

Protecting traditional knowledge in Africa: Considering African approaches

Loretta Feris*

Associate Professor of Law and Research Associate, Centre for Human Rights,
University of Pretoria, South Africa

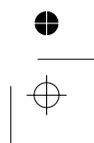
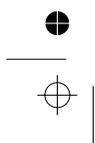
Summary

This article reflects on various legal mechanisms that are available to protect traditional knowledge. Its departing point is that legal protection of traditional knowledge requires a response that is pragmatic, yet innovative. It assesses the usefulness of conventional legal machinery such as intellectual property rights and contract law and comments on the failure of these tools to accommodate the more amorphous traditional knowledge systems. The article investigates other responses, such as the conception of sui generis rights and protection by way of human rights law. In doing so, it specifically explores the African normative legal framework that could be utilised in the protection of traditional knowledge.

1 Introduction

Over the last few decades we have witnessed the spectacular growth of globalisation; a phenomenon that includes the ability of individuals and corporate entities to gain virtually unfettered access to information. Consequently, knowledge related to the customs and practices derived from bioresources held by indigenous groups in Africa have fallen prey to unregulated appropriation. In an era where knowledge has become increasingly accessible, very little has been done in Africa to restrict the flow of knowledge from the continent. Notwithstanding the mandate contained in the Cultural Charter for Africa that calls for the legal and

* BA LLB (Stellenbosch), LLM (Georgetown), LLD (Stellenbosch); loretta.feris@up.ac.za



practical protection of African cultural heritage,¹ the information flow in respect of traditional knowledge continues.

This outward flow of knowledge is related to the dominance of the western world in the sphere of technological innovation and the ability to usurp intellectual capacity. In the realm of traditional knowledge, most African societies view this type of knowledge as a communal value, to be placed in the public domain and not necessarily as a profit-bearing commodity. Research institutions, biotechnological companies, pharmaceutical companies and the like do not, however, share this generous view and have focused on ways to obtain biodiversity-related knowledge and profit from it to the exclusion of others, including the original holders of the knowledge. Thus, the regulatory vacuum that exists in most African countries has left traditional knowledge largely unprotected and vulnerable to annexation.

There are, however, a variety of ways to protect biodiversity-related knowledge. The existing intellectual property rights system as well as the law of contract can be utilised to some extent. More recently, the idea of a *sui generis* right has been developed. This approach has been captured in a regional initiative by the Organization of African Unity (OAU): the Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders and for the Regulation of Access to Biological Resources (Model Law).² Another potential tool that could be instructive in the protection of traditional knowledge is the African Charter on Human and Peoples' Rights (African Charter or Charter). A human rights-based approach to traditional knowledge has been largely neglected, yet the African Charter provides for a number of rights that provide protection to holders of traditional knowledge.

The first part of this paper will provide the context of exploitation as well as the nature of biodiversity-associated knowledge systems. The second part will briefly refer to existing defensive and offensive mechanisms, focusing on the limitations of these tools in protecting traditional knowledge (TK). The third part of the paper will explore African mechanisms and will address both the option of developing a *sui generis* right in line with the OAU Model Law and possibilities for human rights protection in line with the rights and obligations flowing from the African Charter.

¹ Art 26 Cultural Charter for Africa, available at <http://www.dfa.gov> (accessed 31 July 2004). This Charter was adopted on 5 July 1976 and came into force on 19 September 1999. See C Heyns (ed) *Human rights law in Africa* (2004) 125.

² In April 1998, the then Organization for African Unity (OAU) (now known as the African Union (AU)), through its Scientific, Technical and Research Commission initiated a Draft Model Legislation on Community Rights and Access to Biological Resources. The Draft Model Legislation was sponsored by the government of Ethiopia at the 34th Summit of Heads of State and Government in June/July 1998, at which it was decided that governments of member states should formally adopt the Model Law. This initiative represents an attempt to provide an ideal legal framework for member states to develop their own policies, laws and regulations on access to bioresources.

2 The context of exploitation

Africa is a continent rich in biodiversity. According to a study by the United Nations Environmental Programme (UNEP), the region is home to more than 50 000 known plant species, 1 000 mammal species and 1 500 bird species.³ The people of Africa depend on the flora and fauna for basic survival needs. Moreover, Africans have long used the knowledge of their environment and resources to provide food, medicines and cosmetics, to breed better crops and livestock and in general to shape their ecosystems.

Over the last few decades, biodiversity has become a potential income generator in innovative and pioneering ways. The use of genetic plant and animal sources as the basis for biotechnology is a multi-billion dollar industry. Biodiversity in the age of biotechnology has given rise to the 'Green Rush' in ways that the discovery of gold led to the Gold Rush. Biodiversity is of particular interest to prospectors who search for genetic resources that have commercial value for the research-based pharmaceutical, biotechnological and agricultural industries. Whilst about a quarter of all modern medicines that are sold in the United States are derived from natural products, it cannot be said, however, that the profits of this so-called 'Green Rush' have always benefited the suppliers of the genetic material, which are for the most part the developing world.

Even more hotly contested are the claims of biopiracy. These are claims that indigenous and community knowledge, innovations and practices about the medicinal, cultural, cosmetic, domestic or other value and use of bioresources have been widely appropriated. Not being recognised as either 'scientific' or valuable within traditional Western frameworks of knowledge and ideas, it has been freely utilised by others and patented to the exclusion of its originators and original owners.

Consider the case of the katempfe and serendipity berries, which have long been used by African peoples for their sweetening properties. The University of California and Lucky Biotech, a Japanese corporation, were granted a patent for the sweetening proteins naturally derived from these African plants. It is said that thaumatin, the substance that makes katempfe sweet, is 2 000 times sweeter than sugar, yet calorie-free. The patent is extensive and covers any transgenic plant containing the derived sweetening proteins; however, no attempts have been made to share benefits with local communities.⁴

³ UNEP *Global environmental outlook 2000, ch 2, The state of the environment — Africa*; <http://www1.unep.org/geo-text/0055.html> (accessed 1 April 2003).

⁴ See N Roht-Arriaza 'Of seeds and shamans: The appropriation of the scientific and technical knowledge of indigenous and local communities' (1996) 17 *Michigan Journal of International Law* 919, citing 'Intellectual property rights for whom?' *GRAIN Biobriefing* (June 1994) Part 2 5.

This example represents the tip of the iceberg. Dozens of patents have been established outside of Africa, based on knowledge derived from local communities.⁵ To understand why incidents like this have become widespread, not only in Africa but also throughout the developing world, requires a full understanding of the nature of TK.

As a matter of course, regulating any subject matter requires the identification of a tangible and defined entity. Conceptually, however, it is difficult to delineate TK as no universal definition exists.⁶ According to the World Intellectual Property Organisation (WIPO), a lack of definitional clarity is a result of three factors: (1) the inability to translate the linguistic context of a word; (2) the lack of appropriate translations for terms; and (3) the presence of non-standard usage of certain terminology.⁷ A fourth reason may be the amorphous nature of TK. As a knowledge construct it is fluid, dynamic and its authorship is often (albeit not always) collective and oral in nature. One commentator advises that given the difficulty in defining and distinguishing TK from other knowledge, it is best to define it in general terms.⁸

The dearth of legal protection can also be ascribed to the diminutive value attached to TK. Unlike Western sources of information, TK is held and passed along not in a written, but mostly oral form. Many legal systems provide less (if any) consideration to ideas that are not contained in a written format. The limitations of Western styled intellectual property systems are instructive in this regard. In Western society, ideas are protected (and rewarded) through intellectual property law. Rights derived from such protection — intellectual property rights (IPRs or IP rights) — are deemed to protect against exploitation, whilst at the same time encouraging original, creative and innovative activity.⁹ It is, therefore, safe to say that the underlying philosophy of IPRs is to reward creativity. Under patent law, for example, in order to acquire a patent, the invention must not only be non-obvious and useful, but also novel.¹⁰ In other words, the invention should be new and not have been in existence or anticipated in the prior art. TK products and processes, however, often become the subject of patents

⁵ For a list of some of these patents, see *Patents in Africa, Genetic Resources International GRAIN* (April 2001) available at <http://www.grain.org/docs/patentsafrica.pdf> (accessed 1 April 2003).

⁶ See WIPO *Traditional knowledge — Operational terms and definitions*, WIPO/GRTKF/IC/3/9 (20 May 2002) paras 3–4.

⁷ See WIPO *Intellectual property needs and expectations of traditional knowledge holders* WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998–1999) 21.

⁸ See G Dutfield 'TRIPS-related aspects of traditional knowledge' (2001) 33 *Case Western Journal of International Law* 233 240.

⁹ See J Watal *Intellectual property rights in the WTO and developing countries* (2001) 1.

¹⁰ Art 27 WTO Agreement on Trade Related Intellectual Property Rights (TRIPS).

in Western countries, even though they may not pass the 'novelty' test as a whole. This is mainly as a result of the fact that patent offices in countries such as the US and Japan allows the *written* prior art to be searched anywhere in the world, but restricts the search of *oral* prior art within its borders.¹¹ Yet, it is the *oral* art that provides the basis for most patent applications.

In recent years, the developing world and indigenous communities have stepped forward to claim recognition of their sovereign rights over biological resources and protection of their traditional knowledge, respectively. In this regard, they have turned to international law and comparative regional and domestic models for possible solutions. Considerable efforts are under way to curb access to bioresources and governments are beginning to act proactively by translating international norms on access to bioresources into domestic regulation.¹² Some challenges in the protection of TK do, however, remain.

3 The limits of existing models for protecting traditional knowledge

3.1 The limits of defensive mechanisms

Defensive protection of TK consists of 'measures that ensure that other parties do not successfully obtain IP rights over pre-existing TK', while positive protection of TK is achieved through 'existing legal mechanisms', such as 'contracts, access restrictions and IPRs'.¹³ However, these concepts are not mutually exclusive. An effective protective scheme may contain elements of both these concepts.

Defensive protection of TK involves 'taking measures to ensure that unauthorised parties do not unfairly acquire intellectual property rights over other people's TK'.¹⁴ Three types of defensive protection can be noted: (1) the use of databases to identify the prior art;¹⁵ (2) secrecy; and (3) the imposition of a disclosure requirement as a condition for acquiring IP rights.

¹¹ Watal (n 9 above) 90.

¹² The South African National Environmental Management Act: Biodiversity Act 10 of 2004, eg, attempts to regulate access to bioresources and provide for equitable benefit sharing.

¹³ WIPO 'Intellectual property and genetic resources, traditional knowledge and folklore — Traditional knowledge at <http://www.wipo.int/globalissues/tk/background/index.html> (accessed 3 March 2003).

¹⁴ As above.

¹⁵ A number of databases exist in Africa, such as the World Bank's 'Database of indigenous knowledge and practices in sub-Saharan Africa' <http://www.worldbank.org/afr/ik/now.htm> (accessed 3 March 2003); the Traditional Medicines Research Group's database in South Africa, <http://www.mrc.ac.za/Tramed/> (accessed 30 April 2003); and the Department of Botany's database at Makerere University in Uganda.

Defensive regimes are not, however, without their own particular set of difficulties. Whilst databases, for example, serve to improve the information of the prior art available to patent examiners, such documentation will not necessarily prevent the patenting of commercial products or processes based on TK disclosed in the library.¹⁶ Second, documentation alone will not assure any return for holders of TK. Lastly, as the information contained in the database is in the public domain, it also prevents the holders of TK to apply for IP protection should they wish to do so.¹⁷ Secrecy as defensive device brings about a number of practical considerations. If the knowledge is known amongst several members of a community, it may be hard to enforce a secrecy code. This becomes more of a challenge should the knowledge be shared amongst several communities, which is often the case. In the case of a single knowledge holder, the drawback is that the TK practised by the holder runs the risk of being irretrievably lost, unless that knowledge is documented or disseminated in some form.¹⁸

Finally, source disclosure and prior consent requirements are not presently mandated under the World Trade Organisation (WTO) Trade-Related Intellectual Property Rights (TRIPS) Agreement.¹⁹ TRIPS does not require source disclosure of the invention or the prior consent of the holder for patentability, and does not provide for the absence of these conditions as a basis for invalidation/revocation.²⁰ As a result, governments are not required to amend their domestic regulations to require patent applicants to provide patent offices with information concerning the origin of the genetic resources in the invention or some proof of prior informed consent from TK holders.

¹⁶ 'Legislative options for protection' *The Hindu* (29 April 2002), available at <http://www.iprlawindia.org> (accessed 3 March 2003).

¹⁷ WIPO (n 7 above) 89.

¹⁸ n 16 above.

¹⁹ *WTO Agreement on Trade-Related Intellectual Property Rights* (1994).

²⁰ Some developing nations have taken the position, however, that the relationship between the CBD and TRIPS should be clarified, primarily by amending the TRIPS Agreement on this aspect. At a recent TRIPS Council meeting, a group of African and Caribbean countries stressed the need for a multilateral solution to this issue in the TRIPS Council. In a submission to the Council, the group called for an amendment of the TRIPS provision to 'require for a patent to disclose the country and area of origin of any biological resources and traditional knowledge used, or involved in the invention, and to provide confirmation of compliance with all access regulation in the country of origin'. See 'Taking forward the review of article 27.3B of the TRIPs Agreement' Communication of the Africa Group (IP/C/W/404) available at <http://docsonline.wto.org> (accessed 12 June 2003).

3.2 The limits of positive/offensive mechanisms

3.2.1 Intellectual property protection

IP rights are often regarded as the most effective legal mechanism to safeguard the products of human creativity. Western notions of individual ownership of IP are, however, philosophically at odds with the collective nature of TK rights. Whilst sharing of knowledge is for some communities entrenched in their cultural values and customary laws and systems, IP law counters these traditions and beliefs and dictates that the sharing of knowledge should carry monetary value. Using IP to protect traditional knowledge thus necessitates a profound shift in how people construct their own practices and cultural values. In addition to these theoretical divergences, the amorphous nature of TK also limits the scope for using IP rights to protect biodiversity-related TK.

Trade secret protection,²¹ for example, requires that the privileged information is not in the public domain, that it is subject to reasonable steps to keep it undisclosed and that it has commercial value as a result of its secrecy.²² Certain types of TK may actually qualify for trade secret protection, in particular information that is not known outside of a particular community or group. However, protecting TK by means of trade secrets requires positive action by the holder(s) of the information. Thus, unless a local community or indigenous group designates information as a trade secret and takes positive steps to protect it, any unauthorised acquisition or use by a third party would not be protected.²³

Another form of IP protection, namely geographical indication,²⁴ provides only limited scope for positive protection. Often used in the challenging of trademarks, geographical indication can be utilised to prevent the misleading use of any means in the designation or presentation of a good that indicates or suggests that the good in question originated in a geographical area other than the true place of origin.²⁵ Domestic protection of bioresources that act as the basis for TK may, for instance, include a registration system such as the one used in Europe for wines and spirits.²⁶ However, products derived from natural

²¹ Trade secrets allow individual or legal persons to prevent information lawfully in their control from being disclosed to, acquired by, or used by others without their consent.

²² Art 39(2) TRIPS.

²³ See JR Axt *et al* *Biotechnology, indigenous peoples and intellectual property rights* Congressional Research Service (1993) 63 66. Such positive action would include providing restricted access only to an outside third party who is contracting with the group to access the knowledge for research and commercial purposes.

²⁴ Geographical indications are 'indications which identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographic origin' (art 22 (1) TRIPS).

²⁵ As above.

²⁶ Watal (n 9 above) 274.

resources indigenous to a specific geographical territory may qualify for protection only if the concerned name has not yet become generic or semi-generic, either locally or internationally. Holders of TK would thus only benefit if they act pro-actively in the protection of bioresources.

The most effective form of positive protection of TK arguably lies in the area of patent law.²⁷ In order for TK to benefit from patent protection, the three criteria for patentability, namely novelty, non-obviousness and usefulness, must, however, be satisfied. Of these three requirements, utility is arguably the easiest to satisfy. The utility criterion ensures that those products or processes that, although novel and non-obvious, but without current practical application, are prevented from being patented. TK would, for the most part, fulfil this requirement as it has been utilised for generations within the community.

The requirements of novelty and non-obviousness, on the other hand, prove more challenging. The novelty requirement constrains the use of patents as a form of protection for TK, since no individual applicant from an indigenous group or local community can realistically claim to have *invented* the matter at issue. The nature of TK is that it has been passed from one generation to another and may furthermore be known to other members of the community or group as well. The requirement of non-obviousness or 'an inventive step' is similarly difficult to fulfil, as it is tricky to track down the original 'inventor' of specific TK. The inventive step may have occurred generations ago and would be difficult to trace.²⁸ Thus, while patent law can be useful in the protection of TK, it can also be unwieldy and awkward to use and apply.

3.2.2 Protection via contract law

Given the difficulties in applying the classic IPR regime to TK, many countries and communities have taken the more pragmatic route of turning to contract law for a possible solution. Research institutions and pharmaceutical companies have established co-operation agreements with developing country governments and indigenous people/communities, whereby they receive prior informed consent to obtain biotechnological samples and utilise associated TK. In turn, they agree to share the profits from any commercial product derived from the biotechnological material with the indigenous people/communities.²⁹

²⁷ A patent is an exclusive right granted for an invention, being a product or process that offers a new technical solution to a problem. See WIPO (n 7 above) 35.

²⁸ It has been noted, however, that TK is not necessarily inert; rather, it is intrinsically innovative and as such intellectual effort continues to be improved upon and applied in modern times. See I Mgbeoji 'Patents and traditional knowledge of the uses of plants: Is a communal patent regime part of the solution to the scourge of biopiracy?' (Fall 2001) 9 *Indiana Journal of Global Legal Studies* 163 180.

²⁹ See EJ Asebey 'Biodiversity prospecting: Fulfilling the mandate of the Biodiversity Convention' (1995) 28 *Vanderbilt Journal of Transnational Law* 720 730; see also

The most recent example of a co-operation agreement in Africa is the one between the Khomani San people of Southern Africa and South Africa's Council for Scientific and Industrial Research (CSIR). In 2002, the CSIR and the San Council reached a 'memorandum of understanding' acknowledging the rights of the San as 'custodians of the ancient body of traditional knowledge' and the CSIR's role in developing the technology involved in extracting anti-obesity properties out of a plant known and used by the San to sustain them in times when they do not have access to water and food.³⁰ Contractual arrangements of this type can be beneficial for holders of TK. It does, however, have its limits. In most developing countries, including most of Africa, access to bioresources and associated knowledge and benefit sharing is not regulated. Contractual arrangements thus take place in the context of the standard contract law. Numerous problems arise in the context of contract law, such as enforcement, and specifically with regard to the fact that only parties to a contract can enforce it. This raises questions as to the successors of the community members who are the original contractees.

Furthermore, the law of contract assumes relative equality in bargaining strength. The truth of the matter is that most holders of TK do not have the capacity to negotiate fair terms. Even worse is that, in the presence of a legal regulatory vacuum, an agreement depends in part on whether the research institution or other users of TK possess the moral (and financial) authority and will to engage the local community.

Whilst there is no prescribed formula for contractual agreements, they can only really protect the interests of TK holders if they are created within a legal framework designed to regulate access to bioresources and associated TK.

ACA Muller 'Protecting biotechnological inventions in Brazil and abroad: Draft, scope and interpretation of claims' (2002) 13 *Albany Law Journal of Science and Technology* 145 153.

³⁰ See 'Extinct San reaps rewards' *Mail & Guardian* 8 January 2003; <http://www.mg.co.za> (accessed 18 April 2003). See also 'Bushmen to win royalties from slimming drug' *Mail & Guardian* 27 March 2003; <http://www.mg.co.za> (accessed 18 April 2003). The CSIR agreed to pay the San 8% of milestone payments made by its licensee, Phytopharm, during the drug's clinical development over the next three to four years. The San could also earn 6% of all royalties if and when the drug is marketed, possibly in 2008.

4 Alternative mechanisms for the protection of traditional knowledge

4.1 A *sui generis* system within the context of the African Model Law

A somewhat unique form of positive protection is the development of a *sui generis* system specifically designed to protect TK. A *sui generis* approach modifies some of the features of existing IP rights so as to accommodate the requirements of the specific subject matter at hand. A number of legislative models exist around the world that have incorporated a *sui generis* model in the form of 'collective/communal intellectual rights'.³¹

The OAU Model Law attempts to provide a model for Africa.³² The Model Law is instructive in many ways. First, it recognises that in many African countries some form of formal or informal communal control over biological resources does exist. Second, it also recognises that states may not always be, and in fact have not always been, protective of the rights of communities over their local bioresources, or ensured that communities benefit from their knowledge and practices. Third, it acknowledges that traditional ecological knowledge and practices often differ significantly from Western concepts of intellectual property and, as such, warrants dissimilar protection. It recognises 'community intellectual rights' as rights that are enshrined and protected under community norms and practices and customary law.³³ Article 16 specifically acknowledges the rights of communities over their biological resources and knowledge, and the right to *collectively* benefit from the use of their biological resources and the utilisation of their knowledge, innovations, practices and technologies.³⁴

Two central provisions are articles 17 and 23. Article 17 provides for the recognition and protection of community rights under the norms

³¹ These countries include Bangladesh, Brazil, Costa Rica, India, Peru, Philippines and Thailand. See GRAIN 'Community rights' available at <http://www.grain.org/brl/comm-brl-en.cfm> (accessed 7 May 2003).

³² See n 2 above.

³³ Art 1 defines a 'local community' as a 'human population in a distinct geographical area, with ownership over its biological resources, innovations, practices, knowledge and technologies, governed partially or completely by its own customs, traditions or laws'.

³⁴ It states: 'The state recognises the rights of communities over the following: their biological resources; the right to collectively benefit from the use of their biological resources; the right to collectively benefit from the utilisation of their innovations, practices, knowledge and technologies; their rights to use their innovations, practices, knowledge and technologies in the conservation and sustainable use of biological diversity; the exercise of collective rights as legitimate custodians and users of their biological resources.'

and practices of customary law. Article 23 reinforces the idea of placing the responsibility of determining what constitutes those rights upon the communities themselves.³⁵ It also deals with the notion of community rights as intellectual property rights that are inalienable and as such protected from appropriation.³⁶ Protection of ideas and practices exists without the requirement of a positive act such as registration, and prior publication of TK does not preclude the local community from exercising the intellectual right.³⁷

An issue to consider is whether these collectively owned and exercised rights are compatible with the TRIPS Agreement. The preamble of TRIPS specifically provides that 'intellectual property rights are private rights'. However, IP rights have already become more collective in nature. As a result of corporate or institutional research and development activities, IP rights such as patents are increasingly being treated as collective endeavours.³⁸ Furthermore, the notion of establishing a *sui generis* right is derived from the vacuum that exists within the realm of IP to cover those areas that do not fit under traditional conceptions of intellectual property. A *sui generis* right, therefore, would not have to be tailored as a traditional IP right. As such, the 'private right' provision of TRIPS would not apply to a *sui generis* right.

The Model Law provides a solution to some of the more philosophical and practical difficulties encountered in the protection of TK. It also provides a mechanism through which African governments can fulfil their mandate to protect TK under regional treaties, such as the Cultural Charter for Africa³⁹ and the African Charter.⁴⁰ Domestic regulation based on the Model Law, will, however, have to be tailored to the specific conditions, practices and legal systems of each state. In this respect, aspects such as the nature of the right, acquisition of the right and enforcement of the right will to a large extent depend on customary norms and practices of different communities. Countries like Egypt, Namibia, Zimbabwe and South Africa already have legislation with some

³⁵ Art 23(2) states that '[a]n item of community innovation, practice, knowledge or technology, or a particular use of a biological or any other natural resource shall be identified, interpreted and ascertained by the local communities concerned themselves under their customary practice and law, whether such law is written or not'.

³⁶ Art 23(1).

³⁷ Arts 23(3) & (4).

³⁸ See G Dutfield 'TRIPS-related aspects of traditional knowledge' (2001) 33 *Case Western Reserve Journal of International Law* 233 240.

³⁹ Art 26 states that 'African cultural heritage must be protected on the legal and practical planes in the manner laid down in the international instruments in force and in conformity with the best standards applicable in this field'.

⁴⁰ See the discussion in para 2 below. In the interpretation of the Charter, the African Commission is required to draw inspiration from the provisions contained in 'various African instruments on human and peoples' rights . . .' (art 60 of the Charter).

components of the Model Law, whilst others, such as Nigeria, Uganda and Zambia have developed draft legislation.

4.2 Utilising the African human rights system

The African Charter contains a number of provisions that can be used as both defensive and offensive mechanisms in the protection of TK. Article 1 mandates state parties to 'recognise the rights, duties and freedoms enshrined in the Charter' and to 'adopt legislative or other measures to give effect to them'. Thus, in terms of the Charter, contracting parties have a duty to respect, protect and fulfil the rights contained in the Charter.⁴¹

In the *SERAC* case,⁴² the African Commission on Human and Peoples' Rights (African Commission) indicated that 'respect' entails refraining from interference with the 'enjoyment of all fundamental rights'. The 'recognition of rights, duties and freedoms' would thus include an obligation on states to refrain from interfering in those rights and freedoms.⁴³ The mandate to 'adopt legislative or other measures to give effect to them', on the other hand, places a duty on African states to adopt positive measures in the protection of these rights and freedoms. It has also been suggested that states have to fulfil the rights through the obligation to 'move its machinery towards the actual realisation of the right'.⁴⁴ It can therefore be argued that member states have an obligation to respect, protect and fulfil the rights of traditional knowledge holders. These include rights such as the right to property, environmental rights and the right to development.

Article 14 of the African Charter provides:

The right to property shall be guaranteed. It may only be encroached upon in the interest of public need or in the general interest of the community and in accordance with the provisions of appropriate laws.

TK, as a form of intellectual property, undoubtedly falls within the realm of property. Unlike Western notions of IP, the nature of TK is such that it is either individually or communally held. It is submitted that the right to property contained in the African Charter is not restricted to private property, and therefore communally held TK is also protected. This implies that the holders of TK 'have the right to undisturbed possession, use and control of their property however they deem fit'.⁴⁵

Article 24 is an environmental right and stipulates that '[a]ll people shall have the right to a generally satisfactory environment favourable to their development'. In the *SERAC* case,⁴⁶ the scope and content of this

⁴¹ Heyns (n 1 above) 408.

⁴² Communication 155/96, *SERAC & Another v Nigeria* para 44.

⁴³ As above.

⁴⁴ n 42 above, para 47.

⁴⁵ *Huri-Laws v Nigeria* (2000) AHRLR 273 (ACHPR 2000) para 52.

⁴⁶ *SERAC* case (n 42 above).

right were considered. In enumerating this right, the African Commission referred to the principles contained in articles 60 and 61 of the African Charter, which allow the Commission to consider other relevant international and African instruments in the interpretation of the African Charter.⁴⁷ The African Commission regards the environmental right as an *essential right*⁴⁸ which requires a government, amongst others, to:

- (i) promote conservation and ensure ecological sustainable development and the use of natural resources;⁴⁹
- (ii) provide access to information to communities involved;⁵⁰ and
- (iii) grant those affected an opportunity to be heard and participate in the development process.⁵¹

The obligation to 'promote conservation and ensure ecological sustainable development and the use of natural resources' entails that states should protect natural resources and regulate access to bio-resources, as these provide the basis for TK. In addition, it also implies the protection of TK itself. The protection of TK under the environmental right is in line with the notion of an expanded understanding of the concept 'environment'. It has been argued that, in line with an anthropocentric approach to the environment, the term 'environment' should not be limited to the non-human natural environment, but should be defined broadly to specifically include the interrelationships between humans and the natural environment.⁵² As a result, an environmental right could then provide for traditional rights, needs and values of indigenous cultures and communities.

The second and third obligations contain procedural aspects, which are fundamental to the exercise of the substantive rights.⁵³ Access to information, for example, is essential for TK holders in gaining insight into the scope of government decisions regarding natural resources, particularly access to biological resources. Similarly, the third obligation provides an opportunity for TK holders to participate in, and comment on, those decisions that may detrimentally affect the protection that

⁴⁷ n 42 above, para 44.

⁴⁸ n 42 above, para 68.

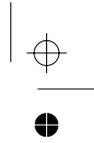
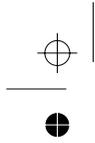
⁴⁹ n 42 above, para 52.

⁵⁰ As above.

⁵¹ Para 53.

⁵² See L Feris & D Tladi 'Environmental rights' in D Brand & C Heyns (eds) *Socio-economic rights in South Africa: International and constitutional law* (2004) (forthcoming).

⁵³ Principle 10 of the Rio Declaration on Environment and Development recognises the need to have access to information in order to protect the environment, and notes: 'At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes.' Available on <http://www.unep.org> (accessed 10 August 2004).



they enjoy in terms of article 24. As mentioned by one commentator, 'procedural rights will play an integral role in ascertaining whether the right to a generally satisfactory environment has been violated'.⁵⁴

Finally, the right to development contained in article 22(1) provides that '[all] peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the heritage of mankind'. TK provides a vehicle, not only for social and cultural development, but given the growth in biotechnology, also for economic development of communities. It is in this regard that states should ensure that they provide mechanisms for the protection of TK in line with their duty contained in article 22(2).⁵⁵

5 Conclusion

Various options for the protection of TK exist. Some mechanisms are more appropriate than others, and certainly a 'one size fits all' solution for protecting traditional knowledge is not feasible. It is thus important that African countries make an assessment of possible best practices for protection. This would require expanding research on the nature of TK, which should involve indigenous communities and other holders of TK. It is only through extensive research that the extent to which TK can be protected through different forms of IPRs, contract, *sui generis* rights or human rights can be evaluated.

African legal instruments, such as the Model Law and the African Charter, should be considered when making these assessments, as these instruments present home-grown solutions for the African continent and are to a large extent designed to address the challenges presented to the continent. African states now have the tools to act pro-actively to adopt domestic policies and legislation to ensure the protection of TK.

⁵⁴ M van der Linde & L Louw 'Considering the interpretation and implementation of article 24 of the African Charter on Human and Peoples' Rights in light of the *SERAC* communication' (2003) 3 *African Human Rights Law Journal* 167 175.

⁵⁵ It provides that 'states shall have the duty individually or collectively, to ensure the exercise of the right to development'.

