

# Plant Variety Protection Regime in Relation to Relevant International Obligations: Implications for Smallholder Farmers in Kenya

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Together with other laws affecting agriculture, Kenya's plant varieties protection legislation was radically amended in 2012. The amendments were mainly driven by the quest to comply with international obligations, principally the 1991 UPOV Convention. However, the country is also a contracting party to other international treaties affecting seeds such as the International Treaty on Plant Genetic Resources for Food and Agriculture and the WTO Agreement on Trade Related Aspects of Intellectual Property Rights. Moreover, the national Constitution obligates statutory recognition and protection of the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics, and their use by the communities of Kenya. The obligations deriving from all these international agreements must be fulfilled against a backdrop of farming systems that are predominantly smallholder farmer-based. This article discusses how the amendments in the new Kenya plant variety protection law depart from the former legal regime and analyzes whether the current regime is compliant with international obligations, and the implications for smallholder farmers.

**Keywords** breeders-rights; plant varieties; smallholder farmers

## International PVP Obligations and Domestication Dilemmas

This article analyzes the revision of a domestic plant variety protection regime in Kenya against the backdrop of a set of international obligations and farming systems that are predominantly smallholder farmer based. The article addresses questions regarding how the global PVP architecture has influenced domestic legislation, and its implications for smallholder farmers. In the area of intellectual property protection, globalization, and the correspondent development of international instruments defining relations among nations has become a catalyst to proliferation of legislation governing intellectual property rights (IPRs), in particular to developing countries such as Kenya.

Adopted in 1994, the World Trade Organization (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) stands out in this context, foremost because it constitutes part of an international legally binding agreement to which an enforcement mechanism is available. National compliance with its provisions is therefore one of the key pillars of the implementation of TRIPS. The requirement under TRIPS that intellectual property protection must be provided for plant varieties provided a logical opportunity for the International Union for Protection of New Varieties of Plants (UPOV) to present itself as the obvious *de facto sui generis* mechanism for protection of plant varieties (PVP). Seen in the broader context of IPRs, contention exists on whether PVP promotes industrial enterprise, enabling innovation, and ultimately providing farmers and gardeners more choice and varieties of better yield and quality.<sup>1</sup> Mooney (1979) argues that PVP among other effects: (i) encourage economic concentration; (ii) threaten traditional agriculture and food security; (iii) constrain free exchange of germplasm; (iv) contribute to genetic erosion; (v) threaten biodiversity; and (vi) lead to appropriation of what is otherwise common heritage for mankind.

This debate was at the heart of the negotiations throughout the 1980s and 1990s that culminated in the adoption of Convention on Biological Diversity (CBD), and the International Treaty on Plant

Genetic Resources for Food Agriculture (IT) under the auspices of the Food and Agriculture Organization of the United Nations (FAO) (De Jonge, 2011). The IT brought farmers, particularly smallholder farmers, into sharp focus for their role in conserving plant genetic resources for food and agriculture (PGRFA), however without recognition or claim for ownership rights. Besides, the IT also laid bare the fact that countries are interdependent on germplasm for food and agriculture and as such, no country exists in a vacuum.

Countries that are contracting parties to these agreements are faced with the dilemma how to conform to these international obligations at the national level. Kenya became a member of the WTO in 1995, the UPOV in 1999, and the IT in 2003. In observing international agreements and domesticating them, the country has to contend with local realities. In the context of agriculture, these realities are characterized by among others, farming systems and rural economies that are largely smallholder farmer based. In Kenya, agriculture provides employment to 75% of the total labor force, and contributes close to 25% of the national gross domestic product (Devarajan and Kasekende, 2011). Over 75% of the total agricultural outputs are produced by smallholder farmers with farm sizes of 2.5 ha on average, producing mainly for home consumption, and using traditional technologies (FAO, 2009). There is also a significant commercial horticultural sector, producing mainly for export. This statistical information demonstrates that the smallholder farmer plays a significant role in provision of employment, income, and food at the national level. This means that the nationalization of these international regimes should support, or at least not counteract the interests of these farming systems.

Whereas they mainly produce for home consumption, smallholder farmers are not substantial participants in formal seed markets, which are characterized by among others certified seeds or seeds protected with some form of IPR. Indeed, with a few exceptions, mainly maize and wheat, significant portions of seed and planting material in Kenya are accessed from farmer-based sources. Ayieko and Tschirley (2006) have found that for bananas, beans, cassava, ground-nut, millet, pigeon pea, sorghum, soybean, Irish potato, and sweet potato over 80% of seed is accessed from farm-saved sources. Maize is the exceptional cereal crop mainly because of the hybrid nature of the high yielding varieties whose offspring does not breed true-to-type once saved, leading to lower yields in the next generation.

PVP provides the breeder commercial benefits, and is thus not primarily geared to affect non-market seed systems. Yet the country is littered with a diversity of farming and seed systems—farmer based seed systems, community based seed systems, public formal seed systems, mixed public private seed systems, pure private value chains, and relief seed systems (Munyi and De Jonge, 2015). The architecture of PVP at the global level and its domestication at the national level appears not designed to equally address these different seed systems and especially bypasses the needs of the smallholder farmer. Each of these seed systems takes place in specific agro-ecosystems, with specific goals, objectives, and production needs.

Below is an examination of the global PVP architecture of relevance to Kenya. In this context, a brief introduction to some of the main features of TRIPS, UPOV, and the IT is undertaken. This is followed by an examination of the Kenya PVP regime juxtaposed against the international regimes aforementioned. In undertaking this examination, the main departures between the Seeds and Plant Varieties Act 1972 (“the SPVA”) and the Seeds and Plant Varieties (Amendment) Act 2012 (“the 2012 SPVA Amendment”) are identified, particularly in how these two statutes conform to and depart from the UPOV system, as well as how they contribute to the fulfillment of TRIPS and IT obligations. Subsequently, a discussion on the following four issues follows: (i) the extent to which indigenous seeds and plant varieties are protected given the constitutional requirement for their protection; (ii) access to foreign germplasm by local farmers, having been identified as a key policy objective of the PVP system; (iii) whether the PVP legislation now meets UPOV 1991 standards given that Kenya seeks to join UPOV 1991 membership; and (iv) implementation of farmers’ privilege in line with IT obligations.

## Global PVP Architecture of Relevance to Kenya

Kenya has participated in the global intellectual property debates at least since 1965 when it acceded to the Paris Convention on Industrial Property. The design and review of its domestic intellectual property regimes has been influenced by its international obligations and its PVP system is not an exception. A number of international instruments, which Kenya has ratified, are relevant to its national PVP regime. In this article we examine three of these: TRIPS, UPOV, and the IT. Below we provide a brief overview of these instruments focusing on their key provisions.

### TRIPS

Adopted in 1994, TRIPS unlike previous IP agreements<sup>2</sup> brought about significant changes in international approaches towards IP protection in all fields of technology. With respect to plant varieties, TRIPS through its article 27.3(b) brought forth the mandatory requirement that IP protection must be provided “either by patents or by an effective *sui generis* system or by a combination thereof.” TRIPS does not aid countries by providing template treaties or a *sui generis* framework and it is therefore upon each country to define what an “effective *sui generis* system” is for itself, taking into account national interests and concerns to the extent that these are not inconsistent with TRIPS.<sup>3</sup> The *sui generis* option presents a wide policy choice and with it possibilities for disharmony between systems developed by countries (Rangnekar, 2013). Regardless, for a *sui generis* system to remain “effective” it must at the very least, provide for an IPR and also be consistent with the national treatment and most-favored nation principles of TRIPS (Rangnekar, 2013).

Despite the flexibility offered to craft an “effective *sui generis* system,” the UPOV system has emerged as the de facto *sui generis* system to extend IP protection to plant varieties in developed and developing countries. UPOV’s membership continues to grow amongst developing countries. Through regional PVP systems such as that adopted by the Organisation Africaine de la Propriété Intellectuelle (OAPI), many more countries have also adopted UPOV as the *sui generis* system without necessarily seeking its membership. In the not too distant future Africa is likely to be enveloped by the UPOV system due to the OAPI system already in place, and similar regional protection mechanisms already under development in two other sub-regional blocs.<sup>4</sup>

Kenya became a member of the WTO in 1995. At the time, a *sui generis* system for protection of plant varieties was already in place (although not implemented), since the SPVA enacted in 1972 contained PVP provisions. Moreover, the patent law in place in 1995<sup>5</sup> excluded plant varieties from patents, thus clarifying Kenya’s solution to its obligations under TRIPS. Measures that were taken around the time such as enactment of the Seeds and Plant Varieties (Plant Breeders’ Rights) Regulations in 1994 can thus be seen as having been intended to make the system for granting of PVP “effective” as part of the fulfillment of TRIPS obligations.

### UPOV

As a *sui generis* system specifically designed for PVP, UPOV was the outcome of efforts by European seed producers and plant breeders to have their IP creations over plants protected. Initially adopted in 1961, the UPOV Convention has been revised three times: in 1972 (UPOV, 1972), in 1978 (UPOV, 1978), and in 1991 (UPOV, 1991). Originally, its membership was largely<sup>6</sup> drawn from industrialized countries very keen to protect the interests of their breeding industry both in their domestic and foreign markets mainly, and initially in Europe. Currently, membership for new countries is only open to UPOV 1991. However, UPOV 1978 is still operative to UPOV members who have not acceded to UPOV 1991.

A number of commonalities and variations exist between the two UPOV systems that are presently operative. One of these variations is the farmers’ privilege concept.<sup>7</sup> Explicitly provided in UPOV 1991 as an optional exception to the rights conferred, this concept operates by providing that subject to safeguarding of the legitimate interests of the breeder, a farmer is permitted to use for propagating purposes, on his own

holdings, the product of the harvest that he has obtained by planting, on their own holdings, the protected variety.<sup>8</sup> Implicitly included in this provision is a prohibition for farmers to sell and exchange seeds. The clause that the privilege is subject to the legitimate interests of the breeder is translated in Europe in a payment to the breeder on the use of seed of a protected variety saved by the farmer. UPOV 1978 does not make any mention of the privileges or rights of farmers to exchange, sell or re-sow seeds harvested from proprietary plant varieties. However, some authors claim that since the breeder's authorization is required only for production with commercial purposes, farmers can then use saved seed of protected varieties for replanting on their own lands, as well as non-commercial exchange among themselves (Santilli, 2012).

Kenya became a party to UPOV 1978 in 1999 following a review of its legislation for compliance with the convention by UPOV. It has remained an active member of the convention since, and intends to accede to UPOV 1991 as evidenced by the recent revisions undertaken to its national legislation.

## ***IT***

The IT was adopted at the Food and Agriculture Organization (FAO) in 2001, and entered into force in 2004. It aims to contribute to the conservation and utilization of plant genetic resources for food and agriculture (PGRFA), and to this end attempts to strike a careful balance between the sovereign rights of states over biological diversity and global food security, requiring facilitated access to genetic resources.

One way in which the IT strikes this balance is through recognition of farmers' rights. Andersen (2005) and Fowler (1994) trace farmers' rights back to the work of Jack R. Harlan (1919–88) who spoke of farmers as the "amateurs" who have in fact created the genetic diversity that had become subject to controversies on ownership. It was not however, until the early 1980s that the term gained political momentum and evolved with the negotiations towards the conclusion of the IT as a catch-phrase to highlight the valuable but unrewarded contributions of farmers to PGRFA (Fowler, 1994) and as a counterforce to PVP which were already institutionalized through UPOV.

Albeit in a non-exhaustive manner, farmers' rights are enumerated in the IT to include protection of traditional knowledge relevant to PGRFA, the right to participate in sharing of benefits arising from their utilization, and the right to participate in making decisions on matters related to the conservation and sustainable use of PGRFA.<sup>9</sup> The responsibility to realize farmers' rights is vested upon national governments including taking decisions to not limit any rights that farmers have to save, use, exchange, and sell farm-saved seed and propagating material, subject to national law and as appropriate.<sup>10</sup> Vesting realization of farmers' rights upon national governments, and subjecting the same to national law has led to one of the main criticisms of the IT: that farmers' rights are not given the same recognition in law and protected at the same level as PVP. Nonetheless, the more detailed encapsulation of farmers' rights by the IT appears to be a better reflection of small holder farmers' agricultural practices, as compared to the farmers' privilege exception to PVP under UPOV 91.

Kenya acceded to the IT in 2003. At the time, PVP legislation (the SPVA) was already in place. Similar to UPOV 1978, this legislation did not explicitly allow or prohibit saving, selling, and exchange of seed by farmers from their own harvests, a practice that was already on place. Therefore SPVA de facto, allowed saving, selling, and exchange by farmers of seed from their own harvests. Accession to the IT did not lead to immediate changes in the SPVA with a view to reflect implementation of obligations under the IT, particularly with respect to farmers' rights as these obligations were already being put in practice, and appeared permissible under the SPVA.

## ***Kenya's PVP regime***

### Historical Development and Landscape of PVP Legislation and PVP Applications

Formal plant breeding in Kenya can be traced to as far back as the early twentieth century when Lord Delamere, a settler farmer, employed a wheat breeder to cross Australian and Italian varieties following

devastation of his crop by yellow rust (Dixon, 1960). Government entry into plant breeding activities was through taking over Lord Delamere's breeding ventures and in 1927, the then Department of Agriculture established the Wheat Breeding Station (Pinto and Hurd, 1970). Legislation to either regulate plant breeding activities or protect the plant breeders' rights (PVP) did not follow immediately thereafter. In fact, throughout the colonial period (up to 1963) no legislation explicitly regulated plant breeding activities or protected PVP in as much as policies and plans were put in place to provide technical support to crop-specific research institutions.<sup>11</sup> This is not surprising considering that as a British Colony, no similar legislation existed in Britain or its colonies that could be extended to Kenya.<sup>12</sup>

In 1972 the SPVA was enacted.<sup>13</sup> Some components of this legislation that dealt with PVP lay dormant until 1993 when the government adopted Sessional Paper No. 3 of 1993 on National Food Policy. This policy invigorated implementation of PVP by recognizing that they could facilitate farmers in acquiring new varieties from external sources. To render this policy better effect, the Seeds and Plant Varieties (Plant Breeders' Rights) Regulations ("PVP Regulations") were enacted in 1994.<sup>14</sup> In 1996, the establishment of the Kenya Plant Health Inspectorate Service (KEPHIS) as the competent authority to receive and grant applications for PVP<sup>15</sup> set the stage for applications for PVP to be received in Kenya.<sup>16</sup>

For a decade, the SPVA remained unchanged, and was the principal legislation regulating registration and enforcement of PVP in Kenya. A complementary legislation enforcing IPRs, the Anti-Counterfeit Act, was however, enacted in 2008.<sup>17</sup> The Anti-Counterfeit Act extends counterfeiting to include taking certain actions without authority of the owner of PVP granted under the SPVA.<sup>18</sup> The SPVA was radically amended in 2012 through the enactment of the 2012 SPVA Amendment. The 2012 SPVA Amendment has not repealed the SPVA in its entirety. Rather it contains provisions either introducing new principles to the PVP regime or amending others in the SPVA thus altering the landscape of Kenya's PVP regime. The principal body of law now that constitutes PVP legislation in Kenya is thus the SPVA and the 2012 SPVA Amendment.

The trigger to the enactment of the 2012 SPVA Amendment appears to be two fold. The first is the aspiration to comply with UPOV 1991 requirements. This is evidenced by the memorandum of objects and reasons to the 2012 SPVA Amendment Bill which for example, stated that the amendment of the definition of the breeder and also protection of all plant species and genera was required to be in line with UPOV 1991.<sup>19</sup> Further, during the second reading of the 2012 SPVA Amendment Bill in Parliament, the then Minister for Agriculture stated that the proposed amendments to the SPVA we intended to bring the legislation in "conformity with...the Union for the Protection of New Varieties of Plants, 1991..."<sup>20</sup> The second trigger was the need for the protection and recognition of indigenous seeds and plant varieties. This need stems from the Constitution whose article 11(3) (b) provides that "Parliament shall enact legislation to recognize and protect the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics, and their use by the communities of Kenya." Hence under section 27A(1)(a) of the 2012 SPVA Amendment, the National Plant Genetic Resources Centre (NPGRC) is bestowed with the function of providing the protection intended under article 11(3)(b) of the Constitution. The manner in which protection is sought to be given to indigenous seeds and plant varieties is visited in greater detail in this article.

### Constitutional Dimensions of PVP: Anchorage and Inclusion of International Obligations

In 2010, a new Constitution was promulgated heralding a platform for improved governance, political stability, and economic prosperity in Kenya.<sup>21</sup> It portends a radical shift in the governance framework, introducing, anchoring and clarifying rights to citizenry that were not institutionalized in the repealed Constitution. These include IPRs and domestication of international obligations.

To begin with, article 260 of the Constitution defines property to include among others, intellectual property (IP).<sup>22</sup> This gives a purposeful direction at least in the Kenyan context, to the philosophical

question whether rights granted by the state as a result of creation of IP amount to property notwithstanding that IPRs confer a negative (exclusive) right in character whose assigned function is not the enjoyment of the right itself but prevention of others from enjoying the same (Torremans, 2008). Clear designation of IP as property in the Constitution has extended profoundly the application of constitutional principles that apply to classical understandings of property in Kenya into the IP arena. Of prominence is the right to privacy of a person, which includes the right not to have the person's property searched, since this now arguably extends to a person's IP. Except for trade secrets whose regulation under Kenyan law is through contract and imported doctrines of equity law of England, this right is not relevant for most other IPRs, especially patents, copyrights, and PVP, given that disclosure is necessary for the IPR to be granted. Secondly, arbitrary deprivation of property (including IP) is prohibited. Prompt full payment or just compensation to the person must follow deprivation.<sup>23</sup> In IPRs, where deprivation occurs through compulsory licences, compensation by royalties must follow. This requirement already flows in Kenya's patent legislation-the Industrial Property Act, 2001, wherein there is a requirement to compensate a patent holder where the patent is utilized pursuant to a government use licence or compulsory licence.

Besides extension of the aforementioned classical principles of property into the realm of IPR, the Constitution also contains several express provisions referring to IPRs one of which-article 69 (1)(c), is of direct relevance to PVP. This article provides that the State shall "protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of communities."<sup>24</sup> Given that seeds are genetic resources and also constitute part of biodiversity then arguably, the Constitution recognizes IPRs used to protect genetic resources, for which PVP is one.

The other constitutional dimension to PVP discussions relates to the recognition as a source of law "any treaty or convention ratified by Kenya" in article 2(6) of the Constitution. This recognition is a significant departure from the repealed constitutional order. Under the repealed constitutional order, Kenya was explicitly a dualist state. The then Constitution only pronounced itself as the supreme law and the statutory elaboration of this supremacy- Judicature Act, set out in detail sources of law in Kenya of which treaties and conventions ratified by Kenya were none.

In theory, the provision recognizing any treaty and convention ratified by Kenya as a source of law implies that all treaties that Kenya had ratified as at 27 August 2010 when the Constitution was promulgated can be considered part of national law, and so will those ratified in future. It is an accepted norm of international law under the Vienna Convention of the Law of Treaties (1969) that every treaty in force is binding upon the parties and must be performed by them in good faith. Some of the treaties, which are then binding upon Kenya include the IT, TRIPS, and UPOV 1978, given that they have been ratified by Kenya. At the same time, it is also trite law that in as much as some treaties are binding upon member states, they are not always enforceable in national courts. Legal jurisprudence arising from Kenyan courts on this matter is still scanty. Nonetheless, courts have been quick to jump and find that almost every treaty placed before them to which Kenya has ratified is enforceable, implying that it creates a private right of action. None of the decisions have so far considered whether treaties that Kenya has ratified are self-executing,<sup>25</sup> creating a private right, or a private right of action.<sup>26</sup> Article 2(6) of the Constitution is yet to receive a robust interpretation by the courts with a view to understand the domestic status of international treaties in Kenya and how international legal commitments "come home". Whereas the IT, TRIPS, and UPOV 1978 have not been the subject of any litigation in the court, it is safe to say that they are at the very least binding on Kenya within the meaning of the Vienna Convention and *prima facie*, under article 2(6) of the Constitution. Whether they are enforceable in Kenyan national courts is another matter altogether.

Related to the issue of domestication of international obligations is the question of the current domestic status of UPOV 1991. Article 2(6) of the Constitution is explicit that only treaties and conventions ratified by Kenya form part of national law. As UPOV 1991 has not been ratified, then on the

face of it, it is not part of national law. Article 2(6) of the Constitution has been given better effect by the Treaty Making and Ratification Act (2012). This statute provides for the procedure for ratification of a treaty, which includes approvals from the Cabinet and National Assembly prior to ratification. Some of the considerations that the Cabinet and National Assembly have to make prior to granting approval include whether an existing legal regime is sufficient to deal with the perceived issues the new treaty is dealing with, or whether ratification will require legislative efforts. These considerations appear to presuppose that legislation implementing the new treaty requirements can only be enacted once a decision to ratify is made. Applying this reasoning to the current status of UPOV 1991, one is confronted with a situation where implementing legislation (the 2012 SPVA Amendment), is in place prior to ratification of the treaty being conformed. Potentially, this may raise a constitutionality problem for the conforming legislation given that the international instrument to which it is conforming to is not ratified. This is part of the larger conundrum of issues related to domestication of international obligations yet to be addressed by Kenyan courts. The answer to this question is beyond the scope of this article and for the time being, in analyzing the changes brought about by the 2012 SPVA Amendment, we will proceed on the assumption that the legislation is constitutional.

#### The SPVA and the 2012 SPVA Amendment: Analysis of Changes

The SPVA, the 2012 SPVA Amendment, and arguably, the IT, TRIPS, and UPOV 1978 now constitute the principal body of legislation on PVP. Enactment of the 2012 SPVA Amendment has altered the PVP registration regime in several areas. This analysis focuses on several of these areas: (i) protection of ownership of indigenous seeds and plant varieties; (ii) conditions for grant of PVP; (iii) subject matter for protection; (iv) scope of protection; (v) breeder's exemption; and (6) farmers' privilege.

#### ***Protection of Ownership of Indigenous Seeds and Plant Varieties***

One of the innovations of the 2012 SPVA Amendment is the provision for protection of indigenous seeds and plant varieties, something that was not addressed explicitly in the SPVA. The genesis to these provisions as already mentioned is the Constitution which calls for this action. None of the UPOV systems require this action to be taken. Besides protection, the Constitution also requires that the genetic and diverse characteristics and use of indigenous varieties by communities be recognized. No hint is given on how this recognition and protection is to be achieved. No illusion is created that the protection referred relates to granting of PVP or that PVP contains the appropriate tools to achieve this objective. In fact the 2012 SPVA Amendment approaches this issue by creating a body—the NPGRC, separate from KEPHIS to fulfill this objective.<sup>27</sup> The relationship between the NPGRC in terms of addressing “conservation and sustainable utilization” on the one hand and KEPHIS in dealing with grant of PVP on the other hand is not addressed. Arguably then, the protection of indigenous seeds and plant varieties contemplated in this legislation is separate and different from PVP.

In providing the protection sought, what qualifies as “indigenous seeds and plant varieties” is not defined. An open and perhaps ambiguous understanding of what would constitute indigenous seeds and plant varieties exists. Further, the Minister is granted extensive powers to make regulations for the better functioning of the NPGRC, which would include *inter alia* activating the NPGRC function to provide protection to the ownership of indigenous varieties. However, these powers are yet to be exercised and as matters now stand, this protection though intended is yet to be extended to these varieties.

#### ***Conditions for Granting PVP***

The conditions for granting PVP as contained in the SPVA mainly mimicked the UPOV 1978 provisions. Thus, for a variety to be protectable it must be sufficiently distinct; sufficiently uniform or homogeneous; stable in its essential characteristics; and, new. With respect to distinctness, the requirement that the variety has to fulfill is that it must be clearly distinguishable from any other variety whose existence is a matter of

common knowledge at the time of filing of the application.<sup>28</sup> 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.<sup>29</sup> The homogeneity requirement essentially means that for a variety to be protected it must be sufficiently homogenous, having regard to the particular features of its sexual reproduction or vegetative propagation.<sup>30</sup> In other words, the requirement here is that the variety must breed true through subsequent reproduction or propagation (Llewelyn and Adcock, 2006). For a variety to meet the requirement for stability, it must remain stable in its essential or relevant characteristics after repeated propagation, or in the case of a particular cycle of propagation, at the end of such cycle.<sup>31</sup> Novelty refers to the availability or otherwise of the variety for sale or marketing. To fulfill the novelty condition, the variety must not have been offered for sale or marketed for longer than 1 year, with the consent of the breeder, in Kenya.<sup>32</sup> Besides, it must not have been offered for sale or marketed, either with the agreement of the breeder, in the territory of any other states for longer than 6 years in the case of vines, forest trees, fruit trees, and ornamental trees, or for longer than 4 years in the case of all other plants (Santilli, 2012).

The SPVA introduced an additional enveloping condition that is not in accordance with UPOV- that the variety's "agro-ecological value must surpass, in one or more characteristics that of existing varieties according to results obtained in official tests."<sup>33</sup> However, the legislation does not give a hint of how the "agro-ecological value" is measured and the measure by which it must surpass the characteristic(s) of the existing varieties.

The 2012 SPVA Amendment has not altered the conditions for granting PVP as contained in the SPVA. Retained includes the definition of common knowledge in determining distinctness in UPOV 1978.

### ***Subject Matter for Protection***

The SPVA provided that PVP may be granted in respect of plant varieties of such species or groups as may be specified by a scheme made by the Minister responsible for agriculture.<sup>34</sup> In making the scheme, the Minister was required to consult constituencies of those deemed to have a substantial interest in the matter to be regulated. As a result, different provisions for different species or groups of plant varieties could be made. Power to make schemes detailing species to which PVP may be applied, as immense and potent as it portends was exercised mainly in 2001 when ten schemes were prescribed. These schemes covered fruit, nut, and tree crops; vegetables; trees and woody climbers; roots and tuber crops; maize; ornamental and herbaceous plants; oil and fibre crops; cereals such as sorghum, millet, barley, rice, and wheat; pulses; and, pasture plants and grasses. Interestingly, there was no reference in the SPVA to the requirement for gradual extension approach contained in UPOV 1978.

With the enactment of the 2012 SPVA Amendment now "*rights may be granted... in respect of varieties of all plant genera and species*".<sup>35</sup> Ostensibly, this conforms to UPOV 1991 which requires states already members of UPOV to extend PVP to all plant genera and species, within 5 years of acceding to UPOV 1991. However, while the UPOV requirement is couched in mandatory terms, the requirement for extension to all plant general and under the 2012 SPVA Amendment is phrased in discretionary terms. Using "may" in describing the extent to which these rights should extend denotes flexibility on application of PVP across plant genera and species. However, whereas under the SPVA the Minister was the designated authority in determining the plant species that would be the subject matter of PVP, under the 2012 SPVA Amendment the authority to exercise that discretion is not vested in any institution or individual.

### ***Scope of Protection***

Akin to other IPRs PVP are limited rights. Through the law users of protected varieties and seeds may undertake permissible activities on the protected material without infringing upon the rights of the holder

of PVP. The scope of protection and exceptions to PVP therefore impinges upon other users of plant varieties and seeds (Rangnekar, 2013).

In addressing the scope for protection, the SPVA took the UPOV 1978 approach allowing the breeder control of production for purposes of commercial marketing of the reproductive or vegetatively propagating material, and for offering for sale or marketing of such material.<sup>36</sup> However, limited extended protection to include their products, was granted to ornamental plants or cut flowers.<sup>37</sup> The right therefore, was to prohibit others from commercially using the protected material, the notion of what is commercial being limited to the act of selling or marketing in the sense of holding the material out as being available for sale (Llewelyn and Adcock, 2006). This preserved the right to use the material non-commercially.

All this has changed with the enactment of the 2012 SPVA Amendment. The scope of rights now mirrors those under UPOV 1991 with the plant breeder having an exclusive right to permit others to produce or reproduce; condition for propagation; offer for sale; sell or other marketing; export; import; or, stock for the above purposes, the plant variety.<sup>38</sup> In addition these rights are extended to harvested material and products unless the breeder has had a reasonable opportunity to exercise his right in relation to either the propagating material or harvested material, as well as to essentially derived varieties, varieties not clearly distinguishable from the protected variety and other whose production requires the repeated use of the protected variety. Essentially derived varieties are defined in consonance with UPOV 1991 provisions.

The breadth of breeders' rights is now much wider than it was earlier provided for under the SPVA. The preserved right to use material non-commercially, a *de facto* interpretation of part of farmers' rights, is severely diminished and has been replaced by more explicit provisions. Freedom of farmers to deal with their harvests and products has been removed. Activities such as seed saving which were previously allowable with no restrictions, now have to be undertaken subject to some conditions.

The scope of rights contains several limitations two of which- breeder's exemption and farmers' privilege are discussed below.

### ***Breeder's Exemption***

The breeder's exemption permits any breeder to use protected material for research purposes even where there is a defined commercial objective to that research. Llewelyn and Adcock (2006) argue that it is the more important derogation of the scope of rights as it purposely allows plant breeding to be incremental recognizing that a protected variety may be the foundation for other varieties. To a large extent, the SPVA followed UPOV 1978 in providing for the breeder's exemption. Under section 20 of the SPVA, production and stocking for production of propagating material of a protected variety undertaken solely for research purposes or for developing new varieties in the breeder's own nursery is deemed not to be at variance with the exclusive right of the breeder, and thus not constitute infringement on the PVP granted to the protected variety. The point of departure between the SPVA and UPOV 1978 was with respect to instances where a protected variety has to be used repeatedly for the commercial production of the other variety. No similar provision existed in the SPVA and therefore it appears that even repeated use for commercial production fell within the ambit of the breeder's exemption.

Related to breeder's exemption is the question of dual protection of plant material by PVP and patents, as this materially affects how breeder's exemption operate. To begin with, neither the SPVA nor the 2012 SPVA Amendment addresses this issue. Rather it is addressed in the principal legislation dealing with patents, the Industrial Property Act, 2001. Section 26 of the Industrial Property Act states that non-patentable inventions include plant varieties as provided for in the SPVA. However, "parts thereof or products of biotechnological processes" fall outside this exclusion, and are therefore patentable. Previously, Rangnekar (2006) was of the view that the phraseology of section 26 renders plant varieties not provided for in the SPVA to constitute patentable subject matter, which may include those plant varieties

that are of species or genera that the Minister had not specified under the schemes gazetted in 2001. However, given that under the 2012 SPVA Amendment the authority of the Minister to make schemes has been done away with since all plant genera and species must be granted protection, then this view is now moot. The logical argument now must be that all plant varieties *per se* are not patentable, except “parts thereof” and in sum, dual protection as allowed under UPOV 1991 is possible. The case seems to be that where a variety is protected by PVP, and a component of that variety (e.g. a trait) falls under the scope of a patent, breeders are not allowed to exercise the breeder’s privilege. In some countries explicit exemptions have been made in patent law to introduce a breeder’s exemption (and a farmers’ privilege) in such cases (Prifti, 2013).

### ***Farmers’ Privilege***

A new optional exception introduced in the 2012 SPVA Amendment is the so-called farmers’ privilege. Derived from UPOV 1991, this exception was not previously contained in the SPVA, the only exception to the scope of rights being the breeder’s exemption discussed above. As such with the restricted act being commercial marketing, the right by third parties such as farmers to use the material for non-commercial purposes was preserved (Llewelyn and Adcock, 2006). This enabled farmers to exercise the freedom to save, exchange or re-use seed or harvested material without restriction. While UPOV 1978 did not expressly allow this practice, it was also a reflection of the reality in most farming communities whereby seed saving, and exchanging is rampant amongst farmers as a means to guarantee availability of seed for every planting season and to experiment with new seeds. Seed saving is widely practiced in Kenya for most crops and provides over 95% of seed for some crops Irish potato and cassava.<sup>39</sup>

The farmers’ privilege in the 2012 SPVA Amendment is provided for in mandatory terms that “within reasonable limits and subject to safeguarding the legitimate interests of the breeder, farmers may use the product of the harvest which they have obtained by planting, on their own holdings, the protected variety.” Under this provision, Kenyan farmers are henceforth prohibited from exchanging farm-saved seed for all crops with other farmers. Selling farm-saved seed for all crops is equally prohibited. However, these two practices are engrained in the smallholder farmer systems in Kenya, given that they guarantee availability of seed unlike supply by the formal seed system, which is often subject to systemic failures and disruptions along the distribution chain. The only allowable practice for farmers is saving and re-using the seed on their own farms. Since the legitimate interests of the breeder have to be protected, when farmers are saving and re-using farm-saved seed then breeders have to be compensated usually by a royalty payment.

## **Discussion**

The PVP regulatory landscape in Kenya as it currently stands, consists of a mix of provisions heavily influenced by TRIPS and UPOV 1978 and 1991, and much less by the IT. UPOV 1978 and 1991 principles have now been embraced and its provisions domesticated in a mixed fashion as shown in the summary Table 1 below on the salient features and variations between these two instruments and the Kenya legislation. However, the process and outcome of embracing these principles invites discussion on several issues.

### ***Protection of Indigenous Seeds and Plant Varieties***

It is arguable that the protection intended for extension to indigenous seeds and plant varieties is different and apart from PVP for the following reasons: The 2012 SPVA Amendment provides that PVP protection may be extended to varieties of all genera and species. Potentially, this includes indigenous seeds and plant varieties. With this, social economic and ecological concerns and special difficulties that would otherwise have been available to the Minister for consideration under UPOV 1978, in making decision on which crops to avail for protection are now lost. Included in this basket of lost considerations are also those

**Table 1: The Table Below is Summary of the Salient Features and Variations Between UPOV 1978, UPOV 1991 and the Kenya PVP Legislation**

Issues	UPOV 1978	UPOV 1991	Kenya PVP legislation Assessment
Subject matter for protection	Number of genera or species required for protection to be increased gradually from five at the time of entry into force to 24, 8 years later	Increasing number of genera or species required to be protected, from 15 at time of entry into force to all genera and species 10 years later (5 years for members of UPOV 1978 or earlier UPOV Acts).	PVP may be extended to varieties of all plant genera and species. The graduated approach of UPOV 1991 is not provided for.
Conditions for protection	Novelty, distinctness, homogeneity, and stability.	Novelty, distinctness, uniformity, and stability.	Conditions similar to UPOV 1978. In addition agro-ecological value of the variety must surpass that of existing varieties.
Scope of protection	Production for purposes of commercial marketing; offering for sale; and marketing of the propagating material of the plant variety. Protection covers vegetative or reproductive propagating material, as such, of the variety.	Production or reproduction; conditioning for the purposes of propagation; offering for sale; selling or other marketing; exporting; importing or stocking for any of these purposes, of propagating materials of the variety.	Similar to UPOV 1991.
Minimum exclusive rights in harvested material	No such obligation, except for ornamental plants used for commercial propagating purposes.	Protection may also cover the harvested product, if obtained through unauthorized use of propagating material, and if the breeder has had no 'reasonable opportunity' to exercise his right in relation to the propagating material. Protection may also extend to products made directly from harvested material of the protected variety.	Similar to UPOV 1991

continued

Table 1: (Continued)

Issues	UPOV 1978	UPOV 1991	Kenya PVP legislation Assessment
Prohibition on dual protection with patent	Allowed for same botanical genus or species.	Not prohibited.	Not prohibited.
Breeder's exemption	Recognized. Breeders free to use protected variety to develop a new variety. However, when the repeated use of the variety is necessary for the commercial production of another variety, the breeder's authorization is required.	Recognized. But breeding and exploitation of varieties "essentially derived" from earlier variety and varieties not distinguishable from the protected variety require right holder's authorization.	Recognized. Breeder free to use protected variety for research purposes in his own nursery. But breeding and exploitation of varieties "essentially derived" from earlier variety and varieties not distinguishable from the protected variety require right holder's authorization.
Farmers' privilege	Implicitly allowed under the provision requiring breeder authorization for production of commercial marketing purpose, offering for sale and marketing of the reproductive or vegetative propagating material of the variety.	At the option of a member country, farmer allowed to save and re-use seed on own holdings, within reasonable limits and subject to safeguarding the legitimate interests of the right holder.	Follows UPOV 1991
Minimum term of protection	At least 18 years for grapevines and trees (15 years for all other plants).	At least 25 years for grapevines and trees (20 years for all other plants).	Similar to UPOV 1991

*Authors' analysis and also adaptation from Helfer, L.R., Intellectual Property Rights in Plant Varieties: an Overview with options for National Governments, FAO Legal Papers Online 31, July 2012 and also from Santilli, J. (2012). Agrobiodiversity and the Law: Regulating Genetic Resources, Food Security and Cultural Diversity. Earthscan, Oxon.*

available under TRIPS, necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to the socio-economic and technological development.<sup>40</sup> The availability of these considerations from TRIPS arises from the fact that UPOV as a *sui generis* system of protection of plant varieties, is subject to other provisions of TRIPS. This notwithstanding, the statute goes ahead to make specific and explicit provisions on protection of indigenous seeds and plant varieties.

It would appear that the explicit provision for protection of indigenous seeds and plant varieties is in itself tacit recognition of local farming realities in Kenya. These are characterized by a diversity of seed systems including farmer-based systems dominated by smallholder farmers wherein indigenous seeds and

plant varieties are key. However, the legislation as presently framed is deficient in two ways. In the first, no clarity is given on which species qualify as indigenous and in the second, no suggestion is given on what additional protection may be extended to these species. Nonetheless, this situation presents immense flexibility and opportunities for protection of indigenous species.

A widest possible definition of “indigenous seeds and plant varieties” is now feasible in the regulations implementing the 2012 SPVA Amendment. This definition could be crafted to include landraces, which form a major component of farmers’ plant genetic resources, local varieties, modern farmer varieties, and conservation varieties (Salazar et al., 2007). Innovative approaches to protect these varieties could then be anchored on the existing provisions. These approaches may include legal recognition of their origin and establishment of special registration procedures for their inclusion in national seed catalogues (Salazar et al., 2007). According to Bocci (2009) these special procedures may include requirement for seeds of these varieties to be produced in their place of diversification; quantity restrictions; and, establishment (if possible) of a traceability system to prevent abuse from non-qualifying varieties. Already similar provisions exist in other jurisdictions such as the European Union.<sup>41</sup>

A consequent question arising from this discussion is whether protection of indigenous seeds and plant varieties in a manner separate and different from PVP, is compatible with the UPOV systems in place, and embraced under the SPVA and the 2012 SPVA Amendment. For one, under UPOV protection is granted to those varieties that meet the set conditions for grant: novelty, distinctness, homogeneity or uniformity, and stability. If indigenous seeds and plant varieties are subjected to the UPOV protection conditions, they are unlikely to fulfill these conditions. By their nature, indigenous seeds and plant varieties are not bred and maintained with these protection conditions in mind. Thus, indigenous seeds and plant varieties are protectable to the extent that conditions that they must fulfill for protection and separate and different from those set out under UPOV. If all plant varieties (including indigenous seeds and plant varieties) are made available for PVP protection smallholder farmers may stand ill cushioned to withstand economic hardships such as price, attendant to accessing protected varieties as they mainly cultivate these crops for subsistence purposes. Also protection of indigenous plant varieties through PVP may also disenfranchise smallholder farmers where legal ownership would be lost from them, particularly those who have been conserving them over the years.

Since the boundaries of such protection are not yet defined, it is impossible to analyze whether such protection of indigenous seeds and varieties would create a positive or negative effect on various local seed systems. Strong rights of communities may limit access to such materials by smallholder farmers who are not part of that particular community.

One way through which the boundaries for protection could be defined is by linking the 2012 SPVA Amendment insofar as protection of indigenous seeds and plant varieties are concerned to Kenya’s legislation regulating access and benefit sharing of genetic resources—the National Environmental Management and Co-ordination (Conservation of Biological Diversity, Access to Genetic Resources and Benefit Sharing) Regulations, 2006. Explicitly providing in the 2012 SPVA amendment that access to indigenous seeds and plant varieties is also subject to prior informed consent and mutually agreed terms between their indigenous custodians and the recipient, could provide clarity on protection mechanisms contemplated. Thus even where PVP may be taken out in respect of indigenous varieties, it would so occur with the consent of those who have conserved the same for years. Through the National Environmental Management: Biodiversity Act, 2004,<sup>42</sup> South Africa has defined what constitutes indigenous biological resources and genetic resources thus providing a level of differentiation between these and other resources. This statute goes further to also provide for the steps required prior to its access.

Another way through which boundaries for protection of indigenous seeds and plant varieties could be set is by explicitly defining these indigenous varieties and providing for criteria for protection different from that used in the protection of new varieties of plants. India has provided for a criteria for protection of

extant varieties-defined to include farmer's varieties; varieties about which there is common knowledge and in the public domain.<sup>43</sup> This criterion for protection is different from that which other new plant varieties are subjected to. Whereas India is not a party to UPOV, it offers examples of how indigenous seeds and farmers varieties may be protected and the boundaries that could be set between protection of these and other varieties.

### ***Access of Foreign Varieties by Local Farmers***

One of the objectives of the PVP system is to facilitate farmers in accessing better quality, high yielding varieties from foreign sources. It is therefore necessary to discern whether this objective has been fulfilled so far.

Since the PVP registration system became operative, as at 1 February 2013 1,158 applications for grant of PVP have been filed. Ornamentals account for over 60% of the applications. On the other hand, food crops account for 34% of all applications filed.<sup>44</sup> Roses account for 81% of applications received for ornamental crops. Maize takes 40% of the food crops share of PVP applications. It is also notable that over 99% of PVP applications for ornamentals are from foreign sources. With respect to food crops, the situation is as follows: for maize public breeding institutions (Kenya Agricultural Research Institute (KARI) and Kenya Seed Company (KSC)) account for over 90% of the PVP applications. Only 10% are from private or foreign entities. With respect to beans, French beans account for 56% of the PVP applications for all bean varieties that have been lodged for grant, with only one application for French beans emanating from a national public research institution. The rest of the French beans applications for PVP are either from foreign entities or their local subsidiaries. This can be attributed to the fact that French beans are an export crop. All PVP applications for the locally consumed bean variety-dry bean, mung bean, and runner bean are from public institutions- KARI and KSC confirming that the local beans market is of little if any interest to foreign entities.<sup>45</sup>

Although being a heavy user of the PVP system, little floriculture plant breeding is taking place at the domestic level. Virtually all the plant breeding is done in foreign countries (Louwaars et al., 2005) and the same case applies to French beans. PVP registration for floricultural products appears driven by the fact that Kenya is a major production source for these products for foreign markets. In itself Kenya offers an insignificant market for floricultural products and French beans. The extent to which local farmers other than the commercial horticultural farmers, courtesy of the PVP system have accessed foreign varieties is therefore questionable. If this objective has been met, it has been so met only partially and within a few crops, mostly those in the commercial sector dominated by floriculture, which is a forte of closed value chain systems, not those farming systems in which smallholder farmers participate.

### ***Meeting UPOV 1991 Standards: Conditions for Grant of PVP***

As they are currently framed the conditions for granting PVP appear to be more strict than those intended under UPOV 1991. This is in two ways. The first lies in the manner in which distinctness is proven. In determining whether a plant variety is distinct, the SPVA adopted the UPOV 1978 standards to establish common knowledge. Thus 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 standards for establishing common knowledge under UPOV 1991 are different. Under UPOV 1991, common knowledge is established in either of these two ways: the filing of an application for a grant of PVP or for the entering of another variety in the official register of varieties. Common knowledge therefore is narrower under UPOV 1991 than under UPOV 1978 meaning that establishing distinctiveness under UPOV 1991 requires a lower degree of threshold. Thus the Registrar of PVP is required to evaluate this condition from a broader reference base of other varieties than he would otherwise do in carrying out a similar examination under UPOV 1991 conditions.

The second way in which conditions for grant of PVP appear to be stricter than those under UPOV 1991 lies in the agro-ecological valuation test which candidate varieties have to undergo, in addition to fulfilling the NDUS criteria. For a variety to qualify for protection it must offer a useful characteristic beyond what is otherwise available. Given that the statute is silent on how the “agro-ecological value” is measured and the measure by which it must surpass the characteristic(s) of the existing varieties, this potentially presents an opportunity for farmer and indigenous varieties to be considered, in determining the agro-ecological value of candidate varieties for PVP. Given that farmer and indigenous varieties may be protected in other ways other than PVP, and their agro-ecological value may not be a factor for consideration in their mode of protection, this may create the impression that the protection system is designed in favor of farmer and indigenous varieties.

The PVP legislation as currently framed does not meet UPOV 1991 standards as the current conditions for protection in the PVP legislation are more and different than otherwise intended under UPOV 1991. This legislation cannot pass muster for Kenya to accede to UPOV 1991, the aspiration notwithstanding. UPOV Council will most likely request for the legislation to be revised prior to Kenya acceding to the Convention.

### ***Implementing Farmers’ Privilege***

Farmers’ privilege is an optional exception and it is a matter for each country a member of UPOV to decide whether it is appropriate to incorporate this provision in its national legislation.<sup>46</sup> Through the 2012 SPVA Amendment, Kenya has taken the decision to incorporate farmers’ privilege into its national legislation. The manner in which this provision is incorporated appears to not take cognizance of several issues that affect both farmers and breeders.

The first is the diversity of farming systems and practices in Kenya, which are mainly dominated by farmer-based seed systems in which seed saving and exchange between farmers is rampant. Because formal seed systems are often inefficient both in time and costs in providing seed to smallholder farmers, they tend to save their own harvests, exchange with their neighbours, and also purchase seed from local markets as a result. This is the case for most crops especially tuber crops such as Irish potato, sweet potato, and cassava, which are bulky and perishable. Ayieko and Tschirley (2006) have found that over 95% of planting materials for these crops are obtained from farm-saved sources.

Secondly, the farmers’ privilege provision as domesticated in the 2012 SPVA Amendment appears oblivious to the recommendation given by the 1991 Diplomatic Conference for the Revision of the International Convention for the Protection of New Varieties of Plants on its implementation. In the Conference, it was recommended that the farmers’ privilege provision, “should not be read so as to be intended to open the possibility of extending the practice ... to sectors of agricultural or horticultural production in which such as privilege is not a common practice on the territory of the Contracting Party concerned.”<sup>47</sup> The UPOV Council in its explanatory notes has interpreted the recommendation of the Diplomatic Conference to mean that farmers’ privilege was aimed at those crops where, for the member of the Union concerned, there was a common practice of farmers saving harvested material for further propagation. This implies that where the farmers’ privilege provision is adopted in a legislation it is possible to limit the extent and manner of its applicability. In fact, the farmers’ privilege provision as worded in UPOV 1991 connotes that where the restriction is in place this may be in relation to any crop, not on all crops. Countries therefore have a choice to at the very least, determine the varieties to which this provision may apply, as confirmed by the UPOV Explanatory Note.<sup>48</sup>

Further to the above, the first limb of the farmers’ privilege provision in the UPOV 1991 text and also imported into the 2012 SPVA Amendment requires that where this privilege is adopted, that it must be within reasonable limits and also subject to the safeguarding of the legitimate interests of the breeder. While UPOV 1991 does not provide a yardstick measure of what may constitute reasonable limits and also

how the legitimate interests of the breeder may be protected, UPOV Council has given some explanation on the issue. The Council has proposed a list of considerations that a country could make in safeguarding the legitimate interest of the breeder. These include type of variety; size of holding/crop area/crop value; proportion or amount of harvested crop; changing situations and evolution of farming practices; and the remuneration to the breeder.<sup>49</sup>

A number of countries have put some of these considerations into their legislations in implementing farmers' privilege. For example in the European Union, farmers are permitted to use protected material (other than hybrid or a synthetic variety) for propagating purposes on their own holdings for some fodder plants, cereals, potatoes, and oil and fiber plants.<sup>50</sup> Besides, the farmer must pay an equitable remuneration sensibly lower than the amount originally charged—the common figure across the European Community is 50% of the original price (Llewelyn and Adcock, 2006). Small farmers who are equally defined in the Community Regulation are exempted from paying any remuneration to the breeder. With the average land size for Kenyan farmers being two and half hectares, and over 98% of farm holdings being small (under ten hectares) (Society for International Development, 2006) certainly the country is a candidate to consider size of holding and crop area in implementing farmers' privilege provision.

Some farming practices in Kenya also fall aptly within the ambit of the considerations provided for by the UPOV Council (UPOV, 2009). In potato farming, unintentional saving of seed on-farm occurs in volunteer cropping. Because potato harvesting techniques by many farmers are not automated, there is a tendency to leave some potato tubers unharvested. After harvesting it is not in the practice of these farmers to apply glyphosate or other herbicide with a view to eliminate the unharvested tubers. When the unharvested tubers germinate, farmers tend not to uproot this volunteer potato crop depending on the other crop planted. The volunteer crop is seen as an additional source of food and income. Given that this saving of seed is a by-effect of harvesting practices and does not lead to marketing at any serious scale at the present, the practice should be considered to be in line with the farmers' privilege. However, because the 2012 SPVA Amendment as currently drafted does not give any specific consideration to any farming practices then this practice would constitute infringement of PVP if protected varieties are involved.

Finally, is the question of balancing the farmers' privilege provision with farmers' rights obligations under the IT. As at the time Kenya acceded to the IT in 2003 the SPVA was already in place. At the time practices such as saving, selling, and exchange of seed between farmers were already taking place and not explicitly prohibited under the SPVA as long as it was not on a commercial scale. The fact that the SPVA was not amended to prohibit these activities with respect to protected varieties can be assumed to have been an implicit recognition and implementation of its farmers' rights obligations under the IT. Now some aspects of farmers' rights such as exchange and selling of seed from protected material are expressly prohibited. This prohibition can only be seen as a limitation of farmers' rights and not only with respect to seed selling and exchange, but also in other areas. This argument is amplified by the fact that of the list of farmers' rights practices that are enumerated under article 9 of the IT, only protection of indigenous knowledge associated with indigenous species is specifically mentioned in the 2012 SPVA Amendment as one of the core functions of the NPGRC. The right to equitably participate in sharing benefits arising from utilization of PGRFA and the right to participate in making decisions, at the national level on matters related to the conservation and sustainable use of PGRFA are specifically not addressed in the 2012 SPVA Amendment. While sharing of benefits arising from utilization of genetic resources generally is addressed in the biodiversity legislation,<sup>51</sup> the fact that PGRFA specific legislation regulating access has now been put in place puts in doubt the extension and application of the biodiversity legislation to PGRFA matters. The Indian PVP legislation again may provide inspiration to Kenya in seeking ways of balancing farmers' privilege and farmers' rights. Section 39 of the Indian PVP legislation allows farmers to save, use, sow, resow, exchange, share, and sell farm produce of a protected variety except sale

of branded seeds under a commercial market arrangement. Further farmers are not only protected from innocent infringement, but can also through the legislation claim for compensation where a protected variety fails to give the expected yield under given conditions, as may be claimed by the breeder of the variety.

## Conclusion

This article has analyzed the Kenyan PVP regime against international obligations in relation to smallholder farmers in Kenya. It finds that whereas the objective of amending the PVP regime has been to comply with UPOV 1991, this objective is not entirely met. Not fulfilled entirely also is the initial objective of introducing PVP legislation to Kenya: to enable local farmers access, high value more yielding foreign varieties. The process of fulfilling the aspirations to comply with UPOV 1991 is also constitutionally questionable for not having followed the laid out procedures. At the national level, the 2012 SPVA legislation stands at the risk of an unconstitutional founding while at the international level, risks being found to be non-compliant with UPOV 1991, akin to an earlier finding in 1998 relating to the SPVA prior to Kenya acceding to UPOV 1978.<sup>52</sup>

In the process of complying with UPOV 1991, the 2012 SPVA Amendment seems oblivious to other international obligations in place, particularly those concerning farmers' rights as imposed by the IT. Thus previously de facto permissible activities such as seed selling and exchange by farmers from their own harvests are now prohibited. Seed saving is also allowed subject to conditions that have not been elaborated. Yet, other countries that have brought their legislations in line with UPOV 1991 have still found ways to accommodate the interests of various categories of farmers and different seed systems that are in place. While innovatively, the legislation on one hand provides for protection of indigenous seeds and plant varieties, on the other hand, it fails to elaborate mechanisms in which this protection may be actualized, and in a manner that also takes into account the PVP system in place.

The fact that the 2012 SPVA Amendment faces the risk of a judicial rejection at the national level, and internationally of non-compliance with UPOV 1991 presents a chance for its review. Such a review would provide an opportunity for all international obligations that Kenya is a party to as well as implications that the legislation may have on smallholder farmers to be taken into account.

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## Notes

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1. (1970) "Statement of Allenby L. White, Chairman Breeders' Rights Study Committee, American Seed Trade Association." In U.S. Senate, 1970. Washington, DC: USGPO.
2. E.g. the 1883 Paris Convention for the Protection of Industrial Property and the 1886 Berne Convention for the Protection of Literary and Artistic Works both administered by WIPO.
3. Article 8.1 of TRIPS is instructive herein: It provides that, "Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest

- in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement.”
4. The African Regional Intellectual Property Organization (ARIPO) and the South African Development Community (SADC) are each developing a regional PVP system for its members.
  5. The Industrial Property Act (Cap 506) (repealed).
  6. Of the 71 members of UPOV, 48 are industrialized countries.
  7. Farmers' privilege under the UPOV system does not include such elements as the rights of participation or right to benefit sharing. The privilege that UPOV aims to provide to farmers, generally as an exemption to the rights of plant breeders is meant enable farmers to save seeds harvested from proprietary crops planted in the previous season and use them in their own holdings during the next planting season.
  8. Article 15(2) of UPOV 1991.
  9. Article 9.2 of the IT.
  10. Article 9.3 of the IT.
  11. The Swynnerton Plan (1954) and the East African Royal Commission Report (1955) are examples of these policies. Implementation of the former led to increased financial and technical support to the East African Agricultural Research Institute. The later was a catalyst to the revision of the Agriculture Ordinance (1955) “with a view to promote...maintain...and stimulate the development of agricultural land in accordance with accepted practices of good land management and good husbandry.”
  12. In the UK the Plant Varieties and Seeds Act was enacted in 1964 a year after Kenya became independent. Thereafter, the UK became a party to UPOV in 1968.
  13. The SPVA was modeled on the UK Plant Varieties and Seeds Act (1964), which mirrored on the UPOV 1961.
  14. Published on 25 November 1994 in the Official Kenya Gazette Supplement No. 73 of 25 November 1994.
  15. KEPHIS was established as a state corporation by the Presidential Order, the Kenya Plant Health Inspectorate Service Order, 1996 (Legal Notice No. 305 of 1996). In 2012, KEPHIS was re-established under a statute, the Kenya Plant Health Inspectorate Service Act (No. 54 of 2012). The statute is yet to enter into force.
  16. The first applications for PVP were made on 22 January 1996 and all related to rose flowers.
  17. Act No. 13 of 2008.
  18. Section 2 of the Anti Counterfeit Act (2008) defines counterfeiting broadly to include taking the following actions without the authority of the owner of IPRs (which are defined to include PVP) subsisting in Kenya or elsewhere: “ (a) the manufacture, production, packaging, re-packaging, labeling, or making whether in Kenya or elsewhere, of any goods whereby those protected goods are imitated in such a manner and to such a degree that those other goods are identical or substantially similar copies of the protected goods; (b) the manufacture, production or making, whether in Kenya or elsewhere, the subject matter of that intellectual property, or a colourable imitation thereof so that the other goods are calculated to be confused with or to be taken as being the protected goods of the said owner or any goods manufactured, produced or made under his licence;...”
  19. Memorandum of Objects and Reasons to the Seeds and Plant Varieties (Amendment) Bill, 2011 dated 28 November, 2011.
  20. Kenya Parliament Hansard, 15 August 2012.
  21. Commission for the Implementation of the Constitution. 2012–2013 Annual Report. Three years after promulgation: Tracking devolution.
  22. Article 260 of the Constitution provides that, “In this Constitution, unless the context requires otherwise-“property” includes any vested or contingent right to, or interest in or arising from...intellectual property...”
  23. Article 40, The Constitution of Kenya (2010).
  24. Article 69(1)(c), The Constitution of Kenya (2010).
  25. The United States Supreme Court has defined a self-executing treaty as one for which no domestic legislation is required to give it the force of law. See *Trans World Airlines, Inc. v. Franklin Mint Corp.*, 466 U.S. 243, 252 (1984).

- Where the treaty is silent as to its self-executing character, account must be taken of any statement by the President in concluding the agreement or in submitting it to the Senate for consent or to the Congress as a whole for approval, and of any expression by the Senate or by Congress in dealing with the agreement. See RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 111(4) (1987).
26. A private right is a right that accrues to an individual. A private right of action allows an individual to seek a remedy from a court for the violation of a private right provided by a treaty. For a detailed distinction between a private right and a private right of action, see David Sloss, *When Do Treaties Create Individually Enforceable Rights? The Supreme Court Ducks the Issue in Hamdan and Sanchez-Llamas*, 45 COLUM.J.TRANSNAT'L L. 20, 101-102(2006).
  27. Section 27A of the Seeds and Plant Varieties (Amendment) Act, 2012.
  28. Article 7 of UPOV 1991 and article 6 of UPOV 1978.
  29. Article 6 (1)(a) of UPOV 1978.
  30. Article 6(1)(c) of UPOV 1978.
  31. Article 6(1)(d) of UPOV 1978.
  32. Article 6 of UPOV 1978.
  33. Schedule 4 Part II of Seeds and Plant Varieties Act (1972).
  34. Section 17(1) of the Seeds and Plant Varieties Act (1972).
  35. Section 14 of the Seeds and Plant Varieties (Amendment) Act (2012).
  36. Section 20 (1)(a) of the Seeds and Plant Varieties Act (1972).
  37. Fifth Schedule of the Seeds and Plant Varieties Act (1972).
  38. Section 17 of the Seeds and Plant Varieties (Amendment) Act, 2012.
  39. From authors' field research.
  40. Article 8 of TRIPS.
  41. EU Commission Directive No. 2008/62/EC of 20 June 2008 providing for certain derogations for acceptance of agricultural landraces and varieties which are naturally adapted to the local and regional conditions and threatened by genetic erosion and for marketing of seeds and seed potatoes for those landraces and varieties.
  42. Act 10 of 2004.
  43. Indian Protection of Plant Varieties and Farmers' Rights of 2001.
  44. Authors' own analysis.
  45. Authors' own analysis of information available as at February 2013.
  46. UPOV/EXN/EXC/1. Explanatory Notes on Exceptions to the Breeder's Right Under the 1991 Act of the UPOV Convention.
  47. International Union for the Protection of New Varieties of Plants, (1992) *Records of the Diplomatic Conference for the Revision of the International Convention for the Protection of New Varieties of Plants*, UPOV, Geneva.
  48. *Ibid*, note 45.
  49. *Ibid*, note 45.
  50. Article 14 of Council Regulation (EC) No. 2100/94 on Community Plant Variety Rights.
  51. Environmental Management and Co-ordination (Conservation of Biological Diversity, Access to Genetic Resources and Benefit Sharing) Regulations, 2006.
  52. UPOV (1996), Examination of the Conformity of the Legislation of Kenya with the UPOV Convention (Geneva: International Union for the Protection of New Varieties of Plants), C/30/13.

## References

Act of 1961/1972 International Convention for the Protection of New Varieties of Plants adopted by the Diplomatic Conference on December 1, 1961 and additional Act of November 10, 1972, amending the International

- Convention for the Protection of New Varieties of Plants adopted by the Diplomatic Conference on November 10, 1972. Available at [www.upov.int/export/sites/upov/upovlex/en/conventions/1961/pdf/act1961.pdf](http://www.upov.int/export/sites/upov/upovlex/en/conventions/1961/pdf/act1961.pdf) (Accessed in February 2015).
- Act of 1978 International Convention for the Protection of New Varieties of Plants of December 2, 1961 as Revised at Geneva on November 10, 1972, and on October 23, 1978. Available at [www.upov.int/export/sites/upov/upovlex/en/conventions/1978/pdf/act1978.pdf](http://www.upov.int/export/sites/upov/upovlex/en/conventions/1978/pdf/act1978.pdf) (Accessed in February 2015).
- Act of 1991 International Convention for the Protection of New Varieties of Plants of December 2, 1961 as Revised in Geneva on November 10, 1972, on October 23, 1978, and on March 19, 1991. Available at [www.upov.int/export/sites/upov/upovlex/en/conventions/1991/pdf/act1991.pdf](http://www.upov.int/export/sites/upov/upovlex/en/conventions/1991/pdf/act1991.pdf) (Accessed in February 2015).
- Andersen R. (2005) *The History of Farmers' Rights: A Guide to Central Documents and Literature*. Lysaker: The Fridtjof Nansen Institute.
- Ayieko W.A., Tschirley D.L. (2006) Enhancing Access and Utilization of Quality Seed for improved Food Security in Kenya [online]. Tegemeo Institute of Agricultural Policy and Development. Available at [http://www.tegemeo.org/images/downloads/Working%20papers/tegemeo\\_workingpaper\\_27.pdf](http://www.tegemeo.org/images/downloads/Working%20papers/tegemeo_workingpaper_27.pdf) [Accessed in December 2013].
- Bocci R. (2009) Seed Legislation and agrobiodiversity: Conservation varieties. *Journal of Agriculture and Environment for International Development* 103 (1/2): 31–49.
- Commission for the Implementation of the Constitution. 2012–2013 Annual Report. Three years after Promulgation: Tracking Devolution.
- De Jonge B. (2011) What is fair and equitable benefit-sharing? *Journal of Agricultural and Environmental Ethics* 24: 127–146. doi: 10.1007/s10806-010-9249-3
- Devarajan S., Kasekende L.A. (2011) Africa and the global economic crisis: Impacts, policy responses and political economy. *African Development Review* 23: 421–438. doi: 10.1111/j.1467-8268.2011.00296.x
- Dixon G.E. (1960) A review of wheat breeding in Kenya. *Euphytica* 9: 209–2021.
- FAOSTAT online database [online]. Food and Agriculture Organization of the United Nations. Available at <http://faostat.fao.org> [Accessed in December 2013].
- Fowler C. (1994), *Unnatural Selection. Technology, Politics and Plant Evolution*. Yverdon: Gordon and Breach.
- Gerald M., Witold T. (2005) *Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture*. Switzerland and Cambridge, UK: IUCN, Gland, pp. Xii+212.
- Hermitte M.A., Kanh P. (2004) Les Ressources Genetiques Vegetales et le Droit dans les Rapports Nord-sud. Travaux du Centre Rene-Jean Dupuy pour le Droit et le Developpement et du Centre de Recherche sur le Droit des Sciences et Techniques , v. II Bruylant.
- International Union for the Protection of New Varieties of Plants. (1992) Records of the Diplomatic Conference for the Revision of the International Convention for the Protection of New Varieties of Plants, UPOV, Geneva. 1991 UPOV Publication No.346 (E).
- Llewelyn M., Adcock M., (2006) *European Plant Intellectual Property*. Oxford: Hart Publishing.
- Louwaars N., Tripp R., Eaton D., Henson-Apollonio V., Hu R., Mendoza M., Muhhuku F., Pal S., Wekundah J. (2005) *Impacts of Strengthened Intellectual Property Rights Regimes on the Plant Breeding Industry in Developing Countries: A Synthesis of five case Studies*. Centre for Genetic Resources, Wageningen, The Netherlands.
- Louwaars N., Dons H., van Overwalle G., Raven H., Arundel A., Eaton D., Nelis A. (2009) Breeding Business: the future of plant breeding in the light of developments in patent rights and plant breeders' rights. Centre for Genetic Resources, the Netherlands (CGN), Wageningen. CGN Report 2009–14 (EN).
- Mooney P. (1979) *Seeds of the Earth: A private or Public Resource?* Ottawa: Inter Pares.
- Munyi P., De Jonge B. (2015). Seed systems support in Kenya: Consideration for an Integrated Seed Sector Development Approach. *Journal of Sustainable Development* 8 (2).
- Pinto F.F., Hurd. E.A. (1970) 70 Years with wheat in Kenya. *East African Agriculture and Forestry Journal* 36 (Special Issue): 1–24.

- Prifti V (2013) The Breeding Exemption in Patent Law: Analysis of Compliance with Article 30 of the TRIPS Agreement. *The Journal of World Intellectual Property* 16 (5–6): 218–239.
- Rangnekar D. (2013) Geneva Rhetoric, National Reality: The Political Economy of Introducing Plant Breeders' Rights in Kenya. *New Political Economy* doi: 10.1080/13563467.2013.796445
- Lettington R. (2003) Small-scale Agriculture and the Nutritional Safeguard under Article 8(1) of the Uruguay Round Agreement on Trade-Related Aspects of Intellectual Property Rights: Case Studies from Kenya and Peru [online]. International Centre for Trade and Sustainable Development. Available at <<http://ictsd.org/downloads/2008/06/lettingtonfinaldraft.pdf>> Accessed in December 2013.
- Salazar R., Louwaars N.P., Visser B. (2007) Protecting farmers new varieties: New approach to rights on collective innovations in plant genetic resources. *World Development* 35 (9): 1515–1528.
- Santilli J. (2012) *Agrobiodiversity and the Law: Regulating Genetic Resources, Food Security and Cultural Diversity*. Oxford: Earthscan.
- Society for International Development (2006) Readings on Inequality in Kenya: Sectoral Dynamics and Perspectives. Society for International Development Eastern Africa Regional Office, Nairobi.
- Torremans P.L.C. (2008) *Intellectual property and Human Rights, Enhanced Edition of Copyright and Human Rights*, The Hague: Kluwer Law International BV.
- UPOV/EXN/EXC/1. (2009) Explanatory Notes on Exceptions to the Breeder's Right Under the 1991 Act of the UPOV Convention.
- UPOV (1996) Examination of the Conformity of the Legislation of Kenya with the UPOV Convention (Geneva: International Union for the Protection of New Varieties of Plants), C/30/13.
- Watal J. (2000) *Intellectual Property Rights in the WTO and Developing Countries*. The Hague: Kluwer Law International BV.