

'These are exciting times'

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10 For the last 25 years, Vice Secretary-General, Peter Button, has been involved in Plant Breeders' Rights, of which 23 years at UPOV in Geneva. This autumn his last feat was unveiled during an event in Viet Nam: UPOV e-PVP, a web-based system developed by UPOV for the administration of plant variety protection by UPOV members. "Improving the service to UPOV members and breeders has always been one of my priorities."

• **When Peter Button chose biology** at university in the late-70s, little could he foresee where his career would lead him. "It was not plants that initially captured my interest, but nature and genetics. I grew up on a farm in Cornwall in the South West of England, a boy's paradise. My father eventually sold the farm and we moved into a town, but I greatly missed the countryside," he explains. Studying biology was therefore a logical step.

"Fortuitously, my career revolved around plants. First, in cereal breeding at Twyford Seeds Ltd. in Oxfordshire, UK, and later as general manager of Twygen Ltd (later Gentech Propagation Ltd.) in Dundee, Scotland." The latter company was involved in developing micropropagation systems for producing potato minitubers and later for soft fruits. "That completely changed my life. Besides moving from England to Scotland, it meant encountering a completely novel technique. In 1987, commercial micropropagation of potatoes was a revolutionary development. I first had to go to California to learn more about it."

The next step was Technical Liaison Manager at the British Society of Plant Breeders Ltd. (BSPB) in Ely, then Technical Liaison Officer for the Plant Variety

and Seeds Division of the Ministry of Agriculture in Cambridge, followed in 2000 as Technical Director of UPOV, Geneva, Switzerland. Ten years later Peter Button became Vice Secretary-General of the intergovernmental organisation.

Exciting times

"These are exciting times," states Peter Button. "Digitalisation has so much to offer. My predecessor responsible for technical matters at UPOV, Max Thiele-Wittig, was the first to recognise the possibilities and introduced a CD-ROM of variety information, to assist in the examination of variety denominations." Today, this database is available online as 'PLUTO', which shares a name with the mythical god who nurtured seeds for a bountiful harvest. PLUTO contains information on plant breeders' rights (PBR), plant patents (PLP) and national listings (NLI). The next step was the launch of the GENIE database, to provide information to support cooperation between UPOV members, followed in 2017 by 'UPOV PRISMA', an online tool to submit application data to PVP Offices of participating UPOV members. To date there are over 70 countries covered by UPOV PRISMA. The tool has a multilingual interface, so it can be used in the applicant's preferred language, whether English, Japanese, Serbian or Swedish (or many others). But the cherry on the cake is UPOV e-PVP. "I could not imagine the advent of blockchain technology which allowed us to develop the UPOV e-PVP system. It represents a major leap forward," says Peter Button. "It was launched at an event in Viet Nam, when Viet Nam became the first UPOV member to use the full UPOV e-PVP package of services." UPOV e-PVP combines the widely used PLUTO and UPOV PRISMA services with an administration module for PVP offices to manage and publish PVP applications and a DUS Report Exchange Module, to exchange DUS reports between PVP offices.

"Developing UPOV e-PVP has been a major investment but, in my view, well worth it. It is one of the positive side-effects of Covid-19, as the pandemic forced us to find alternative ways of working without travel. This led to more efficient ways of working and also allowed us to save money from our travel budget. These savings, combined with financial support from Japan enabled us to embark on the UPOV e-PVP proj-

UPOV members

UPOV has 78 members covering 97 States.

African Intellectual Property Organization, Albania, Argentina, Australia, Austria, Azerbaijan, Belarus, Belgium, Bolivia (Plurinational State of), Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Croatia, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, Estonia, European Union, Finland, France, Ghana, Georgia, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, Jordan, Kenya, Kyrgyzstan, Latvia, Lithuania, Mexico, Montenegro, Morocco, Netherlands, New Zealand, Nicaragua, North Macedonia, Norway, Oman, Panama, Paraguay, Peru, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Serbia, Singapore, Slovakia, Slovenia, South Africa, Saint Vincent and the Grenadines, Spain, Sweden, Switzerland, Trinidad and Tobago, Tunisia, Türkiye, Ukraine, United Kingdom, United Republic of Tanzania, United States of America, Uruguay, Uzbekistan and Viet Nam .



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ect. However, realization of the UPOV e-PVP system would not have been possible without the vision and ability of our IT-manager, Hend Madhour"

Independent

UPOV has its offices in Geneva, within the World Intellectual Property Organization (WIPO) headquarters building. "UPOV and WIPO are separate organizations but we have an agreement between the two organizations. As a part of the agreement, the Director General of UPOV is appointed as the Secretary-General of UPOV, currently Mr. Daren Tang. UPOV also has the benefit of receiving services from the WIPO financial, human resource and administrative departments. But we are a fully independent organization and pay for the services that we receive from WIPO."

The mission statement of UPOV 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.' By becoming a UPOV member, a country supports plant breeding and the creation of new varieties suited to the needs of its farmers. And, as every country is dependent on agriculture to ensure sufficient food supply, every country in the world could benefit from adhering to the UPOV Convention.

"When I put forward my vision for UPOV as a candidate for the position of Vice Secretary-General, a major focus was on how to increase information on

the benefits of the UPOV system, so countries could make informed decisions about whether to become a UPOV member. Another key aspect was to improve services for UPOV members because that is important to realize the full benefits of plant variety protection. Therefore, I wanted to highlight the importance of technology and cooperation to achieve an impact with UPOV's limited resources."

It is not easy for a country to take the path to UPOV membership and then to implement the UPOV Convention. "But it is well worth the effort. It's fair to say that I did not imagine the scale of what we would be able to demonstrate on the socio-economic benefits of UPOV membership – which has even been viewed in terms of billions of dollars from Asia, through Africa to Latin America.

Expansion

When, in the mid-fifties of the last century, countries became aware that protection of their plant innovations was a key issue, encouraged by the International Association of Plant Breeders (ASSINSEL), International Federation of the Seed Trade (FIS) and International Community of Breeders of Asexually Reproduced Ornamental and Fruit-Tree Varieties (CIOFORA), the first UPOV Act was developed. Twelve European countries signed the 1961 Act. Amendments were made in 1972 and 1978, and in 1991 the present Act was adopted by 19 countries. Since that date, the importance of the UPOV Convention has

Protected varieties

Plant variety protection by the members of UPOV until 2022:

504,188 applications were filed;

345,594 titles of protection were granted;

193,006 titles of protection ceased to be in force;

161,232 titles of protection were in force.

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• been recognised worldwide. In 2000, when Peter Button arrived in Geneva, UPOV had 46 members and at present plant variety protection is covered by legislation according to the UPOV Convention in 97 States and more are to follow suit.

It is sometimes claimed that the UPOV Convention favours the industrialised countries, as it was founded by a few Western European states. “But don’t forget that many developing countries are struggling with the same problems Europe faced in the post-war era. At the time, the availability of food in Europe was far from secure. The ultimate goal of UPOV is to encourage the development of improved varieties to maximise sustainable productivity.”

The latest UPOV Act stems from over 30 years ago. Since that time, the world of plant breeding has changed dramatically. The 1991 Act mentions essentially derived varieties, although the scope of that protection is still under debate, the production of GMO’s was still in its infancy, patents on plant related inventions were rare and the term New Breeding Techniques never heard of. Is it time for a new, completely revised Act? “It would be important to be clear on what the purpose of any revision would be,” suggests Peter Button. “So far, we haven’t received any calls to amend the Act. The 1991 Act is delivering impressive results.”

Hugely profitable

Some NGOs claim that subsistence farmers become dependent on the large multinationals, who ‘force them to buy expensive seeds’. It is a rather condescending view of farmers, implying that they are not capable of making economically viable choices. A study by agricultural economist, Steffen Noleppa, HFFA Research GmbH, of the situation in Viet Nam after ten years of UPOV membership, underlines the success of plant variety protection.

“Thanks to plant breeding activities in Viet Nam after UPOV membership in 2006, the annual income of farmers increased by 24%. Also, thanks to plant breeding after UPOV membership, the agricultural sector (including floriculture and horticulture) was able to add a sectoral economic value of almost US\$ 3.5 billion. Adding income increases along the various value chains of, all in all, more than US\$ 1.5 billion totals a GDP impact of around US\$ 5.0

billion. This accounts for more than 2.5% of the current national GDP of Viet Nam.” The same goes for Kenya and Peru. In Kenya, access to protected plant varieties after UPOV membership enabled the country to develop a US\$ 1 billion cut-flower industry that employs 500,000 Kenyans. Before Peru became a UPOV member in 2011, it did not have any significant export of blueberries. Following UPOV membership, more than 60 new protected varieties of blueberries were introduced and Peru has become the largest exporter of blueberries in the world, with its annual export worth around US\$ 1 billion.

“At the same time, I understand the concerns that genetic resources may be lost if farmers switch to new varieties because they produce a better income for them. It is clearly important to have measures to conserve plant genetic resources, because these are the raw materials for plant breeding and for improving agriculture for the future. This is also very relevant, as climate change means that relying on conservation in nature runs the risk of losing these resources forever... But PBR encourages breeders to conserve and use plant genetic resources. Our video ‘Using the UPOV system to benefit custodians of native wild germplasm in Argentina’ also provides a great example of how PBR can support in situ conservation work.” (See <https://multimedia.wipo.int/upov/en/argentina.mp4>)

Successor

This Spring, UPOV appointed a successor to Peter Button, who will retire on 22 October. On 23 October, Yolanda Huerta Casado, a national of Spain, will take over the post. The seventh Vice Secretary-General of UPOV is an experienced intellectual property lawyer and has worked at UPOV since 2001, since 2017 as Legal Counsel and Director of Training and Assistance. What will be next for Peter Button? Will he return to the UK? Will he become a PBR consultant? “My children have Swiss and UK citizenship so maybe we will stay in Switzerland, but Japan is also an option as my wife is Japanese. And I would certainly like to do something in the field of plant breeders’ rights or the sector more widely, but I am not sure what exactly. I have postponed all decision-making until I have completed my term as Vice SecretaryGeneral of UPOV.” 🇧🇪