

# Protection of Traditional Knowledge in Nigeria: Breaking the Barriers

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## ABSTRACT

The aim of this paper is to discuss the manner by which Nigeria as a richly blessed and bio-diverse nation can adequately protect its traditional knowledge in order to harness the economic benefits of same and preserve its rich bio-divers resources from bio-piracy. The first section of the paper introduces us to the subject of Traditional Knowledge, while the second and third sections examine the need to protect traditional knowledge and place traditional knowledge alongside Intellectual property, its traits and benefits, especially to the economy. The fourth section examines existing protection, such as are currently in operation, nationally and internationally, while the fifth and subsequent sections conclude the work, by proposing/suggesting a framework for the protection of traditional knowledge, that may be sui generis or otherwise and making further recommendations in that regard. At such a time as this, when many countries are testifying of the benefits of the protection of their traditional knowledge, Nigeria cannot afford to be left out, hence the importance of this paper.

**KEY WORDS:** Protection; Traditional knowledge; Bio-diversity; Intellectual property; Sui generis

## 1.0. INTRODUCTION

One of the hotter issues to have emerged out of globalization concerns indigenous peoples and intellectual property rights,<sup>1</sup> because in the last few decades, a steady increase in intellectual property law has occurred. Over the course of this expansion in intellectual property law, indigenous people have hardly had the same sway as corporate interests when it comes to obtaining patents, copyrights, or trademarks. In fact, intellectual property law has been expanded for corporate interests in a number of sweeping ways, while the few measures that have recognized rights in indigenous cultures have been quite limited.<sup>2</sup>

Companies come from all over the world and visit indigenous peoples and their homelands in search of this intellectual property,<sup>3</sup> and with the changing times and the movement into the digital age, easily acquire same. Any storyteller recorded in video or sound format can be transformed into a digital rendition for access on local or global networks,<sup>4</sup> likewise, any process may be easily documented and scientifically practised.

In recent years there has been a growing concern about ‘bio-piracy’<sup>5</sup>. Well-known examples include a US patent on turmeric for healing wounds, which is common knowledge in India; and patents on basmati rice from India/Pakistan; and ayahuasco used in indigenous Amazonian healing. It has however proved difficult to prevent bio-piracy because Intellectual Property Rights (IPR) regimes are not sufficient to protect TK and for instance, even allow patenting without requiring benefit sharing.<sup>6</sup>

<sup>1</sup> Jones, P.N. 2007. [Intellectual Property Rights, Indigenous People, and the Future](http://www.indigenoussues.blogspot.com). Retrieved on 03/10/2011, from <http://www.indigenoussues.blogspot.com>

<sup>2</sup> Jones, P.N. 2008. [Intellectual Property, Indigenous Peoples, and the Law](http://www.indigenoussues.com). Retrieved 03/10/2011, from <http://www.indigenoussues.com>

<sup>3</sup> Jones, P.N. 2007. Op. Cit.

<sup>4</sup> Sullivan, R. 2002. Indigenous Cultural and Intellectual Property Rights. Digital Library Magazine. Vol.8, No. 5. May 2002. Retrieved on 04/10/2011, from <http://www.dlib.org/dlib/may02/05contents.html>

<sup>5</sup> Bio-piracy here, is the use without authorization, especially for commercial purposes or the appropriation of traditional knowledge or other forms of biological resources, without acknowledging the source of same or giving any form of compensation to the original discoverers or guides or possessors of that bio-cultural knowledge. See: Coombe, R. 2001. The Recognition of Indigenous Peoples’ and Community Traditional Knowledge in International Law. *St. Thomas Law Review* 14:285, where Rosemary Coombe states that the process of bio-piracy is characterized by the non-recognition of the intellectual contributions of holders and practitioners of traditional knowledge towards the improvement of the plants or creation of the bio-cultural knowledge in question. See generally works on bio-piracy: Mgbeoji, I. 2005. *Global Biopiracy: Patents, Plants, and Indigenous Peoples*. Vancouver: UBC Press; Roht-Arriaza, N. 1996. *Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities*. *Michigan Journal of International Law*. 17:919.

<sup>6</sup> Swiderska, K. 2006. *Banishing the Biopirates: A New Approach to Protecting Traditional Knowledge*. Retrieved on 11/06/2014 from <http://www.pubs.iied.org/pdfs/1453?IIED.pdf>

In these cases, research and pharmaceutical companies patent or claim ownership of traditional medicinal plants, even though indigenous peoples have used such plants for generations.<sup>1</sup> The companies do not recognize the indigenous peoples' traditional ownership of such knowledge and deprive indigenous peoples of their fair share in the economic, medical or social benefits that accrue from the use of their traditional knowledge or practices.<sup>2</sup> The countries themselves, wherein this knowledge is found lose huge sums which could have been garnered from the proper economic and cultural use and preservation same in the local communities.

Meanwhile, once TK is removed from an indigenous community, the community loses control over the way in which that knowledge is used and such knowledge may even be developed and patented in foreign countries, to the exclusive use and benefit of third parties, without any recognition for the source communities. In most cases, this system of knowledge evolved over many centuries and is unique to the indigenous peoples' customs, traditions, land and resources,<sup>3</sup> such that it leaves a huge dent in the natural and resources conserving practices of the community and their culture and gradually erodes the rich bio-diversity of such community and country.

The reaction of the indigenous groups has been one of outrage, as they consider these actions to be the pilfering of their indigenous intellectual property<sup>4</sup>, cultural heritage and the trivialization of their cultural identity.<sup>5</sup>

Indigenous groups throughout the world are therefore beginning to assert a right to control the way the resources from their ancestral lands are used for industrial, medicinal or cultural purposes in developed nations and developing nations such as Nigeria are beginning to seek means by which their TK can be protected from commercial exploitation.<sup>6</sup> They are however unwilling to entertain or embrace a legal regime that has culturally corrosive potential<sup>7</sup> such as the existing intellectual property regime and are calling for more holistic approaches to protecting their rights to TK, bio-genetic resources, territories, culture and customary laws, arguing that components of indigenous knowledge systems and heritage cannot be separated and require equal protection.<sup>8</sup>

Advanced societies certainly have a moral obligation to recognize the right of the local communities to protect and harness the benefits of their TK<sup>9</sup> but as acknowledged by the indigenous people themselves, the very nature of intellectual property seems to negate the essence of indigenous ownership of property, hence recent debate on the best and alternative ways to protect TK.

Nigeria, a very rich and bio-diverse nation, has a lot to gain from taking more serious and decisive steps towards the protection of its TK activities.<sup>10</sup> Not only will it reap the economic benefits which will go a long way to

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<sup>1</sup> For general on plant diversity and traditional medicine. See: [Oquamanam, C. 2006. International Law and Indigenous Knowledge: Intellectual Property, Plant Biodiversity, and Traditional Medicine. Canada: University of Toronto Press.](#) 1

<sup>2</sup> World Intellectual Property Organization (WIPO). WIPO and Indigenous Property. *A WIPO publication*. Retrieved on 04/10/2011, from <http://www.ohchr.org>

<sup>3</sup> Ibid.

<sup>4</sup> Indigenous intellectual property is used in national and international forums to identify [indigenous peoples'](#) special rights to claim (from within their own laws) all that their indigenous groups know now, have known, or will know and includes the information, practices, beliefs and philosophy that are unique to each indigenous culture. For example, the knowledge of how certain plants within an indigenous groups' homeland are used to treat fever or diarrhoea would fall under indigenous intellectual property. See generally: Jones, P.N. 2007. Op. Cit; Riley, M. 2004. *Indigenous Intellectual Property Rights: Legal Obstacles and Innovative Solutions*. Walnut Creek, CA: AltaMira Press. Pp. 1-4; Rainforest Aboriginal Network. 1993. *Julayinbul: Aboriginal Intellectual and Cultural Property Definitions, Ownership and Strategies for Protection*. Cairns: Rainforest Aboriginal Network. 65; Janke, T. 1998. *Our Culture: Our Future: The Report on Australian Indigenous Cultural and Intellectual Property Rights*. Sydney: Michael Frankel & Co. 31 and Janke, T. 1996. *Protecting Australian Indigenous Arts and Cultural Expression: A Matter of Legislative Reform or Cultural Policy?*. *Culture and Policy*. Vol. 7, No. 3. 1996. 14.

<sup>5</sup> *Western Intellectual Property and Indigenous Cultures: The Case of the Panamanian Indigenous Intellectual Property Law*. *Boston University Law Journal*. Vol.23:337-344 Retrieved on 04/10/2011, from <http://www.bu.edu337-394>

<sup>6</sup> In recent years, indigenous peoples have expressed their concerns about these issues in a number of international declarations, including the Manila Declaration on the World Declaration for Cultural Development (1988), the Kari-Oca Declaration (1992), the Mataatua Declaration (1993) and the Beijing Declaration of Indigenous Women (1995). These concerns were also raised in the Final Statements of the Coordinating Body of the Indigenous Peoples of the Amazon Basin (1994) and the South Pacific Regional Consultation on Indigenous Peoples' Knowledge and Intellectual Property Rights (1995). See: World Intellectual Property Organization (WIPO). *WIPO and Indigenous Property. A WIPO publication*. Retrieved on 04/10/2011, from <http://www.ohchr.org>

<sup>7</sup> Halewood, M. 1999. Op.cit.

<sup>8</sup> See: Tauli-Corpuz, V. 2004. Biodiversity, traditional knowledge and rights of indigenous peoples. *Indigenous Perspectives, Journal of Tebteba Foundation*, 6:1 & 2. 8-33.

<sup>9</sup> Conklin, K. R. 2011. *Indigenous Intellectual Property Rights -- The General Theory, and Why It Does Not Apply in Hawaii*. Retrieved 03/10/2011, from <http://www.angelfire.com>.

<sup>10</sup> Adedeji, L. 2014. Intellectual property and the protection of traditional knowledge. *The Lawyers Chronicle, Online Magazine*. Retrieved on 23/06/14 from <http://www.thelawyerschronicle.com/intellectual-property-and-the-protection-of-traditional-knowledge/htm>

balancing its fledgling economy it will have more control over its TK, such that same can be safeguarded from exploitation and used in a sustainable and continuous way. The government can therefore no longer shut its eyes to recent international developments in this regard and must break the necessary barriers to the protection of its TK, such as done by other countries like India.

This paper takes a look at TK and its importance, the means of its protection at different international fora, as well as the likely ways of protecting same, with the ultimate goal of developing a suggested framework for the protection of TK in Nigeria.

Sui-generis is used to describe something that is unique or different.<sup>1</sup> Sui-generis literally means “of its own kind” and as used in this work, refers to the creation of a new and unique set of laws, outside intellectual property laws.<sup>2</sup>

## 2.0. WHY PROTECT TRADITIONAL KNOWLEDGE?

There has now been discovered, a need to preserve and protect TK from misappropriation especially because of its nature: It is usually neither written down, nor registered with any government agencies. It exists and is usually used based on a principle of open sharing, such that it is very susceptible to being poached by bio-pirates, who then acquire IPRs over the knowledge and deny access to the actual innovators and/or custodians of the said knowledge. The situation is not helped by the fact that existing western intellectual property laws support, promote, and excuse the wholesale, uninvited appropriation of whatever TK promises profit, with no obligation or expectation to allow the originators of the knowledge a say or a share in the proceeds.<sup>3</sup>

Meanwhile, the livelihoods of indigenous peoples worldwide and the conservation of biodiversity depend on the preservation and protection of TK. Indigenous peoples and rural communities have developed an intimate knowledge of the use and functioning of biological and natural resources over centuries of close dependence on these resources. This TK is vital for life, health, food security and agriculture. It also forms the basis of cultural identity, contributing to social cohesiveness and thereby reducing vulnerability and poverty.

Without the strong backing of government policies and/or laws protecting TK, indigenous people possessing this knowledge do not have the capacity to pursue the recognition of their knowledge or to challenge acts of appropriation of their existing knowledge by others.<sup>4</sup> This ends up being a great loss not just to the people, but to the economy of the country from which the TK is derived.

## 2.1. THE BENEFITS OF THE PROTECTION OF TRADITIONAL KNOWLEDGE

The justifications for TK protection have been expressed in its economic value, the need to prevent bio-piracy and to improve the lives and conditions of the communities and TK holders and most importantly in the juridical context of its creative genus that is eminently eligible for protection.<sup>5</sup>

As with any other already accepted intellectual property right, protection of TK creates a conducive climate for transfer of such knowledge, for research and development (R&D) and otherwise, through the security it offers to the owners of such knowledge, be they an entire community or individuals therein. Protection of TK is also a means of attracting national and foreign investment,<sup>6</sup> simply because these foreign companies and developed countries need the traditional knowledge for R&D and without the ease of bio-piracy, they are compelled to enter into legitimate partnerships with either the government or the people, such that benefits due are returned to the country and to the communities from which TK is derived and thereby generally boosting the economy of the country. It equally serves as a means by which cultural values and traditions and resources are preserved and used in a sustainable way, such as to continuously profit the country.<sup>7</sup> Furthermore, protection of TK encourages

<sup>1</sup> Kalaskar, S. B. 2012. Traditional knowledge and sui-generis law. *International Journal of Scientific & Engineering Research*. 3:7. Also available at <http://www.ijser.org>

<sup>2</sup> Ibid.

<sup>3</sup> Greaves. 1996. Op. Cit. See also as posited in: Posey, D. 1991. Intellectual Property Rights for Native Peoples: Challenges to Science, Business, and International Law. *Being a paper presented at the International Symposium on Property Rights, Biotechnology and Genetic Resources*, Nairobi, Kenya. 1991. See also: Mugabe, J. 1998. Op. cit.

<sup>4</sup> For instance, the yellow yam in Nigeria is known to be effective in treating diabetes. Whilst denying legal protection to this bio-cultural knowledge, a patent on the same herbal remedy was said to be granted to one Dr. Maurice Iwu by the United States Patent Office. The difference, as argued by Mgbeoji, is that Dr. Maurice Iwu is a trained scientist, while the herbalists in his village who shared the knowledge with him are regarded as unlettered folks. See: Mgbeoji, I. 2011. Op. Cit. 38.

<sup>5</sup> Adewopo, A. 2012. Op. cit.

<sup>6</sup> Owoseni, T. C. 2001. Op. cit.

<sup>7</sup> See for example, Principle 22 of the UNCED Rio Declaration which states that: “[i]ndigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.” See also: Swiderska, K. 2006. Op. cit.

and stimulates the development of trade and commerce in the country, as the country becomes known as a steady market for certain traditional resources. Above all, protection of intellectual property rights in all its ramifications creates wealth for the individual, community, corporate body concerned and the respective nations through the payment of royalties, patent fees and the generation of foreign exchange.<sup>1</sup>

The above merely highlights some of the most obvious benefits of the protection of TK and is by no means exhaustive. It therefore goes without saying that TK has the potential to be very beneficial to the owners of same and to the source country as well, if well protected.

### **3.0. PROTECTION OF INDIGENOUS PEOPLES' CULTURAL HERITAGE AND INTELLECTUAL PROPERTY**

It is without a doubt that Indigenous peoples have the right to have their TK protected from/against its inappropriate use or exploitation.<sup>2</sup> These rights are argued to be already recognized in several international human rights documents.<sup>3</sup>

The question however is: what is the most appropriate system or law to be used for the protection of TK, that would not only ensure that the country enjoys the full economic benefits of the existence of this TK, but would also ensure that the rights of the indigenous people are well protected and respected, while ensuring the proper and sustainable use of TK, according to the customs and cultures of the indigenous people?

It is well known that the general system adopted internationally, regionally and by a lot of countries in the protection of their TK, is the tailoring of intellectual property laws to protect same. This system has however been found wanting in certain aspects and is now said to only provide limited solutions to the problems of the protection of TK.

### **3.1. LIMITATIONS TO THE PROTECTION OF TRADITIONAL KNOWLEDGE THROUGH THE EXISTING SYSTEMS OF INTELLECTUAL PROPERTY.**

It is argued that intellectual property (IP) regimes are shaped by Western European philosophies, such that their conception of property rights is highly individualistic in nature. This western notion of intellectual property clashes with the more communitarian notions of property held by indigenous groups, which tend to be based in community rights, such that intellectual property would belong to the group.<sup>4</sup>

It is also argued that TK, which by its very nature is dynamic, integrative, holistic, and synergistic, changing its character as the needs of the people change, is most meaningful in situ.<sup>5</sup> It gains vitality from being deeply entrenched in people's lives and cannot be isolated from the people, who use same in conservative ways that enhance biodiversity.<sup>6</sup>

There are also questions about the acknowledgment of ownership, and the protocols by which the knowledge can be obtained and to whom it can be transmitted<sup>7</sup> in such communities which may have restrictions as to the exposure of their knowledge.

Besides, the requirements of Patent, Trademarks and Copyright laws set forth certain measurable criteria, such as the restriction to individual owner, the expense in application and time limits.<sup>8</sup>

Therefore, as a result of the above and in addition to the consideration of ways of making intellectual property laws more directive towards the protection of TK, certain other means have over time been adopted for the

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<sup>1</sup> Owoseni, T. C. 2001. Op. cit.

<sup>2</sup> World Intellectual Property Organization (WIPO). WIPO and Indigenous Property. *A WIPO publication*. Retrieved on 04/10/2011, from <http://www.ohchr.org>

<sup>3</sup> See generally: Article 27 of the Universal Declaration on Human Rights (UNDHR) 1948, Article 15 of the International Covenants on Economic, Cultural and Social Rights (ICESCR) 1966, the International Labour Organization (ILO)'s Indigenous and Tribal Peoples Convention of 1989 (Convention No. 169) and Article 29 of the UN Draft Declaration on the Rights of Indigenous Peoples, among others. See also: Halewood, M. 1999. Op.cit.

<sup>4</sup> Conklin, K. R. 2011. Op.cit; Mugabe, J. 1998. Op. cit.

<sup>5</sup> Nabhan et. al. 1996. *Valuing Local Knowledge: Indigenous Peoples and Intellectual Property Rights*. Brush and Stabinsky (Eds.). Covelo; Island Press. p. 193; Swiderska, K. 2006. *Banishing the Biopirates: A New Approach to Protecting Traditional Knowledge*. Retrieved on 11/06/2014 from <http://www.pubs.iied.org/pdfs/1453?IIED.pdf>

<sup>6</sup> Mugabe, J. 1998. Op. cit.; Swiderska, K. 2006. Op. cit.

<sup>7</sup> Michie, M. 1999. *Where are Indigenous peoples and their knowledge in the reforming of learning, curriculum and pedagogy? Paper presented at the Fifth UNESCO-ACEID International Conference "Reforming Learning, Curriculum and Pedagogy: Innovative Visions for the New Century", Bangkok, Thailand, 13-16 December 1999*. Retrieved on 23/06/14, from <http://www.members.ozemail.com.au/~mmichie/aceid.html>

<sup>8</sup> See generally on the above: Lewis, H. W. and Ramani, V. 2003. Op. cit.; Kalaskar, S. B. 2012. Op. cit. and Adedeji, L. 2014. Op. cit.



protection of TK such as trade secrets, geographical indications, certification marks, the use of private contractual measures and sui generis systems.<sup>1</sup>

#### 4.0. EXISTING INITIATIVES TO PROTECT TRADITIONAL KNOWLEDGE

Till date, the international community is yet to come up with a 'one fits all' law, system, framework, convention, agreement or other international document that is dedicated to the protection of TK, and especially, which compels the protection of same at regional and national levels. The existence of the (at best) discretionary duty to protect TK at regional and national levels can only be deduced from several international conventions and agreements. Such as:

- i. The 1978 and 1991 Acts of the International Convention for the Protection of New Varieties of Plants ("the UPOV Convention") which established minimum international standards for the protection of plant breeders' rights.
- ii. The International Labour Organisation Convention Concerning the Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries, commonly referred to as Convention 107 which was revised in June 1989 as Convention 169, in its Article 2.2(b)<sup>2</sup> also provided for the responsibility of governments to protect TK.<sup>3</sup>
- iii. The Draft Declaration on Indigenous Rights, 1993, also contains provisions on the protection of intellectual property rights in TK, in Paragraph 29 of same. However, the Declaration is simply a statement of principles with no legally binding status.<sup>4</sup>
- iv. The United Nations Conference on Environment and Development (UNCED) held in 1992 at the recommendation of WCED addressed issues of intellectual property rights in traditional knowledge and innovations. Agenda 21 adopted by more than 160 states at the UNCED contains a whole chapter on indigenous peoples' concerns and makes a wide range of recommendations on how these peoples' rights should be protected.<sup>5</sup>
- v. It is argued in favour of the TRIPS Agreement that Article 1 of the TRIPS (on the nature and scope of the obligations) provides some flexibility in the implementation of the provisions of the Agreement, thereby allowing Nations the freedom to provide laws in line with TRIPS which protect traditional knowledge.<sup>6</sup>

<sup>1</sup> See generally on the above: Janke T. 1998. *Our Culture, Our Future: Report on Australian Indigenous Cultural and Intellectual Property*. Australia: Michael Frankel & Co. Surry Hills, N.S.W; Lewis, H. W. and Ramani, V. 2003. *Ethics and Practice in Ethnobiology: Analysis of the International Cooperative Biodiversity Group Project in Peru*. Retrieved on 23/6/2014, from <http://www.law.wustl.edu/centeris/Papers/Biodiversity/PDFWrdDoc/lewisramani.pdf>; See also: Convention on Biological Diversity, Report of the Panel of Experts on Access and Benefit Sharing, UNEP/CBD/COP/5/8, 2<sup>nd</sup> November 1999; Convention on Biological Diversity, legal and other appropriate protection for the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, UNEP/CBD/WG8J/1/2, 10 January 2000; World Intellectual Property Organization, Operational Principles for Intellectual property clauses of contractual agreements concerning access to genetic resources and benefit sharing, WIPO/GRTKF/IC/2/3. December 10<sup>th</sup>-14<sup>th</sup> 2001 and See on class of benefits: Alebede, B. 2008. *Traditional Medicine Practice in Nigeria*. *Pax herbal online magazine*, Monday, 29 September 2008. Retrieved on 11/06/14, from <http://www.magazine.paxherbals.net/thdmag/issue-08/traditional-medicine-practice-in-nigeria.html>

<sup>2</sup> See also: Article 5(a) which provides that "the social, cultural, religious and spiritual values and practices of these peoples shall be recognized and protected, and due account shall be taken of the nature of the problems which face them as groups and individuals.

<sup>3</sup> See: Indigenous and Tribal Peoples Convention [hereinafter Convention No. 169], Retrieved on 27/09/2010, from <http://www.ilo.org/ilolex/english/convdisp1.htm>; See also, Srividhya, R. 2001. *Protection of Traditional Knowledge*. *Minnesota Intellectual Property Review*. Vol. 2: 1. 28

<sup>4</sup> See: Draft Declaration on the Rights of Indigenous Peoples, as agreed upon by the members of the Working Group on Indigenous Populations at its Eleventh Session, August 23, 1993, United Nations Document E/CN.4/Sub.2/1993/29. See also: Lewis, H. W. and Ramani, V. 2003. Op. cit; Swiderska, K. 2006. Op. cit.

<sup>5</sup> See: Agenda 21, 1992 (Chapter 26, Section 1), which recommends that governments should adopt policies and/or legal instruments that will protect intellectual and cultural property of indigenous peoples. This Development Agenda especially, has been seen to be a major milestone in the history of the protection of TK. For instance, Okediji says it opens a 'doctrinal' or 'ideological' space in the current global IP regime. See: Okediji, R. 2009. *History Lessons for the WIPO Development Agenda*. *The Development Agenda, Global Intellectual Property and Developing Countries*. Netanel, W. N. (Ed.), Oxford University Press. 154-156; Peter Yu characterises the Development Agenda as both an internal directional reform and an external directional reform, the internal being directed at WIPO as an institution and the external that "focuses on restoring balance in the int'l IP system". See: Yu, K. P. 2009. *A Tale of Two Development Agendas*. *Ohio Northern Univ. Law Rev.* 35:465. 519-520. See also: Lewis, H. W. and Ramani, V. 2003. Op. cit.

<sup>6</sup> Dutfield for instance argues that nothing in the agreement prevents member states from enacting their own law, based on Article 1, though such area of knowledge was not covered by the Agreement. See: Dutfield, G. 1997. *Can the TRIPS Agreement Protect Biological and Cultural Diversity?* *Bio-policy International No. 19*. Nairobi; ACTS Press. p. 16.

- However, the fact that the Agreement also sets prerequisites to protection under patent such as “inventive step” and “capable of industrial application”, the Agreement leaves TK behind as it by nature cannot pass such tests, having existed since time immemorial and not necessarily of a nature as can be industrially applied if it is to be preserved and sustained.<sup>1</sup> Apart from the above, the agreement generated new opportunities to develop alternative property rights regimes by its Article 27.3(b), which provides that members could establish effective sui generis regimes.<sup>2</sup>
- vi. The legal obligation to protect the TK was also addressed in paragraph 38 of the Declaration of science and the use of scientific knowledge (UNESCO, 1999a) and the Science Agenda of the same year (UNESCO, 1999b), which called upon governments to protect TK.
  - vii. Most important has been said to be the Convention on Biological Diversity (the CBD), 1992. Article 8(j) of the Convention provides that each Contracting Party shall, as far as possible and as appropriate, “...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 of such knowledge, innovations and practices.”<sup>3</sup>

Most regional and national initiatives which also exist tow the same line as the above and are merely directory on the need for the protection of TK but thankfully, many countries have taken up the challenge of developing legislation for the protection of TK and have garnered several benefits from same.<sup>4</sup>

## 5.0. THE BENEFITS OF TRADITIONAL KNOWLEDGE TO EMERGING ECONOMIES

Prominent developing countries constitute substantially the core of the emerging economies now led by the new BRIC group of countries.<sup>5</sup> Some of these countries, notably China, India, and the two Koreas have been able to develop their Traditional Health System and generally, their TK to international standards. This has contributed significantly to their national economic growth and development.<sup>6</sup>

As far back as 1998, the trend had been noted and Mugabe provided some statistics to show that TK had become very important as a lead in new product development and that of the 119 drugs developed from higher plants and on the world market at the time, an estimated 74% were discovered from a pool of traditional herbal medicine. Developing countries and their traditional peoples have therefore contributed considerably to the global drugs industry and the economy of several countries, especially the developed nations for now.<sup>7</sup> It has also been estimated, for example, that the economy of the United States of America (the U.S.A.) alone has annual sales at

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<sup>1</sup> See generally: Article 27(1) and (2) of the TRIPS Agreement. See also: Goldstein, P. et. al. 1997. *Selected Statutes and International Agreements on Unfair Competition, Trademark, Copyright and Patent*. New York. The Foundation Press, Inc. p.448; Lewis, H. W. and Ramani, V. 2003. Op. cit. and Mugabe, J. 1998. *Intellectual Property Protection and Traditional Knowledge: An Exploration in International Policy Discourse*. Retrieved on 23/06/14, from [http://www.193.5.93.81/edocs/mdocs/tk/en/wipo\\_unhchr\\_ip\\_pnl\\_98/wipo\\_unhchr\\_ip\\_pnl\\_98\\_4.pdf](http://www.193.5.93.81/edocs/mdocs/tk/en/wipo_unhchr_ip_pnl_98/wipo_unhchr_ip_pnl_98_4.pdf)

<sup>2</sup> The Crucible Group. 1994. *People, Plants and Patents*. Canada; International Development Research Center Publication. p. 53; Kalaskar, S. B. 2012. *Traditional knowledge and sui-generis law*. *International Journal of Scientific & Engineering Research*. 3:7. Also available at <http://www.ijser.org>

<sup>3</sup> See generally: Article 8 (j) of the Convention on Biological Diversity, 1992. See also: Lewis, H. W. and Ramani, V. 2003. Op. cit; Kalaskar, S. B. 2012. Op. cit.; Mugabe, J. 1998. Op. cit. and Adedeji, L. 2014. Op. cit.

<sup>4</sup> See for instance the Law No. 20, of Panama. See also: *Western Intellectual Property and Indigenous Cultures: The Case of the Panamanian Indigenous Intellectual Property Law*. *Boston University Law Journal*. Vol.23:337. 350. Retrieved on 04/10/2011, from <http://www.bu.edu337-394>: Jones, P.N. 2008. Op. cit.

<sup>5</sup> BRIC stands for the rapidly growing economies or economies in transition group of countries consisting of Brazil, Russia, India and China (with South Africa joining to make it BRICS). See: Wilson, D & Puruahothamma, R. 2003. *Dreaming with BRIC: The Path to 2050* at 3. *Goldmansachs, Global Economics Paper No 99*. 4. Cited in Adewopo, A. 2012. Op. cit.

<sup>6</sup> See the Nigeria Natural Medicine Development Agency (NNMDA) 2013 Update Report. Retrieved on 16/06/2014, from <http://www.nnmda.gov.ng/NNMDA%202013%20UPDATE.pdf>

<sup>7</sup> See generally on the statistics provided and contributions of TK to economic funds: Mugabe, J. 1998. Op. cit. See also: Laird. 1994. *Natural Products and the Commercialization of Traditional Knowledge*. in *Intellectual Property Rights for Indigenous Peoples: A Sourcebook*. Greaves, T. (Ed.). Oklahoma City; Society for Applied Anthropology. pp. 145-149; Lewis, W.H. & Elvin-Lewis, M. 2003. *Medical Botany: Plants Affecting Human Health*, (2<sup>nd</sup> ed.) New-York: Wiley & Sons; Posey D. and Dutfield, G. 1996. Op. cit. p. 34; Reid et. al., (Eds.), 1993. *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development*. Washington, D.C: World Resources Institute; RAFI. 1994. *Conserving Indigenous Knowledge: Integrating Two Systems of Innovation. A study prepared for the United Nations Development Program (UNDP)*. New York.

least US\$ 50 million from genes of 15 major crops that were first cultivated and enhanced by traditional peoples.<sup>1</sup>

In addition, the World Health Organization estimates that 80% of the world's population depends on traditional medicine for primary healthcare,<sup>2</sup> such that trade in TK-based goods contributes significantly to rural incomes and national emerging economies. For example, the medicinal plants trade in South Africa, which has recently been adopted as one of the emerging economies, is worth about US \$60 million a year.<sup>3</sup>

It is the knowledge of the successful derivation of the above listed benefits of TK through protection of same that has contributed to the elevation of the above mentioned emerging economies such as India and China, from developing nations to rapidly growing economies. This, especially as seen from India's recent soar in the intellectual property industry is another hidden key to economic independence for nations possessing same.

### 5.1. THE INDIAN PERSPECTIVE

The government India, an extremely rich and bio-diverse nation, is at the forefront with regards to the protection of its TK. It compiled a searchable database of traditional medicine Traditional Knowledge Digital Library (TKDL, <http://www.tkdil.res.in/>) that could be used as evidence of prior art by patent examiners when assessing patent applications,<sup>4</sup> and as a result of same, has had the chance of winning a lot of its 105 claims on international patents such as the patent on the use of neem extract in Europe and another patent on the use of turmeric as a healing agent.<sup>5</sup>

Now, India has a sustainable development or biodiversity law that provides more details in terms of the protection of TK, including principles for prior informed consent and mutually agreed terms.<sup>6</sup> Indian Parliament has passed Sui-generis laws such as, "The Indian Biological Diversity Act 2002"<sup>7</sup> and "Plant Variety Protection and Farmer's Rights Act 2001", which conveniently protect their TK in unique ways.

India can therefore be said to be the forerunner of most bio-diverse developing nations and as apparent, the bold step taken by the Indian government proved positive and beneficial to the Indian economy, such that India has become an example for all other bio-diverse nations, at national, regional and international levels.

### 5.2. THE NIGERIAN ECONOMIC DEBACLE AND POTENTIALS FOR PROTECTION OF TRADITIONAL KNOWLEDGE

Nigeria is at a point in time of her economy, where she requires a major 'turn around' in order to avoid predicted doom. All sectors of the economy are affected by deep seated corruption,<sup>8</sup> lack of proper management of resources, lack of foresight and bad leadership. The over reliance on the country's oil sector<sup>9</sup> without attempts at sustainable use of the natural resource has been said to spell doom for the country and It has been predicted that Nigeria has only about three decades to exhaust its crude oil reserves.<sup>10</sup> Except providence intervenes, or Nigeria takes a positive step towards expanding her economy and reducing reliance on petroleum, it may blunder into a

<sup>1</sup> See generally, the following works for example: Kloppenburg, 1988. *First the Seed: The Political Economy of Plant Biotechnology 1492-2000*. Cambridge; Cambridge University Press and Roht-Arriaza. 1996. *Of Seeds and Shamans: The Appropriation of Scientific and Technical Knowledge of Indigenous and Local Communities*. *Michigan Journal of International Law*. 17. pp. 919-963; Adedeji, L. 2014. Op. cit.

<sup>2</sup> Adedeji, L. 2014. Op. cit.

<sup>3</sup> Swiderska, K. 2006. Op. cit.

<sup>4</sup> Lifeintellect.com. 2013. Op. cit; See: Mukherjee, R. 2013. Traditional knowledge, culture can be patented. *The Times of India*, Dec 27, 2013. Retrieved on 23/06/2014, from <http://www.timesofindia.indiatimes.com/business/india-business/Traditional-knowledge-culture-can-be-patented/articleshow/27994684.cms.htm>; Economic times of India Online of 23<sup>rd</sup> June, 2014. Retrieved on 23/06/2014 from <http://www.articles.economicstimes.indiatimes.com/keyword/traditional-knowledge.htm>

<sup>5</sup> See: Lifeintellect.com. 2013. Op. cit; Mukherjee, R. 2013. Op. cit; Economic times of India Online of 23<sup>rd</sup> June, 2014. Retrieved on 23/06/2014 from <http://www.articles.economicstimes.indiatimes.com/keyword/traditional-knowledge.htm>

<sup>6</sup> Alebede, B. 2008 Op. cit. and Lewis, H. W. and Ramani, V. 2003. Op. cit.

<sup>7</sup> World Intellectual Property Organization (WIPO). 2003. Comparative summary of existing national Sui-generis measures and laws for the protection of traditional Knowledge. *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore. Fifth session. Geneva. July 7-15, 2003*. (WIPO/GRTKF/IC/5/INF/4).

<sup>8</sup> Abasiokong, O. 2012. The Nigerian leadership debacle. *The Nigerian Voice*, 8 August 2012. Retrieved on 23/6/14, from <http://www.thenigerianvoice.com/news/96035/1/the-nigerian-leadership-debacle.html>

<sup>9</sup> Anon. 2012. Rescuing the Economy from Looming Debacle. *Thisdaylive online newspaper*. 25 Dec 2012. Retrieved on 23/6/14 from <http://www.thisdaylive.com/articles/rescuing-the-economy-from-looming-debacle/134462/.htm>

<sup>10</sup> Anon. 2012. Op. cit.; Abasiokong, O. 2012. Op. cit.

storm,<sup>1</sup> and protection of her rich bio-diverse heritage is one of the many areas which can assist her to avoid the predicted pending doom.

Nigeria as a nation stands to benefit greatly from the protection of TK, as it promises to contribute to the economy of the country, as evident with the case of India and other countries that have taken giant strides in the protection of their TK from bio-piracy. Research shows that almost a quarter of all doctors' prescriptions in developed nations have their origins in plant species.<sup>2</sup> For instance, Odeunmi's work on the Igbo bitter-cola, (Akuilu in Igbo; Orogbu in Yoruba and Namijin-goro in Hausa) shows that it is now used to produce some anti-cancer and HIV-retroviral drugs.<sup>3</sup> Similar is the case of the Alligator pepper.

Tolu Odugbemi in his recent work in collaboration with other authors in the field, made a compilation of over 1,200 plants long discovered to be of medicinal value by various communities and indigenous societies in Nigeria.<sup>4</sup> There also exist over 12 volumes of research reports and documentations prepared and published by the Nigerian Natural Medicine Development Agency, including digital identification and documentation of medicinal, aromatic and pesticidal plants (MAPPS), animal/animal parts and mineral used in traditional medicine.

All these go to show the rich and bio-diverse nature of the country, all of which are potential wealth generating resources for Nigeria if properly tapped and harnessed, especially in a sustainable way. Considering the figures provided under this Section of this work, the returns to the Nigerian economy, if these traditionally discovered knowledge are well protected, would run into billions of dollars.

On food and national as well as global food security alone, plant contributions from traditional communities in the global South including Nigeria, are simply amazing. For instance, the whole of Southeast Asia's oil palm crop is descended from only four palms taken from Nigeria to Java in 1848. Modern yields in palm oil have been improved and increased over three-fold by breeding from genetic material from its native home in Nigeria. The economic significance or worth of such traditionally discovered and developed plant life forms is therefore incomprehensible.<sup>5</sup> The combined annual global market for plant life forms is in the trillions of dollars,<sup>6</sup> which if re-invested in the country's economy would be capable of boosting same immensely.

In view of the vast potentials of natural medicine and Nigeria's huge biodiversity, Nigeria must take more definite steps to protect and better document its huge biodiversity, bio-resources and indigenous medical knowledge, science and technology which may be sustainably exploited and utilized for improved healthcare delivery, wealth and job creation and even commercialized as raw materials or as finished products. All these are essential<sup>7</sup> to the economy of the country and have the capacity to greatly boost same. Failure to do so will only permit further poaching of same<sup>8</sup> with little or no return to the owners of the knowledge,<sup>9</sup> thereby ridding the country of its economic benefits.

### 5.3. Nigerian Initiatives to Protect Traditional Knowledge.

<sup>1</sup> Anon. 2012. Op. cit

<sup>2</sup> Mgbeoji, I. 2011. Op. cit; Swiderska, K. 2006. Op. cit

<sup>3</sup> See: Odeunmi, E.O. et al. 2009. Proximate and Nutritional Composition of Kola Nut, Bitter Kola and Alligator Pepper. *African Journal of Biotechnology*. 8: 2. 308-310.

<sup>4</sup> See: Odugbemi, T & Akinsulire, O. 2006. Medicinal plants by species names. *Outlines and pictures of medicinal plants from Nigeria*. Odugbemi, T ed. Lagos: University of Lagos Press. 73-161.

<sup>5</sup> Mgbeoji, I. 2011. Op. cit.

<sup>6</sup> See: Kate, K. T. & Laird, S. 1999. *The Commercial Use of Biodiversity: Access to Genetic Resources and Benefit Sharing*. London: Earthscan Publications Ltd. 1

<sup>7</sup> See the Nigeria Natural Medicine Development Agency (NNMDA) 2013 Update Report. Retrieved on 16/06/2014, from <http://www.nnmda.gov.ng/NNMDA%202013%20UPDATE.pdf>

<sup>8</sup> A factual situation was reported by Ikechi Mgbeoji, of local farmers in Ibadan, Nigeria, who developed an insect-resistant cowpea and of course, they would have been unable to publish their findings or their results in any reputable journal reviewed by their peers. However, on a trip to Nigeria, one Angharad Gatehouse, a scientist at the University of Durban, obtained some of these seeds. Using formal techniques, he identified in scientific language, the genetic mechanism which causes the locally developed cowpeas to be insect-resistant. The scientist promptly left the university and joined the Agricultural Genetic Company of Cambridge and they proceeded to apply for a patent on the invention. See: Buchanan, J. 1994. *Between Advocacy and Responsibility: The Challenge of Biotechnology for International Law*. *Buffalo Journal of International Law*. 1: 221, cited in Mgbeoji, I. 2011. Op. cit. 36

<sup>9</sup> Beder, S. (1993). *The nature of sustainable development*. Newham, Australia: Scribe Publications. 224 and Maunsell, M. (1997). *Barricading our last frontier: Aboriginal cultural and intellectual property rights*. In. G. Yunupingu (ed.) *Our land is our life: Land rights past, present and future*. Brisbane: University of Queensland Press.



In terms of the above however, Nigeria is still far from its destination. Few inroads have been made. Sometime about the year 2004 some amendments were made to the existing intellectual property regime in Nigeria,<sup>1</sup> such that certain areas of TK were covered by the laws. For instance protection of Folklore was included in the Law, which provided for Copyright in Section 28 of the Copyright Act of Nigeria, 2004.<sup>2</sup> Also, the ability to extend the life of trademarks indefinitely and the possibility of collective ownership of such rights suggest that they may be especially suitable for protecting some forms of TK,<sup>3</sup> have been seen as positive aspects of the Trade Marks Act.

It is fundamental to note also, that through the Nigerian Natural Medicine Development Agency,<sup>4</sup> the government has developed a Digital Virtual Library, designed to be a dedicated focal reference centre for traditional medicine knowledge & practice (TMKP).<sup>5</sup>

The steps as above highlighted are however, still unable to give adequate protection to TK, due to the unique nature of TK and the existence of some provisions inimical to the protection of TK.<sup>6</sup> Without an actual directive legal framework for the protection of TK in Nigeria, it may get nowhere in terms of the harnessing of its TK for economic benefits. Immediate steps must therefore be taken to adopt the necessary legislation for the protection of TK in Nigeria.

## 6.0. SUGGESTING A FRAMEWORK FOR THE PROTECTION OF TRADITIONAL KNOWLEDGE IN NIGERIA.

Having concluded that conventional international intellectual property law does not, at least adequately, protect the traditional knowledge of indigenous and local peoples and having concluded on the need for Nigeria to legally protect its TK, it is imperative that this work is concluded with the suggestion of a frame work for the protection of TK in Nigeria.

The following suggestions should be taken into consideration by the government in the enactment of a law or policy for the protection of TK in Nigeria:

1. The said law/policy should be sui generis, and same should not be overly consistent with existing intellectual property models but should be tailored to the distinct characteristics of traditional innovation processes.
2. The law/policy should allow for the protection of the TK and resources of the communities at local level or in situ.<sup>7</sup> This is because such community-based natural resource management helps maintain traditional knowledge, conserve biodiversity and improve livelihoods.
3. The law/policy should focus on the customary laws of the people, and as there is no universal customary law in Nigeria, should provide at least basic provisions for each of the geo-political zones, or using other classification systems that bring together communities with similar cultures.<sup>8</sup>
4. The law/Policy should not only focus on facilitating access by companies and scientists to community resources, but also on **facilitating access by communities to resources held in ex situ** collections. This would definitely give a certain confidence to the indigenous people that they are in reality not losing their TK or culture.

<sup>1</sup> Adedeji, L. 2014. Op. cit.

<sup>2</sup> Cap C28, Laws of the Federation of Nigeria, 2004.

<sup>3</sup> See Sections 23 and 64 of the Trade Marks Act, Cap C13, LFN, 2004

<sup>4</sup> The agency was established in 1997 with the mandate to research, develop, collate, document, preserve, conserve and promote the nation's indigenous (traditional) healthcare systems, medication and non-medication healing arts, sciences and technologies and assist facilitate its integration into the National Healthcare Delivery System, as well as contribute to the nation's wealth and job creation, socio-economic growth, national economic growth and development effort. See the Nigeria Natural Medicine Development Agency (NNMDA) 2013 Update Report. Retrieved on 16/06/2014, from <http://www.nnmda.gov.ng/NNMDA%202013%20UPDATE.pdf>

<sup>5</sup> The said Digital library which is modelled after the Traditional Knowledge Digital Library of India and is said to be the 1st of its kind in Nigeria and perhaps in Africa, has been described as a critical tool for the development, preservation and promotion of Traditional Medicine knowledge and practice. See the Nigeria Natural Medicine Development Agency (NNMDA) 2013 Update Report. Retrieved on 16/06/2014, from <http://www.nnmda.gov.ng/NNMDA%202013%20UPDATE.pdf>

<sup>6</sup> See for example, Section 1(4) of the Patents and Designs Act, Cap P2, LFN 2004, which excludes plants and animal varieties as well as biological processes from patentability. Similarly, the provisions in the NAFDAC Act, Cap N5, LFN 2004, which compel traditional medicine practitioners to disclose the ingredients of herbal medicines.

<sup>7</sup> Posey, D. 1996. *Traditional Resource Rights*. IUCN Biodiversity Programme. Switzerland, IUCN. Cited in Swiderska, K. 2006. Op. cit.

<sup>8</sup> In this case, thorough and accurate research must be carried out on states, societies, communities and cultures therein.

5. The law/Policy should make use of existing customary authorities and structures in the process of documentation, administration and policy advice.
6. The government should in addition to the NNMDA, which should be maintained as the Agency in charge of collation, documentation, preservation and research of TK, also establish a commission that will handle the administration of Traditional Knowledge, as separate from Intellectual property. The said body would be charged with the responsibility of registration, procedures for enforcement and even international protection of TK, all of which should be done at little or no cost to the said local peoples.
7. In addition to using the existing structures, the government must make available, clear channels flowing from the local communities, to state liaison offices of the commission and the NNMDA, and finally to the federal commission or agency, which should be well equipped and staffed to ensure that the channels are kept open.
8. Laws and Policies in other sectors ought to be considered also in other to support the system. Some of the following sectors especially: conservation, agriculture, health, education, economic development, trade and IPRs. Currently these sectors often undermine Traditional Resources Rights and contribute to the loss of TK and bio-culturally diverse production systems.<sup>1</sup>
9. The law/Policy must ensure that the access being given in respect to TK is not only concerned with genetic resource transactions for commercial or scientific use, including acquisition of IPRs but mostly or rather, resource exchange for subsistence use.
10. The law/Policy must also ensure that patents are not given over discoveries resulting from such knowledge such as would prevent the source community from using their TK and emphasize the safeguarding of access to TK and resources for customary use.<sup>2</sup>
11. Taking a cue from the Indian system, the law/Policy may be divided into different sections that cover different areas of TK in Nigeria, in order to provide more direct, specific and unique coverage for each aspect or area.
12. Also, the law/policy should also synchronize the functioning of the existing NNMDA, as research and documentation body and a commission to be established as suggested above, as both arms must function together.
13. The law/Policy should empower the Courts to make necessary orders where necessary to protect the TK as covered by same.
14. The law/Policy should be holistic, covering all areas of TK in Nigeria.

A law/Policy that is based on the above framework will be better equipped to protect TK in Nigeria and allow the country to reap the economic benefits currently being enjoyed by its counter parts in India, China and other States that have indeed broken the barriers with regard to the protection of TK.

## 7.0. RECOMMENDATIONS/CONCLUSIONS

In order for Nigeria to fully or at least mostly reap the economic benefits of its TK, it must:

Firstly, recognize the existence of TK within its borders and the fact that it is a very rich and bio-diverse nation, which can use its bio-diversity to better its economy.

Secondly, recognize the rights and roles and positions of the indigenous peoples from whom this TK is derived, in the scheme of all things as related to the TK.

Thirdly, take the steps necessary to enacting a sui generis law for the protection of its TK, taking into consideration the above suggested framework.

Fourthly, ensure the proper enforcement and administration of the said law, hand in glove with the local communities from whom TK is derived.

Lastly, add a stronger voice to the international campaign for laws that compel the protection of TK<sup>3</sup> and make the sustainable use, preservation and protection of its TK a priority for it.

It is therefore important that considering its rich bio-diverse nature and the apparent benefits to other countries,<sup>4</sup> Nigeria develops for herself, a clear national policy for the protection of TK, which should give pride of place to our wealth of bio-cultural knowledge. The government must wake up to realize the benefits of protecting TK especially taking India as an example in this regard and must take more definite and concrete steps towards

<sup>1</sup> Swiderska, K. 2006. Op. cit.

<sup>2</sup> Ibid.

<sup>3</sup> See: Wiessner, S. & Battiste, M. 2000. The 2000 Revision of the United Nations Draft Principles and Guidelines on the Protection of the Heritage of Indigenous Knowledge. *St. Thomas Law Review*. 13: 383.

<sup>4</sup> See: McClellan, T. 2001. The Role of International Law in Protecting the Traditional Knowledge and Plant Life of Indigenous Peoples. *Wisconsin International Law Journal*. 19:249.

breaking the invincible barriers as it were, that currently restrict the country from achieving a higher and better economic status and position in the scheme of things.

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