



### Briefing Note

# Intellectual Property Rights in Agriculture

*Plant variety protection and its effects on food security and biological diversity*

## Background

Intellectual property rights (IPRs) have existed in agriculture for almost 80 years. A basic distinction is made between the protection of intellectual property rights by means of patenting, on the one hand, and plant variety protection, on the other.

In Europe, intellectual property rights in agriculture have until now been regulated primarily through plant variety protection under the UPOV Convention (*Union internationale pour la protection des obtentions végétales* – International Union for the Protection of New Varieties of Plants). The Convention protects the intellectual property rights of plant breeders but at the same time permits farmers to use the protected variety for propagating purposes without charge ('Farmer's Privilege'). Although farmers were not prohibited from freely propagating protected varieties under the original (1961) Convention, this Farmer's Privilege was not incorporated into the Convention until its revision in 1991. Plant variety protection differs significantly from patent law in relation to these privileges.

UPOV currently has 68 members, comprising 67 countries and the EU. A further 17 countries and the Organisation Africaine de la Propriété Intellectuelle (African Intellectual Property Organization – OAPI), whose membership comprises 16 West and Central African countries, have applied to join UPOV. Implementation of the UPOV Convention and the relevant arrangements for this process take place at national level.

The issue of intellectual property rights in agriculture became relevant to the developing countries with the founding of the World Trade Organization (WTO) in 1995.

Every country acceding to the WTO automatically becomes a party to the **Agreement on Trade-Related Aspects of Intellectual Property Rights** (TRIPS Agreement). This Agreement establishes minimum standards for the protection of intellectual property rights, including patent protection, for all sectors, including agriculture. Living organisms **may**, in principle, be the subject of patents, but pursuant to Article 27.3b of the Agreement, Members may also **exclude from patentability** essentially biological processes for the production of plants or animals, as well as plants and animals themselves. However, Members must provide for effective protection of intellectual property rights for plant varieties, either by patents or by a *sui generis* system (e.g. arrangements under UPOV), which can be established outside the framework of patent law.

The various international regimes – the WTO, the Convention on Biological Diversity (CBD), the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and UPOV – apply diverse approaches to the protection of intellectual property rights. The WTO, with the TRIPS Agreement, focuses on private trade-related intellectual property rights, whereas the CBD and the ITPGRFA recognise the sovereignty of the signatory states in relation to their biological diversity and establish rules

governing access to genetic resources and the fair and equitable sharing of benefits arising from their utilisation.

The ITPGRFA regulates the multilateral **exchange** of **genetic resources** relating to the most important plants for food and agriculture and enshrines 'Farmers' Rights'. These include the protection of farmers' traditional knowledge, the right to equitably participate in sharing benefits arising from the utilisation of plant genetic resources, and the right to participate in decision-making at the national level. The ITPGRFA also contains a provision on farmers' traditional rights to save, use, exchange and sell farm-saved seed /propagating material. However, these rights are undermined by the 1991 UPOV Convention and its implementation at national level. Farmers' Rights play a key role in the debate about property rights relating to plant genetic resources for agriculture.

### The various actors and their positions

The public debate about the role of intellectual property rights in agriculture has stalled. There are a number of entrenched positions, ranging from:

- the call for strong property rights protection as the driver of innovation and the recouping of investment, to
- opposition to strong property rights protection, especially patents and UPOV, in order to promote food security on the basis of smallholder farming while protecting agrobiodiversity.

There are various reputable studies now available which question whether strong intellectual property rights protection is indeed a driver of innovation.

- As early as 2002, the **Commission on Intellectual Property Rights (CIPR)** appointed by the British Government concluded that the evidence suggests that strong systems of intellectual property rights protection have not been particularly effective in stimulating research and development in the agricultural sector. The same is also true of variety protection. Indeed, the real beneficiaries of an IPR system, according to the CIPR, are the seed industry and commercial farmers. The development of a commercial seed sector does not help to improve conditions for subsistence farmers.
- Excessively strong intellectual property rights in the seed sector, which block access to genetic re-

sources and promote the development of strategic monopolies, have hindered innovation and development in agriculture. This was the conclusion of a 2006 **World Bank Report**.

- And in 2008 the European Group on Ethics in Science and New Technologies appointed by the **European Commission** noted in an Opinion on intellectual property rights and agriculture that: 'The current IPR system ... could pave the way for market predominance where a few companies control much of agricultural production, with an impact on innovation and the growth of local economies in developing countries.'

Despite the findings of the studies mentioned above, the representatives of UPOV and the plant breeding industry insist that plant variety protection plays a key role in stimulating the development of new varieties, thereby making more and better varieties available to farmers. Plant variety protection, it is claimed, enables breeders to recoup, through licence fees, the investment made in developing a new variety and making it available to farmers. A breeders' exemption applies, however, which allows breeders to use protected varieties as sources of initial variation to create new varieties of plants. There is also an exemption for farmers' own use: this means that a subsistence farmer, for example, can use the seed of a protected variety, store it and save it for re-sowing.

The **United Nations Special Rapporteur on the Right to Food**, Olivier de Schutter, has also criticised the current systems of intellectual property rights protection such as the 1991 UPOV Convention. In a report published in 2009, he points out that the obligation of states to respect, safeguard and protect the right to food must also take account of intellectual property rights, as farmers' access to seed is a key prerequisite for the realisation of the right to food. This obligation, he argues, requires states to refrain from introducing legislation or other measures which create obstacles to the reliance of farmers on informal seed systems. The obligation requires states to adopt appropriate measures to regulate seed companies and plant breeders in order to ensure that farmers' traditional use of seed is not put at risk. Furthermore, states must actively promote farmers' access to seed and other resources, e.g. by supporting farmers' seed systems, in order to realise the right to food. According to de Schutter, no state should be obliged to join the 1991 UPOV Convention (as often occurs

within the framework of negotiations on free trade agreements). De Schutter recommends that impacts on the right to food be assessed, in order to ensure that the system of intellectual property rights protection that is chosen is compatible with the right to food. De Schutter's opinion and his recommendation are supported by non-governmental organisations (NGOs).

## GIZ's position

GTZ takes the view that in order to feed the increasing world population, further agricultural intensification is required. In order for intensification to be sustainable, however, it must be geared towards the needs and rights of smallholder farmers and take account of their role in food security. Seed and access to seed are of key importance in this context.

For more than 10,000 years, farmers have been selecting plants to develop varieties that produce higher yields, are less susceptible to disease, and show a certain degree of uniformity in germination and ripening, which makes harvesting easier. The rich diversity of agricultural crop species (agrobiodiversity) is the result of this selection and cultivation of crop plants by farmers. It is also extremely important for adaptation to climate change and long-term food security. Without a large gene pool, breeding in order to meet these challenges is impossible. Commercial seed production, too, is based on the varieties originally developed by farmers. Seed therefore cannot be equated with 'ordinary' products such as fertiliser.

GTZ is actively engaged in facilitating a transparent dialogue between the seed industry, civil society and the relevant ministries. It is important in this context to focus on overarching development policy goals such as the conservation of biological diversity, food security and the realisation of human rights. The aim is to help achieve a balance between different social and commercial interests and aspirations. For this to be achieved, the following conditions must be met:

- The realisation of the right to food and agrobiodiversity must not be adversely affected by regimes for the protection of intellectual property right; this means that
- traditional uses of seed must not be put at risk,
- access to seed must be actively promoted,

- support must be provided for farmers' seed systems.
- Agricultural support programmes should not be coupled to the exclusive use of modern high-performance varieties (with strict plant variety protection). Their use can lead to a decrease in agrobiodiversity while increasing smallholder farmers' dependence on external inputs, which they often cannot afford.
- Civil society – such as representatives of farmers' associations – must be actively involved in establishing the framework for plant variety protection, both at international and at national level.
- At international and regional level, the conclusion of free trade agreements should not be linked to an obligation to join UPOV.

Efforts should be made to amend the UPOV Convention with the aim of achieving recognition of Farmers' Rights.

## Action required

Efforts to promote the intensification of agriculture in accordance with sustainability principles are likely to increase the need for seed-related advisory services (breeding, propagation, supply, legislation). In the 1980s and 1990s this was an important field of action for development cooperation, but since 2000 it has been scaled down as a result of falling demand and changing priorities. Capacity building is therefore required for the developing countries and, indeed, for development professionals working in related areas.

The following priorities should be established in this context:

1. Provision of advisory services to developing and transition countries in relation to:
  - the development and implementation of national regimes for plant variety protection, adapted to the specific needs of the countries concerned
  - bilateral negotiations, e.g. within the framework of Economic Partnership Agreements (EPAs), on the options available for plant variety protection
  - implementation of Farmers' Rights at national level.



2. Provision of advisory services to the private sector on ways of taking account of development policy objectives during the development and implementation of joint projects with the developing countries.
3. Impact assessments, to monitor and evaluate the effects of selected regimes for the protection of intellectual property rights on the right to food.
4. The development and provision of capacity building measures, taking account of best practices (Farmers' Rights; plant variety protection in other countries).
5. Consideration of plant variety protection and Farmers' Rights in the context of rural development, economic development and food security programmes.

### Contact

Annette von Lossau  
E [Annette.Lossau-von@gtz.de](mailto:Annette.Lossau-von@gtz.de)  
T +49 61 96 79-1473  
I [www.gtz.de](http://www.gtz.de)

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Dag-Hammarskjöld-Weg 1-5  
65760 Eschborn, Germany  
T +49 61 96 79-0  
F +49 61 96 79-11 15  
E [info@giz.de](mailto:info@giz.de)  
I [www.giz.de](http://www.giz.de)

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