Introducing Plant Breeders’ Rights in India

A Critical Evaluation of the Proposed Legislation

Biswajit Dhar and Sachin Chaturvedi*

INTRODUCTION

Agriculture in India is on the threshold of major changes as the country takes steps towards extending intellectual property protection (IPP) to this sector. The early initiatives to bring agriculture within the ambit of IPP in the country were taken at the end of the eighties, but the momentum towards this end came following the commitments undertaken by India as a part of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), formalized at the conclusion of the Uruguay Round of GATT negotiations. The Agreement on TRIPS proposes far-reaching changes in the norms and standards of protection of intellectual property world-wide. Developing countries have undertaken to amend their existing regimes for the protection of intellectual property and adopt ones which are akin to those prevailing in the industrialized countries. The harmonized system of IPP that would thus come into existence has two major departures from the hitherto existing international system:

(i) the scope of protection afforded by the IPP regime would be considerably wider; and

(ii) the rights of the owners of intellectual property would be stronger.

In the former instance, the most significant is the requirement to extend IPP to agriculture by protecting improved varieties of plants by providing plant breeders’ rights (PBRs). This form of protection, which has come to be accepted globally through the International Union for the Protection of New Varieties of Plants, commonly known as the UPOV Convention, provides explicit recognition only to the commercial plant breeders engaged in developing new plant varieties. For several developing countries like India, where agricultural systems have been based almost exclusively on farming communities, introduction of PBRs has implications for the continuation of the farmers’ traditional practices.

* Fellow and Research Associate, respectively, of the Research and Information System for the Non-Aligned and Other Developing Countries, New Delhi, India.

The views expressed here are the authors’ own and not necessarily those of the organization to which they belong.
In India, a cogent articulation of the importance attached to the understanding of the implications of PBRS has been the debate that has taken place in the country since the beginning of the nineties as initiatives were taken by the government to introduce IPP in agriculture. The key feature of this debate is that it was joined by several non-governmental organizations, including farmers' organizations, who emphasized the need to recognize, in the proposed regime of IPP, the contribution made by the traditional farmers towards the conservation and preservation of genetic strains.¹

In addressing the needs of farmers, the debate was able to reflect on the more critical aspects of the introduction of PBRS in a farmer-dominated agricultural system, particularly its impact on the traditional practices of farmers, as the plant breeders exercise their control over the use of protected varieties of plants. Three years after the government first suggested a framework for PBRS that India could adopt by proposing the Plant Varieties Act (PvA—the first draft was prepared in 1994), the key elements of the proposed legislation have finally been evolved. The present article seeks to analyse critically the key features of this proposed legislation. The authors will, in particular, reflect upon the manner in which the respective interests of the farmers and the commercial plant breeders have been taken into consideration in this legislation. The discussion makes appropriate comparisons between the two main drafts of the proposed legislation that have been prepared by the government in an attempt to capture the shifts in emphasis in the objectives of the legislation over time.

An assessment of the proposed legislation is called for in light of the initiatives that were taken in the country to introduce PBRS. The initiatives, as mentioned earlier, were taken at the end of the eighties and were supported by the expanding private sector seed industry in India. In the first section, therefore, these initiatives and some of the more definite efforts made at presenting a framework for a system of PBRS for India are discussed briefly. The main elements of the legislation that the Indian government has proposed for the introduction of PBRS in the country are critically evaluated in Sections II and III: in Section II, the main focus of the discussion is on the effect of the proposed regime of IPP on the agricultural practices of the farmers in the country; and Section III tries to assess the extent to which the proposed legislation conforms to the requirements of the Agreement on TRIPS.

In critically evaluating the attempts to introduce the regime of IPP in agriculture, the article underscores the importance of looking beyond the narrow confines of the system which recognizes the contribution only of the commercial plant breeders in the progress of agriculture.

¹ See, for example, Sahai (1994), Shiva (1996) and Sharma (1994).
I. INITIATIVES TO INTRODUCE PBRS IN INDIA

Although the issue of adopting PBRs in India came into public gaze only in the final phases of the Uruguay Round negotiations, initiatives to bring agriculture within the ambit of IPR, as stated at the outset, were taken much earlier. What makes the Indian experience more interesting is that pressure for introducing PBRs came from the expanding private seed industry in the closing years of the eighties following the adoption of the New Seed Policy in 1988\(^2\) and not solely in response to the commitment made by the country as a part of the Agreement on TRIPS. Thus, while it can be said that the TRIPS Agreement provided momentum for the process initiated for evolving a system of IPP in agriculture, the essentials of the framework were provided, as shall be seen below, more by the domestic play of forces.

The pressure that the private seed companies in India applied for the introduction of IPP in agriculture were quite in keeping with the trends that the seed industries in the major industrialized countries had witnessed over the last few decades, as private interests expanded their operations in the area of plant breeding. In the process, the production of superior varieties of planting material which had been largely carried out by the public sector in these countries in the past, was increasingly taken up by the private seed companies.\(^3\) The eighties also saw a further expansion of the private sector’s operations, as major transnational corporations like Unilever, ICI, Monsanto, and Rohm and Haas, involved in the agrochemical industry, entered into the area of plant breeding.\(^4\) This took place primarily because these conglomerates aimed at offering agricultural technology as an integrated package in which the improved varieties of planting material were the critical component. An effective system of IPP was considered as the *sine qua non* for the corporate interests to obtain returns on their investment in this activity.

In India, support for the arguments presented by the seed companies in favour of PBRs was provided by several studies, among which was an influential study prepared in the late eighties by USAID. The USAID study argued, in particular, that the government needed to create conditions to ensure that private sector companies could capture the benefits by undertaking research. Introduction of a “Plant Variety Protection Act” was considered as one of the key measures that was required to be taken in this regard.\(^5\)

The government, on its part, responded to the growing pressures by requesting the Food and Agriculture Organization (FAO) to study the implications of introducing a “Plant Variety Rights System” for the development of the seed industry in India and make recommendations on the framework upon which the

---

\(^2\) For details see Seed Association of India (1990).
\(^3\) See Smith (1996).
\(^4\) Sehgal (1996) discusses the details.
\(^5\) FAO (1990), p. 2.
national PBR legislation could be based. The emphasis of this initiative taken by the government was thus solely on protecting the interests of the seed industry. As will be discussed below, this contrasts with the later efforts at evolving a framework of IPP for agriculture which would take into consideration the interests of the traditional farmers in the proposed regime. Given the above-mentioned perspective, it was no surprise therefore that the FAO study, which was finally submitted in 1993, presented the breeders’ viewpoint in making its recommendations on the nature of the IPP regime needed. This was most obvious from one of its major recommendations which stated: “... any form of Plant Breeders’ Rights legislation in India should conform as far as the Indian conditions allow, to the UPOV Convention.”

The import of this recommendation is elaborated below.

The UPOV Convention, to which the FAO study referred, was established in 1961 to give effect at the international level to the system of PBRs. Developed almost exclusively with a view to protecting the interests of the commercial plant breeders in Europe, the PBRs allowed the plant breeders to exercise control over the production and marketing of seeds and other propagating material of the protected plant varieties. At the same time, however, the UPOV allowed the Member States to grant limited privileges to farmers regarding the re-use of harvested seeds, and also to exchange seeds with their farm neighbours.

The above-mentioned features of the UPOV remained, until a comprehensive amendment of the UPOV Convention in 1991 (henceforth UPOV ’91) resulted in the strengthening of the rights of plant breeders. The scope of the breeders’ rights were expanded to include the harvested material and also the products of the harvested material. In other words, use of the protected varieties would now allow the plant breeders to lay their claims not only on the harvested crops but also on any other product that used the crops. Besides enlarging the scope of breeders’ rights, UPOV ’91 contributed to the strengthening of the breeders’ rights by restricting the ability of the farmers to re-use the harvested seeds. This implies that limits were imposed on farmers’ privileges which were available earlier. This aspect of UPOV ’91 will be discussed later.

These restrictions on the farmers imposed by UPOV ’91 notwithstanding, the FAO study made its major recommendation that India should adopt the broad contours of the UPOV while drawing up the Plant Variety Protection Act. What is most curious about this recommendation is that it came despite the observation made in the study that the UPOV may not be “entirely appropriate for India and other developing countries at an early stage” considering the fact that it was not “formulated with the specific needs of developing countries in mind”.

---

7 The other Organisation for Economic Co-operation and Development countries acceded to the UPOV in the eighties. The United States became a party to the Convention in 1981, and Australia accepted UPOV membership in 1989.
8 The earlier amendments to the UPOV were in 1972 and 1978.
recommendation was, however, justified by the study while putting forth the argument that since most countries that had enacted PBR legislation were its Members, the UPOV Convention provided a model on which national legislations should be based. It was further maintained that adoption of the UPOV Convention allowed reciprocal rights in Member countries which, according to the FAO study, was important, particularly in relation to other countries growing similar crops.

In contrast to the major recommendation of the FAO study that India should accept the UPOV Convention as the basis for its legislation on plant varieties protection, an independent initiative taken by the M.S. Swaminathan Research Foundation proposed an alternative framework for legislation. The key element of this initiative was that it represented an attempt to translate the FAO's International Undertaking on Plant Genetic Resources, which sought to recognize the contributions made by both commercial plant breeders and the farming communities towards the development of agriculture, while introducing legislation. The draft of this Plant Variety Recognition and Rights (PVRR) Act stated that the objective of the legislation was to grant "recognition and economic reward" to not only the modern plant breeders for developing new varieties but also the "rural/tribal families responsible for the conservation and development of the genetic strains that would have gone into the pedigrees of varieties accorded recognition under the PVRR Act." In recognizing the contributions made by the rural/tribal families towards conservation, the draft legislation, in effect, tried to recognize the rights of the farmer-innovators, who have remained an integral part of the agricultural system down the millennium.

The response of the government towards the suggestions for extending IPP in agriculture, as discussed above, was twofold. In 1994, the draft of a Plant Varieties Act was prepared which significantly included elaborate provisions giving effect to the concept of farmers' rights. But, in a substantially altered framework that was eventually evolved, the structure of the proposed legislation shows a degree of acceptance of the recommendations made by the FAO in that the UPOV Convention appears to have been largely followed. The following discussion provides the details of the proposed legislation.

II. FEATURES OF THE LEGISLATION ON PLANT VARIETIES PROTECTION

The proposed legislation on the protection of plant varieties seems, ostensibly, to address the mounting global pressure to extend IPP by accepting some of the
features of the UPOV Convention. Amendment of the UPOV in 1991 was explicitly introduced to strengthen the rights of breeders, and it is some of the features of UPOV '91 that have been incorporated in the proposed Indian legislation. At the same time, however, some efforts have been made to balance the overwhelming rights that the breeders would enjoy, through the introduction of specific instruments like compulsory licensing and licence of right, which could prevent the exercise of breeders' rights to the detriment of the broadly defined public interest.

Three features of the proposed legislation on the protection of plant varieties reflect its adherence to the framework provided by UPOV '91. These are:

(i) the coverage of varieties qualifying for protection;
(ii) the inclusion of "essentially derived varieties" within the scope of protection; and
(iii) the status of traditional farming communities in the proposed Act.

The following discussion brings out the above-mentioned aspects of the proposed legislation. What needs to be particularly mentioned is that while the first two features were a part of the PVA of 1994, the status of the farming communities was given an entirely different orientation. It is the change effected with the emphasis on the status of the farming communities which is a particularly significant dimension of the new proposal.

A. Coverage of Varieties under Protection

The proposed legislation provides that the whole range of plants, including extant and new varieties, would be covered. This comprehensive coverage that is being proposed in the legislation as IPP and which is extended to agriculture is, however, not in keeping with global trends. The discussion below indicates that this provision in the proposed legislation does, in fact, go beyond the requirements that India would have to meet upon acceding to UPOV '91.

Flexibility in coverage has always been adopted in order that a better understanding of the impact of PBRs on genetic diversity can be had. This effect is a concern that was echoed quite frequently in countries adopting this system of protection. In keeping with this, UPOV has always maintained that varietal protection should be adopted by Member countries in phases. In fact, up until the recent amendment in 1991, comprehensive coverage of all varieties was never a requirement which UPOV Members had to meet. For instance, UPOV '78, the framework that the 1991 amendment has replaced, provided that any country, on becoming a party to the Convention had to apply the provisions of the UPOV to at least five genera or species. Within a period of three years, the number of genera or species to be included were required to be increased to ten and after a further three

---

years, eighteen genera or species had to be brought under the ambit of protection.\textsuperscript{14} In a period of eight years, at least twenty-four genera or species had to be covered. The number of genera or species to be included could be reduced, or the period allowed to meet the requirements of coverage increased if particular Members of the UPOV were unable to comply with the stipulations due to "special economic and ecological conditions".\textsuperscript{15} There was thus an added flexibility allowed under UPOV '78 that Member States could take advantage of.

UPOV '91, on the other hand, proposed a comprehensive coverage of plant varieties by the Member States of the Union. But this comprehensive coverage is not an immediate requirement. States that have been Members of UPOV '91 have a five-year transition period to meet this requirement.\textsuperscript{16} The new Members to the Union, on the other hand, are required to protect fifteen genera or species at the time of accession, and within ten years to meet the requirement of including all genera and species.\textsuperscript{17}

In the context of the above, it can be said that quite clearly the proposed legislation seeks to go beyond the requirements of UPOV '91 that would be applicable to India should the country seek membership of the Union. An appropriate strategy would have been to provide a limited coverage of plant varieties in order to understand the impact of introducing PBRS not only on the genetic diversity, and hence ecology, but also on the farmers as users of the protected plant material.

B. \textit{Essentially Derived Varieties}

The inclusion of the "essentially derived varieties" (EDVS) in UPOV '91 has generally been regarded as the single most important aspect of the latest amendment that has been brought about in the UPOV. In introducing the above-mentioned provision, the so-called "research exemption" available under UPOV '78, which allowed breeders to freely use protected varieties for research purposes and for breeding new varieties, was sought to be excluded. This provision has major ramifications for countries like India where, as mentioned above, farmer-innovators have been an integral part of the innovation systems in the agricultural sector. And quite significantly, the proposed Indian legislation seeks to include this dimension of UPOV '91. The significance of including EDVS is brought out in the following discussion.

Article 14(5) of UPOV '91, which provides for the inclusion of EDVS of the protected varieties within the scope of the rights of the breeder, seeks to strengthen the rights of the breeder by bringing within the purview of protection "essentially

\textsuperscript{14} Article 4(3).
\textsuperscript{15} Article 4(4) and 4(5).
\textsuperscript{16} Article 3(1).
\textsuperscript{17} Article 3(2).
derived and certain other varieties” of the protected varieties. In introducing this provision it was argued that the benefits that a breeder could secure were limited since “research exemption” allows creation of a new variety of plant by using protected varieties without the authorization of the original breeder. Article 14(5) was thus introduced to ensure that no new variety could be produced by use of the protected varieties by any means. An EDV has been defined by UPOV '91 thus:

(i) it is predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety;

(ii) it is clearly distinguishable from the initial variety; and

(iii) except for the differences which result from the act of derivation, it conforms to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety.

Article 14(5)(c) further provides a non-exhaustive list of examples of acts that may result in the essential derivation, including the selection of a natural or induced mutant, or of a somaclonal variant, the selection of a variant individual from plants of an initial variety, back-crossing or transformation by genetic engineering. This indicates that all acts of breeding, from the most conventional to one involving the use of modern techniques, would be taken into consideration when determining whether or not a new variety is “essentially derived”.

The strengthening of breeders’ rights took place despite the fact that several countries, more prominently Japan and Canada, had raised the issue that identification of EDVs was controversial, in the Diplomatic Conference leading up to the adoption of the revised UPOV. These countries emphasized that prior to the assigning of rights for an EDV in line with the provisions of the Article providing such protection, effective guidelines must be laid down for identifying such varieties. In this context it needs to be mentioned that while UPOV '91 took note of this observation through a decision to develop the guidelines, the proposed legislation shows no appreciation for such problems that might arise in extending breeders’ rights.

Introducing the concept of EDVs raises several other contentious issues. There is a view that determination of the such derived varieties would not be made by an examining office as a part of the grant of PBRS, but between plant breeders, either through a mutually arrived agreement or through litigation. This implies that this

18 Article 5(3) allowed use of a protected variety as an initial source of variation for the purposes of creating other varieties.

19 For a discussion from the perspective of the seed industry see Smith (1996).

20 Greengrass (1993). In a subsequent personal communication, the author reported that the extension of the right to cover essentially derived varieties is expected to be limited to those varieties which take over virtually the whole of the genome of the protected variety. In matters of dispute this may, therefore, require scientific evidence, referred to in Cohen, Crespi and Dhar (forthcoming).
critical issue would be settled by the relative strengths of the parties involved, an
eventuality that would not favour developing countries like India who have long
been involved in major programmes of plant breeding.21

C. Status of Farmers in the Proposed Regime of Intellectual Property Protection

The status of farmers in the regime of IPP which recognizes only the
contribution made by the commercial plant breeders has been one of the most
contentious issues in the process leading up to the introduction of the legislation.
Quite inexplicably, the proposed legislation has given little attention to it.

Although the proposed legislation includes a clause on farmers’ rights, the
provision detailing this aspect merely provides what the UPOV ’78 allowed as
“farmers’ privileges”, reference to which was made in the earlier section. The rights
that a farmer would enjoy in the proposed regime of IPP would therefore include his
“traditional rights to save, exchange, share and sell his farm produce, including for
reproductive purposes, of the protected variety...”. The farmers’ rights so defined
are completely at variance with the rights that he could enjoy for the contribution
made by him and his community towards the development of plant genetic
resources, a dimension which was explicitly included in the Plant Varieties Act
proposed in 1994. This aspect of the proposed legislation has thus witnessed
fundamental changes in emphasis in the recent proposal; the extent to which these
changes have taken place is brought out in the discussion below.

The farmers’ rights defined in the PVA were akin to those recognized by the
international community while interpreting the FAO Understanding on Plant
Genetic Resources, the process of which was initiated in 1983.23 These two facets
were reflected clearly in the objective of the PVA. It was stated that the PVA was:

“... to protect the rights of the developers of new varieties to stimulate investment in
plant breeding and to generate competitiveness in the field of research and development
both in the public and private sectors with the ultimate aim of facilitating access to
newly developed varieties and maximizing agricultural production and productivity in
the country...”

The clause further stated that protection of farmers’ and researchers’ rights:

“... will strive to balance the need for stimulation and incentive to R&D with welfare
of farmers.”

The rights that the PVA proposed for communities and farmers were presented
in the form of an incentive mechanism.24 Thus, the “recognition of the

21 For an earlier account of the plant breeding programmes in India see Mukherjee and Lockwood (1973)
and Agrawal (1980). More recent developments in this area have been detailed in the annual reports of the
Indian Council of Agricultural Research.
22 The International Undertaking on Plant Genetic Resources was adopted by Resolution 8/83 of the
23 For a recent reiteration of this position see Commission on Genetic Resources for Food and
Agriculture (1996a).
contribution made by rural communities with sustained perseverance in development, on-farm innovations, enrichment and conservation of plant genetic resources was to come through “rewards and/or compensation to such communities or clusters ... such that rural communities may have a stake in and continue their efforts at preservation and improvement of land-races ...” In a similar vein, in recognition of their contribution in ensuring conservation, improvement and availability of plant genetic resources, it was proposed that the farmers were to be granted the rights to “secure full benefits and support in continuation of their contribution.”

The farmers' rights were spelt out quite unambiguously in a further elaboration. A farmer was to be provided “... additional rights to dispose of his farm produce as he chooses which includes his right to save, use, exchange, share and sell propagating material or seed obtained or descended from seed obtained of a protected variety except sale of branded seed/propagating material ...” It must, however, be said that the latter condition, relating to branded seeds/propagating material, could have implied a significant dilution of the rights in light of the fact that the large transnational corporations and their branded seeds are making inroads into the seed market.

However, with the abandoning of the concept of farmers' rights in the proposed legislation, India has ended the attempts at evolving an instrument to give effect to the agreed principle of rewarding farmers for their contribution to the development of agriculture. Ramifications of this can be far-reaching implications at the international level, since India is the only country which had taken the initiative to evolve an instrument to put into practice the FAO Undertaking on Farmers' Rights. In fact, the singular weakness of the FAO Undertaking is that, its ratification by the global community notwithstanding, there is no internationally accepted instrument through which farmers can be provided economic reward for their contribution to agriculture.

But while commercial plant breeders would be able to exercise a substantial degree of control over the market for propagating material by obtaining the PBRS, which was brought out in the above discussion, an attempt has also been made in the proposed legislation to ensure that the breeders do not exercise their rights to the detriment of the larger public interest. Two instruments have been included in the legislation to meet this requirement and these impose limited obligations on the rightholders.

25 Ibid., Clause 22(i).
26 Id.
27 Id.
28 Ibid., Clause 22(ii).
D. Compulsory Licences and Licences of Right

The two instruments that are sought to be used to meet the requirements of the public at large are quite familiar in India for they have constituted the vital elements of the country’s present Patents Act (Patents Act of 1970). These provisions were introduced in the Patents Act in order to ensure that the patents granted in India could be worked in the country and that patents “are not granted merely to enable patentees to enjoy monopoly for the importation of the patented article.”\(^{29}\)

The provision allowing for automatic licences of right has, in particular, been a key feature of the Patents Act. This provision was evolved in order to prevent the emergence of strong monopolies in areas which are of vital importance for human, animal and plant life. Accordingly, licences of right were made applicable in the area of chemicals, including food and pharmaceuticals, and allow “any person who is interested in the working the patented invention [to obtain] a licence for the purpose [from the patentee] on each terms as may be mutually agreed upon . . .”\(^{30}\) at the expiration of three years of the grant of a patent.\(^{31}\)

Thus, while in the granting of compulsory licences the Controller of Patents was expected to examine the capabilities of the applicants,\(^{32}\) in the case of licences of right no such requirement was provided for in the Patents Act.

In a similar vein, the proposed legislation on plant varieties protection provides for the grant of compulsory licences and licences of right, essentially to protect public interest. Two conditions under which compulsory licences can be granted have been specified. These are:

(i) requirements of the public for seeds and propagating material of a variety are not being met;\(^{33}\) and

(ii) production of the seeds or planting material of the protected variety are not being facilitated to the fullest extent that is reasonably possible without undue delay.\(^{34}\)

Upon the fulfilment of the above conditions and expiry of a “reasonable period as specified by the Central Government from the grant of protection” any person can apply for the grant of a licence for producing the protected plant varieties. The government can allow grant of such licences if the claims made by the applicant as regards violation of public interest by the rightholder are found to be justified.

---

\(^{29}\) Section 83, sub-section (b).
\(^{30}\) Ibid., Section 88, sub-clause (1).
\(^{31}\) The actual procedure for licences of right laid down in Section 87 of the Patents Act of 1970 provided for an endorsement of every process patent “with the words ‘Licence of Right’ . . . from the expiration of three years from the date of sealing of the patent . . .”
\(^{32}\) Section 85 of the Patents Act of 1970.
\(^{33}\) Includes availability of the seeds and propagating material on reasonable terms.
\(^{34}\) Lack of production of the seeds of protected varieties to the fullest extent in India has been defined to include non-availability on a commercial scale arising out of a hindrance provided by the rightholder which necessitates repeated imports of seeds of the protected varieties.
The provisions of licences of right have been made applicable to food crops and fodder. This is in keeping with the objectives of not allowing undue monopolies to emerge in areas which are vital to human and animal life and which, as mentioned above, are the central objective of the Patents Act of 1970.

The two provisions of the proposed legislation discussed in the foregoing should be seen as an attempt at providing instruments that can be used to balance the substantial rights that the commercial plant breeders are expected to enjoy. The balance that is sought is most prominently shown by the provision on licences of right. While, on the one hand, the proposed legislation allows the plant breeders to exercise their rights over all plant varieties, the licence of right, on the other hand, makes an attempt to put some check on the exercise of the plant breeders' rights in the areas of vital importance to human and animal life. The functioning of the legislation would alone indicate whether it was an exercise in prudence to include the essential food crops in the proposed legislation in the first place and then to prevent exercise of control by the breeders by providing for the operation of licences of right.

But despite its similarity with some of the key features of UPOV '91, the proposed legislation will have to meet two major challenges before the regime of intellectual property protection in agriculture can finally be introduced. In the first place, the legislation has to be consistent with the provisions of the Agreement on TRIPS. Secondly, it has to meet the demands from the growing private sector, and particularly the foreign interests in the Indian seed industry, for an appropriate legislation to protect their interests in plant breeding in the country.

III. ARE THE PROVISIONS OF THE PROPOSED LEGISLATION CONSISTENT WITH THE GATT/WTO REQUIREMENTS?

The major test of the system of PBRs that the proposed legislation would introduce in India would be the consistency of the legislation's clauses with the provisions of the Agreement on TRIPS. The TRIPS forms the basis of the regime of IPP which was introduced with the formation of the World Trade Organization (WTO). The TRIPS Agreement represents a substantial move towards the harmonization of IPP standards world-wide, and it is this structure, provided by this Agreement, that the regimes of IPP existing in the WTO Member countries must accept.

The norms for the protection of plant varieties are specified in Article 27.3(b) of the TRIPS, and although at first sight the scope of the relevant provision appears open to interpretation, in reality it is quite well defined. The Article also provides that:

"... Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof ..." (emphasis added).
The qualification made of the *sui generis* system that is to be introduced as per the requirements of Article 27.3(b) holds the key to the adoption of the framework for the system. At present the only "effective" *sui generis* system existing for the protection of plant varieties is the PBR system defined by the UPOV Convention.\[^{35}\] Considering its wide acceptance among the developed countries, which have pushed for extending IPP to agriculture in all countries, the UPOV framework can be considered to conform with the requirements of Article 27.3(b).

Furthermore, while accepting the UPOV framework, countries would have to conform to UPOV '91, i.e. the amended framework for PBRs adopted in 1991. What lends weight to this argument is that UPOV '91, by February 1997 had been endorsed by sixteen countries\[^{36}\] (the United States was the first to do so) and is increasingly being considered as the framework towards which all national systems must gravitate.\[^{37}\] It has also been argued that UPOV '91 takes into consideration the recent developments in biotechnology and hence all the state-of-the art technologies in plant breeding can be covered by this form of PBR.\[^{38}\] It is therefore necessary to look at UPOV '91 to understand the nature of the system of plant varieties' protection that countries would have to develop.

The provisions of the legislation that the Indian government proposes to introduce should therefore be examined against the provisions of UPOV '91. Although several of the legislation's provisions have been set in line with those of UPOV '91, there are yet others on which there are major points of departure. Among these are provisions relating to the scope of breeders' rights, compulsory licensing and the term of protection of improved plant varieties.

The scope of the breeders' rights provided in the proposed legislation includes:

(i) production for commercial marketing;
(ii) offering for sale (of the branded seeds); and
(iii) marketing of the reproductive or propagative material.

The scope of the breeders' rights so defined bears similarity with the provisions of UPOV '78, Article 5 of which provided that the breeders' rights extend to the following acts involving a protected plant variety:

(i) production for purposes of commercial marketing;
(ii) offering for sale; and
(iii) marketing.

\[^{35}\] As at 30 December 1997 the UPOV Convention had thirty-five members. Prior to 1994, UPOV had members primarily from the industrialized world, but since then developing countries have shown urgency to join the Convention. Between 1994 and 1997, eleven countries, seven of them belonging to the Latin American region, accepted membership of UPOV.

\[^{36}\] UPOV (1997). FAO sources, on the other hand, indicated that seventeen countries had become parties to UPOV '91 by 1995: see, Commission on Genetic Resources for Food and Agriculture (1996b).

\[^{37}\] IDRC (1994), pp. 63-64.

\[^{38}\] See Boeringer (1992). Commercial plant breeders have discussed at length the advantages that they can obtain from the framework provided by UPOV '91, see for example Royon (1996).
This provision, while indicating that the authorization of the breeder was required if production was undertaken for commercial marketing, implied that the breeder's authorization was not necessary for using seeds produced on the farm. It is this above interpretation that gave rise to what became commonly known as the "farmers' privileges", which were discussed in the earlier section.

UPOV '91, on the other hand, provides for the breeders' rights to be far more pervasive. This has been attempted by severely restricting the freedom of the farmers to use propagating material hitherto permitted under UPOV '78. Accordingly, under Article 14(9) of UPOV '91, breeders rights are to include the following acts:

(i) production or reproduction (multiplication);
(ii) conditioning for the purpose of propagation;
(iii) offering for sale;
(iv) selling or other marketing;
(v) exporting;
(vi) importing;
(vii) stocking for any of the purposes referred to above.

The rights of the breeder have thus been extended to cover all acts pertaining to production and reproduction of the propagating material on which his rights have been established. The scope of protection therefore leaves virtually no possibility of farmers re-using seeds without authorization from the breeder, as was the case under UPOV '78. Nominal scope for exception to breeders' rights have, however, been provided under Article 15.2 as follows:

"... each Contracting Party [to UPOV '91] 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..." (emphasis added).

The new provisions thus allow farmers to re-use the protected material only if the "legitimate interests of the breeder" are taken care of—the legitimate interests being the royalty that the breeder should be paid for re-using the seeds.

The recent amendment of the PBR system brought about by the U.S. Congress after the United States ratified UPOV '91, pointedly indicates the restrictions that farmers could face in the new PBR system. Through this new legislation, the U.S. Congress has put limits on the scope of "farmers exemption" under the U.S. Plant Variety Protection Act (the U.S. equivalent of PBRs). According to this legislation, farmers would be allowed to re-plant the seeds on their own farm but would be restricted from selling them for reproductive purposes to their farm neighbours without having to pay royalties or asking permission for the same.39

Thus, while UPOV '91 has sought to restrict the freedom that the farmers would henceforth enjoy through its latest amendment, the proposed legislation in

39 For elaboration see Butler (1996), Smith (1996) and Hamilton (1996).
India has provided for farmers' privileges akin to those available under UPOV '78. This divergence from UPOV '91 could be the single most important aspect that could arise as the proposed legislation is implemented.

What needs mentioning in this context is that, although the global community has not fallen short of taking initiatives to recognize the contribution made by the traditional farmers,\(^{40}\) commensurate efforts have not been made at putting these initiatives into an operational form. The ability of the regime of IPP to provide legitimacy to the contributions made by the traditional farming communities would alone lead to a more effective development of agriculture in developing countries.

The provisions relating to compulsory licensing appearing in the proposed legislation that give “overriding priority” to public interest are, as mentioned above, antithetical to the IPP framework as proposed in the Agreement of TRIPS. In the latter, the rights of the owner of intellectual property are given primacy in no uncertain terms, as is clear from Article 30 that relates to patents. According to this Article:

“... limited exceptions [may be given] to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.”

Further, the provisions of the proposed legislation that lay down strict requirements for making available the protected material to members of the public at reasonable prices through the grant of compulsory licences, are diametrically opposite to the provisions of both the UPOV '91 and the TRIPS Agreement. Neither of these allow for the use of the mechanism of compulsory licensing. The issue of compulsory licensing was considered by the Revision Conference leading up to UPOV '91 at the outset, but was eventually rejected.\(^{41}\) In a similar vein, the issue of allowing the use of compulsory licenses was raised as one of the major areas of contention during the Uruguay Round negotiations, particularly in relation to patents. However, it was eventually settled in favour of the patentee who now is free from undertaking any obligation to make his patented/protected material available to the public at reasonable prices.

The other point of difference between the proposed legislation and UPOV '91 arises as regards the term of protection. The proposed legislation, in providing a term of protection of fifteen years for new varieties from the date of registration and

---

\(^{40}\) Two of the main attempts towards this end have been the FAO's (Food and Agriculture Organization) recognition of the farmers' rights and the UNESCO/WIPO (United Nations Economic, Scientific and Cultural Organization/World Intellectual Property Organization) initiative to evolve a treaty for the protection of folklore, preservation of biodiversity being regarded as an integral part of folklore: see FAO (1989 and 1995) and UNESCO (1984 and 1985).

\(^{41}\) Although UPOV '91 does not contain provisions that allow for the grant of compulsory licences, the Model Law on the Protection of Plant Varieties prepared by the UPOV Secretariat based on UPOV '91, does include a provision on compulsory licensing. However, given the positions regarding compulsory licences that have been taken in the recent negotiations, both in the UPOV and GATT/WTO, the future of this instrument is certainly in doubt.
eighteen years for trees and vines, provides a shorter term than stipulated under UPOV '91 where the corresponding terms are at least twenty and twenty-five years, respectively.

There are, thus, several areas where the provisions of the proposed legislation appear inconsistent with those of the TRIPS Agreement, which, as discussed above, require adoption of the UPOV '91.

Conclusions

Indian agriculture is at a crossroads as the government prepares to bring forth legislation for the introduction of intellectual property rights in this sector. Hitherto, India, like most developing countries, had kept the agricultural sector outside the domain of intellectual property protection, but this situation has changed following the commitment, undertaken by the government under the TRIPS Agreement, to extend IPRS to encompass plants.

The proposed legislation, the second that the government has produced in less than four years, seeks to provide PBRS in addition to the commercial plant breeders' rights, which they can use to protect all varieties of plants. It is proposed that the rights of the breeders would extend to the "essentially derived varieties" as well. These two features of the proposed legislation have made it similar to the framework of PBRS currently provided by the UPOV Convention through UPOV '91.

Although the government has tried to address the larger public interest by introducing instruments that can limit the exercise of monopoly by the plant breeders, it is the interests of the farmers in the proposed IPP regime in agriculture that have been given short shrift. This has arisen primarily because the issue of farmers' rights arising out of their contribution to the development of agricultural systems, which has been an integral part of the on-going debate on PBRS in the country, has not been considered in the proposed legislation. In so doing, India has, in fact, given up the initial moves it had made to provide a legal basis for the recognition of the farmers' contribution to agriculture that the global community has accorded through the FAO's International Undertaking on Farmers' Rights.

Restoring the balance of rights by providing due recognition to both farmers and the modern plant breeders in a regime of intellectual property protection needs to be attempted in the larger interests of the development of agriculture in a farmer-dominated system.
References


Cohen, Joel, Stephan Crespi, and Biswajit Dhar, forthcoming: Should I Seek Legal Protection for my Research Results? in Tabor, Janssen and Bruneau (eds.) op. cit.


Indian Council of Agricultural Research, 1964: Agriculture in Ancient India, New Delhi.

Idem: Annual Reports, various years.


