

Intellectual property and agriculture

The issue of intellectual property rights (IPRs) arises in a number of areas within the agricultural sector. IPRs pose particular challenges for developing countries in areas such as new plant varieties, genetic resources, traditional knowledge and agricultural product names. This article outlines some of the IPR issues for the sector and suggests some strategies to maximise their benefits.

Vili A. Fuavao*

These issues (new plant varieties and so on) are at the crossroads of international developments in fields such as agriculture, trade, environment and health. As such, they are discussed in a range of international forums and in various international instruments. One of the key challenges for developing countries is to coordinate policy development in these areas so that they can take advantage of the benefits of IPRs while promoting their national interests.

The term “intellectual property” is an umbrella term that encompasses a range of separate legal regimes. Intellectual property rights provide formal legal recognition of innovation and inventiveness. In the agricultural context, IPRs can be used to recognise new plant breeds, new agricultural chemicals or marketing names for produce.

This formal rights-based system contrasts with informal systems of recognition that are in place in many developing countries. Such informal systems may concern knowledge about breeding plant species, farming techniques and the healing properties of plants. There has been increasing tension between these systems, played out, for example, in debates about the role of IPRs in biotechnology compared with traditional agriculture.

New plant varieties and plant genetic resources

Botanical innovation resulting in the creation of new plant varieties is afforded legal protection through IPRs – specifically plant-breeders’ rights and patents. These are currently the subject of debate in forums such as the Food and Agriculture Organization (FAO) and World Trade Organisation (WTO), resulting in shifts in legal norms concerning IPRs in plant varieties and plant genetic resources.

There are a number of competing policy objectives driving this debate. One issue centres on whether granting IPRs to plant breeders encourages the preservation of genetic diversity or erodes it. The relationship between farmers’ rights and IPRs

in plant varieties poses another challenge. On the one hand farmers’ rights acknowledge the role that traditional farmers, particularly in developing countries, have played to preserve and improve plant genetic resources. Many of these farmers do not claim exclusive rights in the plants they have cultivated over time.

On the other hand IPRs provide exclusive rights to innovations in plant varieties. How to accommodate both these approaches poses a key challenge and is closely linked to the traditional knowledge issues considered below. Further issues are the regulation of access to plant genetic resources and the ownership of IPRs over unimproved plant germ plasm that is already in the public domain, such as wild plant varieties, or in seed collections.

Patents could pose a threat to the practices of many farmers in developing countries of re-using and exchanging seeds. The FAO’s 2001 Treaty on Plant Genetic Resources attempts to facilitate the exchange of seeds, and encourages countries to protect farmers’ rights

Developments in international forums

Key developments in IPRs and plant genetic resources have been taking place in the FAO. The FAO International Undertaking on Plant Genetic Resources was for many years a central instrument for the protection and equitable sharing of the benefits of plant genetic resources. It formed the basis for the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), finalised in 2001¹.

The ITPGR codifies and updates the Undertaking’s non-binding principles and includes provisions about plant-related IPR issues. Its main purpose is to facilitate the exchange of seeds and germ plasm for research, breeding and crop development. This is promoted by the “Multilateral System”, which is in effect a communal seed treasury of specified crops held both in

situ and in national and international seed banks.

The ITPGR seeks to strike a balance between open access to plant genetic resources and exclusive legal rights (such as IPRs) that seek to restrict access to those resources. The result is a compromise so that access to the plant genetic resources in the Multilateral System will only be granted on condition that recipients do not then themselves claim any IPRs that will limit access. Access is also conditional on payment of a fee used to promote the conservation and sustainable use of plant genetic resources.

A second key forum for debate is the WTO and its Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The TRIPS Council is reviewing the plant-related IPR obligations in the TRIPS Agreement, particularly those concerning genetic resources and patent rights². Many

developing countries regard this review as an opportunity to reconsider whether plant varieties should be able to be the subject of an IPR, such as a patent or a plant breeders' right. The latter is a *sui generis* (i.e. unique, or of its own kind) system of IPRs for new plant breeds, created by the treaties administered by The International Union for the Protection of New Varieties of Plants (UPOV).

Developing countries have raised the question of harmonising the TRIPS Agreement with other treaties such as the ITPGR and the Convention on Biological Diversity (CBD). They have looked at the issues in the context of conserving biodiversity, ensuring farmers' rights and protecting traditional knowledge. The CBD considers issues of IPRs and plant genetic resources from an environmental perspective. Its provisions are founded on the presumption that individual countries have sovereign rights over their genetic resources and can determine access to those resources.

However, states must also make access available to those resources for environmentally sound uses. The CBD contains a number of broad provisions dealing with IPRs, shaped by its aim to conserve biological diversity, use it sustainably and share equitably the benefits arising from genetic resources. For example, the CBD requires states to cooperate to ensure that IPRs are supportive of, and do not run counter to, the treaty's aims.

Protection of traditional knowledge

Traditional knowledge is closely linked to the issue of farmers' rights and the role of farmers in preserving and developing genetic resources through longstanding farming practices. It poses challenges when balancing conservation against the exploitation of plant and animal genetic resources, and balancing traditional farming practices against biotechnology. Some of the IPR issues in this context concern the patenting of inventions that use traditional knowledge and whether traditional knowledge should be protected through its own *sui generis* system of IPRs.

Protection of traditional knowledge, access to genetic resources and sharing of related benefits are issues of great importance for developing countries because of their enormous cultural, social and potentially economic value. These issues are cross-cutting and have emerged in a number of policy areas including food and agriculture, the environment, human rights, health, cultural policy, trade and economic development. This diversity is reflected in the range of international forums considering legal mechanisms and policy developments relating to the protection of traditional knowledge and access to genetic resources.

The World Intellectual Property Organization (WIPO) is engaged in a key policy dialogue that is being used to inform other international discussions, such as those in the TRIPS Council and the CBD. WIPO's work is being spearheaded by the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC), which was set up in October 2000.

The IGC's objective is to consider the issues of access to genetic resources, benefit sharing and the protection of traditional knowledge. It has undertaken significant work to define and assess the policy and legal issues, while facilitating the sharing of practical experiences of traditional knowledge and genetic resource issues at the national level. This may result in the development of a new international treaty on IPRs, traditional knowledge and genetic resources³.

The WTO TRIPS Council has also been considering protection of traditional knowledge and access to genetic resources, principally through the review of the TRIPS Agreement provisions dealing with the patenting of genetic resources. The dialogue has covered the disclosure of traditional knowledge used in inventions claimed in patent applications.

In the Doha Round, the TRIPS Council has been asked to examine further the issue of protection for traditional knowledge and the relationship with the CBD. The CBD encourages the protection of traditional knowledge that relates to the conservation and sustainable use of biological diversity. It also permits the broader promotion of traditional knowledge with the approval of the traditional knowledge holders, provided there is equitable sharing of the benefits arising from such use.

Names of agricultural products

The names of agricultural products may be protected by intellectual property rights. This can include trademarks used by producers to brand their particular crop for market, using the farm or farmer's name. Other associated IPRs are geographical indications that are similar to trademarks in that



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they concern the origin, quality, reputation and characteristics of goods. However, geographical indications (GIs) differ from trademarks in that they are names of places or regions, and the characteristics of the goods are linked to their geographic origin. “Champagne” is a well-known GI for sparkling wines made in the Champagne region of France.

GIs are an important issue across the agriculture sector, particularly in terms of current law and future developments in the WTO. At present there are two levels of protection for GIs provided by the TRIPS Agreement⁴, with a higher level of protection for GIs relating to wines and spirits. The lower level of protection prohibits the use of names that suggest something originates from other than its true place of origin. But a GI could be used on a product if, for example, the label simply refers to the geographical area but makes clear that the goods are not from that area. The higher levels of protection for GIs for wines and spirit means they can only be used when the product actually comes from the area referred to in its name. For example, only spirits from Tequila in Mexico can be labelled as such.

Negotiations have been undertaken in the Doha Round about extending the higher level of protection to a wider range of products, including foods, agricultural products and handicrafts. The issue of GIs has various implications for developing countries, such as protection of their own geographical names associated with local agricultural products. If stronger GI protection were extended to food products, it would also have implications for the use of geographical names from other regions or countries to describe their own produce.



Public funding of research relevant to farmers in developing countries is stagnant. Private sector research, supported by IP protection, means that research is not oriented to the needs of poor farmers

Strategies for developing countries to make the most of IPRs

Given the importance of agriculture for most developing countries, how can developing countries make the most of IPRs in the agriculture sector? They face a range of challenges, given the limits of their human and financial resources. For example, the IPR regimes in many developing countries are based on colonial-era laws and do not include recent developments such as plant breeders' rights, protection of traditional knowledge and geographical indications. Domestic change may be driven by international legal requirements in related areas such as trade (the WTO) or the environment (the CBD). Governments may face difficulties when undertaking policy development and legal reform in what is a complex area.

The main challenge to developing countries is to coordinate policy and legal developments across a number of areas, both within government and the community, in view of the cross-cutting nature of many of these issues. It is important for developing countries to have mechanisms in place to coordinate policy developments, such as a government focal points to coordinate IPR matters. A focal point could make dialogue easier between ministries dealing with agriculture, trade, development, culture, justice and commerce, as well as enabling contributions from the community and the private sector. It could also play an important role in relation to regional and international development and cooperation.

Other strategies that could be adopted include:

- developing national policies relating to IPR issues that identify and promote the national interest;
- ensuring that the national implementation of international IPR standards takes account of flexibilities in international agreements, such as non-mandatory provisions;
- ensuring that IPR implementation is appropriate for the country in the light of its national interest and development priorities;
- increasing awareness and understanding of IPRs amongst farmers, industry and government officials through training and education campaigns;
- enhancing negotiation skills to enable greater participation in various international forums; and
- initiating and participating in regional initiatives for developing countries to work together to implement these strategies.

IPRs pose many challenges to the agriculture sector in developing countries, especially in view of the cross-cutting nature of the policy dialogues and legal frameworks. But IPRs also offer opportunities. With the right strategies, developing countries can maximise the benefits of IPRs. It is vital that they are involved in and informed about current developments, particularly as legal norms are shifting in important areas such as plant genetic resources and the protection of traditional knowledge. ■

* FAO Sub-Regional Representative for the Pacific.

1. The ITPGR will come into force with 40 ratifications. As of the date of writing, 32 countries had ratified the Treaty.

2. Article 27.3(b).

3. At the recent WIPO General Assembly held in September 2003, member states agreed to extend the term of the IGC's mandate. No outcome, including the possible development of a treaty, is excluded.

4. Article 22.