

## 'Varieties of common knowledge' in the context of plant variety protection

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'Common knowledge' can be defined as shared information or understanding among members of a specific 'community', including a nation, a region, a city, a particular race, an ethnic group, a religion, persons belonging to an academic discipline, or a professional society. Although 'common knowledge' is assumed to be shared or common or well-known among members of a 'community', such assumptions may not often be valid. However, areas in which 'common knowledge' can be reasonably well assumed are historical dates, facts, events and established principles within a certain discipline. Again, barring historical dates (to a large extent), even the latter three are subject to debate and open to interpretation. Most importantly, common knowledge is not restricted by national or geographical boundaries, although what constitutes common knowledge is certainly a legal issue upon which the national authority will rule.

The term 'common knowledge' assumes considerable significance not only with respect to Intellectual Property Rights (IPR) in diverse spheres of human activity (copyrights, patents, etc.), but also in relation to plant variety protection (PVP). In the relevant Acts of countries worldwide for granting of PVP, a variety that is a candidate for protection must be clearly distinguishable by one or more characteristics from any variety whose existence is a matter of common knowledge at the date of the application for protection. Both the UPOV 1978 Act and the UPOV 1991 Act<sup>1</sup> deal with the concept of which variety would be entitled to registration and protection in the limits set by 'common knowledge', specifically from the point of view of 'distinctness'. Article 6(1)a27 states: 'Whatever may be the origin, artificial or natural, of the initial variation from which it has resulted, the variety must be clearly distinguishable by one or more important characteristics from any other variety whose existence is a matter of common knowledge at the time when protection is applied for'.

The Protection of Plant Varieties and Farmer's Rights Act, 2001 (PPV&FR

Act, 2001)<sup>2</sup> of the Government of India considers 'common knowledge' in relation to establishing 'novelty' of a candidate variety applied for registration as well as for establishing 'distinctiveness' (see Section 15(3a,b)). It further explains that 'the filing of an application for the granting of a breeder's right to a new variety or for entering such variety in the official register of varieties in any "convention country" shall be deemed to render that variety a matter of common knowledge from the date of the application in case the application leads to the grant of the breeder's right or to the entry of such variety in such official register, as the case may be'. This makes it clear that what is already known cannot be registered as a new variety. Most importantly, unlike the UPOV acts, a provision has been made under the PPV&FR Act, 2001 for the registration of farmers' varieties and varieties of common knowledge (VCK) under the generic class 'extant variety'.

What could be the reason for the provision of granting protection for 'extant varieties'? Scientific plant breeding in countries like India has a long track record and several thousand varieties have been released by public-sector institutions. The private seed sector in the country has grown in strength in the last 3-4 decades and has been performing an important task of making available quality seeds to the farming community. Therefore, both the sectors have at stake a large number of extant varieties to be protected under the PPV&FR Act, 2001 and are given an opportunity to protect the materials within three years of notification of the species for purposes of registration.

In this context, the following questions assume importance: (i) How does one identify a VCK? (ii) What should be the scope and means of protecting a VCK? The focus of this note shall be on these two questions.

### Identifying a VCK

There is no uniform and widely accepted definition for a VCK, as perceptions dif-

fer between nations regarding 'common knowledge' and many countries do not maintain records or publish specific details of what is being cultivated or is in circulation or trade. Nevertheless, it is possible to identify the acts/criteria by which a variety could become a VCK.

Article 6(1)a27 of the UPOV 1978 Act states: 'Common knowledge may be established by reference to various factors such as: cultivation or marketing already in progress, entry in an official register of varieties already made or in the course of being made, inclusion in a reference collection, or precise description in a publication. The characteristics which permit a variety to be defined and distinguished must be capable of precise recognition and description'. The UPOV 1978 and 1991 acts leave the term 'common knowledge' undefined, although they do provide a non-exhaustive list of acts/examples (which may not be known to the general public) of how a variety could become a matter of common knowledge. But, in applying the notion of common knowledge in cases of dispute, particularly applications for a declaration of nullity, the UPOV members were recommended to be prepared to take into account not only the knowledge that exists in documented form, but also the knowledge of relevant communities around the world provided that this knowledge can be credibly substantiated so as to satisfy the standard of proof of the civil law courts<sup>3</sup>. PVP acts in many countries grant landraces/local varieties/farmer's varieties the position of VCK, so that a new variety must be identifiable as being clearly distinct from the already existing varieties. Thus, it is important to note that a VCK may not be a protected variety; this is explicitly stated in the PVP acts of some countries, e.g. Singapore<sup>4</sup>.

Keeping the above information in perspective, the following specific criteria or acts may be taken into account while defining a VCK.

- Entry of the variety in official list/register of varieties in any country granting PVP, including filing of an application for plant breeder's right.

- Inclusion of the variety in a recognized, publicly accessible collection, including a commercial or botanical reference collection or an accession in a National/International Gene Bank.

- Adequate description of the variety in a publication that may be considered a part of the public technical knowledge (including books, monographs, scientific/popular journals, theses, technical bulletins and annual reports).

- Cultivation of the variety in a state/region/country, even as 'truthfully labelled' variety.

- Propagating material or harvested material of the variety under authorized marketing or in circulation or trade.

- Shared traditional knowledge of relevant community about the variety (including a landrace or local variety or farmer's variety) that can be substantiated, if needed.

It is important to note here that indigenous traditional knowledge of varieties may not always be available in written form. Therefore, some countries (for instance, the European Union) find it difficult to accommodate the last criterion listed above as 'common knowledge'. In essence, interpretation of a VCK is a legal matter and varies according to the national definitions and contexts. However, in the context of PPV&FRA, 2001, the seed material of VCK has to exist in a viable form, according to Section 19(1), and theoretical knowledge about the presence of a variety is not adequate for the purpose of registration.

### Protection of a VCK

It is significant to note that neither UPOV nor the PVP Act of any country (other than India) has any specific provision for protection of a VCK or varieties already in public domain. A VCK is used only for the purpose of ascertaining the novelty and distinctiveness of any variety applied for registration. In contrast, as a PVP legislation that has introduced in India only recently, the PPV&FR Act, 2001 of the Government of India provides for the registration of 'extant varieties' to check unauthorized use of existing varieties, many of which have been developed through the dedicated efforts of the breeders (including farmers). Section 2(j) of the PPV&FR Act, 2001, defines an extant variety (EV) as 'a variety available in India which is – (i) notified under

section 5 of the Seeds Act, 1966 (54 of 1966); or (ii) farmer's variety; or (iii) a variety about which there is common knowledge; or (iv) any other variety which is in public domain'. It is interesting to note that (i), (ii) and (iv) could qualify by definition as a VCK, but the Act chose to differentiate all the four, perhaps to broaden the definition and scope of a VCK.

The Act further adds that the Registrar shall register the EVs within three years from the date of Gazette Notification of the species and genera eligible for registration under the Act. To facilitate the class of EV being registered under the provisions of the Act, a Gazette Notification was further issued informing the constitution of the Extant Variety Recommendation Committee (EVRC). This committee is mandated to develop appropriate procedures and examine the EV applications and recommend to the Authority the suitability of the material for registration<sup>2,5</sup>.

There are several important implications of the above provision, as follows:

1. Section 39(1) of the PPV&FR Act, 2001 states '... (i) a farmer who has bred or developed a new variety shall be entitled for registration and other protection in like manner as a breeder of a variety under this Act; (ii) the farmers' variety shall be entitled for registration if the application contains declaration as specified in clause (h) of sub-section (1) of section 18...'. According to the PVP acts in various countries, a VCK includes landraces of crop plants as well as wild relatives and not just farmer's varieties. Recently Nagarajan *et al.*<sup>5</sup>, have defined farmer's varieties (FVs) as 'those plant varieties that are homogenous, traditionally cultivated by farmers, selected by farmers in their own field and are an improvement over the wild relatives and/or landraces', and outlined the possible means to ascertain distinctiveness and uniformity of such varieties. The PPV&FR Act, 2001 defines FV as a '(i) variety which has been traditionally cultivated and evolved by farmers in their own fields; or (ii) is a wild relative or landrace of a variety about which farmers possess common knowledge' (Section 2(l)), while the Biological Diversity Act, 2002 explains the landrace as a primitive cultivar that was grown by ancient farmers and their successors<sup>6</sup>. Thus the present PPV&FR Act, 2001 does not clearly differentiate a FV from a

landrace either by definition or for the purpose of registration, although it might be still possible to technically differentiate the two on the basis of morphological and/or genetic criteria<sup>5</sup>.

2. PVP acts in some countries (e.g. Singapore) clearly state that a VCK need not be a protected variety. Although the PPV&FR Act, 2001 does not explicitly mention the same with respect to a VCK, benefit-sharing may still be possible, even if a VCK is unprotected. Section 28(l) of the PPV&FR Act, 2001 makes a provision that if the breeder of an EV or his successor does not apply for registration in the specified timeframe and establish his right, the Central Government, and in cases where such extant variety is notified for a state or for any area thereof under section 5 of the Seed Act, 1966, the State Government, shall be deemed to be the owner of such right.

3. Ascertaining the 'distinctiveness' of an EV, particularly a VCK (consider here FV as a VCK), based on the claim(s) made by an applicant, can be a great challenge for the EVRC. Besides relying upon the 'common knowledge' possessed by the experts/breeders, and intensive evaluation of distinctiveness (wherever there is a reasonable doubt), it is important to have a regular access to a comprehensive and dynamic technical database of the VCK. Such a database should be not only based on information available at the national level, but should ideally include information on VCK from different countries granting plant varietal protection (see the criteria listed above for determining a VCK). Only then is it possible to reliably ascertain the 'distinctiveness' of the candidate variety. Therefore, this implies that the PVP offices worldwide should have a dynamic interface for sharing of the technical knowledge related to the VCK, irrespective of the similarities/differences in the respective PVP acts. For instance, UPOV recently published a document providing a list of genera and species for which authorities have practical experience in the examination of distinctness, uniformity and stability<sup>7</sup>.

4. There are several VCKs existing for a long time (in many cases since decades). Can the breeder of such VCKs be granted fresh plant breeders' rights and the same duration of protection as a new variety? With respect to duration and effect of registration and benefit-sharing, Section 24(6) states that '... (ii) in the

case of extant variety, fifteen years from the date of the notification of that variety by the Central Government under section 5 of the Seeds Act, 1966; and (iii) in other cases, fifteen years from the date of registration of the variety'. Therefore, the Act does not differentiate between the breeder of an EV and the breeder of a new variety as regards their plant breeder's rights. Nevertheless, by definition, many VCKs would have already covered the period of protection prescribed for the new varieties or certain classes of EV. Therefore, there could be a potential debate on the duration of protection of such VCKs. Even if a consensus emerges that the VCK and a new variety should not have the same duration of protection, does the Act permit 'notional' protection of a VCK or a FV without a specific protection period, as suggested recently<sup>3</sup>? It is important to note here that any IPR protection grant, including PVP, is time-bound. Can 'notional protection' or 'notional duration' satisfy the principle of time-bound protection principle? If so, what should be the 'notional duration'? If not, how then can we effectively protect the interests of the breeders of the VCKs, including the FVs? These questions require intensive debates/discussions for achieving a possible consensus.

5. How does one determine whether a variety applied for registration is indeed a new variety or a VCK itself under a different name or predominantly derived from it? This question merits a separate and intensive discussion on the proce-

dures for determining genetic conformity and essential derivation, for which one can effectively utilize the knowledge gained from studies undertaken in various countries (mainly the European Union and USA) on diverse crops (including maize, barley, cucumber, lettuce, rose, apple, etc.) and published in the last one decade.

6. There is certainly a need to identify and/or characterize the VCKs/FVs in the country for the purpose of establishing distinctiveness of a new variety, even if the former are not protected due to any reason.

In view of the potential implications of the above issues for plant breeding in general and plant varietal protection in particular, it is important to achieve clarity and consensus through national debates/consultations. This must be done on a priority basis, since the time-frame available for registration of extant varieties (including VCKs) is limited according to the provisions of the PPV&FR Act, 2001 of the Government of India.

1. UPOV, International Convention for the Protection of New Varieties of Plants of 2 December 1961 as Revised at Geneva on 10 November 1972, and on 23 October 1978, and on 19 March 1991. International Union for the Protection of New Varieties of Plants, Geneva, 1994.
2. The Protection of Plant Varieties and Farmers' Rights Act, 2001, Gazette of India, Extraordinary No. 64 dated 30 October 2001.

3. UPOV, Report, International Union for the Protection of New Varieties of Plants, Geneva, 2002.
4. Plant Variety Protection Act No. 22 of 2004, PVP Gazette 97, Republic of Singapore.
5. Nagarajan, S., Yadav, S. P. and Singh, A. K., *Curr. Sci.*, 2008, **94**, 709–713.
6. The Biological Diversity Act, 2002, Gazette of India, Extraordinary, Pt II, Sec 1, dated 5 February 2003.
7. UPOV, Report of a Technical Committee, International Union for the Protection of New Varieties of Plants, Geneva, 2006.

ACKNOWLEDGEMENTS. Some of the views expressed in this note are based on intensive discussions during the National Debate on 'Varieties of Common Knowledge' organized jointly by PPV&FR Authority and JNKVV, at JNKVV, Jabalpur on 28 January 2008. We thank the participants of the above National Debate.

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