



## No. 2

# GPFS – AT WORK: PLANT VARIETY PROTECTION (PVP) AND FOOD SECURITY

These messages have been prepared to guide SDC's increasing interest in plant variety protection and related policy processes. It does not address the organization of the seed system.

The Paper primarily addresses PVP laws for improved varieties: Seeds of a variety developed through the formal breeding systems. Not all improved varieties need to be PVP-protected.

This series is meant to give guidance and reflects the position of the GPFS.

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The use of new varieties of plants is a key element in increasing productivity and product quality. The availability of adapted plant varieties can therefore be a decisive factor in improving rural income and in achieving food security and nutrition goals. Climate-smart agriculture or nutrition friendly strategies also include the development of improved varieties. The process of plant breeding can be long and expensive, while it can be very easy to reproduce a variety in certain situations. While historically farmers did a positive selection of their seeds, thus constantly developing new varieties, few private sector companies would currently make substantial investment in developing new varieties with intentional characteristics if there was no means of getting economic returns. On the other hand, the preservation of the genetic pool that (public and private) breeders draw upon is largely based on (smallholder) farmers' engagement to continuously preserve it. It is thus a major challenge to establish a fair, sustainable and effective system of plant variety protection that encourages the co-development of new varieties of plants by researchers and farmers, while encouraging (smallholder) farmers to be rewarded for their longstanding contributions to biodiversity maintenance.

### Implementation of Plant Variety Protection (PVP) laws

The seed sector can be informal or formal depending on public regulation and certification. Currently, smallholder farmers in developing countries can draw seeds from the formal and informal seed sector or both. PVP laws can address both seed sectors and define access to and distribution of seeds. The purpose of the following guiding principles in developing PVP laws is to keep a view to enhancing food security and nutrition:

- **The design of PVP laws is to be carried out in an open, transparent and inclusive process.** (Smallholder) farmers, private sector and policy makers should be effectively involved. Independent technical assistance can be considered to facilitate the process and to highlight advantages and disadvantages of PVP laws.
- **PVP laws should not restrict the implementation of other legal obligations and policies.** The protection of indigenous peoples' rights and traditional knowledge, the right to food, sanitary or phytosanitary standards, or the protection and sustainable use of biodiversity (including the ability to take all measures necessary to prevent misappropriation of genetic resources and associated traditional knowledge) should be respected and the impact of PVP laws should be assessed ex ante.
- **The inter-linkages of the formal and informal seed systems have to receive equal consideration when drafting PVP laws.** A differentiated approach to the rights, needs and capacities of different sets of stakeholders needs to be applied, in particular with regard to the realization of farmers' rights to use, to save, to exchange and to sell farm-saved seeds/ planting material.
- **Measures that allow smallholder farmers to freely save, use, sow, exchange, share and sell farm-saved seeds and planting material are part of PVP laws.** This includes that the country undertakes a thorough objective independent assessment of its formal and informal seed sectors and of its international obligations with regard to Intellectual Property rights. A PVP law can make use of the *sui generis* clause that is evidence-based and suitable for the country's conditions, needs and interests. It restricts its application on protected varieties.
- **PVP laws have to consider an implementation mechanism, both in terms of protection and benefit sharing.** This includes a public certification and control mechanism that links both public and private research and development systems. **PVP laws and plant breeding processes are meant to reward biodiversity.** The preservation of (agro-)biodiversity and the use of the genetic biodiversity is a key coping mechanism for smallholder farmers in the context of increasing impacts of climate change and of market challenges.

## **Background: Available PVP related treaties, organisations and conventions with a global scope**

The **International Treaty on Plant Genetic Resources for Food and Agriculture** (ITPGRFA) was adopted by the Conference of the Food and Agriculture Organization of the United Nations in 2001. It entered into force in June 2004. Today 135 countries are Contracting Parties to the ITPGRFA. The Treaty aims at (1) recognizing the enormous contribution of farmers to the diversity of crops that feed the world; (2) establishing a global system to provide farmers, plant breeders and scientists with access to plant genetic materials; and (3) ensuring that recipients share benefits they derive from the use of these genetic materials. Its main provisions are:

- **Conservation and Sustainable use:** Most of the world's food comes from four main crops – rice, wheat, maize and potatoes. However, local crops, not among the main four, are a major food source for hundreds of millions of people and have potential to provide nutrition to countless others. The Treaty should ensure both in situ and ex situ conservation as well as help maximize the sustainable use and breeding of all crops by promoting development and maintenance of diverse farming systems.
- **Access and benefit sharing:** The Treaty's truly innovative solution to access and benefit sharing is the establishment of the Multilateral system which today covers 64 of our most important crops – crops that together account for 80 percent of the food we derive from plants – The Treaty facilitates access to the genetic materials contained in the Multilateral System for research, breeding and training for food and agriculture. Benefit Sharing provisions are settled in the Standard Transfer Material Agreement (SMTA) that is delivered by each access. The Treaty prevents the recipients of genetic resources from claiming intellectual property rights over those resources in the form in which they received them, and ensures that access to genetic resources already protected by IPRs is consistent with international and national laws.
- **Farmers' rights:** The Treaty recognizes the enormous contribution farmers have made to the ongoing development of the world's wealth of plant genetic resources. It calls for protecting the traditional knowledge of these farmers, increasing their participation in national decision-making processes and ensuring that they share in the benefits from the use of these resources.

**WIPO** (World Intellectual Property Organization) is the global forum for intellectual property services, policy, information and cooperation.

**TRIPS** (trade-related aspects of intellectual property rights) targets aspects of property rights in the context of WTO. Member countries of WTO are also bound to TRIPS. Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system.

<i>Sui generis</i> : adaptation and application through exceptions and special provisions in regards to country-specific issues.
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The International **Union for the Protection of New Varieties of Plants** (**UPOV**) was established by the International Convention for the Protection of New Varieties of Plants ("UPOV Convention"). UPOV is an intergovernmental organization based in Geneva. The UPOV Convention was adopted in 1961 by a Diplomatic Conference held in Paris and has been revised in 1972, 1978, and in 1991 to reflect technological developments in plant breeding and experience acquired with its application. The UPOV Convention provides a *sui generis* form of intellectual property protection which has been specifically adapted for the process of plant breeding and has been developed with the aim of encouraging breeders to develop new varieties of plants. Innovations in other areas of technology concerning plants are covered by other forms of intellectual property rights including, in particular, patents. Up to today 71 countries and 1 regional organization are members of UPOV. Many countries have introduced a plant variety protection (PVP) system have chosen to base their system on the UPOV Convention in order to provide an effective, internationally recognized system (see <http://www.upov.int/members/en/>). The UPOV Convention provides the basis for UPOV members to encourage plant breeding by granting breeders of new plant varieties an intellectual property right: the breeder's right. Under the UPOV Convention, the breeder's right is only granted where the variety is (i) new, (ii) distinct, (iii) uniform, (iv) stable and has a suitable denomination.

### **Developing country *sui generis* options for plant variety protection**

Thailand, India:

<http://www.quno.org/resource/2014/1/developing-country-sui-generis-options-plant-variety-protection>