

February 2011

Quaker United Nations Office



Global Economic Issue Publications

Intellectual Property Issue
Paper Number 9



Food, Biological Diversity and Intellectual Property:

The Role of the International Union for the Protection of New Varieties of Plants (UPOV)

Graham Dutfield

English Francais Espanol

The Quaker United Nations Office

The Quaker UN Office, located in Geneva and New York, represents Friends World Committee for Consultation (Quakers), an international non-governmental organisation with General Consultative Status at the UN. QUNO works to promote the peace and justice concerns of Friends (Quakers) from around the world at the UN and other global institutions. It is supported by the American Friends Service Committee, Britain Yearly Meeting, the worldwide community of Friends, other groups and individuals.

About the author

Graham Dutfield is Professor of International Governance at Leeds University School of Law. He is also Research Affiliate at Osgoode Hall Law School, York University, Toronto, and Adjunct Professor at Zhongnan University of Economics and Law, Wuhan, China.

The author is grateful for comments on earlier drafts of this study from Regine Andersen, Ahmed Abdel Latif, Carlos Correa, Caroline Dommen, Larry Helfer, Johannes Kotschi, Annette von Lossau, Niels Louwaars, François Meienberg, Pedro Roffe, Charlotte Seymour-Smith, Geoff Tansey, Morten Walløe Tvedt, Jonathan Woolley, and two anonymous reviewers. He would also like to thank Rolf Jördens and Peter Button of the UPOV Office, as well as the many government representatives and officials of national PBR offices who agreed to talk to him. Particular thanks are due to Caroline Dommen for commissioning this work and for patiently seeing it through from first draft to the final version.

The views expressed in this study are those of the author and do not necessarily represent the views of QUNO, the Gesellschaft für Internationale Zusammenarbeit (GIZ) or any of those who commented on previous drafts.

This paper may be downloaded from:

www.quno.org/economicissues/food-sustainability/foodLinks.htm#QUNOPUB

Hard copies of this paper may be available on request.



This study has been made possible thanks to the support of the Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the Federal Ministry for Economic Cooperation and Development (Germany)



Quaker UN Office, 2011

All QUNO work is published under a Creative Commons License. More information and full details of the license are available at <http://creativecommons.org>

Readers are encouraged to distribute, translate or quote from this study, provided the source is acknowledged and that it is for educational or non-profit purposes. QUNO would appreciate being informed of such use.

Preface

In the last decade, the Quaker UN Office has undertaken a range of activities relating to intellectual property policy, as well as in the area of food & sustainability. QUNO has inter alia commissioned a series of issue papers in which authors are invited to examine a subject of importance in the international intellectual property regime and highlight key issues they see arising. The aim is to contribute to a greater understanding of the impact of developments in a particular policy area upon people's lives, and thus to better inform debate and policy.

This issue paper is designed for delegates and decision-makers in the areas of intellectual property, food policy, biological diversity and related subjects, as well as breeders, farmers and people involved in agricultural policy. An appraisal of the adequacy of incentives for plant breeding is timely given the dual challenge of feeding a growing world population whilst the globe experiences climate changes that will inevitably impact on agriculture and livelihoods. We decided to focus this issue paper on the International Union for the Protection of New Varieties of Plants (UPOV) given the persistent concerns we have heard voiced by delegates in Geneva about the lack of information and informed discussion about the UPOV system.

This paper focuses on UPOV as an institution, and does not engage with the question of whether plant variety protection supports or undermines food security and biological diversity. It seeks to stimulate informed debate within and about UPOV, to help those concerned about food security, biological diversity, agricultural policy and the current UPOV system, to be better able to engage with discussion about UPOV and the future of plant variety protection and to provide a point of reference around which key actors – both supportive and critical of current approaches – can engage in discussions and exchange of ideas.

This paper finds that there are reasonable concerns that UPOV, in the way it tends to be interpreted, may be out of step with societal concerns about long-term food security, protection of biological diversity, and farmers' rights, and that the UPOV system fails to provide sufficient flexibilities to fashion optimal PVP regimes. The study concludes that the Union and its institutional set-up can do more to stimulate debate on appropriate rules for an increasingly diverse membership and on the food security and related challenges the world faces in the 21st Century. Despite some recent progress, UPOV would benefit from further institutional reforms.

The findings in the issue paper are based on the long-standing expertise of the author in this field, combined with research of relevant literature, UPOV documents and interviews with key stakeholders. To research this paper during 2010, the author spoke with or had written correspondence with officials from 17 UPOV member States, as well as with over a dozen officials from other countries (some from the foreign ministry, some from the trade ministry and other from national PVP offices). He also had interviews with officials from UPOV and other international organizations. In addition, the comments on the ideas in this issue paper formulated by participants at lunches organized by QUNO and the South Centre in April, July and October 2010 informed some elements of the study. Many of those interviewed asked not to have their comments attributed to them, but whenever possible, sources have been indicated.

Caroline Dommen

Representative, Global Economic Issues

Table of Contents

Summary	3
Section 1: Plant Innovation and Plant Variety Protection	4
Plant innovation: past and present	4
The rationale for plant variety protection	4
The purpose of an international system of plant variety protection	5
Plant breeding, PVP, and developing countries	5
The significance of plant variety protection	5
UPOV, its critics, and the scope of this study	5
Section 2: UPOV – Origins and Context	7
Origins of the UPOV Convention	7
UPOV and the ‘international regime complex’ on plant intellectual property	7
Politics and power	8
Section 3: The UPOV System	8
Key provisions of the UPOV Convention	8
The new UPOV – other features introduced by the 1991 Act	9
Technical cooperation under UPOV	9
Section 4: UPOV in the World	10
More members, still the same club?	10
Why do countries join UPOV?	10
Section 5: Institutional Aspects of UPOV	12
UPOV and WIPO	12
UPOV as an institution	12
A select club?	12
Non-governmental organisations’ observer status with UPOV	13
The fine line between outreach and advocacy	14
Section 6: Are there alternatives to UPOV?	16
Section 7: Conclusions and Recommendations	17
Core institutional issues	17
Recommendations	19
Boxes	
Box 1: Plant breeding – different techniques	4
Box 2: List of International NGO Observers in UPOV bodies	14
Box 3: UPOV, OAPI and the African Model Law Legislation	15
Members of UPOV as of January 15, 2011	Inside back cover

Summary

The importance of food security to human survival and the widespread interest in intellectual property in genetic materials suggest that PVP [plant variety protection ...] should be a subject of widespread interest by scholars and policymakers. In fact, nothing could be further from the truth.¹

Food security is high on the international agenda. New and improved plant varieties are one way of ensuring better yields and adaptability to changing climatic conditions, thereby contributing to long-term food security. Biological diversity is essential as a source of raw materials for breeding food crops and is therefore of central importance for food security.

Plant variety protection is a type of intellectual property right intended to provide an incentive to invest in research and development of new and improved plant varieties. The International Union for the Protection of New Varieties of Plants, UPOV, is the sole international agency concerned with intellectual property protection of new plant varieties. Concerns have been expressed about lack of transparency, democratic accountability and possibilities for public debate in its operation. The purpose of this study is to investigate this issue and find ways to open up the 'black box' that is UPOV for the mutual benefit of all who have a stake or interest in plant-related intellectual property.

Section 1 sets out the rationale for a global system of intellectual property protection specifically for plants. It describes different techniques of plant breeding and how plant variety protection (PVP) applies to these. It sets out some of the advantages of PVP over other intellectual property (IP) systems such as patents, as well as some of the flexibilities of PVP that permit farmers and plant breeders to use PVP protected seeds to develop new varieties. Section 1 notes the significance of PVP for areas as diverse as agricultural policy, food security, economic development, biodiversity, genetic resource conservation and human rights. It underlines that the purpose of this study is to assess the extent to which the UPOV system permits a full consideration of how UPOV can best be applied to help the world meet the policy objectives of ensuring food security and protecting biological diversity.

Section 2 describes the origins of the UPOV Convention: adopted in 1961, it entered into force in 1968. It has been revised three times, most recently in 1991. UPOV was designed by and for European commercial breeding interests, which continue to be intimately involved today. UPOV membership remained small until the mid-1990s. Since then, due in large part to their ratification of trade agreements, many developing countries joined the Convention – bringing its numbers up from some two dozen in 1995 to 68 today. Section 3 details UPOV's provisions, and illustrates how the 1991 revision gives breeders additional rights as compared to previous versions of the Convention.

Section 4 explores the reasons why countries decide to join UPOV, including bilateral trade and investment treaties and considers the role of the UPOV Secretariat. Section 5 describes the institutional features of UPOV, including its finances and its relationship with the World Intellectual Property Organization (WIPO). This section also looks at issues around participation in UPOV's work, including the question of observer status of civil society not-for-profit NGOs. Section 6 presents some of the discussions around alternatives to UPOV.

Section 7 of the study sets out a series of recommendations and issues for consideration by UPOV's Secretariat and its members. These are grouped under the headings of: transparency and participation, assessment of the impacts of joining UPOV, technical assistance, and a 'development agenda' for UPOV. Section 7 also looks to the possible need to introduce more flexibility into UPOV or to revise the Convention to adapt it to the circumstances and needs of its membership in the 21st Century.

1. Helfer, L (2006) 'The Demise and Rebirth of Plant Variety Protection: A Comment on Technological Change and the Design of Plant Variety Protection Regimes', *Vanderbilt Law and Economics Research Paper* No. 06-31.

Section 1: Plant Innovation and Plant Variety Protection

Plant innovation: past and present

Until the late 1800s, crop varieties were developed by trial and error selection by farmers, with seed for the next crop saved from the current crop. In the last century or so, farming and plant breeding began to separate in many industrialised countries. With the development of large scale commercial farming, professional breeders increasingly focussed on producing uniform varieties more suited to mechanised large-scale agriculture, and designed to give higher yields under specific conditions. These commercially-bred varieties generally require farmers to buy seed developed by others. For much of 20th century, agricultural research, including professional plant breeding, was financed by the public purse. In last few decades there has been an increased switch to privately funded research and development.

In many parts of the world, where small-scale farming still occupies a large proportion of the population, farm-based seed development continues to play an important role. Many so-called 'traditional' or small-scale farmers remain highly innovative. Farmers' varieties or 'landraces' are usually selected for a range of traits and are not genetically uniform, which helps ensure some crops will grow even in the face of unexpected, difficult or varying conditions. Landraces also provide a diversity of genetic materials from which new varieties can be bred. Yet yields from landraces are often not as good as from more recent, improved varieties.

Farmers still undertake the overwhelming majority of the world's seed conservation and plant breeding. UPOV figures show that 10,000 or so titles have been granted annually in recent years by UPOV members, resulting in fewer than 90,000 PVP titles in force at the end of 2009. In contrast, according to the ETC Group, farmers breed and adapt more than a million varieties every year. ETC 2009 Press Release,

www.etcgroup.org/en/node/658

The rationale for plant variety protection

Plant variety protection (PVP) is one type of intellectual property (IP) right, alongside others like patents, copyright and trademarks. PVP is specifically designed for plant varieties, and grants breeders exclusive rights on propagating material (such as seeds) of new plant varieties that they have developed. PVP is intended as an incentive for research and development by enabling breeders to recoup the costs of researching and developing improvements to pre-existing biological resources. In the absence of such exclusive rights, third parties could freely use breeders' innovations, because plant genetic material is naturally self-replicating, and so easily susceptible to unauthorised exploitation.

As discussed in section 6, PVP differs from patents, for instance by allowing more expansive public interest flexibilities, such as allowing access to PVP-protected ma-

Box 1: Plant breeding – different techniques

The basic technique is 'crossing and selecting'. This involves crossing two or more parent lines with desirable traits to produce offspring, and selecting those with the right combination of desired traits. After several generations, an improved variety is produced that breeds true and is ready to be planted. New varieties can be derived from as many as 50 or more parental lines. Crossing and selecting works well with crops that self-fertilise like wheat, rice and beans.

With cross-pollinating seed crops (maize, sugar beet, cabbages and oilseed rape for instance), inbreeding can be detrimental to quality. Maize breeders came up with a solution by inducing the characteristic of 'hybrid vigour' in corn plants resulting

from cross-breeding inbred lines, which is manifested in heightened yields and increased uniformity of the crop. The offspring of hybrids cannot breed true, so yield enhancements decline sharply after a single generation. Since only the breeders know the identity of the parental lines, they enjoy an effective monopoly. Farmers benefit from seeds with this hybrid vigour, but there is a trade-off: they need to buy seeds at the start of every planting season.

Other techniques, such as tissue and cell culture development, enable the mass regeneration of genetically identical plants. These techniques do not replace conventional breeding but can improve its efficiency.

Molecular biology offers new possibilities in breeding, either to make conventional breeding more efficient and effective or by moving foreign genes into the breeding materials (genetic engineering), not just from other plant species but sometimes from completely different forms of life.

New varieties bred in all the above ways can be PVP-protected.

The emergence of genetic engineering and the biotechnology industry has not displaced plant breeding. It has, however, caused a shift in the IP landscape as the firms most engaged in genetic engineering have sought patents rather than PVP alone as the way to protect their products.

materials for research, for further breeding, and for and for non-commercial use by farmers.

In addition to IP rights, breeders also use technology or contract law to protect their knowledge and ensure that they can derive revenue from plant varieties which they have developed. Contract law is commonly applied through the use of licenses that purchasers must agree to and which may be more restrictive than PVP rules.

An ideal plant variety IP regime needs to provide incentives and attract research investment in at least two directions. First, and most importantly, it should support breeding targeted to the nutritional and other needs of the whole populace without unduly disrupting existing traditions, farming systems and diversity. Secondly, such a system should support the development of non-food, premium or other food crops that can be sold to generate wealth that to the greatest extent possible is captured at local and national levels. In any event, the PVP regime should be for the benefit of society.

The purpose of an international system of plant variety protection

International protection of plant varieties facilitates access to new varieties created in other States: when breeders are assured that their rights will be protected in other countries, they will be more willing to make their new varieties available there.² The International Union for the Protection of New Varieties of Plants (UPOV) is the only international PVP system.

A country's membership of UPOV is an important global signal for breeders to have the confidence to introduce their new varieties in that country. UPOV (2009) Proceedings of the

Second World Seed Conference, Executive Summary.

Plant breeding, PVP, and developing countries

UPOV figures show a steady global growth in applications, alongside a proportionate overall increase in foreign applications.³ There is clear evidence of developed country-based seed companies becoming more interested in developing country markets, sometimes taking over domestic firms (as in Argentina), or using foreign territories for producing their plants for exportation. Often such plants are ornamentals or out-of-season vegetables for the European and North American markets. For example, out of 482 PVP applications in Kenya from 1997 to 2003, 247 were for roses, all of which were foreign bred.⁴

The empirical evidence leads us to expect that the vast majority of PVP applications in developing countries will come from foreigners, at least in the early years. Other issues relating to developing countries are discussed in sections 3 and 7 of this study.

The significance of plant variety protection

PVP has important implications for crop improvement. Its significance also goes far beyond this. PVP relates to agricultural policy, food security, rural development, economic development, biodiversity, genetic resource conservation, and human rights.

Today these relationships deserve particular attention: the world faces stark choices about how to ensure food security as the world's population grows and as cultivation patterns change due to climate change. Key questions include how to increase productivity to ensure long-term food security. Long-term food security will require higher-yielding seeds, as well as seeds that are resilient and adaptable to changing conditions. This will also require production systems that do not deplete resources – such as soil, forest areas, water or fuel – that are already under pressure or whose price might increase so as to threaten the viability of their use for agriculture. A basis for sustainable food supplies and resilience in the face of unexpected or sudden changes will require diversity of knowledge systems, of genetic stock and of food systems.

PVP may stimulate private investment in research where an industry already exists, or in varieties that have a high market value. However, there is a lack of evidence that PVP alone will stimulate the establishment of private sector plant breeding enterprises,⁵ or that the presence of a PVP system will encourage the development of new varieties where no market exists.⁶

UPOV, its critics, and the scope of this study

These issues have given rise to controversy and vivid discussion between proponents and critics of UPOV-style PVP systems. The Union for the Protection of New Varieties of Plants (UPOV)'s stated mission is 'to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.'⁷ In the UPOV community the benefits of PVP and UPOV are cited for encouraging the development of improved varieties, and giving farmers in all UPOV member countries ac-

2. Helfer, L (2004) *Intellectual property rights in plant varieties – International legal regimes and policy options for national governments*, FAO, www.fao.org/docrep/007/y5714e/y5714e00.htm

3. UPOV (2010) *Plant Variety Protection Statistics for the Period 2005-2009*. [C/44/7]

4. UPOV (2005) *UPOV Report on the Impact of Plant Variety Protection*, pp. 57-59.

5. World Bank (2006) *Intellectual Property Rights: Designing Regimes to Support Plant Breeding in Developing Countries*, http://siteresources.worldbank.org/INTARD/Resources/IPR_ESW.pdf

6. UPOV (2005) *UPOV Report on the Impact of Plant Variety Protection*, p. 11.

7. See www.upov.int/en/about The mission statement is not set out in the UPOV Convention itself. According to UPOV officials, it was adopted by UPOV members about 10 years ago.

cess to new, improved varieties for farmers. This is said to result in increased levels of agricultural produce after a country joins UPOV, and also to increase the diversity of seeds available worldwide.⁸ In the words of a Dutch delegate to UPOV, 'the Dutch seed industry exports sustainability' in the form of higher-yielding or more resilient varieties, or varieties that require less water for their cultivation.

'Plant variety protection [...] and membership of UPOV [are] demonstrated to encourage breeding and the introduction of better varieties of benefit to farmers and to society at large.' Rolf Jördens, Former Vice Secretary-General of UPOV⁹

Critics contend that the UPOV system is unsuited to the agricultural characteristics of developing countries, but that UPOV is suited for and promotes an industrial-style, monoculture-based farming system and favours the commercial seed industry (including by furthering agricultural systems that require chemical inputs) over small farmers, diversity¹⁰ and traditional knowledge. Many point to the increasing concentration in the seed industry that has occurred over the last two decades,¹¹ saying that this concentration, as well as intellectual property protection for seeds, is inconsistent with human rights.¹² Critics add that yield improvements since UPOV came into force owe more to scientific developments than intellectual property protection,¹³ and that this has occurred simultaneously with a massive loss of biological diversity. UPOV detractors add that the system does not recognise the incremental contribution of farmers over prior decades to developing new crops, nor that crop development and improvement has happened since farming began, even in the absence of intellectual property protection.

Much has been written on this debate.¹⁴ The present study does not propose to address the question of whether PVP or a particular farming system is good or bad for food security and biological diversity. Rather, this study focuses on the UPOV system itself. The study seeks to assess the extent to which the UPOV system provides adequate space for the consideration of how the Convention can best be applied to help the world to meet policy objectives in the areas of food security and biological diversity.

This study assesses the extent to which UPOV allows space for considering its impact on food security and biological diversity policy objectives.

8. See for instance UPOV (2005) *UPOV Report on the Impact of Plant Variety Protection*, and UPOV (2009) *Proceedings of the Second World Seed Conference – Responding to the challenges of a changing world: The role of new plant varieties and high quality seed in agriculture*.

9. Quoted in GIZ (2010) 'Focus: Agriculture - Legal framework for investment. Interview with Rolf Jördens', *D+C*, pp. 150-153, www.inwent.org/ez/articles/169276/index.en.shtml

10. See for example Rangnekar, D (2000) *Plant Breeding, Biodiversity Loss and Intellectual Property Rights*, Economics Discussion Paper, Kingston University.

11. Discussed for example in Dutfield, G (2003) *Intellectual Property and the Life Science Industries: A Twentieth Century History*, and 3D -> THREE (2010) *Exploring the Global Food Supply Chain. Markets, Companies, Systems*. www.3dthree.org/en/page.php?IDpage=38&IDcat=5

12. See De Schutter, O (2009) *Report of the Special Rapporteur on the Right to Food, Seed policies and the right to food: enhancing agrobiodiversity and encouraging innovation*. <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N09/424/73/PDF/N0942473.pdf?OpenElement>

13. See for example Wright, B & P.G. Pardey (2006) *The evolving rights to intellectual property protection in the agricultural biosciences*, International Journal of Technology & Globalisation 2.

14. See for example Jaffé, W. & J. van Wijk (1995) *The Impact of Plant Breeders' Rights in Developing Countries: Debate & Experience in Argentina, Chile, Colombia, Mexico & Uruguay*; Louwaars, N et al (2005) *Impacts of Strengthened Intellectual Property Rights Regimes on the Plant Breeding Industry in Developing Countries: A Synthesis of Five Case Studies*; UPOV (2005) *UPOV Report on the Impact of Plant Variety Protection*. *GRAIN* (1998) *Ten Reasons Not to Join UPOV - Global Trade and Biodiversity in Conflict*, www.grain.org/briefings/?id=1

Section 2: UPOV – Origins and Context

Origins of the UPOV Convention

The Convention was largely conceived and designed by and for European commercial breeding interests, and balanced these interests with those of European farmers. Agriculture ministries were also involved. In its early years the Convention applied exclusively to European countries. The same European breeding interests continue to be intimately involved in the operations of the Convention and of the Union today, and have also played important roles in encouraging more countries – from all regions – to join UPOV. Many developing countries are now parties to UPOV: some two dozen have joined since 1995, and many more have initiated proceedings to join.¹⁵

Before the 1960s, IP protection of plant varieties was uncommon. With very few national regimes, European breeder associations were instrumental in UPOV's existence. Two organisations were deeply involved in the creation of the UPOV Convention: (i) the International Association for the Protection of Intellectual Property (AIPPI), which largely comprises lawyers with a pro-industry stance; and (ii) the International Association of Plant Breeders (ASSINSEL). Both took the strategic view that the lack of IP norms specifically for plants needed to be resolved internationally.

In 1956, ASSINSEL's members called for a conference to consider the possibility of developing a new international instrument for protecting plant varieties, requesting the French government to organise it.¹⁶ That conference established the basic principles of plant variety protection as later incorporated into the UPOV Convention. Only European governments were invited, mainly representatives of agriculture ministries.

A follow-up conference – in which 12 European countries participated – took place in November 1961. The *Bureaux Internationaux Réunis de la Protection de la Propriété Intellectuelle* (BIRPI), which subsequently became the International Bureau of the World Intellectual Property Organization (WIPO), and the Food and Agriculture Organization of the United Nations (FAO), attended as observers. AIPPI and several industry organisations participated: ASSINSEL, the *Communauté internationale des obtenteurs de plantes ornementales de reproduction asexuée* (CIOPORA, the International Community of Breeders of Asexually Reproduced Ornamental and Fruit Varieties), and the *Fédération Internationale du Commerce*

des Semences (FIS).¹⁷ All of these were and remain headquartered in Europe.

The International Convention for the Protection of New Varieties of Plants was adopted in December 1961, entering into force in 1968 once it had been ratified by three countries, which then formed the Union.¹⁸ It took seven years for the Convention to enter into force because few countries already had PVP systems, and ratification requires a national PVP system to be in place. UPOV was revised in 1972, 1978 and 1991. The 1991 revision, outlined in section 3, entered into force in 1998.

UPOV and the 'international regime complex' on plant intellectual property¹⁹

UPOV is legally separate from, but has a close relationship with WIPO, which houses the Secretariat (the UPOV Office) in its Geneva headquarters, as discussed in more detail in Section 5. The World Trade Organization (WTO) is also linked, particularly to the increase in UPOV membership. The WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS, Article 27.3(b)) requires Member States to provide intellectual property protection for plant varieties, but allows governments quite a lot of choice in how they put this requirement into effect.²⁰ As discussed in more detail in section 4 below, TRIPS does *not* mention the UPOV Convention, thus allowing for possibilities other than joining UPOV. Accordingly, WTO Members may extend patent protection to cover plant varieties or may choose, as European countries have, to keep conventional plant breeding out of the patent system. In the latter case, though, TRIPS requires a specific (*sui generis*) IP regime for plant varieties. UPOV is *one* such IP regime.

Other international agreements also cover subject areas affected by UPOV. Prime amongst these is the FAO International Treaty on Plant Genetic Resources for Food and Agriculture, which indicates measures governments can take to protect Farmers' Rights, recognizing the 'enormous contribution' that farmers make to the conserva-

15. See inside back cover for list of UPOV members.

16. Heitz, A (1987) *The History of Plant Variety Protection*, in *UPOV, The First Twenty-five Years of the International Convention for the Protection of New Varieties of Plants*.

17. FIS later merged with ASSINSEL to form the International Seed Federation.

18. See also Laclavière, B (1969) *A new intellectual property union is born: the International Union for the Protection of New Plant Varieties*, *Industrial Property*, pp.154-5; Jördens, R (2005) *Progress of Plant Variety Protection based on the International Convention for the Protection of New Varieties of Plants* (UPOV Convention); World Patent Information 27, pp. 232-243.

19. Raustiala, K & Victor, D (2004) *The Regime Complex for Plant Genetic Resources*, 58 *Int'l Org.*; Andersen, R (2008) *Governing Agrobiodiversity - Plant Genetics and Developing Countries*; Jördens, R (2005) *Progress of Plant Variety Protection based on the International Convention for the Protection of New Varieties of Plants* (UPOV Convention); World Patent Information 27.

20. For a detailed discussion, see Helfer, L (2004) *Intellectual property rights in plant varieties – International legal regimes and policy options for national governments*, www.fao.org/docrep/007/y5714e/y5714e04.htm#bm4.4

tion and development of plant genetic resources. For example the Treaty encourages its parties to take measures to 'equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture'. The Treaty also has provisions on sustainable use of plant genetic resources, by which parties commit to measures such as agricultural policies that promote the 'development and maintenance of diverse farming systems that enhance the sustainable use of agricultural biological diversity and other natural resources', and plant breeding efforts which, with the participation of farmers, 'strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions'.

The Convention on Biological Diversity (CBD) is another relevant agreement. The CBD requires *inter alia* that access to genetic resources be allowed on the basis of terms agreed between the user and authorities representing the provider country and that benefits arising from their use be shared fairly and equitably. Similar requirements apply to the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles.

Politics and power

Neither UPOV nor TRIPS preclude non-UPOV members adopting non-UPOV PVP regimes. But while some non-UPOV *sui generis* systems have been established in recent years (e.g. in India and Thailand)²¹ developing countries are more often opting for UPOV membership than exploring other approaches. In the last decade, developing countries have often agreed to apply for UPOV membership – or adopt UPOV 1991 compatible legislation – through their trade or investment agreements with the United States, the European Union, Japan or the European Free Trade Association.²²

In addition, as discussed in sections 3 and 4, technical assistance programmes can result in PVP rules that may comply with UPOV, but are not necessarily adapted to local conditions or to the needs of all stakeholders.

21. See for example Robinson, D (2007), *Exploring Components and Elements of Sui Generis Systems for Plant Variety Protection and Traditional Knowledge in Asia*.

22. See GRAIN (2008) *Bilateral agreements imposing TRIPS-plus intellectual property rights on biodiversity in developing countries*, www.grain.org/rights/tripsplus.cfm?id=68#sdendnote39anc

Section 3: The UPOV System

Key provisions of the UPOV Convention

The Convention's provisions are extremely detailed and specific. To be eligible for protection, plant varieties must be novel, distinct, uniform and stable (the 'DUS criteria'). Under UPOV, a variety is considered novel if it has not been sold or otherwise disposed of within a specific time-frame. In other words, UPOV defines novelty in relation to commercialisation and not by the fact that the variety did not previously exist. To be distinct, the variety must be distinguishable by one or more characteristics from any other variety whose existence is a matter of common knowledge. Protection under UPOV does not require that a variety be completely uniform, but rather that it be sufficiently uniform in its relevant characteristics to be identified as a particular variety. To be considered stable, the variety must remain true to its description after repeated reproduction or propagation. The Convention specifies that granting PVP *shall not be subject to any further conditions*, provided that the applicant complies with all the formalities and pays the required fees. Most countries charge a fee for DUS testing, and well as various other fees, including an annual fee for plant variety protection.²³

PVP does not require the breeder to disclose the source of the materials used to breed the new variety (whereas patents usually have a disclosure requirement, which allows others to read the patent document and repeat the invention). Generally, applicants for PVP are required to submit the plant material, which may be used by a government institution (or a private institution authorised by the government to conduct this role) to demonstrate stability and homogeneity through planting trials, also known as 'DUS examinations'.

UPOV sets out the breeder's rights to authorise various acts in relation to the PVP-protected variety, such as production, reproduction, offering for sale, marketing, importing and exporting. Significantly, UPOV allows breeders to use protected varieties as a source for the creation of new varieties, and then to market the new varieties without authorisation from the original breeder (the 'breeders' exemption'). To respond to new scientific developments, though, UPOV 1991 extended the original breeders' rights to varieties which are *essentially derived* from their protected variety, meaning ones that have been subjected only to minor modifications such as through genetic engineering.

23. See for instance Canadian Food Inspection Agency, www.inspection.gc.ca/english/plaveg/pbrpov/feepaiee.shtml

'UPOV is a very balanced system. One way it has in-built balance is by leaving room for farm-saved seeds: a farmer can use the new variety once or twice for multiplication on his own farm. The other way is that UPOV allows the use of a protected variety for new selections. This is very important, as it shows that UPOV does not block access to new varieties for research purposes, as patents would.' Dr Willi Wicki, Delley Seeds and Plants Ltd, Switzerland

'UPOV 1991 does not seem to correspond to the needs of developing countries. Out of 15 developing countries (12 Latin American plus China, Kenya and South Africa) to which the 1978 Act applies, not one has ratified the 1991 Act. It would appear that UPOV 1978 serves their needs better. Ratification of UPOV 1991 by developing countries was made compulsory by trade agreements with OECD countries.' François Meienberg, agriculture, biodiversity and food programme manager, Berne Declaration

The new UPOV – other features introduced by the 1991 Act

As compared to the previous versions of the Convention, UPOV 1991 extends the scope of the breeders' rights in certain ways. One is that it limits 'farmers' privilege': UPOV 1978 refers to the right of farmers to use seed harvested from protected varieties for private and non-commercial purposes (this is what is usually referred to as 'farmers' privilege'). Most parties to UPOV 1978 uphold this. UPOV 1991 does so too, specifying that the breeder's right in relation to a variety may be restricted '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 ... the protected variety'. However, since the 1991 Act, the State party must take measures to safeguard 'the legitimate interests of the breeder', which in the European Union is interpreted as 'to ensure that the breeder receives equitable remuneration'. At present the strength of the 'farmers' privilege' varies quite widely from country to country. Some countries, like France, have no 'farmers' privilege' at all (with the exception, in France, of tender wheat), while the USA until the 1990s allowed farmers even to sell protected seed to other farmers.

UPOV 1991 also introduced other changes to PVP. Notable amongst these is the fact that the duration of PVP is lengthened (to 20 years, and 25 years for trees and vines) and that that all plant species must be covered. Another significant change is that patents on plant production processes, plants, seeds or genes relating to a PVP-protected variety are allowed – in other words 'double protection' of the same variety by PVP and patent is permitted.²⁴

New adherents to UPOV cannot choose but must join UPOV 1991, whereas UPOV 1978 continues to apply to members that joined prior to 1999 and have not 'upgraded' to the 1991 Act.

Technical cooperation under UPOV

Some countries do no DUS examinations, and benefit from the exchange of examination results among UPOV members. The Office of UPOV hopes this will get easier once there is a full harmonisation of examination procedures amongst members. It is by no means a simple matter for a country to set up a PVP system from scratch including running the field trials.

The technical cooperation and services to members available from UPOV, including from the various Technical Committees, and through the Office's practice of putting countries directly in touch with each other, to learn from each other, plays a useful role. Nevertheless, concerns have been expressed that this harmonisation contributes to a creeping PVP rule uniformity that may not suit many developing countries.

The UPOV Office also provides assistance and advice to countries wishing to join UPOV, on occasion through WIPO technical assistance processes. Rather than assessing the countries' specific needs and advising on how UPOV could best be applied to the applicants' circumstances the advice tends to consist of providing applicant countries with the model UPOV legislation.²⁵ This is almost identical to the text of the UPOV Convention itself. Interestingly, recent draft legislation proposed through WIPO technical assistance contains a chapter on implementation, including provisions on enforcement and supervision that are not in the UPOV Convention itself.

24. For a detailed presentation of UPOV 1991, see Greengrass, B (1991) *'The 1991 Act of the UPOV Convention'*, 13(12) European Intellectual Property Review.

25. Personal communications from officials from several countries currently considering whether to join UPOV.

Section 4: UPOV in the World

More members, still the same club?

UPOV's initial gradual expansion may have served a useful purpose for the older (read: European) members of the Union. A more rapid expansion in its first two decades might have led to the entry of 'outsiders' who may then have worked to change the culture in certain ways, such as by pushing UPOV to accept a broader range of national PVP regimes. It is plausible that UPOV's long consolidation period made it easier to absorb the recent membership expansion without threatening the leadership or culture of the established custodians. Indeed despite UPOV's membership having more than doubled in the last 15 years, with the concerns and characteristics of the new members being very different from those of the older members, the UPOV Office says that the nature of its work has not changed.

Prospective UPOV members are required to request an analysis of their law or draft law from the UPOV Council before they can join. If the law is deemed compliant with UPOV and has entered into force (but not necessarily been technically implemented), the Government or Intergovernmental organisation can proceed to ratify the Convention, thereby becoming an UPOV member. If modifications are deemed by the Council or Office as necessary for compliance, these must be effected before ratification is allowed.²⁶ Obviously, this enables existing members of UPOV (as well as the UPOV Office and other observers) to request fairly strict conformity of new members, and may quite possibly give those UPOV actors able and willing to be assertive a degree of leverage over the legislatures of applicant countries. CIOPORA for example consistently submits comments on the draft legislation of countries applying to join UPOV. The UPOV Office plays an essential role in 'guiding' the aspiring member through the membership procedure including the assessment of 'conformity' of its law with the UPOV Convention and prepares the recommendation on this matter to the Council.

'Tajikistan wishes to join UPOV because our country has perfect climatic conditions for seed production for both the domestic and the international market. If Tajikistan joins UPOV, foreign breeders without any hesitation will introduce new plant varieties and cooperate with the local seed producers under license

26. UPOV (2009) *Guidance on how to become a member of UPOV*, adopted by the Council at its 43rd ordinary session on October 22, 2009. [UPOV/INF/13/1]

agreements. The main advantage for Tajikistan is that farmers will get access to the modern crop varieties and breeders to the germplasm to be used in the breeding programs. For sure, modern crop varieties permit increased yield and production. Consequently, farmers will get more income, livelihood and food security will be improved. And development of seed production for international market is a key factor for further development of agriculture and economy of Tajikistan. Membership of UPOV will strengthen cooperation between the member countries. UPOV also provides a lot of technical assistance and methodological guidelines for implementation of PVP law and regulations.' Professor Hafiz Muminjanov, Seed Association of Tajikistan, and Professor, Tajik Agrarian University

Why do countries join UPOV?

Why do countries join UPOV, and what role does the Office of UPOV and the Council play in shaping countries' views on PVP that dispose them to seek UPOV membership?

A range of factors encourage countries to seek membership of UPOV. These include the possibility of accessing improved seeds and diversifying the seeds available within the country. Another reason that many developing countries often give is that UPOV membership can contribute to attracting foreign investment in the agricultural sector.

UPOV deploys significant resources to encourage non-members to join, conducting workshops and technical assistance missions to countries that have expressed an interest in joining. This in itself probably does not distinguish it from other international organizations, many of which also encourage and facilitate adhesion of new members. Perhaps UPOV differs though, in the lengths to which it goes to influence potential members' policies. The UPOV Office has over the years been active in discouraging developing countries from adopting PVP systems that diverge from the UPOV norm, as has been documented with regard to Asian countries,²⁷ and with regard to an African alternative *sui generis* model proposed in the late 1990s (as described in Box 3, section 5).

UPOV's drive to attract new members has been most striking in the context of the WTO TRIPS Agreement. Article 27.3(b) of TRIPS requires WTO Members to 'provide for the protection of plant varieties either by patents or

27. See Kanniah, R (2005) *'Plant Variety Protection in Indonesia, Malaysia, the Philippines and Thailand'*, 8(3) *Journal of World Intellectual Property*, p. 283.

by an effective *sui generis* system or by any combination thereof. TRIPS does not specify UPOV as providing **the** *sui generis* alternative to patents. Yet, a position statement based on an intervention by UPOV before the WTO's Council for TRIPS in 2002 reads '... the plant variety protection system established on the UPOV Convention meets the requirements of Article 27.3(b) of the TRIPS Agreement.'²⁸ So far this is perfectly reasonable. But the statement continues: 'the introduction of a system which differs significantly from the harmonised approach based on the UPOV Convention will raise questions with regard to the implementation of the TRIPS Agreement'. This statement gives the impression that UPOV membership is essential for TRIPS compliance, which is false. But for countries unsure of where their interests lie with respect to IP protection in the field of plant breeding and anxious to avoid being criticised for failing to meet their TRIPS commitments, this is a powerful statement. And indeed, conversations during 2010 with a number of developing country delegates in Geneva have shown that the 'conventional wisdom' seems now to be that UPOV membership is required to implement TRIPS.

In response to the question, 'Why do countries join UPOV?' one long-time observer answered 'I think a continued, relentless pressure from the UPOV Secretariat (implicit or explicit) has moved countries down the UPOV path. Also, as part of FTAs, countries are willing to give in to UPOV ratification rather than to risk other more 'valuable' variables and advantages in these FTAs. Most countries don't really undertake an in-depth and thorough assessment of pros and cons, although countries with a more developed R&D sector give more thought to these pros and cons.' Name known to the author, written correspondence, 2010.

UPOV's mission receives a great deal of support from powerful nations. Nowadays, both the United States through its bilateral trade agreements and European countries, by way of economic partnership agreements or trade agreements, are pushing developing countries to commit themselves to applying for UPOV membership, to adopting UPOV 1991-consistent standards, and even in some cases, to 'make best efforts' to provide patent protection for plants. The decision to do this is part of the deal developing countries agree to in exchange for enhanced access for other goods to developed world markets. Given the increasing competition among developing countries to access these markets, meaning the share of access is spread among more and more countries (or a few dominant ones like China), it is uncertain that this price is worth paying.

Moreover, several countries' technical assistance programmes encourage UPOV-conformity with no prior assessment of how PVP might benefit the country as a whole. Providers of technical assistance often do not consult with local stakeholders such as farmers' groups, public sector breeding institutions or local seed companies. In any event, there is generally little, if any, prior assessment of the suitability of the UPOV model to local conditions or the value of the trade-off. Thus, critics point out, there are instances where the intent appeared to have been more about protecting PVP rights of developed country businesses in the developing world rather than about helping the developing countries to produce or protect their own varieties, or determining what kind of incentive regime is best suited to each country's circumstances.²⁹

'The factors that pushed Peru to join were mostly the Free Trade Agreement with the USA, and maybe also lobbying by one or two influential seed companies.' Manuel Ruiz Muller, Peruvian Society of Environmental Law

28. UPOV (undated) International harmonization is essential for effective plant variety protection, trade & transfer of technology, UPOV Position based on an intervention in the Council for TRIPS, on September 19, 2002.

29. See for instance *Third World Network (1999) UPOV Against Farmers' Interests*, www.twinside.org.sg/title/1892-cn.htm; *South Asia Watch on Trade, Economics & Environment* (2003) Policy Brief – UPOV, www.sawtee.org/publications/upov-policy-brief.pdf

Section 5: Institutional Aspects of UPOV

UPOV and WIPO

UPOV is legally separate from the World Intellectual Property Organization (WIPO), and is not part of the United Nations. Despite UPOV's formal separation from WIPO, the two have a close relationship. The UPOV Office is located in the WIPO building in Geneva, where UPOV meetings are also held. WIPO services the Office. And by formal agreement, WIPO's Director-General is the Secretary-General of UPOV with the power to approve the appointment of UPOV's Vice Secretary-General. The latter oversees the day to day operations of UPOV.

WIPO regularly provides opportunities to make UPOV better known. For instance, the UPOV Office has given presentations of PVP and UPOV during WIPO's Summer Schools on Intellectual Property, and WIPO technical assistance programmes often include references to UPOV and advice to UPOV non-members as to how to introduce UPOV-consistent PVP legislation.

The present relationship between WIPO and UPOV is defined by the 1982 WIPO/UPOV Agreement.³⁰ Much of the Agreement concerns the various administrative and practical tasks that WIPO must undertake for UPOV. These are not free of charge: UPOV is required to pay WIPO 'for any service rendered to, and any expenditure incurred on behalf of, UPOV.'

The Agreement affirms the 'complete independence' of WIPO's International Bureau and the UPOV Office in respect of the exercise of their functions. What is behind this legal independence from WIPO despite their having such a close relationship?

Going back in time, UPOV was not unanimously welcomed. AIPPI, though by no means opposed to PVP, was especially firm in its criticisms of the Convention and the formation of UPOV, and expressed preference for incorporating PVP rules within the Paris Convention for the Protection of Industrial Property, now administered by WIPO and previously by BIRPI.³¹

UPOV as an institution

The Office of UPOV is very small with a staff of 11 people of whom about half are involved in the substantive technical work of the Union. This small group consists of people with backgrounds in such fields as agricultural economics, agronomy, plant breeding and law.

UPOV has an annual budget of around 6.5 million Swiss francs (approximately 5 million Euros). Most of its income derives from members' annual contributions; the amount of which is defined by the number of 'contribution units' that apply to each member, determined on the basis of the member's size. Five contribution units apply, for example, to Germany and the European Union, countries like Ireland or Australia contribute one unit each, Turkey 0.5, Brazil 0.25 and Slovenia, Uruguay or Viet Nam 0.2. A contribution unit amounted to approximately 53 000 Swiss francs (42 000 Euros) in 2008 and 2009. UPOV's remaining income derives from interest, sale of publications, and paid participation in the UPOV Distance-Learning Course.³²

The highest body within the UPOV system is the Council, which comprises one representative of each UPOV member and has a President and Vice-President, each elected for a three year term. Regular sessions of the Council take place once a year, but in recent years the Council has tended to meet twice, once in October and once in March or April. Countries that have signed but not ratified the Convention can send observers, as can organisations that have been granted observer status in the Council. The Council is subject to rules of procedure of which the latest version was adopted in 1982.³³

Below the Council is the Consultative Committee. This Committee is the only UPOV body not open to observers. The Consultative Committee has a range of responsibilities. It has *inter alia* been delegated decision-making powers 'concerning the granting of observer status to non-governmental organizations', discussed in more detail below.³⁴ Next down the hierarchy are two committees: the Legal and Administrative Committee and the Technical Committee. The work of the latter is assisted by a Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT) and five Technical Working Parties covering Agricultural Crops (TWA), Fruit Crops (TWF), Ornamental Plants and Forest Trees (TWO), Vegetables (TWV) and Automation and Computer Programs (TWC).

A select club?

UPOV membership has expanded rapidly since the establishment of the WTO and the proliferation of bilateral

30. UPOV (1982) *Agreement between the World Intellectual Property Organization & the International Union for the Protection of New Varieties of Plants* signed on Nov. 26, 1982. [UPOV/INF/8].

31. UPOV (1974) *Actes des Conférences Internationales pour la Protection des Obtentions Végétales* 1957-1961, 1972, 114. See also AIPPI (1961) *Annuaire* 1961. *Compte-rendu de la Réunion du Comité Exécutif* à Ottawa, septembre 1961.

32. UPOV (2010) *Financial Situation of the UPOV as at Dec. 31, 2009*, Memorandum by the Secretary-General. [C44/4].

33. UPOV (1982) *Rules of procedure of the Council* as of Oct. 15, 1982. [UPOV/INF/7].

34. UPOV (2005) *Rules governing the granting of observer status to states, intergovernmental organizations & international non-governmental organizations in UPOV bodies & access to UPOV documents*, adopted by the Council on October 7, 2005. [C/39/13].

trade agreements. 39 of its 68 current members joined after 1995.

UPOV should no longer be seen as a European ‘club’ if the membership is anything to go by. Yet UPOV does not appear at all open to those who are not members of the ‘PVP community’. There are a number of reasons for this. The most obvious barrier is that PVP is a highly technical and scientific area of IP law involving specialised field testing procedures and requiring knowledge of biological and agricultural sciences including genetics and agronomy. *But PVP is not a uniquely complex area of IP law.* Rather, the technical character of UPOV’s work combined with its longstanding small membership (see section 2) endows UPOV with its atmosphere of being a ‘club of scientists’ – and ‘club’ is indeed the word that recurs again and again in descriptions of UPOV, including by representatives of member countries and high-ranking UPOV officials. As one senior Geneva-based representative of a Latin American country to UPOV told this author in 2010, ‘everyone in this meeting knows each other; I do not feel comfortable here.’

UPOV lacks active participation of developing countries. At the March 2010 session of the Consultative Committee, 49 members were represented: 31 from the developed world and 18 from developing countries. Representation at other recent sessions follows a similar pattern.³⁵

Linked to the above point, the UPOV Office tends to communicate directly with representatives in capitals, leaving the Geneva-based delegates feeling sidelined. It recently appeared, for instance, that almost no-one in the Geneva missions of UPOV member countries had the password to the members-only section of UPOV’s website, as the UPOV Office imparts this only to the capital-based designated representative.

‘I attended the UPOV Council meeting and realised that not all member countries are represented. How then do these countries benefit from the Technical meetings and what is their contribution?’ An official of a country applying to join UPOV, in a written communication to the author in 2010.

Some of these impressions may be cosmetic and superficial, as is the fact that UPOV produces little public information, and its website is particularly uninviting and uninformative. The fact that the website has a password-protected area at all has led many seeking to better understand UPOV to wonder what UPOV information is so sensitive that it must be kept from public view.

More substantively, the Office has given the impression of being closed through its apparent reluctance to

engage with outsiders on matters within UPOV’s purview. Although UPOV has recently set itself the objectives of increasing public awareness of UPOV, of increasing understanding of UPOV’s role and activities and of developing UPOV’s corporate image, most of the activities to this end have so far been in cooperation with breeders’ associations, governmental officials, or other professional bodies,³⁶ and seem to have done little to attenuate the criticisms from many quarters that UPOV is an untransparent system that does not interact well with those who are not part of its club.

The Office has proved to be efficient in responding to criticisms of PVP. Many non-governmental observers cite examples of the defensive tone of UPOV’s participation in discussions on these topics, whether in person or in writing. Written examples include UPOV responses to comments emanating from the Convention on Biological Diversity and the Human Rights Council (discussed in more detail below) as well as its unwelcoming attitude to public interest groups’ requests for observer status within UPOV.

Non-governmental organisations’ observer status with UPOV

UPOV’s Consultative Committee has the power to decide on granting observer status in the different UPOV bodies to international NGOs and intergovernmental organisations. The rules governing the granting of observer status specify that such status ‘is reserved to those organisations *with competence in areas of direct relevance in respect of matters governed by the UPOV Convention.* These rules stipulate that a non-governmental organisation’s statutes will form the basis to determine that competence. Observer status in the various UPOV bodies ‘is granted for an unspecified duration.’³⁷ Until October 2010 observers consisted almost entirely of plant-breeding or biotechnology companies, associations of such companies, and intellectual property protection groups, including organisations like the International Chamber of Commerce which, despite its long involvement in international IP rulemaking, has no particular reputation for ‘technical competence’ in a field as specialised as PVP. Yet, in 2009 public interest NGOs – including farmers’ groups – found that UPOV would not consider their applications for observer status, apparently on the grounds that they were unable to show such competence. When the Association of Plant Breeding for the Benefit of Society (APBREBES), comprising organisations involved in issues relating to seeds policy in all regions of the world, and the European Coordination of Via Campesina (ECVC, a farmers’ group) applied for observer status, UPOV informed them that their applications for observer status ‘could not be con-

35. See for instance UPOV (2010) *Report on the decisions adopted by the Council*, October 2010. [C/44/16]; UPOV (2009) *Report on the decisions adopted by the Council*, October 2009. [C/43/16]

36. See for example UPOV (2010) *Report on Activities during the first nine months of 2010*. [C/44/3].

37. UPOV (2005) *Rules governing the granting of observer status*, op.cit, note 34 above.

sidered further' until they demonstrated 'competence in areas of direct relevance in respect of matters governed by the UPOV Convention'.³⁸

Lack of competence may have been the official justification, but the decision appears to have been politically motivated. The UPOV Office is reported to have been directly involved, providing members with examples of the applicant organisations' work that could be construed to be critical of the UPOV model.³⁹

In addition to perpetuating UPOV's untransparent image, the 2009 process raised serious questions about governance within UPOV. Indeed, not only was UPOV not applying its own rules on observer status, it was subsequently untransparent in that it did not communicate what additional information the non-governmental observer candidates should provide for their applications to be considered.⁴⁰ Moreover, the role of the Secretariat as 'gatekeeper' on this topic gave rise to concern about the scope of the role of the UPOV Office in governance of the organisation.

'Rejection of the applications would signify to the world that UPOV favours certain stakeholders and is not interested in taking into account issues that affect the most vulnerable communities: food sovereignty and biodiversity.' March 2010 letter in support of ECVC and APBEBES observer status in UPOV, signed by over 80 NGOs.

38. Mara, K (2009) 'Farmers' advocacy groups rejected as observers in plant rights organisation', *IP Watch* 10 Nov.

39. *Ibid.*

40. In addition, in 2010, the UPOV Office suggested revising the rules, to include an additional requirement that NGOs wishing to obtain observer status should include in their letter of request 'a brief description of the organisation's objectives, activities, structure and membership and [...] a copy of the statutes'. One might speculate that the Office sought this additional information after receiving APBEBES' application. Indeed, APBEBES' statutes are in full conformity with UPOV, but a perusal of APBEBES' activities easily shows that the NGO's concerns differ from those of the UPOV 'club'. See UPOV (2010) *Draft Rules Governing the Granting of Observer Status to States, IGOs, and International NGOs in UPOV Bodies*, p. 3. [UPOV/INF/16/1 Draft 1], www.upov.int/en/documents/c/index_c44.htm

In October 2010, the UPOV Council did consider the applications of APBEBES and ECVC, which since the previous year had attracted the support of Norway and Switzerland and a large number of NGOs from around the world. This time the NGOs were granted observer status in various UPOV bodies. It may however be too soon to say whether this indicates a shift towards greater inclusiveness.⁴¹ Indeed, whilst several UPOV members spoke out about how NGO participation would enhance transparency in UPOV, at least one delegate said that ECVC's objectives do not demonstrate the organisation's technical competence relevant to UPOV Technical Working Groups. Moreover, the October 2010 Consultative Committee saw tense discussions about 'leaks' of UPOV information to NGOs, and whether the UPOV Office or other UPOV members were responsible for these leaks. As an outcome, the Consultative Committee decided to establish a Working Group to review the rules concerning observers, and recommend appropriate changes. This Working Group, open to all members of the Union, will meet in Geneva in April 2011.

The fine line between outreach and advocacy

The UPOV Office does have views on such issues as TRIPS compliance, access to genetic resources and benefit sharing, disclosure of origin in IP, and the right to food, despite claiming that it has no mandate beyond ensuring effective PVP systems. Being a member-driven inter-governmental organisation, though, there is a line to be drawn between advocacy and legitimate outreach activities.

The UPOV Office presumes itself to have sufficient technical competence on such matters as the above issues to send position statements to, or even to participate in, the relevant forums. For example, whereas the

41. Mara, K (2010) 'Change coming to quiet UN plant variety protection agency?' *IP Watch* 26 Oct.

Box 2: List of International NGO Observers in UPOV bodies

- | | | |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 1. Association for Plant Breeding for the Benefit of Society (APBEBES) | Industry in Industrial Property (FEMIP) | al Union for Biological Sciences (IUBS) (ICNCP) |
| 2. Asia and Pacific Seed Association (APSA) | 11. European Federation of Agricultural and Rural Contractors (CEETTAR) | 19. International Community of Breeders of Asexually Reproduced Ornamental and Fruit-Tree Varieties (CIOFORA) |
| 3. Association of European Horticultural Breeders (AOHE) | 12. European Federation of Pharmaceutical Industries' Associations (EFPIA) | 20. International Federation of Agricultural Producers (IFAP) |
| 4. Biotechnology Industry Organization (BIO) | 13. European Seed Association (ESA) | 21. International Federation of Industrial Property Attorneys (FICPI) |
| 5. Committee of Agricultural Organizations in the European Union (COPA) | 14. General Committee for Agricultural Co-operation in the European Union (COGECA) | 22. International Seed Federation (ISF) |
| 6. Committee of National Institutes of Patent Agents (CNIPA) | 15. International Association for the Protection of Intellectual Property (AIPPI) | 23. Seed Association of the Americas (SAA) |
| 7. Committee of Nordic Industrial Property Agents (CONOPA) | 16. International Association of Horticultural Producers (AIPH) | 24. Union of European Practitioners in Industrial Property (UNION) |
| 8. CropLife International | 17. International Chamber of Commerce (ICC) | 25. Union of Industrial and Employers' Confederations of Europe (UNICE) |
| 9. European Coordination Via Campesina (ECVC) | 18. International Commission for the Nomenclature of Cultivated Plants of the International | |
| 10. European Federation of Agents of | | |

Source: UPOV (2010) Council – Report on the Decisions, [C/44/16] www.upov.int/en/documents/c/index_c44.htm

Peruvian PVP regime provides for a disclosure of origin requirement and despite the eagerness of many developing countries to include a similar provision in their intellectual property regimes, the Office has declared that such mandatory disclosure of origin requirements are not allowed as they form ‘an additional condition of protection.’⁴² The Office has also reportedly advised the Egyptian government that a disclosure provision in its national law would preclude it from UPOV membership.

As with other position statements and submissions to other international forums and processes, it would be interesting to know how much input the UPOV Council put into drafting and approving the response to the Peruvian PVP law, or whether it was entirely an initiative of the Office. Indeed, it appears that the Office’s views have at times been presented as the views of members, and on occasion a UPOV member has criticised the UPOV Office for adopting a line that it disagreed with. Brazil, for in-

stance, disagreed with a submission made by the UPOV Office to the Working Group on Access and Benefit Sharing of the Convention on Biological Diversity.

Another example is UPOV’s response to the United Nations Special Rapporteur on the right to food. The report was somewhat critical of the way that developing countries have been ‘led to’ adopt UPOV standards, and of the strengthening of breeders’ rights in UPOV 1991.⁴³ UPOV’s response quotes extensively from UPOV documents, but does not engage with the substance of the criticisms voiced by the Special Rapporteur.

And, in reference to the discussion on page 11, *there is no legal basis* for implying that a non UPOV-compliant PVP law is contrary to TRIPS simply for being inconsistent with UPOV. Box 3 presents an example that also shows how the UPOV Office has been more than willing to play its part *as an advocate*. These examples suggest that the UPOV Office may not always have kept to the side of the line where it is supposed to remain.

42. UPOV (undated) *International harmonization is essential for effective plant variety protection, trade and transfer of technology*, UPOV Position based on an intervention in the Council for TRIPS, on September 19, 2002. See also UPOV (2009) *Study on the relationship between the ABS International Regime & other international instruments which govern the use of genetic resources: the WTO, WIPO & UPOV – Comments of UPOV*. www.upov.int/en/about/key_issues.htm

43. UN General Assembly (2009) *Seed policies & the right to food: enhancing agrobiodiversity & encouraging innovation*, Interim report of the Special Rapporteur on the right to food, Olivier De Schutter. [A/64/170]; UPOV (2009) Note from the representatives of the members of the Union to the Council of UPOV. www.upov.int/en/about/key_issues.htm

Box 3: UPOV, OAPI and the African Model Law Legislation

WIPO, the UPOV Office and the French IP office (INPI) played key roles in the preparation, adoption and ratification of the 1999 Revised Bangui Agreement⁴⁴ of the 16 member *Organisation africaine de la propriété intellectuelle* (OAPI).⁴⁵ The revised text, which came into force in 2002 and ‘applies automatically as national law in each of the OAPI member States that ratifies the agreement’,⁴⁶ was intended to be fully TRIPS compliant. Yet most OAPI members are least-developed countries that did not have to fully implement TRIPS until 1 January 2006 (and now are not required to until 1 July 2013). It provides for PVP in Annex 10, which came into force in January 2006 though has not yet been implemented. It is entirely consistent with the 1991 Act of UPOV.

WIPO, UPOV and INPI all had input into draft texts. But ‘at no point in the Bangui revision process was there any formal interstate negotiation of the draft text.’

Moreover, ‘neither the OAPI Secretariat,

member States, or international donors undertook any substantive empirical assessments to substantiate expectations about the prospective gains or to identify the distribution of potential losses from the revised Agreement. While it is true that the OAPI Secretariat forwarded the draft text to national IP offices, there is no record of any substantive written comments from member States to the OAPI Secretariat...’

UPOV 1991 was deemed a politically convenient model for the OAPI Secretariat to get its member States to adopt whether or not it was beneficial for them in any other ways: ‘the OAPI Secretariat advised its members that UPOV offered a law that member States could take “off the shelf” and that the development of an alternative *sui generis* law, would be a time-consuming and impractical endeavour.’

In contrast to its enthusiasm for the Revised Bangui Agreement, the UPOV Office was vocal in its criticism of an alternative model regime that had been adopted in draft form by the Organisation of African Unity Council of Ministers in 1998,⁴⁷ and which

was being actively promoted throughout Africa by the Organisation. The ‘African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources’, developed by the Scientific, Technical and Research Commission of the OAU with some international NGO input, was finalised in 2000. It provides weaker PVP rights as compared to UPOV, and puts more emphasis on Farmers’ Rights, protection of biological diversity and food security.

In 2001, the OAU hosted a conference to discuss the model. UPOV and WIPO were invited to give comments. UPOV Office representatives provided a 10-page critique. This included the redrafting of more than 30 of the model’s articles, allegedly to turn the Model Legislation into UPOV 1991. This highly critical stance did not sit well with those concerned about its enthusiastic promotion of the UPOV Convention at the OAPI. It also offended the conference’s hosts. Taken together, the behaviour in Africa of the UPOV Office at that time does seem to cross over into advocacy work.

44. Accord Portant Révision de l’Accord de Bangui du 2 Mars 1977 instituant une Organisation Africaine de la Propriété Intellectuelle.

45. Deere, C (2009) *The Implementation Game: The TRIPS Agreement & the Global Politics of Intellectual Property Reform in Developing Countries*, pp. 252-85.

46. *Ibid.*, p. 253. All other quotes in this box come from Deere.

47. Ekpere, J (2000) *The OAU’s Model Law. The Protection of the Rights of Local Communities, Farmers & Breeders, & for the Regulation of Access to Biological Resources. An Explanatory Booklet*. The text of the model law is at www.grain.org/brl/?typeid=10®ionid=1

Section 6: Are there alternatives to UPOV?

One obvious alternative to the UPOV system would be to eschew any special regime and extend the scope of patentable subject matter to plants including varieties as in the USA and Australia, rather than excluding these as in Europe. There are a number of reasons why this is probably inadvisable for most countries. For one thing, the normal extent of the private and experimental use exemptions in patent law is extremely and inappropriately narrow for plant breeding. Available evidence suggests that patents would be likely to stifle innovation and create excessively strong monopolies.⁴⁸

'Personally, I believe that the UPOV convention strikes a good balance between breeders, farmers and society needs – mainly because of the Breeders Exemption, which gives every interested party access to the genetic make-up of a variety. The patent system (on biotechnological inventions) however does not have this exemption and therefore not this balance, leading to situations that big companies can monopolise certain crops, which can lead to monopolistic behaviour such as a slower rate of innovation and higher prices.'

Marien Valstar, Plant Propagation Material Officer, Netherlands
Ministry of Economics, Agriculture and Innovation

UPOV also has other advantages over patents. It provides some legal clarity where patents do not: whereas a single product may be protected by numerous patents, any *one* plant variety is covered by *one* PVP certificate. Unsurprisingly there is far less litigation than with patents. This may be due to the legal clarity of PVP, or to the fact that in plant breeding circles, a more cooperative and research-facilitative atmosphere prevails than in the biotechnology industry. Given the specificities of plant breeding and innovation in this field, it makes much sense to provide a special regime.

That the UPOV system was designed with and for the European plant breeding community does not automatically make it unsuitable elsewhere. But adaptations to the very different economic, social and agricultural and environmental conditions of its new members are probably necessary. Interestingly, India, Thailand and Malaysia have PVP systems that are based on the 1978 Act, but diverge from it, such as by conditionally allowing farmers' sale of seed, and by allowing registration of farmers' varieties. Another alternative to the UPOV system would thus be an international system that is more farmer-friendly and thus better suited to countries with large numbers of small-scale farmers who also engage in plant breeding. The African model law discussed above would be such a model as would the proposed Convention of Farmers and Breeders – COFAB for short – proposed by India's Gene Campaign.⁴⁹

'The advantage of ideas like COFAB,' says François Meienberg of the Berne Declaration, ***'is that it would provide developing countries with model PVP legislation that would recognise Farmers' Rights and other public interest objectives.'***

There are also those who argue that PVP is unsuited to modern technology and science which has brought in new ways of developing and breeding new plant varieties, and thus that a fundamentally new system should be sought.⁵⁰

Many, particularly amongst those who defend the rights to traditional knowledge and community rights, say that plants belong to the communities that breed and maintain them, and should only be protected, if at all, by collective user rights defined by these communities, not by property rights that are privately held.

48. Louwaars, N. et al (2009) *Breeding Business: The Future of Plant Breeding in the Light of Developments in Patent Rights & Plant Breeder's Rights*. p.56.

49. Suman Sahai (undated) COFAB, *A Developing Country Alternative to UPOV*, www.genecampaign.org/Sub%20pages/Article-FRPVP=ID5.htm

50. See for instance Janis and Smith (2007) *'Technological Change and the Design of Plant Variety Protection Regimes'*, Chicago-Kent Law Review.

Section 7: Conclusions and Recommendations

The preceding sections have sought to highlight key facets of the UPOV system, in order to explore the extent to which this system permits consideration of its interaction with, and impact on, public policy objectives of ensuring food security and biological diversity.

The present section presents conclusions and recommendations following the preceding analysis. The first part develops some of the findings around core institutional issues that arise from discussion in previous sections. The final part of this section presents some recommendations on UPOV as an institution.

Core institutional issues

1. Transparency and participation

As in other areas, the institutions and officials responsible for administering PVP rules must be democratically accountable and transparent in how they operate. They should seek a diversity of views, permitting all stakeholders and interested parties to have a say in how the relevant institutions are run.

Indeed, one of the most frequent concerns this author has heard expressed during the preparation of this study turns around the *perception* of UPOV as lacking in transparency, as not making enough information public and being closed to views that differ from those of the members of the UPOV 'club'. These criticisms may or may not be well-founded (particularly in light of the fact that UPOV does make a considerable amount of information available – and free of charge to not-for-profit groups). However, the fact that the perception of lack of transparency and openness is so consistently and widely expressed, including by officials of UPOV member countries, suggests that UPOV could do much more to address these concerns.

For the time being it might be that the 'clubbiness' of UPOV is part of the problem, contributing to the fact that pro- and anti-UPOV views tend to be propagated in completely separate forums with little substantive debate. Some criticisms and concerns about UPOV are well-reasoned and should be debated openly; others are less well-reasoned and open debate will help clarify misconceptions.

Discussion in UPOV about observer status of not-for-profit non-governmental organisations is similar in many ways to those that took place in the WTO in the late 1990s, and in WIPO in the mid-2000s. Experience in these two bodies has shown that the increased possibility for

a range of views to be expressed attenuated polarisation of discussions in these policy areas, whilst broadening understanding of them. Until recently WIPO had a similar kind of observership profile as UPOV, and was criticised for a lack of openness and for being too influenced by 'expert' associations like AIPPI. The technical competence of NGOs who follow WIPO has improved considerably and their enhanced involvement as observers in WIPO forums is likely to have contributed to this. The PVP community would be well advised to follow WIPO's example and open up to NGOs as observers, whatever their stance vis-à-vis the UPOV Convention, and encourage them to engage constructively. UPOV members should not apply the technical competence criterion arbitrarily or selectively, or in such a way that it can be seen to be a pretext to keep out stakeholders just because they have a sceptical or critical perspective on UPOV or PVP.

'What I did not like in UPOV is too strict rules and too much formality. Believe me, it is not easy to convince the national officials with all UPOV requirements. UPOV wants to have exact expressions and formulation of the articles. I understand that it is easy for examination of the law, but it is difficult for the national one who drafts the law and agrees with the officials. It took 5 years for us to have a draft law that is now in conformity with UPOV. But, the Parliament members would like to make some comments/amendments and changes. If it happens, then we have to submit the draft law to the UPOV Council once again. I think it is too strict.' Professor Hafiz Muminjanov, Seed Association of Tajikistan, and Professor, Tajik Agrarian University

Linked to the question of transparency is that of participation. Although the membership of UPOV has expanded quite drastically since the 1990s, the new members, developing and formerly communist countries for the most part, have played little part in shaping and defining the UPOV rules by which they are now bound. As the UPOV Office itself says, the substantive content of its work remains in essence unchanged, despite the very different membership profile today. The UPOV Office should make more effort to enhance understanding of UPOV amongst different stakeholders in recent UPOV members, and provide the means for increased participation of these stakeholders in the various UPOV bodies.

The development and application of rules relating to

PVP has been essentially left to the PVP community so far. Some consider that UPOV works well because it can concentrate on the technical matters on its agenda, and that it would suffer were it to become a 'political' body. Nonetheless, given the clear overlap between PVP and other key policy areas, arguments that UPOV can work separately from other policy areas are harder to defend, and it would seem desirable to involve other stakeholders in discussion about the elaboration and application of rules relating to PVP. There may be costs to transparency and broader participation,⁵¹ but these are likely to be outweighed by the benefits in terms of the legitimacy of the norms and negotiated outcomes obtained in the more transparent forum.

'UPOV should remain a technical body because there are other forums to discuss issues like the Millennium Development Goals or food security issues, such as FAO or the human rights bodies. And besides, if UPOV started focusing on political issues like development concerns or food security, its whole week's meetings could be taken up with political discussions and it would not be able to move forwards with its technical work. This is the case with some WIPO bodies where discussions have become political; and as there is no progress within WIPO, industrialised countries move ahead on their own, in other forums, which results in developing countries being left out of technical discussions from which they could also benefit.'

A European delegate to UPOV

2. Assessment of the impacts of joining UPOV and the notion of 'for the benefit of society'

It appears that a number of developing countries join UPOV due to political and economic pressures, with insufficient consideration of whether UPOV membership would contribute long-term to the country's policy objectives in a range of key areas, including economic development, food security and biological diversity. Yet the assumptions that UPOV can function effectively in all countries of the world, and that the results of an effective PVP system will automatically advance broader public interest goals are not empirically tested truths. Neither are they self-evident in the face of the current challenges.

The UPOV Office, UPOV members and others should therefore commission and provide policy tools for assessment of the likely impacts of a country joining UPOV against a range of public policy objectives and with public debate across a wider than hitherto range of stakeholders, including farmers as well as breeders.

If policy trade-offs are indeed made, for instance through bilateral trade agreements, in which UPOV

membership is agreed to as part of the price to be paid for enhanced access to developed world markets, the value of these trade-offs should be made explicit. For one thing, the share of market access is spread among more and more countries, making it uncertain that the price is worth paying. Another aspect of the trade-off relates to the creation of institutions that in the short term at least are primarily occupied in protecting developed world assets in the developing world. This may not be inherently bad for developing countries if that is the price to be paid for the transfer of valuable improved genetic material and associated technology to them and the price is not unduly exorbitant. But, whilst a well-defined PVP system can promote improved seeds and better agricultural yields, an inappropriately designed one has the potential to undermine other public interest objectives, such as by limiting countries' policy space to protect the interest of small-scale farmers or not recognizing the contribution and importance of traditional knowledge or of participatory plant breeding. For this reason, UPOV members might also consider clarifying what is meant by 'for the benefit of society' and identifying objective indicators against which to measure this.

Another aspect of the assessment exercise would be to broaden the scope of technical assistance provided to countries wishing to join UPOV. Instead of providing a pre-defined model law, such technical assistance should ensure that countries take adequate steps to assess what level of PVP is appropriate for their circumstances, in the context of the public policy objectives in an assessment framework as referred to above.

3. A 'development agenda' for UPOV?

UPOV seems to have remained insulated from discussions about a 'Development Agenda' that have permeated discussions in WIPO since the mid-2000s. These discussions call for a moderate and nuanced position regarding intellectual property,⁵² rejecting a context-neutral and oversimplified perspective on IP's impact on development. Development Agenda discourse finds that IP protection *may* facilitate economic growth but may also impede some aspects of development,⁵³ particularly in such sensitive areas as agriculture, food and poverty-reduction policies. Whilst some parts of the Development Agenda clearly would not apply to the UPOV context, others would. This is for instance the case for technical assistance, which according to the development agenda, is to be 'development-oriented, demand-driven and transparent, taking into account the priorities and the special needs of developing countries [...] as well as the different levels of development of Member States.'⁵⁴ Within WIPO a process has been initiated to bet-

51. See Helfer, L (2004) *Regime Shifting: The TRIPS Agreement and New Dynamics of International Intellectual Property Lawmaking*, 29 Yale J. Int. L.

52. See de Beer & C. Oguamanam (2010) *Intellectual Property Training and Education: A Development Perspective*, <http://ictsd.org/i/publications/96914>

53. Ibid.

54. WIPO, *The 45 Adopted Recommendations under the WIPO Development Agenda*, www.wipo.int/ip-development/en/agenda/recommendations.html

ter integrate the Development Agenda into the distance learning programmes of the WIPO Academy, and a similar process could be applied in the context of UPOV distance learning and training activities. UPOV should also consider other elements of the Development Agenda and how they can apply to UPOV's work.

4. Introducing flexibility into UPOV, or adapting it for the needs of the 21st Century?

The UPOV Convention may be insufficiently sensitive to the specific needs of a diverse range of countries, in large part because it is a one-size-fits-all system that was not designed with the developing world in mind, nor for a diversity of farming systems. If the UPOV Office and existing UPOV members allowed prospective members more flexibility in their wording and context of UPOV-implementing laws, this might partially address some of the challenges for countries to meet UPOV standards. Another way to ensure UPOV is more responsive to diverse countries concerns might be to consider re-opening UPOV 1978 for ratification.

Even if existing UPOV members were prepared to contemplate these options, though, the fact remains that the Convention – even its most recent revision – was drafted when circumstances were very different from today: there was then less concern about loss of biological and genetic diversity, there was less concentration in the seed industry and there was less awareness of the need for agricultural systems to be able to adapt rapidly to changing environmental and climatic conditions. New international treaties have embedded rules on biodiversity, access and benefit sharing, *in situ* and *ex situ* conservation and farmers' rights and privileges. Meanwhile ongoing negotiations are trying to deal with climate change and the role agriculture plays in emissions, mitigation and adaptation.

Moreover, despite the Union's rapid recent expansion, a large proportion of its members were not involved in designing its rules – and the majority of countries in the world remain outside. One likely reason that so many have not joined is that they remain sceptical about the merits of PVP and are unwilling to commit to an agreement that provides so little leeway for adaptation to local conditions and policy priorities.

Even if the critics of UPOV are entirely wrong, and that the best way to ensure long-term food security, biological diversity and development is to maintain UPOV 1978 or UPOV 1991 type standards, it is a sign that better information and communication is needed that there is such widespread scepticism amongst the public, including government officials, of UPOV's suitability to today's challenges.

If the critics are right even on a few points, or the countries that remain outside do so because the UPOV

system is not appropriate for their needs, a debate about a revision of the Convention suitable for the 21st century may soon be needed. Within this context UPOV members might consider revisiting the appropriate UPOV definition of the term 'novel,' particularly in the light of efforts in other forums to protect biological diversity and traditional knowledge, ways of permitting national requirements for disclosure of origin of genetic resources to be compatible with the UPOV Convention, recognising within UPOV different approaches to plant breeding and conservation, including recognising Farmers' Rights and *in situ* conservation, for example by adapting the current DUS criteria to these different approaches, the relevance, and WTO compatibility, of the reciprocity requirements in UPOV, the duration of PVP under UPOV, and clarifying the relationship between PVP and patents.

It may be that the UPOV system has reached a tipping point at which the issues are sufficiently important on their merits, and there are enough members willing to engage in discussions about revising the Convention that it may soon become politically plausible to do so.

Recommendations

1. UPOV should be more open to the participation of observers in its various bodies, including the secretariats of relevant international organisations, and public interest non-governmental organisations.
2. UPOV should provide more detailed and accessible information about the UPOV system and how it works, through a range of means including its website, written publications and through participation in meetings organised by a broader range of stakeholders.
3. UPOV should make preparatory documents of all meetings as well as meeting reports widely available on the UPOV website in advance. The website should no longer have any restricted areas; all currently restricted documents should be made available to the public free of charge.
4. Comments of UPOV members and observers, as well as by the UPOV Office, on the applications of new members should be made publicly available, including to other relevant bodies including the Secretariat of the Convention on Biological Diversity and of the International Treaty on Plant Genetic Resources for Food and Agriculture. The documents containing these comments should clearly indicate which are the comments of the UPOV Office and which are those of UPOV members or observers.
5. If the low developing country participation at UPOV meetings is attributable to financial considerations, the UPOV Council should explore the possibility of setting up a travel fund.

Recommendations (continued)

6. The UPOV Office should communicate not only with domestic PVP offices but also with the Geneva missions of UPOV member countries and (pending removal of any restricted sections) should give them the passwords to the UPOV website directly.
7. UPOV should make the distinction between what is expressed by the UPOV Office and UPOV members more explicit, in discourse and in practice.
8. The UPOV Office should scrupulously limit its activities to those technical and advisory roles it is mandated to perform, while avoiding activities that could be construed as advocacy.
9. Technical assistance provided to developing countries, whether by the UPOV Office or other agencies, should be based on prior assessment of what kind of PVP system can best further the overall development, environmental and food security goals of the country in question.
10. Countries wishing to join UPOV should be allowed some leeway in the wording of their UPOV-implementing legislation, and UPOV might consider re-opening UPOV 1978 for ratification.
11. UPOV should clarify what it means by 'for the benefit of society', taking into account the possible spillover effects of PVP regimes onto other actors or into other key areas of governmental policy.
12. UPOV should take cognisance of the relevant recommendations of WIPO's Development Agenda and consider applying them to its own work.
13. UPOV should integrate development principles into its training curricula, including its on-line distance-learning course.
14. The relationship between WIPO and the UPOV Office, including the dual role of the Director-General of WIPO as Secretary-General of UPOV, should be re-considered in light of WIPO's status as a specialised agency of the United Nations.

Related Quaker UN Office publications

Accessible in several languages, at:

www.quno.org/economicissues/intellectual-property/intellectualLinks.htm#QUNOPUB

or in hard copy by request.

World Trade Organization Accession Agreements: Intellectual Property Issues, Frederick Abbott, Carlos Correa, 2007

Assessing the Development Impacts of Intellectual Property Negotiations, Proposals, Reforms and Agreements: A concept note, Graham Dutfield, 2006

Thinking Aloud on Disclosure of Origin, Graham Dutfield, 2005

Disclosure of Origin and Access and Benefit Sharing: The special case of seeds for food and agriculture, Walter Smolders, 2005

The Politics and Practicalities of a Disclosure of Origin Obligation, Carlos Correa, 2005

Rethinking innovation, development and intellectual property in the UN: WIPO and beyond, Sisule F. Musungu, 2005

Patents, Trade & Food, 2004

Multilateral Agreements and a TRIPS plus World: The World Intellectual Property Organisation – WIPO, Sisule Musungu & Graham Dutfield, 2003

Establishing a Disclosure of Origin Obligation in the TRIPS Agreement, Carlos Correa, 2003

Food Security, Biotechnology & Intellectual Property: Unpacking some Issues around TRIPS, Geoff Tansey, 2002

Sui Generis Systems for Plant Variety Protection: Some Options under TRIPS, Biswajit Dhar, 2002

Negotiating Intellectual Property: Mandates and Options in the Doha Work Programme, Jonathan Hepburn, 2002

Traditional Knowledge & Intellectual Property: Issues and Options Surrounding the Protection of Traditional Knowledge, Carlos Correa, 2001

Micro-organisms, Definitions and Options under TRIPS, Margaret Llewelyn & Mike Adcock, 2000

Trade, Intellectual Property, Food & Biodiversity. Key Issues & Options for the 1999 review of Article 27.3(b) of the TRIPS Agreement, Geoff Tansey, 1999

UPOV Members, applicants, and other countries in contact with UPOV concerning the making of PVP rules

I. Members of UPOV as of January 15, 2011 (total 68)

Albania ³	Chile ²	France ²	Latvia ³	Portugal ²	Trinidad and Tobago ²
Argentina ²	China ²	Georgia ³	Lithuania ³	Republic of Korea ³	Tunisia ³
Australia ³	Colombia ²	Germany ³	Mexico ²	Republic of Moldova ³	Turkey ³
Austria ³	Costa Rica ³	Hungary ³	Morocco ³	Romania ³	Ukraine ³
Azerbaijan ³	Croatia ³	Iceland ³	Netherlands ³	Russian Federation ³	United Kingdom ³
Belarus ³	Czech Republic ³	Ireland ²	New Zealand ²	Singapore ³	United States of America ³
Belgium ¹	Denmark ³	Israel ³	Nicaragua ²	Slovakia ³	Uruguay ²
Bolivia	Dominican Republic ³	Italy ²	Norway ²	Slovenia ³	Uzbekistan ³
(Plurinational State) ²	Ecuador ²	Japan ³	Oman ³	South Africa ²	Viet Nam ³
Brazil ²	Estonia ³	Jordan ³	Panama ²	Spain ³	
Bulgaria ³	European Union ^{3,4}	Kenya ²	Paraguay ²	Sweden ³	
Canada ²	Finland ³	Kyrgyzstan ³	Poland ³	Switzerland ³	

1 1961 Convention as amended by the Additional Act of 1972 (1 State).

2 1978 Act (22 States).

3 1991 Act (44 States and one organization).

4 Operates a (supranational) Community plant variety rights system which covers the territory of its 27 members.

II. States (17) or organizations (1) which have initiated with the Council of UPOV the procedure for becoming Members of the Union

Armenia, Bosnia and Herzegovina, Egypt, Guatemala, Honduras, India, Kazakhstan, Malaysia, Mauritius, Montenegro, Peru, Philippines, Serbia, Tajikistan, The former

Yugoslav Republic of Macedonia, Venezuela, Zimbabwe, as well as the African Intellectual Property Organization (Benin, Burkina Faso, Cameroon, Central African

Republic, Chad, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Guinea, Guinea-Bissau, Mali, Mauritania, Niger, Senegal, Togo

III. Other states which have been in contact with the Office of the Union for assistance in the development of legislation on plant variety protection

Afghanistan, Algeria, Bahrain, Bangladesh, Barbados, Burundi, Cambodia, Congo (Democratic Republic of), Cuba, Cyprus, Djibouti, Dominica, El Salvador, Fiji, Ghana, Greece, Guyana, Indonesia, Iraq, Islamic

Republic of Iran, Jamaica, Lao People's Democratic Republic, Lebanon, Libyan Arab Jamahiriya, Madagascar, Malawi, Mongolia, Myanmar, Nepal, Pakistan, Saudi Arabia, Seychelles, Sri Lanka, Sudan,

Suriname, Syrian Arab Republic, Thailand, Tonga, Turkmenistan, Uganda, United Arab Emirates, United Republic of Tanzania, Yemen, Zambia.

QUNO offices:

In Geneva:

13 Avenue du Mervelet
1209 Geneva
Switzerland

Tel: +41 22 748 4800

Fax: +41 22 748 4819

quno@quno.ch

In New York:

777 UN Plaza
New York, NY 10017
United States

Tel: +1 212 682 2745

Fax: +1 212 983 0034

qunony@afsc.org

www.quno.org

UPOV is the only international organisation with responsibility for plant variety protection, and as such influences the direction of global policy relating to agricultural research. The purpose of this study is to find ways to open up the 'black box' that is UPOV for the mutual benefit of all who have a stake or interest in plant-related intellectual property. It seeks to raise awareness about UPOV's role and ways of working, to stimulate informed debate about UPOV and the future of plant variety protection, and to provide a point of reference around which key actors – both supportive and critical of current approaches – can engage in discussions and exchange of ideas.

