prescribed manner⁴⁵. He may, however, impose certain limitations and conditions to such authorization as specified in the regulations⁴⁶. In such cases, the agent/licensee will make an application to the Registrar and pay a prescribed fee to register him as the entitled agent/licensee of the breeder of a particular registered variety. On receiving application from the agent/licensee in prescribed manner and with prescribed fee, the Registrar will examine particulars of entitlement and conditions or restrictions, if any. On being satisfied with the proof of title⁴⁷, the registrar will make entries of the agent/licensee in the register along with limitations/conditions imposed by the breeder. In cases where validity of entitlement

⁴² According to sec. 24(1) of the PPV&FR Act, "When an application for registration of a variety (other than an essentially derived variety), has been accepted and either - (a) the application has not been opposed and the time of notice of opposition has expired; or (b) the application has been opposed and the opposition has been rejected, the Registrar shall register the variety".

⁴³ Sec. 28 (1), PPV&FR Act, 2001.

⁴⁴ Varieties notified under sec. 5 of the Seeds Act, 1966.

⁴⁵ Sec. 28 (3), PPV&FR Act, 2001.

⁴⁶ Sec. 28 (2), *id.*

⁴⁷ Sec. 28 (4), *id.*

is in dispute between parties, the Registrar may refuse/withhold registration of title of the agent/licensee. However, he would refer the matter to the Authority to determine right of parties in dispute and issue orders.

The Registrar will issue certificate of registration to the registered agents/licensees, which will show in brief the conditions of entitlement, if any. Unless the validity of such registration is challenged, the certificate issued by the Registrar shall be the conclusive proof of entitlement of agents/licensees along with the conditions or restriction thereof, if any⁴⁸. This registration also entitles the agent/licensee to institute legal proceedings in his own name to prevent infringement of breeder's right. This is, however, admissible only after the breeder has been given information of such infringement and sufficient time (three months) to take proceedings to prevent the infringement but he has refused or neglected to do so⁴⁹. The breeder or his successor, in such a case shall be added as defendant; he shall not be liable for any costs unless he enters an appearance and takes part in the proceedings⁵⁰. The registered agent/licensee shall not in any case be entitled right to transfer such right any further⁵¹.

The Registrar has power to make changes or cancel terms of registration of agents/licensees on receiving application in prescribed manner or to take directions from the PPV&FR Authority to do so. Similarly, the procedures related to the revocation of certificate of registration of a registered plant variety or those related to compulsory license as per the provisions of PPV&FR Act, 2001 also constitute a part of the mechanism of the breeder's right, which is broadly governed by the PPV&FR Authority.

It is obvious that the breeder's right provided under the Act is a grant to the breeder. Whereas the Act provides statutory legal recourse to him during the term of protection, it is up to the breeder himself to keep an eye on the market, watch for any possibility of infringement, take anticipatory action like informing the potential infringer of his IPR, and intercept any actual infringement. He will have to file a suit in a District Court or above in case the infringer does not stop his act of infringement upon being served a notice by the breeder. The court may grant relief in such cases

⁴⁸ Sec. 28 (5), *id.*

⁴⁹ Sec. 28 (6), *id.*

⁵⁰ Sec. 28 (7), *id.*

⁵¹ Sec. 28 (8), *id.*

of infringement that may include an injunction, and either damages or a share of the profits.

Use of the protected variety for research/further breeding by the third parties is allowed under the Act. It would constitute an exception to the breeder's right⁵². Accordingly, any variety registered under the PPV&FR Act may be used by any person for conducting experiment or research, and as an initial source of breeding new varieties. However, it would be mandatory to seek authorization of the breeder of a registered variety where its repeated use as a parental line is necessary for commercial production of the new variety. The failure to seek breeder's authorization would amount to infringement of breeder's right and the above legal recourse will be applicable. Infringement could also be deemed to have taken place if the breeder of an EDV fails to seek authorization of the breeder of initial variety to use his own protected EDV. However, there is a specific provision in the Act according to which authorization of the breeder of initial variety to the breeder of EDV may be subject to mutually agreed upon terms and conditions⁵³. Thus the PPV&FR Authority would have a clear role to play in settling the terms and conditions, where disputed, between breeders of initial variety and EDV such that these are mutually agreed upon by them.

B. Mechanism of Implementing Farmers' Rights

An extensive treatment has been given to the farmers' rights in the PPV&FR Act, 2001⁵⁴. The farmers have been provided with rights as

⁵² According to sec. 30 of the PPV&FR Act, "Nothing contained in this Act shall prevent - (a) the use of any variety registered under this Act by any person using such variety for conducting experiment or research; and (b) the use of a variety by any person as an initial source of variety for the purpose of creating other varieties: Provided that the authorization of the breeder of a registered variety is required where the repeated use of such variety as a parental line is necessary for commercial production of such other newly developed variety".

⁵³ According to sec. 23(6) of the PPV&FR Act, "The rights of breeder of a variety contained in section 28 shall apply to the breeder of essentially derived variety; provided that the authorization by the breeder of the initial variety to the breeder of essentially derived variety under sub-section (2) of section 28 may be subject to such terms and conditions as both the parties may mutually agree upon."

⁵⁴ Chapter VI. sections 39 to 46 of the PPV&FR Act, 2001. See also S. Kojhar and S. Bala Ravi, *Protection of Plant Varieties: Indian and International*

breeders of varieties. Their prior rights on farm biodiversity have been safeguarded as its conservers, developers and preservers and they can enjoy their traditional rights on the use of farm produce/seed of the protected varieties. A farmer who has bred/developed a new variety shall be entitled to register his variety and avail the breeder's right over that variety under the Act. He will have to make an application in the prescribed manner and provide the necessary particulars in the application form. He will also have to furnish a declaration that the parental material for developing the new variety has been lawfully acquired. A farmer will enjoy breeder's right over his registered variety in the same way as described in the previous section. The mechanism of implementation and enforcement will also be similar.

Further, a farmer who has been engaged in conservation, improvement through selection and preservation of plant genetic resources of land races and wild relatives of economic plants shall be entitled for recognition and reward from the gene fund in cases where the above-mentioned material has been used as donor of genes in the varieties registrable under the Act. Again, disclosure of the use of genetic material conserved by any tribal/rural families in the development of a new variety/essentially derived variety must be made in the application form by the breeder. Otherwise, in case such information has been willfully or knowingly concealed, the Registrar may reject the application for variety registration.

Any person or group of persons (whether actually engaged in farming or not) or governmental or non-governmental organization is entitled under the Act to file an application on behalf of any village or local community in India, claiming their contribution in any variety for the purpose of staking a claim⁵⁵. Such application will have to be made in a pre-notified centre. The centre will verify the claim and report its finding to the PPV&FR Authority. The implementation of this part will be governed by the Authority, which has executive powers and also judicial powers of a civil court.

On receiving report from the centre⁵⁶ in respect of the claims for compensation for the contribution of people of any village or local community

Scenario, Vol. IV, PROCEEDINGS OF INTERNATIONAL CONFERENCE ON INTERNATIONAL LAW IN THE NEW MILLENNIUM: PROBLEMS AND CHALLENGES AHEAD, The Indian Society of International Law, New Delhi, October 4-7, 2001.

⁵⁵ Sec. 41(1), PPV&FR Act, 2001.

⁵⁶ Rule 68 (1), PEV&FR Rules, 2003; to use Form O-12 of the Third Schedule.

in the development of a new variety, and if satisfied, the PPV&FR Authority may issue notice in a prescribed form to its breeder or his assignee/agent. The breeder or his assignee/agent may, however, file objection to the claim for compensation within three months of receiving the notice from the Authority⁵⁷. Again, on receiving objection from the breeder or his assignee/agent, the Authority will give hearing opportunity to both the parties. The Authority will give its decision on the eligibility for and quantum of compensation and direct the breeder to pay compensation. The latter will have to deposit the requisite funds within two months in the Gene Fund.

A farmer shall be deemed to be entitled to save, use, sow, re-sow, exchange, share or sell his farm produce. This includes right over the seed/propagating material of a variety registered under the Act provided it is not sold as branded seed (using labeled denomination of the protected variety). Further, the breeder will disclose expected performance of registered variety under given conditions when it is sold to farmers or group of farmers or organization of farmers. In case they do not get performance of this variety up to the promised level under defined production conditions, the farmers will be entitled to claim compensation for under-performance of the variety⁵⁸. The mechanism of implementation will be determined by the Authority as per the provisions of the Act/Rules.

In order to claim compensation for under-performance of a registered variety, any farmer, group of farmers or organization of farmers shall have to make an application to the Authority in prescribed manner. The Authority shall accordingly give notice to breeder that a compensation claim has

⁵⁷ Rule 68(2) of the PPV&FR Rules, 2003; to use Form PV-27 of the First Schedule.

⁵⁸ Section 39(2) of the PPV&FR Act reads: "Where any propagating material of a variety registered under this Act has been sold to a farmer or a group of farmers or any organization of farmers, the breeder of such variety shall disclose to the farmer or the group of farmers or the organization of farmers, as the case may be, the expected performance under given conditions, and if such propagating material fails to provide such performance under such given conditions, the farmer or the group of farmers or the organization of farmers, as the case may be, may claim compensation in the prescribed manner before the Authority and the Authority shall after giving notice to the breeder of the variety and after providing him an opportunity to file opposition in the prescribed manner and after hearing the parties, it may direct the breeder of the variety to pay such compensation as it deems fit, to the farmer or group of farmers or the organization of farmers, as the case may be".

been received in respect of his registered variety. In case the breeder chooses to file any opposition to the compensation claim, he will have to do it on prescribed form within three months from date of receipt of such notice; otherwise the Authority shall presume that there is no opposition, and give decision for the claim. However, when the Authority has received opposition from the breeder, it will give hearing opportunity to both parties before giving any decision on compensation to be paid and amount to be paid to farmer, group of farmers or organization of farmers, as the case may be. There is a provision for the protection of farmers from legal proceedings related to alleged infringement provided he proves to the court that at the time of the infringement he was not aware of the existence of the right so infringed. There is a mandatory need to secure consent of farmer(s) when a farmer variety is used to develop an EDV. Also there is a mandatory exemption to farmers from paying fee in any legal proceedings before the Authority/Registrar or the Tribunal or Higher Court under the PPV&FR Act/Rules. The Act also provides certain rights of benefit sharing to farmers/tribals and farming/tribal communities. The entitlement and mechanism of benefit sharing are discussed in the subsequent part.

VI. BENEFIT SHARING AND USE OF GENE FUND

As per the Act, benefit sharing in relation to a variety⁵⁹ means that a claimant shall be entitled to a proportion of the benefit accruing to a breeder of a registered variety on his own or through an agent or a licensee, and such proportion will be determined by the PPV&FR Authority⁶⁰. The mechanism of implementation of benefit sharing would obviously revolve round the evidences made available in prescribed manner; verification of records from the national register of plant varieties, register of registered agents/licensees, catalogue number and particulars, certificate of PVP and particulars, etc., and opportunity of being heard of by the Authority to both parties. Ultimately, decision will be made and orders in respect of any benefit sharing by the breeder passed by the PPV&FR Authority.

Some evidence of entitlement for benefit sharing may be available from the National Register of Plant Varieties⁶¹. It is maintained by the

⁵⁹ Section 2(b), PPV&FR Act, 2001.

⁶⁰ Sec. 26 (1) to (7), *id.*

⁶¹ Rule 23, PPV&FR Rules, 2003.

Registrar and kept at Head Office of the Registry. Copy of register and related documents shall, however, be available at branch offices of the Registry as well. The PPV&FR Authority shall have control and management of register subject to superintendence and direction of the Central Government. The register will contain names of all registered plant varieties, names and addresses of respective breeders, right of breeders in the respective registered varieties, particulars of the denomination of each registered variety, its seed or other propagating material along with specification of its salient features, and other related/prescribed matters. Yet another evidence of entitlement for benefit sharing in respect of a registered variety shall be available from Notified Repository⁶² where every applicant must deposit reference particulars/seed and get the catalogue number while making the application for registration of the variety.

The Registrar is mandated to send a copy of the certificate of registration of a variety⁶³ to the Authority for determination of benefit sharing. However, he would send copy of certificate of registration of an EDV⁶⁴ to the authority and another copy to some other prescribed authority (say Biodiversity Authority established under the Biological Diversity Act, 2002) only for information. The Authority, on receipt of copy of the certificate of registration of a variety shall publish prescribed contents⁶⁵ of the certificate to invite any claims for benefit sharing. Any person or group of persons or non-governmental organization will be entitled to submit claim of benefit sharing within 6 months⁶⁶ by making payment of requisite

⁶² Sec. 16 (4) of The Protection of Plant Varieties and Farmers' Rights Bill, 1999 stated that "Every applicant shall cause the variety to which he is making the application under section 13, to be catalogued by such institution or centre as may be notified by the Central Government in the Official Gazette." However, the PPV&FR Act does not specify this provision and leaves it to the Authority to prescribe any other particulars (including the catalogue number) to be furnished with the application.

⁶³ Sec. 24(2), PPV&FR Act, 2001.

⁶⁴ Sec. 23(8), *id.*

⁶⁵ Sec. 26 (1), *id.*

⁶⁶ Rule 41 of PPV&FR Rules, 2003 states that "Upon the publication of the particulars of a certificate under sub-section (1) of section 26, a person or a group of persons or firm or a non-governmental organization can make a claim under sub-section (2) of that section for benefit sharing in form PV-7 of the First Schedule within a period of six months from the date of such publication. Provided that in special circumstances, the Authority may extend the time limit beyond the period of six months."

fee of Rupees 5000/-⁶⁷. They shall provide information on the contribution made to the genetic development of the plant variety, the capacity in which the claim for benefit sharing is being made, the terms and conditions in which authorization has been given in case of essentially derived varieties, and the commercial viability or the actual market performance of the variety.

The Authority shall send a copy of claim to the breeder. The latter may submit his opposition to such claim within 3 months⁶⁸. The Authority shall give an opportunity of being heard to parties before disposing of the claim. The Authority shall clearly indicate the amount of the benefit sharing, if any, in its order. For arriving at a benefit sharing related decision, the Authority shall take into consideration the extent and nature of the use of genetic material of the claimant in the development of the variety relating to which the benefit sharing has been claimed, and the commercial utility and demand of the variety in the market. The breeder shall have to deposit the amount of benefit sharing in the Gene Fund; otherwise, the amount of benefit sharing shall be recoverable as an arrear of land revenue by the concerned District Magistrate.

The Central Government shall frame scheme(s) for granting compensation to the farming or local communities and utilization of national gene fund and notify these schemes in the Official Gazette⁶⁹. Such scheme(s) may provide for the registration of claims for communities, processing of such claims, maintenance of records and registers in respect of such claims, utilization of any amounts received in respect of such claims, procedure for disbursement regarding such claims, and utilization of benefit sharing for purposes relating to breeding, discovery or development of varieties, etc.

The National Gene Fund constituted under the Act by Central Government⁷⁰ shall be applied for making payments by way of benefit sharing⁷¹ or compensation payable to the farming or local communities,

⁶⁷ Second Schedule column (3), Rule 41(3), PPV&FR Rules, 2003.

⁶⁸ Rule 42(1); to use Form PV-8 of the First Schedule.

⁶⁹ Sec. 46(1), PPV&FR Act, 2001.

⁷⁰ Sec. 45, *id.*

⁷¹ Sec. 26(5), *id.*

⁷² Sec. 46, *id.*

and incurring the expenditure for supporting conservation and sustainable use of genetic resources including *in situ* and *ex situ* collections or for the schemes relating to benefit sharing⁷². Such payments shall be approved/paid or expenditure sanctioned/incurred by the PPV&FR Authority. The Gene Fund shall be applied for meeting various purposes provided under the Act in accordance with priority. The order of priority includes support and reward to farmers, community of farmers, particularly tribal and rural communities engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives, particularly in areas identified as agro-biodiversity hot spots; capacity building on *ex situ* conservation, particularly in regions identified as agro-biodiversity hot spots (This will be applied at the level of the local body); supporting the *in situ* conservation; benefit sharing and compensation to farmers; and the transaction cost of administering Gene Fund.

VII. CONCLUSION

The Food and Agriculture Organization (FAO) Council Resolutions 4/89⁷³ and 5/89⁷⁴ passed in 1989 simultaneously recognized for the first time both breeder's right and farmers' rights under the International Undertaking on Plant Genetic Resources 1983 (IUPGR)⁷⁵. It was also agreed in the proceedings of the same Undertaking vide Resolution 3/91⁷⁶ that farmers' rights will be implemented through an international fund for plant genetic resources. It was further agreed⁷⁷ that breeders' lines and farmers' breeding material should only be available at the discretion of their developers during the period of development. Subsequently, the

⁷³ FAO Council's Resolution (4/89) recognized that Plant Breeders' Rights as provided for by UPOV Convention of 1978 were not inconsistent with the Undertaking.

⁷⁴ FAO Council's Resolution (5/89) recognized and defined the concept of "Farmers' Rights".

⁷⁵ <<http://www.fao.org/legal>>.

⁷⁶ FAO Council's Resolution (3/91) reaffirmed that the concept of the heritage of mankind is subject to the sovereign rights of nations over their genetic resources, and agreed that Farmers' Rights will be implemented through an international fund for plant genetic resources. It also agreed "that breeders' lines and farmers' breeding material should only be available at the discretion of their developers during the period of development".

⁷⁷ Resolution 3/91 of FAO Council.

Convention on Biological Diversity, 1993 (CBD)⁷⁸, reaffirmed the sovereign rights of countries and also the rights of local communities over the biological resources in relation to determining access to these resources and equitable benefit sharing from the use of these resources or that of their products. Despite these major developments that tended to balance breeder's intellectual property rights with equitable prior rights of farmers and local communities⁷⁹, not a single national legal system has been established and enforced so far that would address these issues simultaneously. The Indian Biological Diversity Act, 2002 has incorporated provisions in respect of access and benefit sharing but it has not come into force as yet.

On the other hand, the Indian *sui generis* PVP system as established under the PPV&FR Act, 2001 along with PPV&FR Rules, 2003 would clearly provide protection for both breeder's right and farmers' rights. Arguably, the provisions of farmers' rights provided in the Act are permissible under the TRIPs Agreement to some extent subject to appropriate interpretation of its objectives and also under the provision for protection of existing subject matter⁸⁰. In so far as the establishment of *sui generis* PVP system is considered, the law will take its own course once it is enforced. Nevertheless, it would be important to increase public awareness, enhance techno-legal literacy of both technical and legal persons in the country, and attend to matters concerning institutional capacity building as well as human resources development so that jurisprudential matters in relation to PVP law such as its actual functions and end results are appropriately addressed⁸¹ while giving due focus on future improvement of the legal system, including the legislation and the court adjudications.

However, the general opinion of the developing world continues to remain that the TRIPs Agreement is directionally favourable to the affluent, the inventors and the investors. At the same time, with increasing numbers of developing countries joining UPOV over the time since the establishment of WTO, the likelihood of UPOV being directly mentioned in the review of TRIPs Agreement as a model/effective *sui generis* PVP system is also not ruled out. This suggests for greater efforts for harmonization, including

⁷⁸ <<http://www.biodiv.org/>>.

⁷⁹ S. Kochhar, *System Perspective for IPR Protection in the Plant Kingdom*, 9 JOURNAL OF INTELLECTUAL PROPERTY RIGHTS, July 2004, 342-55.

⁸⁰ Article 70.4, TRIPs Agreement.

recognizing the need to further negotiations under the WTO so as to accommodate equitable prior rights, benefit sharing, ownership of and access to biodiversity/genetic resources, etc. in the TRIPs Agreement/WTO package in due course.

It is pertinent that both CBD and International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)⁸² particularly elaborate the required provisions for access and equitable benefit sharing for the biological/genetic resources. Therefore, it would be appropriate to consider harmonizing the TRIPs Agreement over the years with some of their relevant provisions. Further, in the interest of future global development and harmony through agriculture, which continues to be the answer to mitigate food security and eradicate hunger, the WTO members should lay emphasis on review of TRIPs Agreement and consider imposing a ban on restricting the use of IPR protected plant varieties, including patented varieties and plants, for further research and breeding purposes.

⁸¹ S. Kochhar, *Patentable Subject Matter: TRIPS Article 27.3(b) and Jurisprudence*, paper presented at the National Seminar on the LAW OF INTELLECTUAL PROPERTY RIGHTS: IN PROSPECT AND RETROSPECT organized by Faculty of Law, University of Delhi, from March 24-26, 2001.

⁸² <<http://www.fao.org/legal>>.