

# Original citation:

Rangnekar, Dwijen. (2013) Geneva rhetoric, national reality: the political economy of introducing plant breeders' rights in Kenya. New Political Economy. ISSN 1356-3467

#### **Permanent WRAP url:**

http://wrap.warwick.ac.uk/55437

# Copyright and reuse:

The Warwick Research Archive Portal (WRAP) makes this work of researchers of the University of Warwick available open access under the following conditions.

This article is made available under the Creative Commons Attribution 3.0 Unported (CC BY 3.0) license and may be reused according to the conditions of the license. For more details see: <a href="http://creativecommons.org/licenses/by/3.0/">http://creativecommons.org/licenses/by/3.0/</a>

# A note on versions:

The version presented in WRAP is the published version, or, version of record, and may be cited as it appears here.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk





# Geneva Rhetoric, National Reality: The Political Economy of Introducing Plant Breeders' Rights in Kenya

# **DWIJEN RANGNEKAR**

The article is about implementing obligations under Article 27.3(b) of the Agreement on Trade Related Aspects of Intellectual Property (TRIPS). However, concerned with the fragmentation of international law in a globalised world, the article uses Kenya as a case study to interrogate the apparent choice and latitude in Article 27.3(b). At the TRIPS Council, Kenya has sought to locate Article 27.3(b) within a wider frame by adroitly norm-borrowing, and it canvassed for integrating norms and principles from other multilateral agreements into TRIPS. Yet, when introducing plant breeders' rights into domestic law, Kenya fails to either explore the apparent latitude or deliver on its rhetoric in Geneva. I explain this decoupling between Geneva rhetoric (ritual) and domestic law (behaviour) as another symptom of what Steinberg [(2002), 'In the Shadow of Law or Power? Consensus-Based Bargaining and Outcomes in the GATT/WTO', International Organization, 56 (2), pp. 339–74)] characterises as 'organised hypocrisy' of the World Trade Organisation. In demonstrating that fragmentation in global legal architecture may not automatically emerge in domestic law, the article draws out the significance of attending to a domestic political economy of law-making.

**Keywords:** TRIPS Agreement, plant breeders' rights, Kenya, international law, regime-shifting

#### Introduction

At a *prima facie* level, this article is about implementing obligations to the Agreement on Trade Related Aspects of Intellectual Property (TRIPS)<sup>1</sup> into the architecture of domestic law. Though, in re-directing attention away from Geneva and towards national capitals, the article is animated by questions concerning law-making in the Global South. Sassen (2000) recognises how contemporary forms of

Dwijen Rangnekar, School of Law, University of Warwick, Coventry CV4 7AL, UK. Email: d.rangnekar@warwick.ac.uk

<sup>© 2013</sup> The Author(s). Published by Taylor & Francis

globalisation reconfigure institutional encasement of national territory, which Slaughter (1997) frames as the unbundling of the state into its separate functional units. An unbundling accompanied by a proliferation of transglobal networks heralds, as Scholte (2005) explicates, a multi-layered transglobal governance. In the area of intellectual property (IP), not uniquely though, a proliferation of forums has occurred, which suggests a fragmentation of international law premised, to an extent, upon the collision between conflicting regimes based on contrasting norms (Fischer-Lescano and Teubner 2004). In this regard, the signing of the Marrakesh Agreement establishing the World Trade Organisation (WTO) in 1994 is a watershed. Even as all actors have expressed grievances about the WTO, Chimni (2006: 5) explains that these are not of comparable weight or concern; rather, the institution emerges to 'sustain the global capitalist order to the advantage of an emerging transnational capitalist class'. Notable particular features of the WTO include its single undertaking, which bundles together all areas of negotiations, and the timebound and binding dispute settlement process with provisions for cross-sector sanctions. Additionally, there is the timetabled implementation of obligations which are overseen by TRIPS Council's constant surveillance. Yet, the WTO is a membershipbased organisation, which is rule-structured and consensus-driven. Hence, Steinberg's (2002) double puzzle as to why 'strong' states trouble themselves with consensus-based decision-making in international organisations having dominated the negotiations and benefited thereof, and why 'weak' states continue to participate? Steinberg's explanation resides in characterising WTO as exhibiting 'organised hypocrisy' of sovereign equality in decision-making. To explain, organised hypocrisy is located in the decoupling of patterns of behaviour from the performance of rituals. In differentiating between law-based and power-based negotiations, Steinberg identifies procedural fictions of consensus-based decision-making and sovereign equality, which simultaneously placate domestic audiences to secure democratic legitimacy while also promoting internal purchase among member states.

With respect to these accounts, TRIPS Article 27.3(b) is an (apparent) anomaly. The negotiating history reveals a rare instance of intra-Quad difference. Rather than be prescriptive in its obligation and promote the project of harmonising global law, Article 27.3(b) offers choice: member countries are obliged, inter alia, to 'provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof'. Compared to provisions for patents or copyright, there are neither textual references to nor an obligations for joining a preexisting international treaty dealing with plant varieties, the Union Internationale pour la Protection des Obtentions Végétales (International Union for the Protection of New Varieties of Plants, UPOV). Thus, countries have considerable latitude and space to be legally imaginative as they implement this obligation, which makes it ripe for forum-shopping for norms that might ameliorate some of the adverse implications of introducing IP in plant varieties. Policy-focused interventions elaborate legal choice (e.g. Leskien and Flitner 1997; Commission on Intellectual Property Rights 2002; Rangnekar 2002). Civil society organisations have urged the Global South to disregard the UPOV model and norm-borrow from other multilateral treaties (e.g. Gaia Foundation and GRAIN 1998) and take inspiration from the African Model Law (Ekpere 2000). While this may portend disharmony, implementation of Article 27.3(b) reveals a different picture as countries from the Global South have

tended to mimic UPOV's architecture and many have become members too. This outcome, with its absence of disharmony, of implicit/explicit adherence to UPOV can, this article hopes, be explained through a detailed interrogation of Kenya's implementation of plant breeders' rights (PBRs).

There are particularly good reasons supporting my choice of Kenya as a case study. At the TRIPS Council, it is a key interlocutor for the Global South, in general, and the Africa Group, specifically. In its submissions, which are analysed here, Kenya<sup>2</sup> has regularly advocated against introducing IP in plant varieties and has skilfully forum-shopped and norm-borrowed. Its bold rhetoric at Geneva has led some observers, such as Sell (2003: 140–45), to conclude – though mistakenly - that Kenya is designing a distinctly different *sui generis* law. Kenya is substantially integrated into global supply chains in horticulture and floriculture and these sectors have export significance, while the country also has a considerable farming and rural population. These constituencies place differing pressures on legislators and there is no a priori reason to assume they are either consistent or overlapping. Studying Kenya's implementation can illuminate the conundrum about the apparent latitude in Article 27.3(b) and allow speculation on domestic law-making. As such, the article also acts as a reminder that a Steinberg-like decoupling between rituals (Geneva rhetoric) and behaviour (domestic law-making) is equally contingent on power asymmetries that seep into domestic law-making.

I begin my exercise with an overview of the global architecture of IP law concerning plant varieties as a way to identify the mix of contrasting norms and principles that circulate in different regimes. This is followed with a mapping of Kenya's position on Article 27.3(b). Using submissions to, and minutes of, the TRIPS Council, the section draws attention to Kenya's consistent expression for restoring distributive justice and equity. The article then proceeds to examine how this rhetoric has been translated into domestic law by Kenya – or for that matter, whether the rhetoric bears on domestic law-making. The remainder of the paper discusses my observation of a decoupling between Geneva rhetoric (ritual) and national law-making (behaviour).

#### Global IP architecture and plant varieties

While humankind's manipulation of plant genetic resources has a long history, securing control through intellectual property rights (IPRs) is a late nineteenth-century phenomenon, though linked to a colonial proliferation of botanical gardens (Mooney 1983: 84–8). The normalisation of IPRs in plants has had to contend with doctrinal issues of law (e.g. whether plant varieties are 'discovered' or 'manufactured') and political concerns (e.g. food prices, impact on farmers), among others (van Overwalle 1999; Pottage and Sherman 2007). Concerns about biodiversity loss and distributional justice generate a polycentric and fragmented global IP architecture (Table 1).

The Agreement on Trade-Related Aspects of Intellectual Property

The TRIPS Agreement, as part of the Single Undertaking establishing the WTO, heralds a new phase of transglobal governance (Braithwaite and Drahos 2000).

TABLE 1. The global IP complex in plants

	UPOV	CBD	ITPGR
Principal actors	Global North (inc. Australia, Canada, EU, USA); NGOs (inc. ASTA, ASSINSEL, CIOPORA)	Global South (inc. China, India, G77 and select African countries); NGOs (inc. Greenpeace, CIEL, WWF)	Global South (inc. Mexico, select Latin American and African countries, Caribbean countries, India) NGOs (inc. Via Campesina, GRAIN, ETC)
Primary regime principles	Promote an effective system of IP protection in plant varieties; encourage development of new plant varieties	Conservation and sustainable use of biodiversity; sovereignty over genetic resources; access and benefit- sharing arrangements	(Limited) common heritage (PGRs for food and agriculture treated as public goods); sustainability and Farmers' Rights
Response to TRIPS agenda	Initially concerned at loss of jurisdiction; keenly cooperative on promoting UPOV as 'effective <i>sui generis</i> ' system for Article 27.3(b)	Accommodative acceptance of IPRs to secure treaty objectives; balancing act	Initially opposed to IPRs; accommodative acceptance of IPRs with securing a public domain and multilateral system of access and exchange
Principles, norms and rules in response to TRIPS	Sui generis system for protecting IPRs in plant varieties; possibilities for co-existence of patents and PBRs; optional exemption for reusing saved seeds; provisions for breeders' exemption; opposed to disclosure of origin and common heritage	Sovereignty over genetic resources; <i>sui generis</i> system for protecting/ rewarding biodiversity-related traditional knowledge; revising IP rules (e.g. disclosure of origin) to enable norms of prior informed consent and access and benefit sharing	Sovereignty over PGRs (in situ); Farmers' Rights; no IPRs on PGRs in international seed banks (ex situ); multilateral system to facilitate access to PGRs of select food and feed crops
Kenya's membership	_	Party to Convention since July 1994 and to the Protocol since September 2003	Acceded to Treaty in April 2003

Source: Helfer (2004) and author's additional inputs.

Note: ITPGR, International Treaty on Plant Genetic Resources.

Illustrating through patents, Article 27 introduces an expansive obligation for non-discrimination which eliminates previously available sovereign flexibility to determine the ambit of patentability (e.g. exclusion of pharmaceutical products) or modulate the scope of protection (e.g. shorter term of protection) (UNCTAD and ICTSD 2005: 350–60).

Article 27.3 is a *non-mandatory* exception to patentability that allows the exclusion of plants and animals other than microorganisms, while paragraph (b) raises an obligation for the 'protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof', a rare instance of intra-Quad dissonance, though, not on IPRs per se, but on the choice of instruments of IPRs. Moreover, unlike other TRIPS provisions, there is no mention of any pre-existing treaties, such as UPOV for its *sui generis* framework, either as a template or for ratification. Commenting on this brevity, Gervais (1998: 147–52) fails to find insights from drafting texts; however, Watal (2000: 14), a participant to the negotiations, explains that 'a reference to UPOV 1978 was considered inadequate, while a reference to UPOV 1991 was considered premature' as it had not entered into force.

Early on, there was general agreement between legal scholars (Correa 1994; Verma 1995; Leskien and Flitner 1997) and the TRIPS Secretariat (Otten 1996) of the possibilities of disharmony. Illustratively, the Crucible Group (1994: 53) observed that the *sui generis* option 'may offer a wider range of policy choices because it could, presumably, include any arrangement for plant varieties that offers recognition to innovators – with or without monetary benefit or monopoly control'. Notwithstanding this opinion, there is little disagreement that a sui generis system must provide an IPR, be consistent with principles of national treatment and most-favoured nation and remain 'effective'. However, the architecture remains open on substantive features, such as how the rights are constituted, either in terms of transactions (e.g. stocking, replanting) or with respect to component(s) of a plant variety (e.g. seeds). It is also possible, mimicking UPOV, that rights granted in different species and genera be differentially constituted (IPGRI 1999; Rangnekar 2002). There is sufficient ambiguity in Article 27.3(b) to debate whether protection must be *immediately* extended to all species (Leskien and Flitner 1997) or be iteratively widened (Rangnekar 2002).

# The FAO's International Treaty on Plant Genetic Resources for Food and Agriculture<sup>4</sup>

The International Treaty originates in efforts coalescing in 1983 to establish FAO's non-binding International Undertaking on Plant Genetic Resources (henceforth, the Undertaking). The Undertaking was concerned with genetic erosion in agriculture and ownership of and dispositional rights to genetic resources (Stenson and Gray 1999) and framed genetic resources as the 'common heritage of mankind' to be 'available without restriction' (the Undertaking, Article 1). Stipulating that 'samples will be made available free of charge, on the basis of mutual exchange or on mutually agreed terms' (the Undertaking, Article 5). These norms were gradually chiselled away. Resolution 4/89<sup>5</sup> clarified that PBRs were compatible with the Undertaking and that 'free access' did not mean 'free of charge', while Resolution 5/89<sup>6</sup> introduced the notion of Farmers' Rights as 'rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources'. Resolution 3/91, affirming that common heritage is subject to national sovereignty, brought the Undertaking in line with the Convention on Biological Diversity (CBD) (see

below); thus, initiating the re-negotiation of the Undertaking as a binding treaty: the International Treaty in 2001.

In instituting an international genetic resources commons, the International Treaty is a 'spirited response' to the simultaneous widening of private rights and sovereign control (Halewood and Nnadozie 2008). Differing from the CBD's bilateral approach, the International Treaty proceeds to develop a multilateral system of exchange (Aoki and Luvai 2007: 49), such as Standard Material Transfer Agreements (Halewood and Nnadozie 2008, for a discussion). Provisions also seek to prohibit IPRs being claimed on material 'in the form received from the multilateral system' (International Treaty, Article 12.3(d)). While the Governing Body is to clarify the bright lines, the USA, the EU, Canada, and Australia entered statements in the official record that the Treaty does not conflict with IPRs as set out in agreements like TRIPS (Helfer 2005: 217); though the provenance of such statements remains questionable.

The International Treaty sediments Farmers' Rights into the architecture of global IP law in language reminiscent of the Undertaking. Broadly framed as a socio-political right, such as a right to participate in decision-making (cf. Article 9.2), it also includes rights to 'save, use, exchange and sell farm-saved seed/propagating material, subject to national law' (Article 9.3). Historically, Farmers' Rights have been seen as a 'counterbalance' to IPRs and have been informed by different values, such as reward, recognition and stewardship (Halewood and Nnadozie 2008). However, in leaving the rights to national governments for implementation, Aoki and Luvai (2007: 52–4) consider the Treaty a 'vague commitment' to Farmers' Rights. Yet, the *idea* of Farmers' Rights continues to circulate (cf. Helfer, 2004) and enactment in national law, such as in India, provides testimony to possibilities.

# The International Union for the Protection of New Varieties of Plants

UPOV is the result of two European motive forces: a post-war project of regulatory harmonisation and a campaign by plant breeders to secure patent protection in plant genetic resources. From the 1930s, seed merchants and plant breeders<sup>8</sup> campaigned for plant varieties to be patentable subject matter, but had to contend with 'anti-patent currents' in Europe (Bent *et al.* 1987: 67). Sealing this failure was Strasbourg Convention's mandatory exclusion of plant varieties. A search for alternatives concluded in 1961 with establishing the UPOV and its *sui generis* PBRs system (Heitz 1987; Pistorius and van Wijk 1999).

The Convention has been revised thrice, a minor revision in 1972 and major revisions in 1978 and 1991, achieving a widening enclosure of the seed. By 1991, PBRs have become more patent-like (Lange 1993). Articles 14–19, in the 1991 Act, construct PBRs with an articulated list of transactions (e.g. conditioning for propagation, stocking) with respect to different component parts of a plant variety (e.g. harvested material) (Rangnekar 1999). Significantly, the 1991 Act also withdraws a 'ban on dual protection'; thus, member countries can protect plant varieties with a patent and/or PBRs.

The UPOV (2005) Secretariat is proud of its expanding membership in the Global South and declaims positive economic benefits of PBRs. 11 From its

European origins in 1961, it now boasts of 68 members. Even without being scripted in TRIPS, it has witnessed tremendous purchase in the Global South with at least 35 members joining after 1994; though this may be promoted by TRIPS-plus measures in bilateral treaties signed with either the European Commission (EC) or USA (GRAIN and SANFEC 2001; Dutfield 2008). 12

In terms of farmers, there are two relevant concerns for this article. First, whether saving/exchanging and selling seeds, which earlier versions of UPOV remained silent on, constitute an infringement of PBRs. Negotiating the 1991 revision, the UPOV (1986) Secretariat takes cognition of the controversy at hand: 'The possibility of "saving seed" is of great importance for agriculture and it is doubtful whether it would be politically feasible at present to restrict this right in all countries.' The 1991 Act, classifying this as a farmers' *privilege*, leaves it an optional exclusion for members to consider 'within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder' (Article 15(2)).

Second is the construction of PBRs and its consequence for the aspiration of farmers for authorial recognition. At issue are the conditions for grant of protection, christened a 'snap-shot' requirement (Bent *et al.* 1987), and they privilege a fixity of distinguishing characteristics and seek distinctness, uniformity and stability (DUS) (Rangnekar 2002: 37–8):

- Distinctness (Article 7): <sup>13</sup> The variety must be 'clearly distinguishable from any other variety whose existence is a matter of common knowledge' at the time when protection is applied for; thus aimed at inter-varietal identification.
- Uniformity (Article 8): The variety must be sufficiently uniform in its distinguishing characteristics, such that different individuals of the same variety are reasonably similar; thus, aimed at intra-varietal uniformity.
- Stability (Article 9): The variety must be stable in its distinguishing characteristics, that is, it remains 'unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle'; thus aimed at temporal varietal identification.

As farmers' varieties and landraces tend to be heterogeneous and possess inherent variability, countries that adhere to or mimic UPOV will be constraining farmers an opportunity of authorial recognition.<sup>14</sup>

#### The Convention on Biological Diversity

Little doubt that postcolonial concerns about the ownership of and dispositional rights to genetic resources are politically salient to the CBD (Stenson and Gray 1999: 15). An exemplar of forum-shifting, the CBD brings together norms such as conservation, sustainable development and access to and transfer of technology (Glowka *et al.* 1994). Historically, it 'can be understood as the latest salvo by some developing countries in their attempts to bring balance to the world economic system' (Bragdon *et al.* 2008: 102).

Three objectives frame CBD: the conservation and sustainable use of biological diversity; the fair and equitable sharing of benefits arising out of the use of these

resources and the preservation of indigenous knowledge (Article 1). Premised on state sovereignty in genetic resources, it recognises these resources are a common concern of humankind (Article 3) and circumscribed by provisions for traditional knowledge (Article 8j) (Bragdon *et al.* 2008). The IP-relevant provisions are in Article 16 and the relationship with TRIPS is complex and politically complicated (Tarasofsky 1997). Recognising that the functioning of the IP system may influence implementation, it obliges member to ensure IPRs are 'supportive of and do not run counter to' the treaty's objectives (Article 16(5)). Article 16(2) states that the transfer of technologies must be consistent with 'the adequate and effective protection of intellectual property rights'. Though suggestive of TRIPS accommodation, Helfer (2004: 31–2) notes that a number of Northern countries (i.e. UK, France, Italy and Switzerland) ratified the Convention subject to interpretative statements concerning these provisions.

For my concerns, negotiations to implement Article 8(j) are pertinent. Following an information gathering process (in 2000), the Bonn Guidelines<sup>17</sup> were adopted by the Conference of Parties in April 2002 (Bragdon *et al.* 2008). These give essence to CBD's principles of prior informed consent and access and benefit sharing while seeking to resolve cross-border differences in regulatory architecture. Frustrated with the voluntary nature of these Guidelines, a group of mega-diverse developing countries have achieved binding rules through the Nagoya Protocol on Access and Benefit Sharing (2010), which Bavikatte and Robinson (2011) characterise as a moment of subaltern cosmopolitanism.

# Kenya's Geneva rhetoric

At the TRIPS Council, Kenya has been and remains a leading interlocutor for the Africa Group of countries, specifically, and the Global South, in general. Testimony to this leadership is its sustained interventions in the access to medicine debate which led to the Doha Declarations (WTO 2001) and the decision of August 2003 (WTO 2003). Presenting a strong normative argument for relaxing TRIPS provisions (WTO 2002b), Kenya also authored the Africa Group position (WTO 2002a). The crucial meetings in August 2003 that brokered the resolution saw Kenya sitting in attendance with Brazil, India, South Africa and USA.

In a similar vein, Kenya occupies a position of leadership on Article 27.3(b). In the mandated 1999 review, Kenya sought to widen the frame of reference by adroitly introducing counter-norms. In July 1999, Kenya called for a 'full review' examining the link between IPRs and biodiversity, Farmers' Rights, and community rights (WTO 1999c). Norway acknowledged these views as 'fundamental concerns' and asks for them to be 'integral' to the review (WTO 1999d: para. 76). In a gesture of southern solidarity, India's call to grant the CBD observer status at the TRIPS Council (WTO 1999b: para. 8), even while opposed by the USA (WTO 1999b: para. 9), received support from Kenya (WTO 1999b: para. 8). There is a remarkable consistency to Kenya's support to granting CBD observer status as it reiterates this in 2000 (WTO 2000: paras. 139–46) and 2002 (WTO 2002c: para. 211). The remainder of this section reviews Kenya's submissions to and interventions at the TRIPS Council.

A high point on Article 27.3(b) is Kenya's November 1999 communication on behalf of the Africa Group (WTO 1999a), where three broad points are made. First, a proposal for the implementation deadline of Article 27.3(b) be revised to begin with the completion of the mandated review. Second, noting the distinction between biological and microbiological organisms as artificial, it calls for an expansive 'no patents on life' position where plants and animals as well as microorganisms are not patentable. Finally, it advocates integrating into TRIPS norms that reside at other multilateral treaties, notably the International Treaty and the CBD. In this respect, it recommends two 'amendments' to Article 27.3(b): (a) include provisions for the protection of indigenous innovations and traditional knowledge and (b) include traditional farming practices such as the right to save and exchange seeds.

These counter-norms circulated by Kenya suggest efforts to situate Article 27.3(b) in a wider frame that seeks to restore distributive justice and dispositional rights. It sees IPRs in plant varieties as adversely impacting conservation and use of biological diversity, food security and the rights and livelihood of farming communities (WTO 2000: para. 139–46). An avenue for integrating counter-norms is found in the conditions for and exceptions from patentability (WTO 2000: para. 141–45). Residual flexibility in TRIPS allows member countries to define novelty in a manner that could limit the grant of patents on living organisms or at least raise the bar by excluding from patentability mere discovery or isolation of naturally occurring organisms. Further, the term 'effective' appended to *sui generis* system, Kenya argues, allows the introduction of a broader set of societal considerations to bear on law-making (WTO 2000: para. 142).

In contrast to UPOV, a dominating template for Article 27.3(b), favoured by the USA and EC, who also include it into bilateral trade agreements (Dutfield 2008), Kenya sees in the CBD and FAO norms and principles that promote conservation and sustainable use of genetic resources while also restoring distributive justice. Thus, concluding that

[I]f a model was needed for purposes of *sui generis* systems under article 27.3(b) of the TRIPS Agreement, members of the African Group would have this model law [the African Model Law]<sup>19</sup>. It would be the source for their domestic laws on protecting plant varieties by effective *sui generis* systems. (WTO 2002: para. 145)

Demonstrating its adroit ability at norm-borrowing, Kenya has advocated for the 'disclosure of origin' in patent applications. It sees the identification of the source of genetic material in patent applications as a promising way to deliver on CBD's principles (WTO 1999b: paras. 8–9). It is in this light that Kenya, along with 'mega-diverse' countries like Brazil and India, has proposed amending TRIPS's patent requirements to require the disclosure of origin of genetic material (see WTO 2004b: para. 114, 2005: para. 67). A remarkable feature of Kenya's submissions to, and interventions at, the TRIPS Council is not merely the manner in which it seeks to frame the obligation but the consistency in advancing specific arguments. Notable in this respect are current negotiations under the Doha Round where a proposal from a group of Southern member countries, including

the Africa Group, recommends amending the TRIPS Agreement to introduce a mandatory requirement for the disclosure of origin of biological resources and/or associated traditional knowledge in patent applications (see WTO 2008).

# The domestic IP architecture concerning plant varieties

Moving attention away from Geneva rhetoric (ritual), I now examine what Kenya has delivered in its domestic law (behaviour). Having grasped the latitude in Article 27.3(b), does TRIPS-implementing legislation in Kenya integrate the counter-norms that it canvasses at Geneva?

Like some former British colonies, Kenya inherited the British Patent Registration Act, Cap 508. Even as late as 1990, only the holder of a British patent could acquire rights in Kenya (WTO 2004a). This changed with the enactment of the Industrial Property Act of 1989. Interestingly, Kenya had provisions for plant varieties through the Seeds and Plant Varieties Act, 1972<sup>21</sup> which alongside South Africa<sup>22</sup> and Zimbabwe<sup>23</sup> is the earliest IP laws for plant varieties in Africa. Consequently, it could be argued that this enquiry is a facile investigation as Kenya had already enacted a *sui generis* system for plant varieties prior to TRIPS. True; however, it only legislated the PBR section in 1994 and obligations to TRIPS saw revisions to the SPVA in 2002 and Industrial Property Act in 2001. Thus, there were ample opportunities to deliver its Geneva rhetoric into the architecture of domestic law. On the other hand, those suggesting this is a facile enquiry would need to explain the logic of Kenya's Geneva rhetoric: what value these rituals in Geneva if opportunities to deliver on them have been entirely eclipsed?

# The patentability of plant matter in Kenya

In evaluating the Industrial Property Act, 2001, two areas occupy my concern: firstly, whether a 'no patent on life' exclusion exists, and, secondly, whether counter-norms promoting distributional justice have been introduced. During a TRIPS review of its implementation, Kenya clarified that microorganisms are not patentable:

Micro-organisms *per se* are not patentable under the Kenya laws, but as stated under section 6(a) of the Industrial Property Act, micro-organisms as found in nature are treated as discoveries, where mankind has not participated in their creation, and therefore not patentable. (WTO 2004a: 32–3)

However, this is not entirely the case.

The Industrial Property Act, 2001, in Section 26 sets out two exclusions. Paragraph (a) states that non-patentable inventions include 'plant varieties as provided for in the Seeds and Plant Varieties Act, but not parts thereof or products of biotechnological processes'. Paragraph (b) establishes exclusions for 'inventions contrary to public order, morality, public health and safety, principles of humanity and environmental conservation'. These are quite consistent with the non-mandatory

exclusions in Article 27. However, any residual ambiguity about microorganisms is clarified in Section 29, headlined 'Patents Related to Living Matter', dealing with disclosure and depository requirements for microorganisms among others. Thus, rather than explore latitude and ambiguity, legislators in Kenya have closely restrained themselves to non-mandatory exclusions. In essence, the architecture of domestic law closely mimics European practice that was pioneered in the Strasbourg Convention.

A number of comments can be made about Kenya's patent law and I focus on legal ambiguity in the phrase 'plant varieties as provided for ...'. It could be argued that plant varieties *not* provided for in the SPVA constitutes patentable subject matter. This may include those plant varieties that are of species or genera that the Minister has not (yet) specified in a Scheme under the SPVA. To explain, PBRs are only granted in respect of plant varieties of such species or group as have been specified by a Scheme made by the Minister. Moreover, 'provided for' may also be narrowly interpreted as 'protected by'; thus, plant varieties which fail to meet the SPVA's conditions for grant of protection are patentable subject matter. European case law provides ample evidence of porous borders marked by patent law's incremental encroachment of plant varieties.

Moving to my second concern, recall Kenya, with other Southern WTO members, canvassed for incorporating a number of counter-norms from CBD and FAO. These efforts sediment into a call for 'disclosure of origin', which is presently on the agenda of the Doha round of multilateral trade negotiations. Provisions concerning access and benefit sharing are located in the Environmental Management and Co-ordination Act, 1999, which sets up the National Environmental Management Authority to regulate the sustainable management and utilisation of genetic resources. However, there are no provisions to integrate these norms and principles into the administration of IPRs, whether patents or PBRs (Kameri-Mbote 2005). This observation is corroborated by Kenya's response during the May 2004 review of its legislative compliance (WTO 2004a). Responding to a question raised by the European Communities regarding conditions for the grant of patents, Kenya confirmed that it closely follows TRIPS Article 29 and that there were no additional requirements. Thus, it has failed to introduce any disclosure of origin requirements in its patent law or other IP laws.

# The sui generis protection of plant varieties

With the exclusion of plant varieties from patents, Kenya fulfils its obligations under Article 27.3(b) through a *sui generis* system. Thus, the question whether this legislative system weaves in norms and principles from either FAO or CBD so as to promote distributive justice and authorial recognition of farmers. For that matter, is its *sui generis* system inspired by the African Model Law that it canvases at Geneva?

The SPVA was enacted in 1972 and came into force with the passage of the Seeds and Plant Varieties Regulations (Seeds)<sup>25</sup> in 1975; however, it took two decades for PBRs to be enacted through the Seed and Plant Varieties (Plant Breeders' Rights) Regulation (1994).<sup>26</sup> In 1996, having initiated a process to accede to UPOV's 1978 Act, these regulations were reviewed by UPOV who required

changes as a prerequisite for accession (UPOV 1996). Introducing these changes, Kenya acceded to the 1978 Act on 13 April 1999. Finally, in 2002 the SPVA was again amended and my analysis below relates to this version and focuses on two areas: the conditions for the grant of protection and the scope protection, as they occupy primacy with respect to Kenya's Geneva rhetoric.

The conditions for grant of protection constitutes a doctrinal barrier between the public and private, as those varieties that meet these conditions are eligible for PBRs and others remain in the public domain. Equally, these conditions determine the basis for authorial recognition. Having acceded to UPOV, the requirements for protection are UPOV's triple requirement of DUS with a nominal requirement for commercial novelty (cf. Part II of Schedule Four, SPVA). Prior to UPOV accession, Kenya had a requirement that 'agroecological value must surpass in one or more characteristics that of existing varieties according to results obtained in official tests'. UPOV (1996) observed this 'a departure from the principles of the UPOV Convention. The Convention does not consider that the value of a variety should be taken into account for the purposes of protection' (para. 16). Consequently, Kenya deleted this prior to accession.

The African Model Law sets out a system wherein farmer varieties could be protected without the need to meet the triple requirement of DUS (Article 25(2)). A possibility would have been to consider different constructions of 'uniformity', such as 'identifiability', that would resonate with the breeding practices of farmers (Louwaars 1998). Ekpere (2000: 29), one of the co-authors of the African Model Law, sees this as avenue for allowing the protection of PBRs in 'harmony' with Farmers' Rights. India's Protection of Plant Variety and Farmers' Right Act, 2001, is an exemplar of these aspirations.

My second concern relates to the scope of protection and exceptions to it as they impinge on the rights of other users of plant varieties and seeds, viz. competing breeders, seed merchants and traders, farmers and farming communities. Implicated here are pre-existing traditional and cultural practices, some of which co-constitute key principles at CBD and FAO. The International Treaty, often canvassed by Kenya in its Geneva rhetoric, elaborates Farmers' Rights as constitutive of the right to 'save, use, exchange and sell farm-saved seed/propagating material, subject to national law' (Article 9.3). Tellingly, the African Model Law widens this to 'collectively save, use, multiply and process farm-saved seed of protected varieties' (Article 26(f)).

Section 20(1)(a) sets out breeders' rights in terms of the 'reproductive material' with rights to the variety for commercial purposes, to commercialise it, offer it for sale, export it or to stock it for any of these purposes. There are additional provisions for cut blooms and flowers exist in the Fifth Schedule.<sup>27</sup> In terms of duration, PBRs are awarded for a minimum period of 15 years and a maximum period of 25 years. Fruits, forests and ornaments trees and grapevines can avail a minimum period of 18 years. In every possible way, the scope of protection is consistent with UPOV's template. And this is transparent in the exceptions, too.

The only explicit exemption is for the variety to be used, with some limits, 'for research purposes or for developing new varieties', popularly termed the breeders' exemption. While there is no explicit exemption for farmer seed saving/exchanging, this might be de facto permissible as these transactions are considered

private and non-commercial. However, selling saved seeds is clearly prohibited by Section 20(5)(a) which states that 'the sale of reproductive material of protected varieties does not imply that the breeder authorises the purchaser to produce the reproductive material that was sold to him' and reinforced by seed certification regulations. Again, the parallels with UPOV's 1978 Act are telling as seed saving/exchanging tend to be considered non-commercial uses. Ironically, Kenya's provisions are narrower than those existing in other UPOV member countries. Notably, statutory provisions in the USA allow farmers to sell saved seeds, with the proviso that the variety name is not used in the sale, hence the term 'brown bagging'. Seed companies have lobbied against this provision – and, in *Asgrow Seed Co. v. Winterboer*, <sup>28</sup> the Supreme Court held that farmers' privilege allows a farmer to sell for reproductive purposes only that amount of seed that has been saved for replanting on one's own acreage.

#### Discussion: a political economy of PBRs

From the analysis above, Kenya has failed to deliver on its Geneva rhetoric. Rather than seek inspiration from the African Model Law that it canvasses at Geneva, Kenya has not only adhered to UPOV, but acceded to it. This decoupling between rituals at Geneva and law-making at home is all the more remarkable as Article 27.3(b) does (potentially) allow remarkable cognitive space to legislate, space, which goes beyond residual flexibility in TRIPS. Explanations of this decoupling cannot be located in either a *coercion* of trade sanctions or a *persuasion* of bilateral trade agreements as Kenya has not been at the receiving end of either of these. Neither can it be argued that Kenya lacks legal capacity; rather, its Geneva rhetoric demonstrates remarkable comprehension of the issues at hand.

The Kenya case not only disturbs Aoki and Luvai's (2007) thesis that a single set of interests cannot prevail in global IP, but also disappoints Helfer's (2004) hope for weak integration. Fischer-Lescano and Teubner (2004) postulate the limits to international law's capacity to achieve hierarchical unity. In this spirit, the case of PBRs in Kenya, wherein fragmentation at the global level fails to seep into the national arena, gives currency to Chimni's (2006) analysis of the WTO as a project sustaining a global capitalist order. While I return to these points in the conclusion, the decoupling is a reminder of a domestic political economy that while porous to various influences can also generate a cognitive lock-in to a particular architecture of law. Kenya has been historically embedded into global agricultural supply chains that raise particular pressures on domestic regulation. The seed sector liberalisation of the 1990s generates an ironic moment where calls for PBRs originate among public sector agriculture institutions. Binding these motive forces together are the technical missions and activities that provide an epistemic framework that cognitively guides TRIPS implementation towards UPOV accession. The remaining paragraphs elaborate this explanation.

# Kenya's global constituency

The largely 'foreign'-owned floriculture and horticulture sectors have consistently lobbied for PBRs. <sup>29</sup> This plantation economy has its origins in inter-war years of

provisioning Allied troops in East Africa. Post-independence, the Horticultural Crop Development Agency, established in 1967, sought to foster the sector (Minot and Ngigi 2004). Bolo (2005) notes that this effort included enactment of the SPVA, 1972. Multinational firms like Del Monte, in 1968, enter the plantation economy (Jaffee 1995). And, growth was spectacular: from non-existent exports at independence, horticulture accounted for 3 per cent of agriculture exports in 1974 (Minot and Ngigi 2004) and 14 per cent by 1990 that was valued at US\$95 million (Bolo 2005). To put this in perspective, while floriculture began in the 1980s, Kenya is now the single largest flower exporter to the EU (Bolo 2005). This performance is a highly cited 'success story' for its apparent poverty alleviation impacts (see Labaste 2005) and, for UPOV (2005) at least, an exemplar of the role of PBRs in attracting foreign varieties.

The greater irony of this 'success story', at least for this article, is that it occurs with little domestic plant breeding as 'virtually all the plant breeding is done in foreign countries' (Louwaars *et al.* 2005: 56). Moreover, the significance of PBRs in enabling the import of foreign varieties is dubious. Bolo (2005) characterises the sector as a 'closed network' with accreditation checks and confiscation, which a senior manager of a flower company corroborated: 'since we have licences in Europe, we can actually confiscate flowers at the European end [...] so not having [intellectual property] here is not so much of an issue because we are still controlling the market' (Tom Lawrence, personal communication, 14 October 2005). With nearly 95 per cent of horticultural production exported, such 'closed networks' are effective.

The lobbying for enacting PBRs occurs in the shadows of seed industry transformations in East Africa and the integration of the region in global supply chains. In a series of papers, Jaffee and Srivastava (1992, 1994) map a teleological prescription for seed sector development that hinges on sequential withdrawal of the state. This vision informs a World Bank project, the Sub-Saharan Africa Seed Initiative (SSASI), that began in 1997 (Anon. 1999). The initiative seeks the privatisation of the sector alongside a dual move of regulatory harmonisation and deepening international linkages (Anon. 1999: 193–4). Thus, seeking to remove regulations that, an advocate notes, 'conspire to inhibit the development of a commercial seed sector in Africa' (Tripp and Rohrbach 2001: 152, emphasis added). Not surprisingly, others see the initiative as 'bring[ing] all African countries into a common IPR regime that begins with UPOV-style PVP laws' (Kuyek 2002: 14).

The *location* of Kenya is significant to these transformations. The Seed Trader Association of Kenya (STAK), established in 1982, simultaneously acts as a conduit for international links, through its membership of the International Seed Federation, and a local/regional base for socialising IPRs, as it is the headquarters of the African Seed Trade Association. STAK has an active secretariat, busy in organising and hosting national and regional conferences with key transnational actors (e.g. UPOV) and lobbying domestic legislation. In 1993, a STAK conference co-hosted with UPOV saw the formation of the Plant Breeders' Association of Kenya (PBAK). PBAK gave lobbying for enacting PBR provisions of SPVA a collective voice (Louwaars *et al.* 2005: 3) while also channelling expertise to shape the architecture of law. Of significance has been the campaign on 'quality seeds' which has led to regulations that limit the market of seeds to only those

that pass a national performance trial (Louwaars *et al.* 2005: 58), thus prohibiting the circulation of farm-saved seeds and constraining Farmers' Rights.

Civil society organisations have been critical of the changing regulatory land-scape promoted by SSASI, arguing that under the guise of a 'level playing field', the programme provides a 'red carpet' entry for foreign seed companies (GRAIN 2005). Advancing this cause are the grants that STAK receives, indicative of which is the Business Advocacy Fund<sup>31</sup> grant in 2007. The award, then, helps STAK widen the regional socialisation of IPRs, which is evidenced in the Kenya's agreements with Tanzania and Uganda, for an OECD-like seed certification schemes. By 2006, of the 56 registered seed companies, 26 were members of STAK (2007), though they collectively account for 90 per cent of the formal seed market. By 2004, just over 45 per cent of the PBRs applications were for flowers and vegetables. And, foreign breeders dominate by accounting for 57 per cent of the applications and 79 per cent of the grants.

# The domestic constituency for PBRs

A domestic constituency for PBRs exists among public plant breeders who crucially contain and close the debate in favour of PBRs, rather than oppose or critically question the logic. In brief, the crisis of stagnant agricultural productivity in Kenya (Ndiritu *et al.* 2004), wherein agricultural research is a component (Akroyd *et al.* 2004), is framed in a manner that sees the acquisition of PBRs by public institutions as financing future public plant breeding.

A 'Green Revolution'-like solution with the adoption of 'productivity enhancing technologies such as improved germplasm' has been proposed (Ministry of Agriculture 2004: 7). To elaborate, through the example of maize, Waiyaki *et al.* (2005) identify two dimensions to the problem. First, the adoption of certified hybrid seeds has to increase well above its present 66 per cent of total seed use, thus displacing landraces (20 per cent), farm-saved seeds (12 per cent) and open-pollinated varieties (8 per cent). Second, as seed price is a key determinant of seed choice, they have to be competitively priced against alternatives. Even as a number of Kenyan and foreign seed companies have entered the maize sector following the 1990s liberalisation, the public sector Kenya Seed Company (KSC) is dominant accounting for 87 per cent of maize seed sales in 2003 (Ministry of Agriculture 2004: 8–9). Hence, a recommendation that KARI's varieties are available on non-exclusive licenses to promote the entry of new firms and generate a competitive seed market.

Animating KARI's proposal is a certain hope, or rather seduction, for revenue streams from future non-exclusive licenses:

KARI intends to expand this operation, not only to generate revenue, but also to promote her new technologies. In addition, KARI is making concerted efforts to raise revenue through royalties from its technologies. KARI has also signed license agreements with several commercial companies to commercialise its varieties and remit royalties to the Institute at an agreed percentage of sales. (KARI 2005: 29)

An early indication of an assertive role for PBRs is KARI's decision in 1995 to terminate KSC's exclusive license to multiply KARI varieties. Deloitte and Touche Consulting (1997),<sup>33</sup> commissioned to review revenue-generating options, reported the possibility of a royalty income stream from licensing varieties that could contribute 8 per cent of KARI's operating income. Acting on this report, the KARI Seeds Unit was setup in 1997; however, crucial to this hope was securing rights in varieties. And, it is here that KARI's lobbying for publicly bred varieties to be granted PBRs moves a crucial step forward by demanding an amnesty<sup>34</sup> for previously released varieties – which was granted in 2001. As a result, there was a 'surge' in applications in 2001 from KARI, which UPOV (2005: 56) enchantingly presents as evidence of 'increased awareness among breeders in public institutions of the benefits of protecting their varieties'. Consequently, private breeders sought a similar amnesty for their older varieties. As a result, not only are public domain varieties being re-propertised, but, on PBRs, public and private breeders have a mutually shared position.

# UPOV: an agent for cognitive lock-in

UPOV provides the bridge between these two constituencies and their concerns. More significantly, UPOV's interventions and technical support sees a certain cognitive lock-in that channels TRIPS implementation to culminate<sup>35</sup> in Kenya's accession to UPOV's 1978 Act. These engagements generate a socialisation of policy makers, bureaucrats and legislators which limit an exploration of flexibility, ambiguity and space in Article 27.3(b) to stay in conformity with UPOV's PBRs system. Drahos (2002) finds technical assistance from the World Intellectual Property Organisation (WIPO) leading countries to go well beyond their TRIPS obligations through the device of steering clear of potential trade disputes with the USA. The constellation of actors involved in steering TRIPS compliance in the Global South across a narrow path include the World Bank, Northern patent offices and certain 'development' agencies. For May (2004: 822), capacity-building programmes go beyond the technicalities of legislative compliance in encouraging 'the development of a TRIPS mind-set'. This occurs through a series of activities couched in terms of 'raising awareness' though they secrete a legal proprietary culture, which constrains explorations of ambiguities and flexibilities in TRIPS.

Even before Kenya initiated formal accession talks with UPOV in 1996, a UPOV-informed (and compliant) legal architecture was in place courtesy the UK and the Netherlands, with the former providing the framework for PBRs and the latter for seed certification. An early engagement with UPOV (1994) is the 1993 seminar on the nature and rationale of plant variety protection, organised in Nairobi and co-hosted with STAK. Upon implementing provisions for PBRs in 1994, through the Seed and Plants Varieties (Plant Breeders' Rights) Regulation, legislators in Kenya sought 'to further strengthen Kenya's position on plant variety protection' by seeking UPOV accession (Otieno-Odek 2001). After informal consultations with UPOV in 1995, Kenya began formal accessions proceedings in 1996. UPOV's (1996) review of Kenya's domestic laws returned with identifying the need for specific amendments as a precondition for accession, which the Kenyan delegation accepts while announcing that the government will act

'expeditiously [to] take the necessary steps to become a member of UPOV' (UPOV 1997: 30). As the domestic laws are amended to come into line with UPOV, there are other UPOV-related engagements that socialise and cement the idea of PBRs. In 1997, Kenyan regulators are part of a delegation to the US Plant and Variety Office to be briefed about the benefits of PBRs (UPOV 1998: 59). The following year a workshop organised by PBAK in Nairobi is addressed by the Commissioner of New Zealand's Plant Variety Rights Office who speaks on the benefits of the UPOV Conventions (UPOV 2000: 36).

These engagements cement a 'PBRs mindset'. At the 1998 UPOV (2000) Council meeting, the Kenyan delegate shares details about progress in amending its laws for compliance to the 1978 Act and, while amendment of its domestic law is still pending, boldly proceeds to state that 'Kenya is also looking at amendments to its national legislation to adapt it to the 1991 Act' (UPOV 2000: 30). In April 1999, Kenya accedes to UPOV and its accession instrument is deposited the following month. At the October 1999 UPOV (2000) Council meeting, the Kenyan delegate is tellingly effusive in their thanks for the 'advice and support... from the Office of UPOV which went far beyond what the Office might usually do' (UPOV 2000: 2). The delegate ends their statement by informing the Council that 'Kenyan breeders were now pressing to amend the law to conform to the 1991 Act of the UPOV Convention'.

Testimony to the cognitive lock-in and socialisation is the choice of Nairobi as venue for an 'awareness raising' seminar on Article 27.3(b) by the tripartite of UPOV, WIPO and WTO to be held in May 1999. This choice is paradoxical in light of the position Kenya has otherwise occupied at Geneva on Article 27.3(b) during the mandated 1999 review. For that matter, 1999 is all that more paradoxical since Kenya accedes to UPOV in April and its rhetoric at the TRIPS Council occurs throughout the year with a high point in the November meeting, making transparent the decoupling between rituals at Geneva and law-making at home.

#### Conclusion

Before drawing on Steinberg's (2002) characterisation of WTO as 'organised hypocrisy', I recall features of the story of PBRs in Kenya. Article 27.3(b) at TRIPS, a rare instance of intra-Quad disagreement, introduces an obligation for IP protection of plant varieties, though giving choice between IPRs and with (apparent) latitude for the sovereign determination of the architecture of law. This space has been (rhetorically) prised open through inter-regime arbitrage and the circulation of counter-norms originating in CBD and FAO. Kenya, an important interlocutor for the Global South at TRIPS, championed a 'no patents on life' position while also celebrating the African Model Law. Despite adroitness in harnessing counter-norms and intervening at the TRIPS Council, Kenya fails to deliver on its Geneva rhetoric in domestic law. Poignant to this decoupling between Geneva rhetoric (rituals) and domestic law-making (behaviour) is that Kenya's grand rhetoric at the TRIPS Council occurred while it was simultaneously acceding to UPOV's 1978 Act. This may, in part, be an exemplar of Kenya's 'hypocrisy'; however, such an explanation fails to account for the wider trend in Article 27.3(b) implementation which witnesses WTO member countries

from the South either mimicking UPOV's architecture or acceding to it. And, this without any textual reference to UPOV in TRIPS.

In explaining Article 27.3(b) implementation, through the case of Kenya, I draw on Steinberg (2002). Steinberg sees the procedural fictions of consensus-based decision-making and sovereign equality of the WTO as constitutive of its 'organised hypocrisy'. In focusing on modalities of bargaining, Steinberg identifies 'power tactics' that are variously deployed at different moments in the cycles of negotiations. This includes a 'willingness of powerful states to bargain in the shadow of law', where procedural rules are taken seriously (Steinberg 2002: 351) and, yet, dominate outcomes. The mandated review of Article 27.3(b) can be considered as negotiations in the 'shadow of law'. It presented an opportunity for information gathering while also allowing for the circulation of counter-norms. Prising open the (apparent) latitude in Article 27.3(b) were a dozen proposals that collectively had over a hundred developing countries signing on (GRAIN 2000). These included proposals of an integrationist mode that sought normative coherence between TRIPS and CBD while bolder ones sought to introduce countervailing norms into TRIPS. However, in a Steinberg sense, the 1999 review – and, for that matter, implementation of Article 27.3(b) – is closed through the deployment of power extrinsic to procedural rules. In this instance, it is the use of bilateral trade/investment agreements that required membership of UPOV (see GRAIN and SANFEC 2001).

This outcome is significant as UPOV is neither inscribed in TRIPS nor is its *sui generis* system the only available template. For that matter, Watal (2000: 14), a participant in negotiating TRIPS, explains that QUAD members deliberately decided not to reference UPOV. Bilateral agreements have allowed the USA and EC to escape the constraints on power that procedural rules and negotiations place. As countries from the South accede to or mimic the law of UPOV, neither the fragmentation in international law (see Aoki and Luvai 2007) nor some normative coherence (see Helfer 2004) seep into domestic law. The choice and latitude in Article 27.3(b) remains illusory. While this outcome can be framed as a symptom of WTO's organised hypocrisy, the case of Kenya requires further consideration.

As repeatedly noted in the article, the decoupling between ritual and behaviour is all the more disturbing given the latitude and space in Article 27.3(b) and Kenya's adroit and consistent ability to elaborate counter-regime norms at TRIPS. Yet, neither does any of the potential for fragmentation in international law seep into Kenya's domestic law nor does Kenya deliver on its Geneva rhetoric. In summary, Kenya's domestic law is a copy of the European system. By acceding to UPOV, Kenya miserably fails to find inspiration in the African Model Law that it championed in Geneva. Explaining this decoupling between rituals (Geneva rhetoric) and behaviour (domestic law), the article notes several elements of a domestic political economy. Historically embedded in global supply routes for fresh fruits and vegetables (and later, horticulture), within Kenya exists a powerful global constituency with interest in UPOV-style PBRs. Their lobbying for PBRs occurs in the shadows of seed industry transformations in Eastern Africa initiated by the World Bank. Herein, the STAK occupies significance in socialising a PBRs mindset. Ironically, alongside this constituency, public plant breeders are keen on introducing PBRs and joining UPOV. Animating public plant breeders' support for PBRs is a hope for revenue streams through

licensing their varieties. This cognitive lock-in across constituencies, I have argued, is achieved through association with and technical support from UPOV that channels TRIPS implementation away from exploring ambiguities and flexibilities in Article 27.3(b). In essence, these overlapping factors secure a cognitive lock-in that simultaneously evacuates Kenya's Geneva rhetoric from domestic law while also succeeding in ensuring accession to UPOV.

There are limits to WTO's organised hypocrisy and the embedded asymmetries of power. Consider the Seattle Ministerial where delegates gate-crashed Green Room proceedings. However, reform may only lead to 'new norms, scripts, or rituals – these may simply constitute new fictions or reinforce old ones' (Steinberg 2002: 368). As power continues to disperse from its Atlantic moorings, some limits to these asymmetries will emerge. In this regard, post-TRIPS regime proliferation is indicative of this dispersion and the possibilities of challenging treaty bargains that were once considered settled (Helfer 2004). No doubt, the polycentric fragmentation of international law is an ephemeral reflection of deep societal contradictions which should curb the expectations for legal unity (Fischer-Lescano and Teubner 2004). In turning our gaze away from 'Geneva' to national capitals, this article constitutes a reminder of other asymmetries in power. On the one hand, it is a reminder of a domestic political economy that is porous to various influences that can channel domestic law-making. On the other hand, it illuminates how technical missions can generate a cognitive lock-in to particular architectures of law. For scholars and activists alike, this suggests the need to reconsider our focused attention on Geneva to the neglect of the domestic. As such, limits to WTO's organised hypocrisy may dissipate until attention to a domestic political economy of law-making are deficient.

#### Notes

The research was conducted under a European Commission Sixth Framework Programme for Research-funded project, Impacts of the IPR Rules on Sustainable Development, Contract No. 503613. Acknowledgement is made of this funding and of the comments and support of project partners, in particular Graham Dutfield and Hannington Odame. At various stages, I have benefited from the research support of Priscilla Hunt, Jacob John, Doxa Mbapila and Tarini Mehta. I acknowledge colleagues at the African Centre for Technology Studies in Nairobi, in particular David Wafula and Judi Wakhungu, for their hospitality and intellectual vigour. The paper has benefited from discussions with a number of colleagues at Warwick and elsewhere, in particular Sam Adelman, Upendra Baxi, Graham Dutfield, Robert Lettington, Peter Munyi, Jayan Nayar, Hannington Odame, Abdul Paliwala and Sol Picciotto. While the various individuals and institutions may or may not agree with my arguments, I remain responsible for the paper.

- Marrakesh Agreement Establishing the World Trade Organisation, Annex 1C, Agreement on Trade-Related Aspects of Intellectual Property Rights (15 April 1994) 33 I.L.M. 81.
- 2. Throughout the paper 'Kenya' is used in a manner that might suggest a homogenous and unitary actor. The analytical short-hand also suffers from allegations of anthropomorphism. As the article seeks to focus on the decoupling between rituals (Geneva rhetoric) and behaviour (domestic law-making), there is no attempt to deconstruct 'Kenya' and/or explore the agency of particular diplomats. Instead, attention to constituencies interested in TRIPS implementation allows an unpacking of a domestic political economy.
- 3. In the TRIPS Agreement, the term 'effective' is used with reference to procedures for the domestic enforcement of IPRs as in Article 41.1: 'permit effective action against any act of infringement of intellectual property rights covered by this agreement'. Mangeni (2000) makes an argument for widening the understanding of 'effective' to include societal objectives concerning introducing IP in plant varieties.

- 4. The International Treaty on Plant Genetic Resources for Food and Agriculture (henceforth, International Treaty) entered into force on 29 June 2004 with the ratification by its 40th member. As of December 2012 it has 127 members (http://www.fao.org/Legal/treaties/033s-e.htm, accessed 12 December 2012).
- Agreed Interpretation of the International Undertaking, Resolution 4/89, Report of the Conference of FAO Conference, 25th Sess., Rome, 11–29 November 1989, C89/REP.
- Farmers' Rights, Resolution 5/89, Report of the Conference of FAO Conference, 25th Sess., Rome, 11–29 November 1989, C89/REP.
- 7. Resolution 3/91, Report of the FAO Conference, 26th Sess., Rome, November 1991, C91/REP.
- 8. The two groups were organised under the Fédération Internationale du Commerce des Semences (International Seed Congress, established in 1924) and the Association Internationale des Sélectionneurs pour la Protection de Obentions Végétales (International Association of Plant Breeders for the Protection of Plant Varieties, ASSINSEL, established in 1938), respectively. In 2002, they merged to form the International Seed Federation (http://www.worldseed.org/isf/history.html, last accessed 17 October 2009).
- Formally called the Convention on the Unification of Certain Points of Substantive Law on Patents for Invention, 1963, it was the first movement at harmonising IP law across Europe.
- 10. At its inception, UPOV did not prohibit the use of patents to protect plant varieties (cf. Article 2, 1961 Act of UPOV). Rather, its ban on dual protection disallows the same species being simultaneously protected by patents and PBRs. To enable the membership of countries like USA and Japan where patent in plant varieties was then permitted, the 1991 Act withdrew this article (Lange 1993).
- 11. UPOV's study of the economic impacts of PBRs has been called to task for its methodology and selective use of evidence (Louwaars *et al.* 2005; Rangnekar 2006).
- For a general thesis on the use bilateral trade and investment treaties to secure TRIPS-plus provisions, see Drahos (2001).
- 13. This is taken from UPOV 1991 and there are minor differences with earlier Acts of UPOV. A fourth condition is a trivial novelty requirement for 'commercial' novelty.
- 14. UPOV has been flexible to secure purchase in the Global South, particularly when it comes to a potential member country like India. Social movements have succeeded in enacting Farmers' Rights in India. However, as the legal architecture minimally departs from UPOV basic architecture of the law, an argument for cognitive lock-in can be extended. Testimony to this is the controversy surrounding the draft Seeds Bill which waters down the elements of Farmer Rights (see Sahai 2010 for an opinion).
- 15. Negotiated under the auspices of UN's Environmental Programme, the CBD opened for signature in 1992 at the Earth Summit and enjoying remarkably endorsement with 156 countries signing it and near universal ratification. A notable non-member is the USA which having signed the Convention has failed to ratify it.
- 16. Prior to CBD a number of countries in the Global South, such as Costa Rica, India and Philippines, had already introduced norms and principles akin to those clarified as access and benefit sharing and prior informed consent (see Anuradha 1997 for a study of an Indian experience with an agreement involving the Kani tribe).
- 17. Bonn Guidelines on Access and Benefit Sharing as Related to Genetic Resources, Decision VI/24, in Report of the Sixth Meeting of the Conference of the Parties to the Convention on Biological Diversity (April 2002) UN Doc UNEP/CBD/COP/6/20, The Hague, available at http://www.cbd.int/convention/cop-6-dec.shtml? m=COP-06&id=7198&lg=0, last accessed 25 December 2007.
- 18. The quote here and those in the remainder of this section are taken from the minutes of TRIPS Council meetings, unless indicated otherwise. While not verbatim quotes, they can be taken as closely reflective of the statement made by the member country as the minutes are verified by member countries.
- 19. The African Union (formerly the Organization of African Unity) developed a model law, for the consideration of its member governments. The African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources (the African Model Law, available at http://www.grain.org/brl/?docid=798&lawid=2132) is an endeavour at exploring ambiguity and residual flexibility in TRIPS Article 27.3(b) while integrating provisions from CBD and the International Treaty (Ekpere 2000).
- 20. Industrial Property Act, 1989, Laws of Kenya, Cap. 509.
- 21. Seeds and Plant Varieties Act, 1972, Laws of Kenya, cap 326 (henceforth SPVA).
- 22. The Plant Breeders' Rights Act, No. 15 of 15 March 1976 entered into force on 1 November 1977. It was subsequently revised and amended in 1980 and 1986. South Africa became a member of UPOV in 1977 and is bound by UPOV's 1991 Act.

- 23. The Plant Breeders' Rights Act was enacted in 1973 and entered into force in 1974. It is modelled on UPOV's 1961 Act. In 1998, Zimbabwe initiated procedures for being a member of UPOV.
- Industrial Property Act, Act No. 3 of 2001, Laws of Kenya, Cap. 509, Kenya Gazette Supplement, 3 August 2001, No. 60.
- 25. Seeds and Plant Varieties Regulations (Seeds) 1975, Laws of Kenya, cap 326 (henceforth SPVR).
- Seeds and Plant Varieties (Plant Breeder's Rights) Regulation, 1994, Laws of Kenya, cap 326, published in Official Kenya Gazette (1995), 73 (henceforth the PBRs Regulation).
- This also mimics the 1978 Act of UPOV, where in art. 5(4) similar provisions for expanding the scope of protection for particular species exist.
- 28. 513 U.S. 179, 1995.
- 29. Ownership in the sector is overwhelmingly by expatriates or Kenyans of foreign descent with only recent entry by domestic political elite (Minot and Ngigi 2004; Bolo 2005). Labaste (2005) offers the wonderful euphemism of 'large Euro-Afro farms' to gloss this reality.
- 30. An interrogation of the 'success story' is beyond the scope of this article and available elsewhere (Jaffee 1995; McCulloch and Ota 2002; Minot and Ngigi 2004; Bolo 2005). For instance, McCulloch and Ota (2002) query the poverty alleviation impacts as they find households participating in horticulture tend to possess higher income characteristics, rather than achieve these endowments upon participating in the sector. The deeper penetration of European retailers into the supply chain sees a displacement of small-scale farmers (Minot and Ngigi 2004).
- 31. This is a scheme supported and bankrolled by the Danish government that is directed at trade associations and business groups to fund them in activities that seek to improve the business environment (see http://www. businessadvocacy.org/).
- 32. Both the 'problem' and the 'solution' are more complex phenomenon than their treatment here suggests. Any careful analysis of declining agricultural productivity in Kenya would take account of the following: the 'appropriateness' of national agricultural research; availability of and access to farm credit; availability and cost of farm inputs; taxation of farmers through local authority cess; a variety of infrastructural deficiencies; political and institutional issues; and, of course, the state of the public and private sectors that provision agriculture.
- Deloitte and Touche Consulting, 1997, KARI Revenue-Generating Strategic Review, Overseas Development Administration contract reference: cntr 96 1193A. Final Report, Nairobi: KARI (cited in Ndii and Byerlee 2004).
- 34. The amnesty was essential because extant plant varieties would have fallen foul of the (commercial) novelty condition in Rule 2 (Fourth Schedule, Part II, the SPVA).
- 35. The use of the word 'culminate' should neither suggest an end or a pause. Rather to the contrary, as Kenya's delegation to UPOV's Council meetings repeatedly makes clear, efforts at amending domestic law to accede to the 1991 Act remain present.
- 36. Compare Kenya's thanks with the very sedate statement by Slovenia in the following paragraph.

#### Notes on contributor

**Dwijen Rangnekar** is Associate Professor of Law in the School of Law, University of Warwick, UK. His research attends to the interface between law, technology and development with a focus on the globalisation of intellectual property. He is currently working on a monograph on Geographical Indications, tentatively titled, 'Re-making Place: The Social Construction of Geographical Indications'. Recent publications include 'Re-making Place: The Social Construction of a Geographical Indication for Feni', *Environment and Planning A* (2011) and 'Another Look at Basmati: Genericity and the Problems of a Transborder Geographical Indication' (with Sanjay Kumar), *Journal of World Intellectual Property* (2010).

#### References

Akroyd, S., Kiome, R.M. and Ndiritu, C.G. (2004), 'Financing Agricultural Research', in C.G. Ndiritu, J.K. Lynam and A.N. Mbabu (eds), *Transformation of Agricultural Research Systems* (East Lansing, MI: Michigan State University Press), pp. 361–82.

Anon. (1999). 'Initiatives for Sustainable Seed Systems in Africa', in Seed Policy and Programmes for Sub-Saharan Africa: Proceedings of the Regional Technical Meeting on Seed Policy and Programmes

- for Sub-Saharan Africa, Abidjan, Côte d'Ivoire, 23–27 November 1998 (Rome: Food and Agriculture Organisation), pp. 191–205.
- Anuradha, R.V. (1997), 'In Search of Knowledge and Resources: Who Sows? Who Reaps?', Review of European Community and International Environmental Law, 6 (3), pp. 263–73.
- Aoki, K. and Luvai, K. (2007), 'Reclaiming "Common Heritage" Treatment in the International Plant Genetic Resources Regime Complex', *Michigan State Law Review*, 35 (1), pp. 35–70.
- Bavikatte, K. and Robinson, D.F. (2011), 'Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing', Law, Environment and Development Journal, 7 (1), pp. 35–51.
- Bent, S.A., et al. (1987), Intellectual Property Rights in Biotechnology Worldwide (New York: Stockton Press). Bolo, M. (2005), Agricultural Systems of Science, Technology and Innovation: The Case of Kenya's Floriculture Industry (Wageningen: Technical Centre for Agriculture and Rural Cooperation (CTA)).
- Bragdon, S., Garforth, K. and Haapala, J.K., Jr. (2008), 'Safeguarding Biodiversity: The Convention on Biological Diversity', in G. Tansey and T. Rajotte (eds), The Future Control of Food: A Guide to International Negotiations and Rules on Intellectual Property, Biodiversity, and Food Security (London: Earthscan/IDRC), pp. 82–114.
- Braithwaite, J. and Drahos, P. (2000), *Global Business Regulation* (Cambridge: Cambridge University Press). Chimpi B.S. (2006), 'The World Trade Organization, Democracy and Development: A View from the South'
- Chimni, B.S. (2006), 'The World Trade Organization, Democracy and Development: A View from the South', Journal of World Trade, 40 (1), pp. 5–36.
- Commission on Intellectual Property Rights (2002), *Integrating Intellectual Property Rights and Development Policy* (London: Department for International Development).
- Correa, C.M. (1994), Sovereign and Property Rights over Plant Genetic Resources (Rome: Food and Agriculture Organization).
- Drahos, P. (2001), 'BITs and BIPs', The Journal of World Intellectual Property, 4 (6), pp. 791-808.
- Drahos, P. (2002), 'Developing Countries and International Intellectual Property Standard-Setting', The Journal of World Intellectual Property, 5 (5), pp. 765–89.
- Dutfield, G. (2008), 'Turning Plant Varieties into Intellectual Property: The UPOV Convention', in G. Tansey and T. Rajotte (eds), *The Future Control of Food: A Guide to International Negotiations and Rules on Intellectual Property, Biodiversity, and Food Security* (London: Earthscan/IDRC), pp. 27–47.
- Ekpere, J.A. (2000), The OAU's Model Law: The Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, an Explanatory Booklet (Lagos: Organisation of African Unity).
- Fischer-Lescano, A. and Teubner, G. (2004), 'Regime-Collisions: The Vain Search for Legal Unity in the Fragmentation of Global Law', Michigan Journal of International Law, 25 (4), pp. 999–1046.
- Gaia Foundation and GRAIN (1998), Ten Reasons Not to Join UPOV (London: Gaia Foundation & GRAIN).
- Gervais, D. (1998), The TRIPS Agreement: Drafting History and Analysis (London: Sweet & Maxwell).
- Glowka, L., et al. (1994), A Guide to the Convention on Biological Diversity (Gland: IUCN).
- GRAIN (2000), For a Full Review of TRIPs 27.3(b): An Update on Where Developing Countries Stand with the Push To Patent Life at WTO (Barcelona: GRAIN). Available from: http://www.grain.org/article/entries/39-for-a-full-review-of-trips-27-3-b [accessed 4 March 2012].
- GRAIN (2005), 'Africa's Seed Laws: Red Carpet for Corporations', Seedling, 25 (July), pp. 28–35.
- GRAIN and SANFEC. (2001), 'TRIPs-Plus' Through the Back Door: How Bilateral Treaties Impose Much Stronger Rules for IPRs on Life than the WTO (Barcelona: GRAIN & SANFEC).
- Halewood, M. and Nnadozie, K. (2008), 'Giving Priority to the Commons: The International Treaty on Plant Genetic Resources for Food and Agriculture', in G. Tansey and T. Rajotte (eds), The Future Control of Food: A Guide to International Negotiations and Rules on Intellectual Property, Biodiversity, and Food Security (London: Earthscan/IDRC), pp. 115–40.
- Heitz, A. (1987), 'The History of Plant Variety Protection', in Anon. (ed.), *The First Twenty-Five Years of the International Convention for the Protection of New Varieties of Plants* (Geneva: UPOV), pp. 53–96.
- Helfer, L.R. (2004), 'Regime Shifting: The TRIPS Agreement and New Dynamics of International Intellectual Property Lawmaking', *Yale Journal of International Law*, 29 (1), pp. 1–83.
- Helfer, L.R. (2005), 'Comment II: Using Intellectual Property Rights to Preserve the Global Genetic Commons: The International Treaty on Plant Genetic Resources for Food and Agriculture', in K.E. Maskus and J.H. Reichman (eds), *International Public Goods and Transfer of Technology Under a Globalized Intellectual Property Regime* (Cambridge: Cambridge University Press), pp. 217–25.

- IPGRI (1999), The Agreement on Trade-Related Aspects of Intellectual Property Rights A Decision Check List (Rome: International Plant Genetic Resources Institute).
- Jaffee, S. (1995), 'The Many Faces of Success: The Development of Kenyan Horticultural Efforts', in S. Jaffee and J. Morton (eds), Marketing Africa's High Value Foods (Washington, DC: World Bank), pp. 319–76.
- Jaffee, S. and Srivastava, J. (1992), Seed System Development: The Appropriate Roles of the Private and Public Sector (Washington, DC: World Bank).
- Jaffee, S. and Srivastava, J. (1994), 'The Roles of the Private and Public Sectors in Enhancing the Performance of Seed Systems', World Bank Research Observer, 9 (1), pp. 97–117.
- Kameri-Mbote, P. (2005), Intellectual Property Protection in Africa: An Assessment of the Status of the Laws, Research and Policy Analysis of the Intellectual Property Rights in Kenya (London: International Environment Law Research Centre). IELRC Working Papers on Intellectual Property.
- KARI (2005), Strategic Plan 2005-2015 (Nairobi: Kenyan Agricultural Research Institute).
- Kuyek, D. (2002), Intellectual Property Rights in African Agriculture: Implications for Small Farmers (Barcelona: GRAIN).
- Labaste, P. (2005), The European Horticulture Market: Opportunities for Sub-Saharan African Exporters (Washington, DC: World Bank), Working Paper No. 63.
- Lange, P. (1993), 'Derived Plant Varieties under the Revised UPOV', Plant Variety Protection Gazette and Newsletter, 72 (November), pp. 51–63.
- Leskien, D. and Flitner, M. (1997), *Intellectual Property Rights and Plant Genetic Resources Options for a Sui Generis System* (Rome: International Plant Genetic Resources Institute), Genetic Resources No. 6.
- Louwaars, N.P. (1998), 'Sui Generis Rights: From Opposing to Complementary Approaches', Biotechnology and Development Monitor, 36, pp. 13–16.
- Louwaars, N.P., et al. (2005), Impacts of Strengthened Intellectual Property Rights Regimes on the Plant Breeding Industry in Developing Countries (Washington, DC: The World Bank).
- Mangeni, F. (2000), *Technical Issues on Protecting Plant Varieties by Effective Sui Generis Systems* (Geneva: South Centre and Centre for International Environmental Law).
- May, C. (2004), 'Capacity Building and the (Re)Production of Intellectual Property Rights', Third World Quarterly, 25 (5), pp. 821–37.
- McCulloch, N. and Ota, N. (2002), Export Horticulture and Poverty in Kenya (Sussex: Institute of Development Studies), IDS Working Paper 174.
- Ministry of Agriculture (2004), *The Status of Maize Seed Industry in Kenya: Value Chain Analysis* (Nairobi: Government of Kenya).
- Minot, N. and Ngigi, M. (2004), Are Horticultural Exports a Replicable Success Story? Evidence from Kenya and Côte d'Ivoire (Washington, DC: International Food Policy Research Institute).
- Mooney, P.R. (1983), 'The Law of the Seed: Another Development and Plant Genetic Resources', *Development Dialogue*, 1983 (1–2), pp. 1–173.
- Ndii, D. and Byerlee, D. (2004), 'Realizing the Potential for Private-Sector Participation in Agricultural Research in Kenya', in C.G. Ndiritu, J.K. Lynam and A.N. Mbabu (eds), *Transformation of Agricultural Research* Systems (East Lansing, MI: Michigan State University Press), pp. 339–59.
- Ndiritu, C.G., Mbabu, A.N. and Lynam, J.K. (2004), *Transformation of Agricultural Research Systems in Africa: Lessons from Kenya* (East Lansing, MI: Michigan State University Press).
- Otieno-Odek, J. (2001), *Towards TRIPS Compliance: Kenya's Experience and Legislative Reforms* (Geneva: International Centre for Trade and Sustainable Development).
- Otten, A. (1996), 'Viewpoint of the WTO', in *Agrobiodiversity and Farmers' Rights: Proceedings of a Technical Consultation on an Implementation Framework for Farmers' Rights* (Madras: Macmillan & MS Swaminathan Research Foundation), pp. 44–50.
- van Overwalle, G. (1999), 'Patent Protection for Plants: A Comparison of American and European Approaches', IDEA: The Intellectual Property Law Review, 39 (2), pp. 143–94.
- Pistorius, R. and van Wijk, J. (1999), The Exploitation of Plant Genetic Information Political Strategies in Crop Development (Wallingford: CABI).
- Pottage, A. and Sherman, B. (2007), 'Organisms and Manufactures: On the History of Plant Inventions', *Melbourne University Law Review*, 31 (2), pp. 539–68.
- Rangnekar, D. (1999), 'Technology Paradigms and the Innovation-Appropriation Interface: An Examination of the Nature and Scope of Plant Breeders' Rights', *Prometheus*, 17 (2), pp. 125–38.
- Rangnekar, D. (2002), Access to Genetic Resources, Gene-Based Inventions and Agriculture. Report to the Commission on Intellectual Property Rights of the UK Government (London: CIPR).

- Rangnekar, D. (2006), Assessing the Economic Implications of Different Models for Implementing the Requirement to Protect Plant Varieties: A Case Study of Kenya, A Report Prepared under the European Commission's 6th Framework Programme for Research (Contract No. 503613/Impacts of the IPR Rules on Sustainable Development, IPDEV).
- Sahai, S. (2010), 'The Kernel of Bad Ethics', *Tehelka* [online], 7(19), 15 May. Available from: http://www.tehelka.com/story\_main44.asp?filename=Op150510opinion.asp [accessed 20 May 2010].
- Sassen, S. (2000), 'Territory and Territoriality in the Global Economy', *International Sociology*, 15 (2), pp. 372–93.
- Scholte, J.A. (2005), Globalization: A Critical Introduction, 2nd ed. (New York: Palgrave Macmillan).
- Sell, S.K. (2003), Private Power, Public Law: The Globalization of Intellectual Property Rights (Cambridge: Cambridge University Press).
- Slaughter, A.M. (1997), 'The Real New World Order', Foreign Affairs, 76 (5), pp. 183-97.
- STAK (2007), STAK News, II(06), February. Available from: http://www.businessadvocacy.org/dloads/ STAK070206.pdf [accessed 6 May 2013].
- Steinberg, R.H. (2002), 'In the Shadow of Law or Power? Consensus-Based Bargaining and Outcomes in the GATT/WTO', *International Organization*, 56 (2), pp. 339–74.
- Stenson, A.J. and Gray, T. (1999), The Politics of Genetic Resource Control (New York: Palgrave Macmillan).
- Tarasofsky, R. (1997), 'The Relationship Between the TRIPs Agreement and the Convention on Biological Diversity: Towards a Pragmatic Approach', Review of European Community and International Environmental Law, 6 (2), pp. 148–56.
- The Crucible Group (1994), People, Plants and Patents: The Impact of Intellectual Property on Trade, Plant Biodiversity, and Rural Society (Ottawa: International Development Research Centre).
- Tripp, R. and Rohrbach, D. (2001), 'Policies for African Seed Enterprise Development', Food Policy, 26 (2), pp. 147–61.
- UNCTAD and ICTSD (2005), Resource Book on TRIPS and Development (New York: Cambridge University Press).
- UPOV (1986), The Protection of Plant Varieties and the Debate on Biotechnological Inventions (Geneva: International Union for the Protection of New Varieties of Plants), UPOV/INF/11.
- UPOV (1994), Seminar on the Nature of and Rationale for the Protection of Plant Varieties under the UPOV Convention (Geneva: International Union for the Protection of New Varieties of Plants), 737(E).
- 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.
- UPOV (1997), Report Adopted at the Thirtieth Ordinary Session of the Council of the International Union for the Protection of New Varieties of Plants on 23 October 1996 (Geneva: International Union for the Protection of New Varieties of Plants), C/30/17.
- UPOV (1998), Report Adopted at the Thirty-First Ordinary Session of the Council of the International Union for the Protection of New Varieties of Plants on 29 October 1997 (Geneva: International Union for the Protection of New Varieties of Plants), C/31/17.
- UPOV (2000), Report Adopted at the Thirty-Second Ordinary Session of the Council of the International Union for the Protection of New Varieties of Plants on 28 October 1998 (Geneva: International Union for the Protection of New Varieties of Plants), C/32/16.
- UPOV (2005), *UPOV Report on the Impact of Plant Variety Protection* (Geneva: International Union for the Protection of New Varieties of Plants), Publication No. 353 (E).
- Verma, S.K. (1995), 'TRIPS and Plant Variety Protection in Developing Countries', European Intellectual Property Review, 17 (6), pp. 281–89.
- Waiyaki, N., Mwakubo, S. and Odhiambo, W. (2005), *Determinants of Seed Maize Pricing: A Value Chain Analysis* (Nairobi: Kenya Institute for Public Policy Research and Analysis).
- Watal, J. (2000), Intellectual Property Rights in the WTO and Developing Countries (The Hague: Kluwer Law International).
- WTO (1999a), Communication from Kenya on Behalf of the African Group, Review of Provisions of Art. 27.3(b) (8 November), IP/C/W/163.
- WTO (1999b), Council for Trade-Related Aspects of Intellectual Property Rights Minutes of Meeting Held in the Centre William Rappard on 26–29 June 2000 (14 August 2000), IP/C/M/27.
- WTO (1999c), Council for Trade-Related Aspects of Intellectual Property Rights Minutes of Meeting Held in the Centre William Rappard on 7–8 July 1999 (17 August), IP/C/M/24.

- WTO (1999d), Council for Trade-Related Aspects of Intellectual Property Rights Minutes of Meeting Held in the Centre William Rappard on 20–21 October 1999 (22 December), IP/C/M/25.
- WTO (2000), Council for Trade-Related Aspects of Intellectual Property Rights Minutes of Meeting Held in the Centre William Rappard on 21–22 September 2000 (23 November), IP/C/M/28.
- WTO (2001), Declaration on the TRIPS Agreement and Public Health, Ministerial Conference, Doha (November), WT/Min (01)/Dec/W/2.
- WTO (2002a), Communication from Kenya on Behalf of the African Group, Council for Trade-Related Aspects of Intellectual Property Rights – Proposal on Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health (24 June), IP/C/W/351.
- WTO (2002b), Communication from Kenya, Council for Trade-Related Aspects of Intellectual Property Rights Elements of a Paragraph 6 Solution (14 November), IP/C/W389.
- WTO (2002c), Council for Trade-Related Aspects of Intellectual Property Rights Minutes of Meeting Held in the Centre William Rappard on 5–7 March 2002 (22 March), IP/C/M/35.
- WTO (2003), Decision of the General Council on Implementing Paragraph 6 of the Doha Declaration, adopted 30 August, WT/L/540.
- WTO (2004a), Council for Trade-Related Aspects of Intellectual Property Rights, Review of Legislation: Kenya (7 May), IP/Q4/KEN/1.
- WTO (2004b), Council for Trade-Related Aspects of Intellectual Property Rights Minutes of Meeting Held in the Centre William Rappard on 18 November 2003 (4 February), IP/C/M/42.
- WTO (2005), Council for Trade-Related Aspects of Intellectual Property Rights Minutes of Meeting Held in the Centre William Rappard on 1–2 December 2004 (11 January), IP/C/M/46.
- WTO (2008), General Council, Trade Negotiations Committee, Doha Work Programme Relationship Between the TRIPS Agreement and the Convention of Biological Diversity (28 May), WT/GC/W/590, TN/C/W/49.