6.3 Farmers’ rights, their scope and legal protection in India

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Farmers’ contributions to the development of plant genetic resources

Today, we understand and appreciate the importance of plant genetic resources (PGR) as forming the building blocks for continuous crop improvement. Farmers may have little or no understanding of the scientific basis of genetic diversity, but they certainly understand its paramount importance to agriculture, and the need for promoting variability in agricultural practices. The autonomy that every farmer exercises in selecting, saving and maintaining seed for re-sowing has been fundamental for the agronomic transformation of plant species into crops, and their further selection. Any realistic valuation of PGR generated by farmers could well run into trillions of dollars, which is many times higher than the value that modern plant breeding has contributed.

Social construction of farmers’ rights

Despite the intellectual efforts needed to create improved variability in a wide array of local varieties, the concept of intellectual property rights (IPR) extended to new plant varieties has virtually ignored the contributions of farmers. For example, the patent or plant breeders’ rights systems are heavily influenced by commercial considerations, where PGR are dealt with as common property. This ignores the aforementioned monumental contributions that have been made by farmers, leading to the social and political construction of the concept of farmers’ rights.

Farmers’ rights and intellectual property rights

The basic principle underlying IPR on plant varieties is the recognition of human innovation in developing a new plant variety through selection, with or without recombination, which is novel and distinct from the pre-existing varieties. Unlike the innovations that are made in many non-biological domains, life forms such as crop varieties are not completely invented, but are always created from pre-existing life forms and propagated by natural processes. Thus, the creation of a new variety has two components: the use of pre-existing varieties and the knowledge required to select a new variety by recombining the pre-existing ones or by other processes. Equity demands that the recognition of innovations made on the newly bred varieties
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should also include the similarly innovative component invested in the source varieties (i.e., plant genetic resources). The latter essentially represent the far greater cumulative intellectual inputs contributed by generations of farming communities over a long period. The fact that those communities lack identity and institutional backing, unlike the present commercial plant breeders, should not mean that they are given less importance or recognition for their intellectual inputs.

While IPR on plant varieties are upheld, the demand for free access to varieties developed by farmers, without the payment of royalties applicable to varieties protected by intellectual property (IP), can be seen as a double standard concerning rights. Moreover, the granting of exclusive rights over the seed or propagating material of an IP-protected variety marks a turning point from the traditional unrestricted right farmers had enjoyed over seed. This restriction on the seed of a patent-protected variety is rigorous, allowing no flexibility for farmers and minimal flexibility for breeders, depending on the jurisdiction.

Construction of farmers’ rights in the international policy arena

The context of plant variety protection

IPR that are granted to breeders of plant varieties are referred to as plant breeders’ rights (PBRs). The International Convention for the Protection of New Varieties of Plants (UPOV Convention) is the earliest system for plant variety protection and is currently adhered to by 69 countries. PBRs allow a plant breeder to exclude others from the production, processing, stocking, distribution, marketing, sale, export and import of propagating material of a protected variety for a specified number of years. It also allows the breeder to license such rights to others, and to receive royalties generated from the authorized use of the propagating material. These rights may in some countries also include harvested material, such as cut flowers, fruits or foliage of the protected variety, in cases where the breeders do not have reasonable opportunities to exercise their rights over the planting materials. The legal space available to farmers concerning the seed of a protected variety under such a system for plant varietal protection takes the form of farmers’ rights, together with PBRs; or that of the farmers’ privilege within PBRs.

The UPOV Convention of 1978 had crafted the exception to PBRs as a private and non-commercial action on propagating material of the protected variety, which allowed – according to certain interpretations – farmers to use the propagating material accessed as the product of the harvest obtained by planting (UPOV, 1978). The UPOV version of 1991, however, mentions the farmers’ privilege which limits the exemption to certain crops (by choice of the member state) and only to seed produced by farmers for planting back on their own holdings, thereby dramatically reducing the traditional farmers’ rights for use.

The context of the International Undertaking and the International Treaty

While recognizing PBRs on plant varieties, the inter-governmental Commission on Genetic Resources for Food and Agriculture (CGRFA) also approved farmers’
rights in a resolution on the interpretation of the International Undertaking on Plant Genetic Resources for Food and Agriculture (IUPGRFA) in 1989 (FAO, 1989). Its primary objective for recognizing farmers’ rights was to ensure that farmers would continue to contribute to the conservation and sustainable use of PGR for strengthening the global food and nutritional security.

In 1993, the CGRFA initiated negotiations that concluded almost ten years later in the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA; FAO, 2001). The ITPGRFA provides legitimacy to farmers’ rights by recognizing the enormous contribution that local and indigenous communities and farmers, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of PGRFA, which constitute the basis of food and agriculture. It has, however, left the responsibility of implementing these farmers’ rights, as they relate to PGRFA, with national governments, in accordance with their needs and priorities, as appropriate, and subject to national legislation. Andersen (Chapter 6.2) describes the relationship between the ITPGRFA and farmers’ rights as being made up of the following four elements: the right to protect traditional knowledge; the right to equitably participate in benefit-sharing; the right to participate in decision-making; and the right to save, use, exchange and sell farm-saved seed. The current chapter focuses on how we have been able to incorporate farmers’ rights into the Protection of Plant Varieties and Farmers’ Rights Act (PPVFR Act, 2001) in India.

**Farmers’ rights in the Indian PPVFR Act, 2001**

**Recognition of farmers as users, custodians and breeders**

As is evident from the title, the Protection of Plant Varieties and Farmers’ Rights Act (PPVFR Act) seeks to address the rights of plant breeders and farmers on an equal footing. It affirms the necessity of recognizing and protecting the rights of farmers with respect to the contribution they make in conserving, improving and making PGR available for the development of new plant varieties. The PPVFR Act also deems it equally necessary to protect PBRs to stimulate investment for research and development, both in the public and private sector, for the development of new plant varieties. Under the Act, PBRs allow breeders to hold exclusive rights to produce, sell, market, distribute, import or export the propagating material of a registered variety.

The PPVFR Act recognizes the multiple roles played by farmers in cultivating, conserving, developing and selecting varieties. With regard to developing or selecting varieties, the Act refers to the value added by farmers to wild species or traditional varieties through selection and identification of their useful traits. Accordingly, farmers’ rights encompass the roles of farmers as users, conservers and breeders. Farmers are granted nine specific rights, which are briefly described below.

**Right 1: Access to seed**

Farmers shall be entitled to save, use, sow, re-sow, exchange, share or sell their farm produce, including seed of protected varieties, in the same manner as they were entitled to before the coming into force of the PPVFR Act. However, farmers shall not be entitled to sell branded seed of a variety protected under this Act. The Act does not
specify the quantity of seed that farmers can save from a crop cultivated in their own farms from a protected variety.

**Right 2: Benefit-sharing**

All Indian legal entities who provide PGR to breeders for developing new varieties, including farmers, shall receive a fair share of the benefits from the commercial gains of the registered varieties. Out of all the national plant variety protection laws enacted since 2001, the PPVFR Act is the first that integrates a provision for access and benefit-sharing (ABS) along with PBRs. Legal accession of the genetic resource used in breeding is not addressed in the Act; this falls instead under the Biological Diversity Act, 2002. However, the PPVFR Act requires a breeder to make a sworn declaration on the geographical origin of the genetic resources used in the pedigree of the new variety, and how they were accessed.

**Right 3: Compensation**

Registered seed must be sold with full disclosure of their agronomic performance under recommended management conditions. When such seed is sold to farmers but fails to provide the expected performance under recommended management conditions, the farmer is eligible to claim compensation from the breeder through the office of the PPVFR Authority.

**Right 4: Reasonable seed price**

Farmers have the right to access seed of registered varieties at a reasonable price. When this condition is not met, the breeder’s exclusive right over the variety is suspended under the provision concerning compulsory licensing, and the breeder is obligated to license the seed production, distribution and sales of the variety to a competent legal entity. Most of the laws for plant variety protection have provisions on compulsory licensing of protected varieties to ensure adequate seed supply to farmers, and several of them also use unfair pricing as grounds for compulsory licensing.

**Right 5: Farmers’ recognition and reward for contributing to conservation**

Farmers who have been engaged in PGR conservation and crop improvement, and who have made substantial contributions in providing genetic resources for crop improvement, receive recognition and rewards from the national gene fund. The gene fund receives resources from the implementation of the Act, which in turn are complemented by contributions from national and international organizations. The expenditures of the fund are earmarked to support the conservation and sustainable use of PGR, and in this way it can be considered to be a national equivalent to the global benefit-sharing fund operating within the ITPGRFA, as described by Andersen (Chapter 6.2). Since 2007, the plant genome saviour award, associated with the national gene fund, has been rewarding farming communities and individual farmers for their contribution to in situ conservation on-farm and to the selection of PGR (Bala Ravi and Parida, 2007).
Right 6: Registration of farmers’ varieties

The Indian PPVFR Act allows for the registration of existing farmers’ varieties that fulfil requirements for distinctness, uniformity, stability and denomination, but does not include that of novelty. This right provides farmers with a one-off opportunity for a limited period of time, from the moment when a crop species is included in the crop portfolio under the PPVFR Act for registration. Once registered, these varieties are entitled to all PBRs.

Right 7: Prior authorization for the commercialization of essentially derived varieties

When farmers’ varieties, whether extant or new, are used by a third party as source material for the development of an essentially derived variety, the farmers need to provide prior authorization for its commercialization. Such a process can allow farmers to negotiate the terms of authorization with the breeder, which may include royalties, one-off payments, benefit-sharing, etc.

Right 8: Exemption from registration fees for farmers

Under the PPVFR Act, farmers have the privilege of being completely exempt from paying any kind of fees or other payments that are normally payable for variety registration; tests for distinctness, uniformity and stability (DUS), and other services rendered by the PPVFR Authority; as well as for legal proceedings related to infringement or other causes.

Right 9: Farmer protection from accidental infringement

If a farmer can somehow prove before court that he or she was not aware of the existence of any rights at the time of an infringement on any such rights, as detailed in the PPVFR Act, he or she will not be charged. This provision is made in consideration of the centuries-old unrestrained rights that the farmers had over the seed of all varieties, the novel nature of the PPVFR Act and the low legal literacy of farmers.

Current status of the implementation of PPVFR Act

The PPVFR Act has been in operation since 11 November 2005. Since then, the PPVFR Authority has brought 43 crop species into its fold. By the end of December 2010, the PPVFR Authority had received applications for the registration of 841 new varieties belonging to 27 crops, 1222 applications for the registration of extant varieties belonging to 24 crops, and 55 applications for the registration of farmers’ varieties of seven crops. Table 6.3.1 illustrates the species distribution of applications to register new varieties.

Farmers’ rights in the context of rural poverty in India

The relevance of farmers’ rights, as provided for under the PPVFR Act, becomes more evident when considering the fact that about 660 million people in India are subsisting...
largely on agriculture for their livelihoods. It is notable that during the early days of IPRs, food security was still one of the top priorities in Europe and the USA, leading to the exemption of food crops from IPRs, and the application of farmers’ exemption. It has been argued that the Indian PPVFR Act, with its extensive farmers’ rights, is not conducive to promoting private investment in plant breeding. However, since private investment in Indian plant breeding, including food, horticultural and commercial crops, is rapidly increasing, and the use of private-bred seed in Indian agriculture (Freeman and Barwale, 2010) is spreading, such arguments lack evidence.

While the private sector is growing, farmers are also being promoted to maintain their rights to conserve, use and further develop their PGR. In this way, India is providing the world, emerging economies and developing countries in particular, with a viable alternative that balances the private sector’s and farmers’ rights.

Table 6.3.1 Species-grouping of new varieties registered by the PPVFR authority, India, up until December 2010

<table>
<thead>
<tr>
<th>Cereal crops</th>
<th>No.</th>
<th>Legumes</th>
<th>No.</th>
<th>Oil crops</th>
<th>No.</th>
<th>Fibre and other crops</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>99</td>
<td>Pigeon pea</td>
<td>19</td>
<td>Sunflower</td>
<td>38</td>
<td>Jute</td>
<td>5</td>
</tr>
<tr>
<td>Wheat</td>
<td>11</td>
<td>Black gram</td>
<td>10</td>
<td>Ground nut</td>
<td>1</td>
<td>Cotton</td>
<td>241</td>
</tr>
<tr>
<td>Maize</td>
<td>118</td>
<td>Green gram</td>
<td>6</td>
<td>Mustard</td>
<td>1</td>
<td>Sugarcane</td>
<td>2</td>
</tr>
<tr>
<td>Sorghum</td>
<td>74</td>
<td>Common bean</td>
<td>1</td>
<td>Castor bean</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearl millet</td>
<td>77</td>
<td>Lentil</td>
<td>1</td>
<td>Soybean</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Green pea</td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>

Subtotal cereals 379 Subtotal pulses 38 Subtotal oil crops 46 Subtotal fibre and other crops 248

Source: Protection of Plant Varieties and Farmers’ Rights Authority, India.

New balance between farmers and breeders

One often notices a paradox when considering the high level of poverty in India that exists side-by-side with a wealth in PGR. The commercial entities that freely access PGR seldom realize that conservation is often associated with poverty. The Indian PPVFR Act includes important provisions for promoting the on-farm management of PGR. The national gene fund supports this conservation strategy as implemented by poor rural communities. The provision for fair and equitable benefit-sharing from plant breeders using the PGR conserved by farmers is a major incentive for linking conservation with livelihood development, in the process of community biodiversity management (CBM). In order to ensure the continued contributions of farmers through CBM, farmers across the world must be granted liberal rights over the seed of every variety that they develop. These rights should be accompanied by the provision of monetary, moral and technical support, through the application of CBM practices within seed systems including those using modern technologies. Such rights and support must be provided as a priority, and must be equal to the exclusive rights that have been granted to plant breeders, who forage on the PGR that once originated and continue to be conserved and developed by those farmers.