

8. LEGAL PROTECTION OF TRADITIONAL KNOWLEDGE: LESSONS FROM SOUTHERN AFRICA

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ABSTRACT

This paper reviews the efforts made by three countries in Southern Africa – Botswana, South Africa and Zimbabwe, to legally protect traditional knowledge and, learning from their experience, identifies ways of better preserving, safeguarding and advancing traditional knowledge. The study focuses on Botswana, South Africa and Zimbabwe as a typical case sample selected so as to be illustrative of the various ways traditional knowledge is protected in Southern Africa as its contribution in international intellectual property norms is becoming significant. These countries share borders and in some cases the same indigenous people. The paper undertakes an assessment of current practices and identifies the conceptual issues and challenges for policy formulation and implementation of an effective legal protection regime for traditional knowledge. It proposes ways of strengthening the design of instruments, processes and procedures that can expand opportunities for indigenous peoples to better use their traditional knowledge to promote their wellbeing.

Keywords: *Traditional Knowledge, policy, legal protection, sui generis protection, Southern Africa*

1. INTRODUCTION

Preserving and promoting traditional knowledge are fundamental to the human development of traditional communities across the world. This paper provides an insight on how Botswana, South Africa and Zimbabwe are legally protecting traditional knowledge. The intention is not to generalise findings but to be able to compare the sample with other similar regional samples. The paper attempts to define the scope of traditional knowledge through an illustration of the intrinsic relationship the Southern African people have with

genetic resources. It further defines traditional knowledge according to its distinct features and justifies the need for its protection.

2. THE SCOPE OF TRADITIONAL KNOWLEDGE

Traditional knowledge manifests itself in many different forms – ‘knowledge, innovations and practices’. Efforts to conceptualise traditional knowledge protection face complex challenges. On the one hand, the determination of the subject matter and potential right holders is difficult as the definitions of indigenous peoples and criteria for membership vary and also because of the fact that indigenous peoples and communities dispersed all over the world have extremely diverse conceptions, traditions, practices and cultural frameworks. Furthermore, applying western legal concepts to an indigenous knowledge system has often been deemed inappropriate.¹ These concepts and approaches are functional but exclude certain variables and elements, which in the view of indigenous peoples and communities, have to be part of the whole and clearly reflected in whatever framework is devised. As a result of such complexity, most policy and legal frameworks recognise this, but seldom do they effectively reflect this in content and form.²

Traditional knowledge in Southern Africa is best illustrated by the intrinsic relationship its indigenous people have with the *Sclerocarya birrea* (A. Rich) Hochst. Subsp. *Caffra* (Sond.) Kokwaro (Marula) tree which forms an important part of their diet, tradition and culture to the extent of referring to it as the ‘tree of life’ due to its ability to provide food and medicine which are fundamental human needs.³ The ripe fruits are eaten raw, the kernels are eaten either raw or roasted, and the fruit juice is fermented to produce children’s beverage or traditional beer, used to make jam, or added to sorghum or millet porridge. *S. birrea* wood is used for making light weight utensils which include drums, mortars, traditional wooden bowls and decorative curios which are used during cultural events such as marriages and other traditional ceremonies. The bark, leaves and roots are used for medicinal purposes to treat diarrhoea, sore eyes, toothaches, colds and flu.⁴ These therapeutic claims are supported by literature with the bark and leaf extracts having anti-diahorreal,

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¹ Muller, Ruiz Manuel, ‘Protecting shared traditional knowledge: Issues, challenges and options’ (2013) Issue Paper No. 39. (International Centre for Trade and Sustainable Development).

² Ibid.

³ RA Street and G Prinsloo, ‘Commercially Important Medicinal Plants of South Africa: A Review’ (2013) vol. 2013, Article ID 205048, *Journal of Chemistry*.

⁴ A. Maroyi, ‘Local Knowledge and use of Marula [*Sclerocarya birrea* (A. Rich) Hochst.] In South Central Zimbabwe’ (2013) Vol 12(3) *Indian Journal of Traditional Knowledge* 398,403.

anti-diabetic, anti-inflammatory, anti-septic, anti-microbial, anti-plasmodial, anti-hypertensive, anti-convulsant and anti-oxidant properties.⁵

3. DEFINING TRADITIONAL KNOWLEDGE

No single definition would do full justice to the diverse forms of knowledge and expression that are held and created by indigenous peoples and local communities throughout the world. Their living nature also means that they are not easy to define. There is not, as yet, any generally accepted, formal definition of these terms.⁶ In the text on draft articles for traditional knowledge protection, the World Intellectual Property Organisation (WIPO) Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC)⁷ defines traditional knowledge as including ‘...know-how, skills, innovations, practices, teachings and learnings of indigenous [peoples] and [local communities] that are dynamic and evolving, and that are intergenerational/and that are passed on from generation to generation, and which may subsist in codified, oral or other forms’. It further proposes that traditional knowledge ‘[...may be associated, in particular, with fields such as agriculture, the environment, healthcare and indigenous and traditional medical knowledge, biodiversity, traditional lifestyles and natural resources and genetic resources, and know-how of traditional architecture and construction technologies.]’.⁸

There are, however, four distinct features of traditional knowledge:

- (1) Traditional knowledge can mean many things at the same time. It can be quite useful to separate

⁵ John A Ojewole, Tariro Mawoza, Witness D.H. Chiwororo and Peter OM Owira, ‘Sclerocarya birrea (A. Rich) Hochst [Marula] (Anacardiaceae): A review of its phytochemistry, pharmacology and toxicology and its ethnomedicinal uses’ (2010) 24 (5) *Phytotherapy Research* 633,639.

⁶ World Intellectual Property Organisation (WIPO), ‘Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expression’ (2015) <http://www.wipo.int/edocs/pubdocs/en/tk/933/wipo_pub_933.pdf> accessed August 2015.

⁷ Established in 2000, the World Intellectual Property Organisation (WIPO) Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) is a forum where WIPO member states discuss the intellectual property issues that arise in the context of access to genetic resources and benefit-sharing as well as the protection of traditional knowledge and traditional cultural expressions.

⁸ World Intellectual Property Organisation (WIPO), ‘The Protection of Traditional Knowledge: Draft Articles’ (2014) <http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_28/wipo_grtkf_ic_28_5.pdf> accessed August 2015.

the elements of traditional knowledge into three distinct categories so as to help focus protection efforts on more specific categories rather than rely on the interpretation of broad concepts. The categories are: as an intangible (knowledge); a tangible (physical products or innovations); processes or procedures (techniques or technologies that can be expressed orally, in writing or through representation or exemplification). These categories are interrelated and can of course, overlap, for example the traditional beer from the Marula tree is the tangible form of traditional knowledge but there is also the brewing process and the development of the knowledge thereof.

- (2) Another definitive feature of traditional knowledge relates to how it is developed, and how it responds and adapts to environmental, social, cultural and economic pressures and demands. A WIPO report notes, ‘What makes knowledge “traditional” is not its antiquity: much traditional knowledge is not ancient or inert, but is a vital, dynamic part of the contemporary lives of many communities today. It is a form of knowledge which has a traditional link with a certain community’.⁹ For example, the Mysore silk saree of India has had a makeover since obtaining a geographical indication, updating its look with trendy new (but interestingly, natural) colours such as ‘lilac, ecru, coffee-brown and elephant-grey and contemporary designs (...) inspired by traditional Indian architecture and ancient Indian jewellery’.¹⁰

- (3) The third feature of traditional knowledge relates to the participants in this dynamic process and how they interact. Traditional knowledge is transmitted from one generation to the other either orally, exemplified or written in local languages. It evolves in a communal context where social actors play different roles in the creation, application and adaptation of traditional knowledge over time according to the needs and circumstances of the community. This is done and managed through a social system of customs and rules. Traditional knowledge is accumulated as a collective creation without a

⁹ World Intellectual Property Organisation (WIPO), ‘Intellectual Property and Traditional Knowledge 6’ <http://www.wipo.org/freepublications/en/tk/920/wipo_pub_920.pdf> accessed August 2015.

¹⁰ Aruna Chandaraju, ‘Modern Mysuru’ *The Hindu* (5 March 2005) <<http://www.thehindu.com/thehindu/mp/2005/03/05/stories/2005030502400300.htm>> accessed August 2015.

written record, thereby making it difficult to identify the innovators. So, it is generally held in common by the community but in cases where the innovator is known it becomes individually owned.

- (4) The fourth defining feature of traditional knowledge is that it is mostly shared between communities (in many cases across borders), which is not to say that there is no distinct and geographically confined traditional knowledge. In Africa this may be attributed to the artificial borders imposed by the colonial powers. For example, the San people also known as Bushmen of Southern Africa and their traditional knowledge can be found across Angola, Botswana, Namibia, South Africa, Zambia and Zimbabwe. Sometimes it is shared consciously; sometimes it inadvertently passes and flows to neighbouring communities, and in other cases, even foreigners play a role in disseminating it more widely.¹¹

4. WHY PROTECT TRADITIONAL KNOWLEDGE?

There are two main ways in which traditional knowledge is important for sustainable human development and social justice. The first one involves the idea of expanding the global knowledge base; the other relates to its contribution to people's wellbeing. Several proposals have been made, within and outside the intellectual property rights (IPRs) system, to 'protect' traditional knowledge. Such proposals, however, often fail to set out clearly the rationale and objectives for doing so. Therefore, before considering how traditional knowledge is protected, it is important to highlight why traditional knowledge should be protected. Some of the reasons for protecting traditional knowledge include:

- **Equity and Livelihood Improvement:** Traditional knowledge is valuable first and foremost to its holders and communities who depend on it for health, livelihood and wellbeing. As great as the potential economic value might be, a traditional knowledge protection regime should aim at conservation and promote the use of traditional knowledge thereby improving the quality of indigenous peoples' lives. According to the World Health Organisation, up to 80 percent of the world's population depends on traditional medicine for its primary health needs.¹² So, the protection of traditional knowledge would also

be necessary for acquiring remuneration for its commercial use outside the community which generated it either by excluding unauthorised use by third parties or by a duty to share equitably the benefits derived from such use.

- **Preservation of Traditional Lifestyles:** The preservation of traditional knowledge is not only a key component of the right to self-identification and a condition for the continuous existence of indigenous peoples, but also a central element of cultural heritage.¹³ 'The crisis affecting the world's diverse cultures and languages is, according to some estimates, far greater than the biodiversity crisis. Around 90 percent of the 6000+ currently spoken languages (and the cultures expressed by them) may become extinct or face extinction in the next 100 years'.¹⁴ The Crucible group suggests that by vesting legally recognised ownership of knowledge in communities through IPRs, it will raise the profile of that knowledge and encourage respect for it both inside and outside the knowledge holding communities.¹⁵
- **Contribution to Biological Diversity and Ecological Integrity:** The prominent ground on which to justify the protection of traditional knowledge relates to its importance in maintaining biological diversity and ecological integrity. The accumulation of knowledge through a series of observations and experiments transmitted from generation to generation has created skills that have enabled indigenous communities to thrive in complex ecological systems. Thus, the protection of traditional knowledge closely relates to the protection of the environment

¹¹Sarah A Laird (ed), *Biodiversity and Traditional Knowledge: Equitable Partnerships in Practice* (People and London and New York: Earthscan Publications Ltd 2002).

¹² World Health Organisation, International Union for Conservation of Nature, and World Wide Fund for Nature, 'Guidelines for Conservation of Medicinal Plants' (1993).

¹³ United Nations Environment Programme (UNEP), 'Cultural and Spiritual Values of Biodiversity' (Intermediate Technology Publications, London, 1999).

¹⁴ Gonzalo Oviedo; Aimée Gonzales, and Luisa Maffi. 2000. *The importance of and Ways to conserve and Protect Traditional Ecological Knowledge*. Paper presented at the UNCTAD Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices: 30 October-1 November. Quoted in: Carlos M. Correa. 2001. *Traditional Knowledge and Intellectual Property: A Discussion Paper*. Paper commissioned by the Quaker United Nations Office. Quoted in: Elsa Stamatopoulou. 2007. *Cultural Rights in International Law: Article 27 of the Universal Declaration of Human Rights and Beyond*. Leiden: Koninklijke Brill.

¹⁵ The Crucible II Group, Seeding Solutions, 'Options for national laws governing access to and control over genetic resources' (2001) Vol 2, IDRC-IPGRI, Rome.

and living resources, as the content of traditional knowledge is mostly embedded in the biological resources and ecosystems themselves.¹⁶

- **Promoting Wider Application:** Traditional knowledge as a knowledge system can expand the global knowledge base through research and development. Its legal protection is required not only for its preservation but for its development. Pharmaceutical and cosmetic companies are interested in traditional knowledge as it helps in the identification of commercially valuable drugs and helps avoid costly searching and screening of a broader group of bio-resources. Research by Gupta¹⁷ lists technological fields in which traditional societies can be highly innovative and contribute substantially to local and national economies. His findings, while focused mainly on India, are certainly relevant in Southern Africa where traditional communities can be found in rural areas and primarily depend on agriculture for their wellbeing.¹⁸ Traditional knowledge is, in fact, an underutilised resource in the development process. Legal protection may help promote traditional knowledge-based innovation as well as 'exploit the opportunities for commercialization of traditional knowledge-based products and services'.¹⁹
- **Avoiding Misappropriation:** Protection of traditional knowledge is instrumental to avoid its use for commercial purposes without prior

informed consent, approval or involvement of the holders.

5. TRADITIONAL KNOWLEDGE AND INTELLECTUAL PROPERTY RIGHTS

Although IPRs are seen as a possible means for protecting traditional knowledge, there are conflicting views on the matter. Advocates of the use of IPRs find that traditional knowledge protection can either be by using existing intellectual property (IP) mechanisms or by modifying certain aspects of the current form of IP protection. A WIPO report notes, 'there are many examples of TK that are or could be protected by the existing IP system. In addition, while many informants believe that the present IP system does not adequately recognize TK holders' rights, they are interested in undertaking further work on how the IP laws and system can be modified to change those aspects of IP laws and systems which allow piracy or seem to condone it. Several informants also suggested certain modifications to IP law to improve its functionality in TK protection, and, others, new IP tools.'²⁰

Those who are opposed to the notion of applying IPRs base their arguments on practicality and incompatibility between 'western' IP and practices and the culture of indigenous communities. Participants, particularly indigenous representatives of indigenous communities at the Multi-Stakeholder Dialogue on Trade, Intellectual Property and Biological and Genetic Resources in Latin America, felt that most existing legal frameworks didn't adequately reflect their concerns. They argued that the premise of IP is based on terms and conceptual foundations that remain outside their worldview. An expanded participation of indigenous groups and local communities at the design, development and implementation stage is essential to processes of building socially responsible regimes for the regulation of resources. Furthermore, in a conventional IPR regime, issues such as equitable benefit sharing may be secondary to the more basic issue of defining ownership rights.²¹

Botswana, South Africa and Zimbabwe are part of the African Group of the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC). In 2008, the WIPO IGC commissioned the two gap analyses

¹⁶ Erica Daes, 'Protection of the Heritage of Indigenous Peoples' (1999) cited in David R. Downes & Sarah A. Laird, 'Innovative Mechanisms for Sharing Benefits of Biodiversity and Related Knowledge: Case Studies on Geographical Indications and Trademarks' UNCTAD Biotrade Initiative.

¹⁷ A.K Gupta, 'Making Indian agriculture more knowledge intensive and competitive: the case of intellectual property rights' (1999) 54(3) *Indian Journal of Agricultural Economics* 342,369.

¹⁸ These fields are as follows: (i) crop protection; (ii) crop production; (iii) animal husbandry; (iv) grain storage; (v) pisciculture; (vi) poultry; (vii) leather industry; (viii) soil and water conservation; (ix) forest conservation; (x) farm implements; (xi) organic farming; (xii) local varieties of seeds; (xiii) informal institutions (common property resources); and (xiv) ecological indicators.

¹⁹ United Nations Conference on Trade and Development (UNCTAD), 'Systems and national experiences for protecting traditional knowledge, innovations and practice' (2000) TD/B/COM.1/EM.13/2, Geneva.

²⁰ World Intellectual Property Organisation (WIPO), 'Intellectual property needs and expectations of traditional knowledge holders' (2001) Geneva.

²¹ Report of the Multistakeholder Dialogue on Trade, Intellectual Property and Biological and Genetic Resources in Latin America, Cusco, Peru, 22-24, February 2001 <<http://www.ictsd.org/dialogueweb/texts/report2.htm>> accessed August 2015.

on the protection of traditional cultural expressions and traditional knowledge. The position of the African Group was that, 'for IP protection to transpire it should be compatible with and supportive of a wide range of policy objectives related to the protection and conservation of indigenous knowledge, including: the establishment of legal certainty regarding rights in the survival of indigenous cultures - which translates into matter of survival as an indigenous people and as a community, the recognition of customary laws and protocols that govern the creation, transmission, reproduction and utilisation of, the repatriation of cultural heritage, the recording, maintenance, protection and promotion of oral traditions; the recognition of oral exchange of knowledge innovation and practices according to customary rules and principles; and the existence of rules regarding secrecy and sacredness which govern the management of knowledge.'²² This position makes it necessary to address two key questions while examining the legal options for protecting traditional knowledge.

- (1) Is the IP system sufficient to protect traditional knowledge?
- (2) What other options are available to design a more equitable social arrangement?

6. LESSONS FROM SOUTHERN AFRICA

At the international level of protection, traditional knowledge is protected by mechanisms which are beyond the IP domain. These include the UN Convention to Combat Desertification which provides for the protection of traditional knowledge in ecological environments as well as the sharing of benefits arising from any commercial utilization of this traditional knowledge. The World Health Organisation Primary Health Care Declaration of Alma Ata has recognized the relevance of traditional knowledge in the field of medicine as a source of primary health care. The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) provides for the recognition of farmers rights and the protection of traditional knowledge relevant to plant genetic resources for food and agriculture. The UNESCO Convention of the Safeguarding of Intangible Cultural heritage also provides for the safeguarding and preservation of traditional knowledge. Additionally, the Convention on Biological Diversity (CBD) provides for protection of knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable

use of biological diversity, promotion of their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encouragement of equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

At the regional level of protection there is an IP mechanism for the protection of traditional knowledge, Genetic resources and Folklore called the Swakopmund Protocol²³ developed by the African Regional Intellectual Property Organisation (ARIPO), a regional IP institution which Botswana and Zimbabwe are members of. As per their respective Constitutions, Botswana, South Africa and Zimbabwe require ratification of conventions at the national level prior to expressing their consent at the international or regional level. Since the primary responsibility of implementation of various provisions of the conventions mentioned above lies with the states, it is important to review the steps that these countries have taken to implement the provisions of conventions that are relevant to protect traditional knowledge, and to see how traditional knowledge is legally protected at the national level.

Part XII of the Industrial Property Act of Botswana provides for IPRs to traditional communities and practitioners without prejudice to its holistic nature. It defines traditional knowledge as, 'an idea, knowledge, practice, use or invention, written or unwritten which, may be associated with biological diversity, is a cultural, traditional or spiritual belief or value of a group of people.' This protection mechanism aims at excluding unauthorised use by third parties through the conferring of economic rights to a local traditional practitioner, a representative of any local community or any individual who may apply to register traditional knowledge. The application for registration can be done at the Office of the Registrar of Companies and Intellectual Property where applicable fees are paid. The owner of the

²³ The Member States of the African Regional Intellectual Property Organization (ARIPO) adopted the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore on August 9, 2010 at Swakopmund in the Republic of Namibia. The Protocol shall come into force three months after six states have deposited their instruments of ratification or accession with the Government of the Republic of Zimbabwe. The sixth ratification was deposited with the Government of the Republic of Zimbabwe on February 11, 2015. Therefore, the Swakopmund Protocol entered into force on May 11, 2015; See more at: <<http://www.aripo.org/news-events-publications/news/item/54-entry-into-force-of-the-aripo-swakopmund-protocol-on-the-protection-of-traditional-knowledge-and-expressions-of-folklore#sthash.R6mogXar.dpuf>> accessed February 2016.

²² World Intellectual Property Organisation (WIPO), 'Protection of Traditional Cultural Expressions and Traditional Knowledge – Gap Analyses' <http://www.wipo.int/export/sites/www/tk/en/igc/gap_analyses_pdf/tk_african_group.pdf> accessed February 2016.

traditional knowledge is required to disclose and register with a full description of the traditional knowledge in a manner which is sufficiently clear and complete to permit any third party to reproduce or utilize the traditional knowledge to obtain results similar or identical to those obtained by the holder of such traditional knowledge. The traditional knowledge should not have been disclosed to the public in any other manner, or if such disclosure has been made, it should not have been for commercial or industrial purposes in Botswana. This prescribed protection mechanism however, has failed to take into consideration the objectives of protecting traditional knowledge and its nature, which require a system of protection different from the common IP system.²⁴

This mechanism focuses mainly on economic rights. In the case of infringement, the act provides for the initiation of court proceedings by the local community or any other owner where a monetary compensation may be prescribed. The protection of traditional knowledge extends to the next generation as it expires only when it has lost its value as an element of cultural identification or as a result of wilful and express abandonment by its owner or owners or as a result of non-use or use in a distorted manner by third parties of which the owner or owners are aware. Botswana's protection mechanism is limited to IP protection and does not extend to the equitable sharing of benefits arising from the utilisation of traditional knowledge as Botswana is yet to implement the provisions of the CBD. It is also yet to ratify the UNESCO Convention of the Safeguarding of Intangible Cultural Heritage which provides for the safeguarding and preservation of traditional knowledge beyond IPRs

South Africa has amended its existing IP law to extend protection to traditional knowledge referred to as indigenous knowledge through the division of the different aspects of its subject matter according to the types of suitable intellectual property rights. The Intellectual Property Laws Amendment Act of 2013 defines indigenous cultural expressions or knowledge as, 'any form, tangible or intangible, or a combination thereof, in which traditional culture and knowledge are embodied, passed on between generations, and tangible or intangible forms of creativity of indigenous communities'.

This protection mechanism aims at providing for prior informed consent and sharing of benefits that accrue from the use of indigenous knowledge. The application

for registration of indigenous knowledge uses the existing system of IP registration after the conclusion of a benefit-sharing agreement with the indigenous community which is deemed to be a juristic person. The Act defines an indigenous community as 'any recognisable community of people originated in or historically settled in a geographic area or areas located within the borders of the republic, as such borders existed at the date of commencement of this Act, characterised by social, cultural and economic conditions that distinguish them from other sections of the national community, and who identify themselves and are recognised by other groups as a distinct collective.' The Act provides for the establishment of the National Trust for Indigenous Knowledge that shall establish a National Trust Fund for Indigenous Knowledge. The trust is responsible for the promotion and preservation of indigenous cultural expressions and knowledge including awareness and training thereof, as well as commercialisation and exploitation. It also provides for The Minister of Trade and Industry to establish a National Council for Indigenous Knowledge, to, inter alia, advise him or her on any matter concerning indigenous cultural expressions or knowledge, and to advise the Registrars of Patents, Copyright, Trade Marks and Designs on any related matter.

In case of any disputes arising from the enforcement of the Act, the Companies and Intellectual Property Commission accredits institutions to adjudicate, and such adjudications take into account existing customary dispute resolution mechanisms. An appeal to the High Court is possible in respect of a decision arising from such adjudication. The protection period remains the same as that of existing IP mechanisms where a patent expires after 20 years and copyright generally after 50 years after the death of the right holder. South Africa has fully implemented the provisions of CBD and its protection mechanism extends to traditional knowledge relevant to the sustainable use and conservation of biological diversity. This mechanism reveals that traditional knowledge cannot be compatible with existing IP mechanisms; for instance, where the requirement of novelty or originality has to be fulfilled or where the introduction of a benefit sharing agreement makes the process cumbersome. Academics, traditional leaders, indigenous community representatives and students have raised issues which include the bulkiness of the act as it covers too many areas of IP. Others propose the separation of the act for patents, trademarks, copyright, designs, geographic indications and traditional knowledge. Some academics prefer a law that is more Africa oriented, with less Western style IP protection. Some communities feel that they need and should be afforded other methods of

²⁴Tshimanga Kongolo, *African Contribution in Shaping the Worldwide Intellectual Property System* (England: Ashgate Publishing Company 2013).

protection.²⁵ The country is considering a second attempt, the option of *sui generis* protection mechanisms and has drafted a Traditional Knowledge Protection Bill. The Bill is, however, silent on the impact it has on, or whether it recalls, the Intellectual Property Laws Amendment Act, 2013 (the 'IPLA Act') aimed at protecting traditional knowledge under existing IP laws.

The burden of legally protecting traditional knowledge in Zimbabwe lies with the State. The Constitution of 2013 provides for the preservation of traditional knowledge. 'The State must take measures to preserve, protect and promote indigenous knowledge systems, including knowledge of the medicinal and other properties of animal and plant life possessed by local communities and people.' The State also extends protection to traditional knowledge relevant to the sustainable use and conservation of biological diversity and the equitable sharing of the benefits arising from the utilization of such knowledge through the implementation of the CBD, reflected in its Environmental Management Act, Chapter 20:27. It is however, yet to ratify the UNESCO Convention on the Safeguarding of Intangible Cultural heritage which provides for the safeguarding and preservation of traditional knowledge beyond intellectual property rights.

7. CONCLUSION

Three policy lessons emerge from the experience of the three countries in extending legal protection to traditional knowledge.

Firstly, IP mechanisms are not sufficient for the protection of traditional knowledge as they lack the input of traditional communities in terms of their laws and protocols. Policy should recognise traditional communities' customary laws and practices of handling their knowledge, thereby affirming traditional people's values in the face of globalisation. This can be done by including indigenous people and their communities in the development and implementation stage of the policy through the use of indigenous languages which best express their perspectives. A protection regime based on local protocols requires the existence of effective local governance structures and respect for these structures from outsiders.

Secondly, policy should promote the development of traditional knowledge registers outside of the IP domain for preserving, safeguarding and developing the

knowledge. Registers are official documents or databases that reflect information of traditional knowledge, its systems and details of the holders of the knowledge. Traditional knowledge registers should cover all aspects of traditional knowledge and can be used for the promotion of wider application of the knowledge by allowing access to researchers and also act as an interface with other knowledge systems. A non-juridic institution can be established to manage the registration, documentation, accreditation and certification of traditional knowledge systems. It can go further and raise awareness that stimulates indigenous communities to restore the recognition and value of their traditional knowledge. In this way, traditional knowledge can expand the global knowledge base.

Thirdly, practical measures should be designed for the development of products and services provided by traditional knowledge holders and practitioners. Policy can organise indigenous communities either through the provision of institutional support that formulates standards of practice for traditional practitioners or allow for the establishment of grassroots traditional trade associations. This enables the creation of consistent and quality products and services that can match their counterparts in the global market. This mechanism also permits tradition based creativity and innovation including commercialisation thereof, thereby expanding the traditional knowledge base through access to regional and international markets.

Traditional knowledge holders stand to benefit from sufficient protection of their knowledge. This could be a solution to poverty, ill-health and unemployment, as the impact of protection on human development is clearly outlined by this study.

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²⁵ Amos Saurombe, 'The Protection of Indigenous Traditional Knowledge through the Intellectual Property System and the 2008 South African Intellectual Property Law Amendment Bill' (2009) Vol. 4, Issue 3 *Journal of International Commercial Law and Technology*.

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