

**6 PROTECTION OF TRADITIONAL KNOWLEDGE
RELATED TO BIOLOGICAL AND GENETIC
RESOURCES: EXAMINING THE ACCESS AND BENEFIT
SHARING REGIME IN ETHIOPIA**

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ABSTRACT

In the 21st century political economy, attention is shifting from material assets to intangible, creative national wealth. However, developing countries do not have a great deal of individual creative wealth protectable by conventional areas of intellectual property and they are looking to community creations, accumulated over generations, resulting from societal interaction with the environment. Even though the Convention on Biological Diversity (CBD) has changed the perception that genetic resources and related knowledge are sovereign resources of the respective territories, there is doubt as to whether national access and benefit sharing (ABS) regimes can be effective without an adequate international legal framework. In fact, there is growing curiosity whether national ABS systems will open new horizon for misappropriation of traditional knowledge if not supported by a proper international legal framework. This article examines the adequacy of national and international legal frameworks for the protection of traditional knowledge associated with genetic resources. To this end, the Ethiopian experience is taken in to account.

Keywords: *traditional knowledge, access, benefit sharing, prior informed consent, biological and genetic resources, Teff Agreement, local communities, Convention on Biological Diversity (CBD)*

I. UNDERSTANDING TRADITIONAL KNOWLEDGE

The term "traditional knowledge" is applicable both to biodiversity-related traditional knowledge (also called traditional ecological knowledge) and to traditional expressions. There is no officially agreed upon legal definition of traditional knowledge at the international level despite initiatives for protection

in certain multilateral forums such as WIPO and the CBD.²

Most legal scholars find it difficult to define traditional knowledge for a number of reasons:

- (a) Some traditional knowledge is sacred while some is commercially available;
- (b) some subjects protected are difficult to identify specifically;
- (c) some subjects protected are not documented in many cases and this breeds legal uncertainty;
- (d) it is difficult to identify specifically who holds the right;
- (e) it is difficult to apportion ownership among communities inhabiting diverse territories, all claiming authorship and custody of given traditional knowledge; and
- (f) it is difficult to ascertain the duration of protection.

Defining traditional knowledge is also difficult, partly because traditional knowledge encompasses knowledge relating to the history, ethics, aesthetics, and traditions of societies. Nonetheless, the notions of traditional knowledge, indigenous knowledge, and indigenous people have recently acquired prominence in international intellectual property discourse.³ Noteworthy, the notion of indigenous peoples is not coextensive with traditional people.⁴ Indigenous knowledge is defined as follows:

Knowledge that is held and used by a people who identify themselves as indigenous of a place based combination of cultural distinctiveness and prior territorial occupancy relative to a more recently arrived population with its own distinct and dominant culture.⁵

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¹ Graham Dutfield, 'Developing and Implementing National Systems for Protecting Traditional Knowledge: A Review of Experiences in Selected Developing Countries: Developing and Implementing National Systems for Protecting Traditional Knowledge: A Review of Experiences in Selected Developing Countries' (Genève UNCTAD 2000), p3.

² Graham Dutfield, 'Developing and Implementing National Systems for Protecting Traditional Knowledge: A Review of Experiences in Selected Developing Countries: Developing and Implementing National Systems for Protecting Traditional Knowledge: A Review of Experiences in Selected Developing Countries', (Genève UNCTAD 2000), p3.

³ John Mugabe, 'Intellectual Property Protection and Traditional Knowledge: An Exploration in International Policy Discourse', (African Centre for Technology Studies, Nairobi), <wipo-unhcr-ip-pnl-98-4>, accessed 5 September 2015.

⁴ While indigenous people are traditional, traditional people may not be indigenous as they may not be prior territorial occupants to current habitat even though they have their own distinct culture.

⁵ UNEP/CBD/COP/3/Inf. 33, Annex 2, accessed 5 September 2015.

Traditional knowledge, on the other hand, is defined as:

knowledge which is held by members of a distinct culture and/or sometimes acquired by means of inquiry peculiar to that culture, and concerning the culture itself or the local environment in which it exists.⁶

The WIPO Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore defines traditional knowledge as follows:

[T]he term "traditional knowledge" refers to the content or substance of knowledge that is the result of intellectual activity and insight in a traditional context, and includes the know-how, skills, innovations, practices and learning that form part of traditional knowledge systems, and knowledge that is embodied in the traditional lifestyle of a community or people, or is contained in codified knowledge systems passed between generations. It is not limited to any specific technical field, and may include agricultural, environmental and medicinal knowledge, and knowledge associated with genetic resources.

Ethiopian law follows a similar approach by defining community knowledge as the 'knowledge, practices, innovations or technologies created or developed over generations by local communities on the conservation and use of genetic resources'.⁷

Most efforts to define traditional knowledge have commonalities:

- (a) 'Traditional' reflects creation and use of knowledge as part of cultural community traditions and in no way signifies age;
- (b) it is a collectively held right; and
- (c) it is not limited to any specific field of technology.⁸

This comports with the approach employed under the Convention on Biological Diversity that avoids definitions and makes lengthy reference to 'knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles' and also refers to 'indigenous traditional technologies'.

⁶ Ibid.

⁷ Article 2 (14) of Proclamation No 482/2006.

⁸ Daniel Gervais, 'TRIPS, Doha and Traditional Knowledge', *The Journal of World Intellectual Property* 403.

Yet, most agree on the need to protect traditional knowledge because it improves the livelihood of indigenous and local communities, benefits national economies, conserves the environment, and reduces biopiracy.⁹

II. INTELLECTUAL PROPERTY PROTECTION OF TRADITIONAL KNOWLEDGE

Means advocated to protect traditional knowledge often take a defensive or offensive/positive protection. The former refers to measures preventing the acquisition of intellectual property rights, whereas the latter refers to granting positive rights that enable the right holder to resist third parties.¹⁰ The main weakness of defensive models is that it exposes traditional knowledge to exploitation and does not enable right holders to object to exploitation of the knowledge.

Protection of traditional knowledge became of international concern for two main reasons, namely, the exploitation of traditional knowledge without benefit sharing and the increased political prominence of aboriginal communities in various countries.¹¹ These reasons were coupled with increased awareness of the significance of traditional knowledge in the lives of a majority of the world's population and the contribution of protection to conservation of biodiversity.¹² Additionally, 'Western science' discovered that traditional knowledge may provide effective solutions to technological problems.¹³

Until relatively recently, traditional knowledge was regarded as information in the public domain or common heritage of human beings, freely accessible and exploited by companies across territories. This was particularly the case with food, medicinal, agricultural, and body products, in part because traditional knowledge significantly contributed to plant breeding, genetic enhancement, drug development, and biodiversity conservation. Current intellectual property holders of traditional knowledge in many instances appropriated rights

⁹ Graham Dutfield (n1), pp 5- 11.

¹⁰ Alois Leidwein, 'Protection of Traditional Knowledge Associated with Biological and Genetic Resources: General Legal Issues and Measures Already Taken by the European Union and its Member States in the Field of Agriculture and Food Production', (2006), 9 (3), *The Journal of World Intellectual Property*, 251, 251.

¹¹ Daniel Gervais, (n7), p 403.

¹² Sophia Twarog and Promila Kapour (eds), 'Preserving, Protecting and Promoting Traditional Knowledge: National and International Dimensions', (UNCTAD 2004), p 61.

¹³ Carlos M Correa, 'Traditional Knowledge and Intellectual Property: Issues and Options Surrounding the protection of Traditional Knowledge', (the Quaker United Nations Office, 2001), p 3.

without the consent of and compensation to creators of such knowledge. And initiatives for intellectual property protection of traditional knowledge face resistance from these rights holders who fear such protection would undermine their rights.

The protection of traditional knowledge has also become of interest to some developed countries in Europe that have realized the potential of applying traditional knowledge to agricultural pursuits.¹⁴ However, one can easily discern that protection of traditional knowledge is not a pressing issue for most developed countries.

Proponents of the protection of traditional knowledge argue that such protection promotes technological innovation and provides an incentive to indigenous communities to conserve the environment and manage biodiversity.¹⁵ The argument against protection of traditional knowledge holds that such protection will destroy the social basis for generating and managing knowledge - it denies future generations' and industries' access to such knowledge.¹⁶

Numerous international legal bodies and treaties address the protection of traditional knowledge: the Convention on Biological Diversity and the International Undertaking on Plant Genetic Resources for Food and Agriculture (promoting conservation and sustainable use of biodiversity); ILO Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries, the UN Draft Declaration on Indigenous Peoples Rights, UDHR (protecting the rights of indigenous people); the World Intellectual Property (WIPO) (protection of intellectual property); UNESCO (promoting culture); and UNCTAD and WTO (promoting trade).¹⁷

The existing system of international intellectual property law does not adequately protect traditional knowledge. The main difficulties in accommodating the protection of traditional knowledge within the prevailing system of intellectual property relate to the notion of ownership/authorship, which for traditional knowledge does not vest in a particular person, and the notion of temporal limitation. The Paris Convention provides for protection in the context of trademarks, utility models, industrial designs, service marks, and indications of source or appellations of origin. Particularly relevant to protecting origins of communal creations is the collective trademark, certificate, or geographical origin protection afforded under Article 7*bis* of the

Paris Convention and TRIPS Article 22. Protecting the origin indirectly protects the underlying knowledge of a certain good. Traditional knowledge can be protected in the context of undisclosed information under TRIPS Article 39. But most traditional knowledge will not meet the requirements of patentability.¹⁸ Also, the requirement of disclosure in patent laws will make traditional knowledge even more vulnerable. What is obvious is that the prevailing intellectual property system is suited to protect knowledge held in developed countries, not traditional knowledge.

III. TRIPS AND THE CONVENTION ON BIOLOGICAL DIVERSITY

The Convention on Biological Diversity and the International Treaty on Plant Genetic Resources (ITPGR) are the two main international instruments protecting rights relating to biological resources and genetic resources. The Convention on Biological Diversity deals with protection of both biological resources and the traditional knowledge associated with it. Articles 3, 4 and 15 of the Convention on Biological Diversity clearly reveal that states have the sovereign right to regulate access to genetic and biological resources and also the right to exploit such resources themselves. In addition, Article 15 introduces the notion of prior informed consent (PIC) and benefit sharing in relation to genetic resources.¹⁹ The ABS principle has the effect of restricting access to genetic resources; Article 15.5 provides a counter-balance by disallowing contracting parties from imposing restrictions that run counter to the objectives of the convention.

Article 8(j) of the Convention on Biological Diversity states:

Each contracting party shall, subject to its national legislation, respect, preserve, and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization

¹⁸ Unless one argues that traditional knowledge is new to the world beyond that community, the requirement of novelty will not be met; similarly there will be issues of non-obviousness and utility.

¹⁹ However, ABS principles as enshrined in the CBD are not susceptible for direct implementation and instruments like the Bonn and Nagoya protocols are developed to give effect to the principles.

¹⁴ Alois Leidwein, (n 9), 251, 257-58.

¹⁵ Jhon Mugabe, (n 2).

¹⁶ Ibid.

¹⁷ Sophia Twarog and Promila Kapour (n 11), p 61.

of such knowledge, innovations and practices.

Many writers argue that the Convention on Biological Diversity does not impose a definitive obligation on members to protect the knowledge, innovation or practices of indigenous and local communities, because of its reference to national legislation. Additionally, Article 8(j) requires parties to 'respect, preserve, and maintain' traditional knowledge and as such does not enable traditional and local communities to invoke proprietary rights in traditional knowledge. The Convention on Biological Diversity - the pioneer instrument for genetic resources and traditional knowledge in certain respects—is not fully clear as to why a proprietary approach is not applied to traditional knowledge as it is with conventional intellectual property rights. The fact that local communities conceive genetic resources and traditional knowledge, according to principles of openness and broader exploitation, does not conflict with a proprietary approach. The ABS system would have been more effective with the property conception/intellectual property rights regime of traditional knowledge and genetic resources. The Convention on Biological Diversity is premised on the prevention of misappropriation and not on proprietary notions, despite recognizing the sovereignty of states over such resources.

Under TRIPS Article 27, states have an obligation to provide patent protection to inventions and protect plant varieties with either a patent or effective *sui generis* system of protection or any combination thereof. However, that Article does not guarantee recognition or remuneration to communities whose traditional knowledge is used in new inventions or in the new plant varieties. Noteworthy, TRIPS does not incorporate the Convention on Biological Diversity, at least with respect to traditional knowledge. This omission generated arguments that TRIPS undermines and in fact conflicts with the Convention on Biological Diversity, as it does not give effect to the ABS principles of the latter. In other words, under TRIPS, an inventor who benefited from traditional knowledge in creating the new invention or variety can secure patent protection without complying with his/her prior informed consent and ABS obligations under the Convention on Biological Diversity. This puts TRIPS on a collision course with the Convention on Biological Diversity. Even though TRIPS Article 27.3(b) does not prohibit countries from providing protection following the ABS principles of the Convention on Biological Diversity, such protection may not be effective without an international framework; TRIPS patent protection undermines ABS principles in the Convention on Biological Diversity.

In fact there is a strong argument that intellectual property protection of traditional knowledge is not trade related, such that issues can be negotiated either within WIPO or the Convention on Biological Diversity framework, and not in the WTO context. This is mainly because TRIPS Article 2.1 defines intellectual property in terms of 'all categories of intellectual property that are the subject of Sections 1 through 7 of Part II'. When we examine this definition of intellectual property in depth, it appears that intellectual property, for the purposes of TRIPS, refers to the exclusive rights recognized (either conventional or *sui generis*) with respect to creative works in Part II, not creation itself. The provisions in Part II do not recognize exclusive rights regarding traditional knowledge, either as conventional intellectual property or *sui generis* protection. Article 1.1, paragraph 2 of TRIPS allows countries to exceed the minimum standard of protection provided in the Agreement; this can only be seen as referring to stronger exclusive rights recognized in relation to conventional or *sui generis* rights referenced in Part II.

The Doha Declaration addresses the issue of traditional knowledge in the context of TRIPS. It instructs the Council for TRIPS, in pursuing its work programme, to examine, *inter alia*, the relationship between TRIPS and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments raised by Members pursuant to Article 71.1. This brought Article 27.3(b), which deals with biological inventions, to the forefront. And this generated various proposals regarding the relationship between TRIPS and the Convention on Biological Diversity.

The first proposal, presented by many developing countries, required amending TRIPS in such a way that patent applicants are required to disclose the country of origin of the genetic resource and the traditional knowledge on which the invention is based and disclose any evidence of prior informed consent and fair and equitable benefit sharing.²⁰ The second proposal required amendment of WIPO's Patent Cooperation Treaty (WPCT) for domestic patent laws to require disclosure as a condition for grant of patent or its invalidation.²¹ The third proposal, championed by the European Union, supported the requirement of disclosure but suggested that consequences for non-compliance should be dealt with outside the patent regime. The last proposal, by the United States, argued that the Convention on Biological Diversity's objectives on

²⁰ WTO, TRIPS: Review, Article 27.3(b) and Related Issues, http://www.wto.org/english/tratop_e/trips_e/art27_3b_ba ckGRsound_e.htm, last accessed on 3 October 2014.

²¹ Ibid.

access to genetic resources and benefit sharing can best be served by national legislation and contractual arrangements involving obligations to disclose commercial applications of genetic resources and traditional knowledge based on such laws. But the main weakness of the United States' proposal seems to lie in the fact that contractual mechanisms of access framed on national legislation cannot have effect with respect to cross-border misappropriation, and many cases of misappropriation are carried out by foreign companies that obtain intellectual property rights abroad based on traditional knowledge.²²

No proposal aims at providing exclusive rights for traditional knowledge. In fact, one can argue whether the members even needed a declaration or agreement to require disclosure of satisfaction of the ABS principles within the context of TRIPS Article 29. These proposals do not address situations where traditional knowledge and biological resources are misappropriated and used elsewhere without patent application. Furthermore, no provision of any proposal directly recognizes or gives effect to ABS rules in the Convention on Biological Diversity. This may be due to members believing that protection of traditional knowledge is not related to trade. Developing countries should have seized the opportunity to utilize TRIPS for positive protection of traditional knowledge, thereby putting such matters in a trade context. After all, one of the main justifications for protection is to protect commercial interests of local communities, which cannot be realized through a defensive approach alone.

IV. OWNERSHIP AND EXPLOITATION OF GENETIC RESOURCES AND TRADITIONAL KNOWLEDGE IN ETHIOPIA

Ethiopia is a centre of biodiversity.²³ The country has adopted the Convention on Biological Diversity and the ITPGR. The country enacted a legal framework providing an ABS regime in 2006 under Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation No. 482/2006 (access proclamation). To implement the proclamation, the Government has also issued Regulation No. 169/2009. Prior to enactment, there had not been a legal framework requiring informed consent and ensuring equitable sharing of benefits by legitimate holders of traditional knowledge. The access proclamation applies both to genetic resources (both *in situ* and *ex situ*) and community knowledge. However, under Article 4(2), the access proclamation does not apply to the customary use and exchange of genetic resources and community knowledge by and among Ethiopian local

communities, and the sale of produce of biological resources for direct consumption does not involve the use of the genetic resource thereof.

Article 5(1) of the access proclamation vests ownership of genetic resources in the state and the Ethiopian people. This approach is in consonance with the Convention on Biological Diversity, which reiterates the sovereign right of member states over natural resources in their territories. Accordingly, Article 11(1) of the access proclamation provides:

without prejudice to the provisions of Sub-Article 2(a) of Article 4 of this Proclamation, no person shall access genetic resources or community knowledge unless in possession of written access permit granted by the Institute (i.e., the Federal Institute of Biodiversity) based on prior informed consent.

Ethiopia is a federal state and interested parties that intend to access genetic resources even in regional states have to seek an access permit from the federal government.²⁴ However, paragraph 7 of the preamble of the access proclamation deviates from this by recognizing the necessity to involve communities in the decision-making process regarding the use of genetic resources and community knowledge and benefit sharing thereof. Dr Fikremarkos alludes to this line of argument when he says 'it seems strange that the ABS law, while based on the premise that communities have been responsible for the conservation and preservation of genetic resources and consistently referring to the genetic resources as "their" resources, failed to grant them the right to say no to access "their" resources'.²⁵ The approach followed by the access proclamation also contradicts, at least partly, the constitution's empowerment of regional states to administer natural resources (including genetic resources) in accordance with federal laws.

Article 5(2) provides that ownership of community knowledge shall be vested in the local community concerned. Article 2(9) defines 'local community' as a human population living in a distinct geographical area in Ethiopia that acts as a custodian of a given

²⁴ Article 40(1) of the FDRE constitution vests ownership of land and 'other natural resources' in the state and the people of Ethiopia. The power to legislate is also vested in the federal government under Article 55 (5) of the FDRE constitution, which empowers the federal government to enact laws for the utilization and conservation of natural resources; regional governments are vested with the power to administer the resources in accordance with federal laws.

²⁵ Fikremarkos Merso, 'Challenges and Prospects of Implementing the Access and Benefit-Sharing Regime of the Convention on Biological Diversity in Africa: the Case of Ethiopia', (2010), Springer, 250, 258.

²² Carlos M Correa, (n 12), p 17.

²³ <http://www.biodiv.org>.

genetic resource or is the creator of a given community knowledge. Therefore, it does not affect ownership of traditional knowledge in Ethiopia that the same knowledge is held elsewhere by other communities outside the country. Also, it is possible for the same knowledge to be shared among different communities within Ethiopia, in which case, Articles 21 and 26 to 33 of the regulations provide for a community consent procedure.

Regarding the exploitation of traditional knowledge, Article 7(2) of the access proclamation provides the conditions and the procedure by which local communities shall give prior informed consent for access to their community knowledge. Article 22 of the regulations stipulates the manner of soliciting consent of local communities through representation.

V. RIGHTS OF LOCAL COMMUNITIES

Article 6 of the access proclamation recognizes the following rights of local communities over genetic resources and community knowledge:

- The right to regulate access to their community knowledge;
- the inalienable right to use their genetic resources and community knowledge; and
- the right to profit from the benefits arising out of the utilization of their genetic resources and community knowledge.

The right of local communities to regulate access to their community knowledge includes the right to give prior informed consent, the right to refuse consent, the right to withdraw or place restrictions on prior informed consent given for access to community knowledge, and the right to demand restrictions or withdrawal of prior informed consent given by the federal Biodiversity Institute (BDI) for access to their genetic resources.²⁶ In relation to access to genetic resources, local communities can only 'demand' restriction or withdrawal of prior informed consent given by the BDI and there is no provision which states that such demand will bind the BDI. There is no procedure to seek consent of local communities before the grant of the permit, except that they will have opportunity to cast their objection when the access application is published under Article 6 of the regulations.

Article 7(1) of the access proclamation makes clear that local communities cannot refuse consent or restrict or revoke consent arbitrarily, but can only on

grounds of integrity of culture or natural heritage and detriment to socioeconomic life. Further, grounds for denial of a permit by the BDI are provided under Article 13 and mainly relate to biodiversity conservation and sustainable use of biological resources, as spelled out in the objective of the access proclamation under Article 3.

Under Article 11 of the access proclamation, anyone who wants to access genetic resources or traditional knowledge must acquire a written access permit from the BDI based on prior informed consent. Article 19 of the access proclamation sets economic and non-economic terms that may be included in the ABS agreement. The Article 15 procedure for accelerated access provides Ethiopian higher learning and research institutions and intergovernmental organizations access permits outside of the procedures described above.

We can infer that local communities have a right of action against anyone who exploits traditional knowledge acquired in any manner without their consent. Article 2(1) of the access proclamation defines access as the collection, acquisition, transfer, or use of genetic resources and/or community knowledge. In this regard we can characterize the system of protection in the access proclamation as positive protection that prevents commercial exploitation by others. It can also be seen as providing negative protection that prevents others from acquiring intellectual property rights on creations based on traditional knowledge as such presupposes access. However, other laws, including the patent proclamation, do not give effect to this right as the requirement of disclosure of origin of underlying traditional knowledge – prior informed consent and proof of benefit sharing - are not a precondition for a grant of patent.

When we see the exploitation of access to money, Article 9(1) of the access proclamation entitles local communities to money collected from access to community knowledge. Under Sub-Article (2), local communities also are entitled to 50 per cent of the money derived from utilization of their genetic resources; the other 50 per cent goes to the federal government. Article 28 of the regulations provides that access money, which devolves to local communities, should be used to finance development projects designed to benefit the concerned communities. The money that goes to the federal government will be used, under Article 27 of the regulations, for biodiversity conservation based on selected project proposals.

²⁶ Article 7(1) of the access proclamation.

VI. SOME EXPERIENCE WITH ACCESS AND BENEFIT SHARING AGREEMENTS IN ETHIOPIA

Based on the legislation discussed above, Ethiopia passed two ABS agreements: an agreement on teff (*Eragrostis tef*) and an agreement on vernonia (*vernonia galamensis*). The latter agreement was made between the Ethiopian Federal Institute of Biodiversity and Vernique Biotech Ltd in July 2006. Vernique terminated this agreement in 2009, mainly on alleged grounds of lack of profit. Teff is gluten-free grain heralded for its value over other grains such as wheat, barley, and maize, and it is used mainly in making the Ethiopian staple called *injera*, not to mention its use in gruel, cakes, and homemade beverages.²⁷ The teff agreement was signed in April 2005 with a Dutch Company, Health and Performance Food International (HPFI), for a duration of ten years, and this agreement was retained within the framework of the access proclamation enacted later in 2006. The agreement, under Article 3, gives the company the exclusive right to access and use the genetic resource of teff for the purpose of developing non-traditional teff-based food and beverage products that are listed in Annex 3 of the agreement. The agreement imposes some obligations on the company, including the obligation not to use teff for other purposes, not to access traditional knowledge on conservation, cultivation and use of teff, and not to claim any right on such knowledge without explicit agreement of the other party. Additionally, the company could not claim intellectual property on the genetic resource of teff (except joint ownership of plant variety protection over new teff varieties), must acknowledge Ethiopia as the genetic origin of teff, and must not transfer any component of teff to third parties.

In addition, the agreement imposed benefit-sharing obligations, including payment of a lump sum, an annual royalty of 30 per cent of net profit of seed sales, an annual licence fee, a dividend of 5 per cent of annual profit, and an obligation to involve Ethiopian scientists in any research.

However, over time it became clear that the company failed to comply with almost all of the benefit sharing obligations. In addition the company succeeded in seeking product and process patents for processing teff in the Netherlands, Europe, and beyond; it also secured protection for new varieties of teff.

The current patent law of Ethiopia allows foreigners to claim patent-based reciprocity or international

agreement.²⁸ But it is unlikely that the teff-processing patent will pass the test of novelty as the patent claims are preempted by traditional Ethiopian knowledge. However, disclosure of origin of genetic material and proof of benefit sharing is not required under current patent law and a patent may be claimed in relation to an invention based on pirated genetic material.²⁹

PHFI transferred its teff patent rights to another company founded by PHFI and then insisted that the new entity was not bound by ABS obligations. This placed the ABS agreement at a cross roads and whatever obligations the company assumed under the Ethiopian law vanished, placing the issues at the mercy of the Netherlands' domestic law. In fact, whatever remedy may be available under the Netherlands' domestic law is simply beyond the reach of least developed countries such as Ethiopia, who cannot cover cost of litigation abroad.

Compounding the frustration and upset of such situations is that upfront payments are often not agreed up on and no security to ensure performance by recipients of traditional knowledge and genetic resources of their obligations are granted. The proclamation, under Article 12(4), provides that an access applicant who is a foreigner shall present a letter from the competent authority of his national state or his domicile assuring that it shall uphold and enforce the access obligations of the applicant. In the teff case, only the Ambassador of the Netherlands signed as a witness and this in no way imposes a contractual obligation. One may strongly argue in a situation where a multilateral framework is helpful, states should devise bilateral arrangements before ABS agreements are concluded. The anticipated Nagoya Protocol itself will not make much difference when/if it is implemented, as it does not have an effective mechanism for settlement of ABS disputes.

At its outset, the teff agreement was hailed as a success of the ABS system under the framework of the Convention on Biological Diversity. Yet, it ended up in bitter lessons, and Ethiopia views the subject with extreme caution; no other material transfer agreements have been signed to date.

²⁸ Article 5, Patent Proclamation No 123/1995.

²⁹ The obligation of the permit holder to recognize the origin of genetic resources or traditional knowledge under Article 17(14) in the application for commercial property protection of the product developed therefrom is not incorporated in the patent proclamation as a condition for the issue of a patent.

²⁷ Regine Anderen and Tone Winge, 'The Access and Benefit-Sharing Agreement on Teff Genetic Resources: Facts and Lessons', (Fridtjof Nansen Institute, 2012), p 7.

VII. CONCLUSION

Both developing and developed countries have opted not to employ a positive intellectual property right approach to protect traditional knowledge. This has emboldened the suspicion that protection of traditional knowledge is not trade related, and no proposal for minimum standards was tabled by developing countries during the Doha Round of trade negotiations. The legitimate quest for positive intellectual property protection has been sacrificed for the sake of retaining the status quo designed to benefit only the conventional intellectual property sector. The lack of minimum standards of intellectual property rights, coupled with the lack of effective dispute settlement mechanisms in the Convention on Biological Diversity, means that ABS agreements, in principle, do not have effect beyond the territorial frontiers of the countries concerned. As a result, there are indications that foreign companies have started using ABS agreements to facilitate biopiracy and misappropriation of traditional knowledge. The teff agreement clearly reveals that foreign companies can access genetic resources and traditional knowledge using ABS agreements and renege on such agreements with impunity. To leave regulation of ABS agreements to contracts and domestic laws is an utter bias against traditional knowledge. To leave out traditional knowledge from TRIPS is a glaring discrimination. In this vein, the Ethiopian access proclamation failed to give effect to property rights of local communities over their traditional knowledge recognized under the federal constitution.

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