



INTELLECTUAL PROPERTY AND PROTECTION
OF TRADITIONAL KNOWLEDGE:
OPTIONS FOR NIGERIA

BY

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ABSTRACT

The main objective of this thesis is to assess the adequacy and suitability of the various options of protecting traditional knowledge in Nigeria and to provide an insight on the approach of customary law on the subject. The thesis employs mixed methods of research consisting of doctrinaire and socio-legal approaches. It examines various options of protection comprising the intellectual property regime, Convention of Biological Diversity and International Treaty on Protection of Plant Genetic Resources for Food and Agriculture. Other mechanisms analysed are the African Union Legislation on Protection of Traditional Knowledge of the Local Communities, Regulations on Protection of Varieties of Chinese Traditional Medicine and Indian Biodiversity Legislation. In general, the thesis argues that the conception of the relevant issues under the various options is inadequate and largely unreflective of the customary laws and norms of the Nigerian people. It argues in contrast that customary law provides adequate protection of traditional knowledge within the relevant communities, but its direct application beyond its local origin is confronted by a number of challenges. However, the research also observed that there are useful opportunities for convergence between the modern arrangements and customary laws in protecting the peoples' traditional knowledge. Thus, the thesis suggests the need to revise the intellectual property regimes and to implement the modern options based on customary law as demonstrated with the application of the customs of the Yoruba people of Nigeria. It concludes that such approach to the implementation of protection will fully resolve all issues and concerns relating to protection of traditional knowledge in Nigeria.

خلاصة البحث

إن هذا البحث يهدف إلى دراسة وتقييم مدى ملائمة الإختيارات المتعددة والمتوافرة لحفظ المعرفة التقليدية في نيجيريا مع إعطاء دراسة معمقة لموقف القانون العرفي حول الموضوع، فأسلطنا عدة أساليب وطرق البحث تحقيقا لهذا الغرض كالذي أدرج للأبحاث النظرية والإجتماعية والقانونية. هذا بالإضافة إلى العمل على كشف عدة الإختيارات المتاحة للحقوق والإبتكارات والمعارف العقلية ومعاهدات الإبتكارات البيولوجيا المختلفة والاتفاقيات الدولية الموضوعة لحفظ وصيانة الثروات الغذائية والزراعية المورثة، وأنظمة المعارف التقليدية لمختلف المجتمعات الإفريقيا والصينية والهندية. وقد اكتشفنا من خلال دراستنا للتعليمات والمفاهيم المتاحة لهذه الإختيارات المختلفة أنها لم تستوجب للأغراض المطلوبة بل أنها بصفة عامة لم تعكس بالصورة المعتادة عليها في عادات وتقاليد الشعب النيجيري، لأن عادات وتقاليد هذه الدولة اهتمت اهتماما بالغا بحفظ هذه الإبتكارات والمعارف التقليدية بين مختلف المجتمعات المكونة لها، بيد أننا اكتشفنا أيضا أن هناك العديد من الإعتراضات تعاقب دون تطبيقها بصورة فعالية خارج هذه المناطق مما أدى إلى أن نثبت أن هناك فرصة إمكانية إندماج ترتيبات المعاصرة مع ما تم توفيرها من خلال القوانين العرفية لحفظ هذه الإبتكارات والمعارف التقليدية الموجودة عند الناس. واقترحنا أنه يجب أن يعاد النظر إلى لوائح الإبتكارات العقلية وممتلكاتها وتطبيق تلك الإختيارات المعاصرة على حسب القانون العرفي كما تمت الإشارة عليها من خلال دراستنا التطبيقية لعادات وتقاليد قبيلة يوربا بنيجيريا. وأشرنا في آخر المطاف أن هذا التطبيق وتلك الصيانة على أساس القانون العرفي سيلعب دورا هاما لإيجاد الحلول للمشاكل التي تعوق دون صيانة المعرفة التقليدية بنيجيريا.

APPROVAL PAGE

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DECLARATION

I hereby declare that this thesis is the result of my own investigation, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any degree at IIUM or other institutions.

Ibrahim Kayode Adam

Signature

Date

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**INTELLECTUAL PROPERTY AND PROTECTION OF
TRADITIONAL KNOWLEDGE: OPTIONS FOR NIGERIA**

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Affirmed by Ibrahim Kayode Adam

.....
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.....
Date

To

(i)

The living memory of my late father

Alhaji Shehu Abubakar Adisa Adam

(ii)

My mother

Alhaja Aishat Ajoke Shehu-Adam

(iii)

My darling wife and children

Rasheedat ('Tope 'Shalewa); Munirat; Rahmat; Abubakar; and Lateefat

For their love, patience and understanding

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Agu v. Ikewibe (1991) 3 Nigerian Weekly Law Reports, part 180, 385.
Akin Adejumo & Ors. v. Ajani Yusuf Ayantegbe, suit no. SC204/1986.
Alhaji S. A. Kazeem & Nosiru Safari vs. Madam Wemimo Mosaku & Others, suit no SC.230/2001.
Ayman Enterprises Ltd. v. Akuma Industries Ltd (2003) 13 NWLR, part 836, 22 at 52.
Baker v. Selden 101 U S 99 (1880).
Biogen Inc v. Medeva plc (1997) RPC 1.
Bulun Bulun & Another v R&T Textiles Pty Ltd and Another [1998] 41 IPR 513.
Caley (A.J) & Sons Ltd v. Garnett (G) & Sons Ltd (1936-45) Mac. CC.
Elanco Products Ltd v. Mandrops (Agrochemical Specialists Ltd (1980) RPC 213.
Esan v Faro [1947] 12 WA.CA 135.
Esugbaya Eleko v. Government of Nigeria (1934) A.C. 262.
Express Newspapers v. Liverpool Daily Post & Echo PLC (1983) FSR 306.
Foli v Akese (1930) 1 WACA 1.
Formento v. Mentmore (1956) R.P.C. 87, CA.
Foster v. Mountford, (1976) 29 FLR 233.
Franklin v Giddins (1976) Qd R 72.
GD Searle & CO Ltd v Celltech Ltd (1982) FSR 92.
Ladbroke (Football) Ltd v William Hill (Football) Ltd (1964) 1 WLR723.
Lionel v. MTH, 2006, FED App. 0457 (7th Cir.).
Mercer v. Roberts Co., 570 F.2d 1232, 1238 (CAS Tex., 1978).
Merck v. Chase (1967) 155 USPTQ. 139.
Millar v. Taylor, 98 Eng Rep, (KB 1769) 201.
Nucor Corp. v. Tennessee Forging Steel Service, Inc., 476 F.2d 386 (CA8 Ark. 1973).
Ogunmefun v Ogunmefun (1931) 10 N.L.R. 82.
Omnia Nigeria Limited v. Dyke Trade Limited (2007) 15 NWLR PART 1058, 578.
Onwuka v Abiriba Clan Council [1956] ENLR. 17.
Patkun Industries Limited v. Niger Shoes Limited (1998)5 NWLR PART 93, 138.
Pozzoli SPA v. BDMO SA, [2007] F.S.R. 37 (p. 872), [2007] EWCA Civ 588.
Seager v Copydex Ltd. (1967) 2 ALL ER 415.
Stromback v. New Line Cinema, et al, 2004 FED App. 0314P (6th Cir.).
Technograph Circuits Ltd v Mills and Rockley (Electronics) Ltd (1972) RPC 346.
University of London Press Ltd v. University Tutorial Press Ltd (1916) 2 Ch.601.
Windsurfing International Inc. v. Tabur Marine (Great Britain) Ltd (1985) R.P.C. 59.
Yeohata Industries Sdn Bhd & Anor v Coil Master Sdn Bhd & Ors (2001) 6 CLJ 418.

CHAPTER ONE

INTRODUCTION

The risk of wrongfully appropriating traditional knowledge has increased since the advent of the knowledge-economy, which is characterized by an expansion of new technologies and strengthening of intellectual property rights across the world. Traditional knowledge comprises ideas and technologies employed by local people to provide solutions to the social and economic problems; something that has driven local life from time immemorial. According to a study conducted by Lazare Sehoueto of the Kilimanjaro Institute (Benin), small-scale farmers represent seventy to eighty percent of agricultural producers in Sub-Sahara Africa and rely principally on local traditional knowledge.¹ A similar report by the World Health Organisation notes that approximately 600,000 persons are licensed as traditional medical practitioners in India and a million others involved in community-based health works. This sphere of knowledge has continued to expand its influence as mainstream society adopts traditional solutions to complex modern problems. The safety of natural resources which traditional knowledge employs in providing solution to human needs makes its products receive incredible patronage beyond local communities. This approach permeates every aspect of human life including agriculture, healthcare delivery and industry. Many modern manufacturers currently integrate traditional approaches in their products. This high patronage was demonstrated by a recent report estimating that demands for functional food and beverages stood at US\$ 4.7 billion in 2000.

¹ United Nations Educational Scientific and Cultural Organisation, “Tapping into the World’s Wisdom”, *UNESCO Sources*, July – August 2000, No. 125, available online at <<http://www.unesdoc.unesco.org>> (accessed on 24th January, 2008).

Furthermore, during the same period a distinct market worth US\$ 43 billion existed for herbal remedies with an annual growth rate of between five and fifteen percent. In another report, the World Health Organisation (WHO) found that eighty percent of the world population depend on traditional medicine for primary health care needs.²

The drive for expansion of new technologies finds that traditional knowledge has great potential, with particular reference to biotechnology which increases the value of natural resources and biodiversity by employing living organisms to improve agriculture, health care and industrial productivity. Natural resources and biodiversity are the breeding ground and essential venue for the generation of traditional knowledge, hence, biotechnology has much to gain from it. The results of the interaction between the two manifest as is exemplified by the following instances of biotechnological developments:

- Bio-prospecting has been rendered more rewarding for drug development by traditional knowledge as finding commercially viable drugs from plants increase, especially when natives use such plants as medicine. Seventy-four percent of 119 plant-based compounds used globally have the same or related use as medicinal plants from which they were derived.³
- The practice of improved screening techniques focuses on medicinal plants to identify active compounds which can be extracted or chemically reproduced.
- Traditional medicine serves as functional component in foods and beverages to provide health benefits beyond their normal nutritional values.

² The World Health Organisation, "Strategy for Traditional Medicine 2000 – 2003," WHO, Geneva: 2000, available online at <<http://www.who.int/medicines/areas/traditional>> (accessed 24 Mar 2008).

³ Norman R. Farnsworth, Screening Plants for New Medicines, as cited by Graham Dutfield, "Legal and Economic Aspects of Traditional Knowledge," in *International Public Goods and Transfer of Technology under Globalised Intellectual Property Rights*, edited by Mascus & Reichman (London: Cambridge, 2005), 495.

- Aromatic plants are used to enhance the quality of cosmetics and personal care products.
- Traditional crop varieties serve as the basis for the development of new improved varieties including genetically modified organisms.
- Micro-organisms that survive extreme conditions are used to develop new industrial manufacturing processes.

Biotechnology has been considered an engine of wealth creation, although this does not reflect in the socio-economic conditions of contributors of traditional knowledge. Perhaps, this is because the benefits arising from the utilization of traditional knowledge accrue wholly to the industry which manufactures the finished products. This has been blamed partly on the absence of specific measures to guarantee recognition and reward for traditional knowledge. The consequence is that the contributors of this traditional knowledge remain unrewarded while innovations developed by the industry gain recognition and rewards through intellectual property rights. The intriguing aspect is that such rights are often granted for mere replication of traditional knowledge without value-additions made by the purported inventor. This factor underscores a growing global concern about “bio-piracy” along with the complaint that intellectual property systems have become instruments that actually oppress traditional knowledge.

1.1 GENERAL BACKGROUND

In an era when knowledge constitutes the key instrument of economic development, this study is inspired by a need to protect the traditional knowledge of indigenous peoples by ensuring their recognition and providing them with compensation as its holders. The existing system of intellectual development primarily protects scientific,

artistic and literary innovations. It employs such mechanisms as patents, copyrights and trademarks to protect its subjects according to certain criteria. These appear to have developed with reference to industrial standards and practices. Hence, they facilitate protection of modern industrial innovations while constraining traditional knowledge that professes peculiar characteristics including oral and inter-generational transmissions. For this reason, some question the capacity of current intellectual property rights to protect 'traditional knowledge'. The globalization agenda of the World Trade Organisation's Agreement on Trade-Related Aspects of Intellectual Property (TRIPs) further complicated the matter by promoting the questionable assumption that the present intellectual property system can protect all categories of knowledge-based innovations.

The agreement imposes obligations on member countries to extend patent protection to inventions in all fields of technology including agriculture and pharmacy. This approach constitutes a great strain on traditional knowledge and raises questions about global market asymmetry. This led the Doha Round of the WTO meeting (in 2001) to direct the Council for TRIPs to examine the relationship between the TRIPs agreement on traditional knowledge and folklore.

It is almost unanimously agreed among observers and commentators that traditional knowledge needs effective protection. This is not only to ensure that its holders are able to recoup benefits from their contributions, but also to reposition the developing countries to advance their national economies and improve the socio-economic conditions of their local people. This, it is hoped, would present biodiversity-rich developing countries with a comparative advantage to participate more effectively in global markets.

The literature has argued that the existing intellectual property system has the potential to protect traditional knowledge, particularly when judging by its antecedents in areas of technology such as protection for computer software and integrated circuits. While not dismissing the merits of that contention, this thesis argues that such an approach may undermine the aspirations and worldview of traditional knowledge holders. Further, it is unlikely that the actual knowledge holders constitute the real beneficiaries of such protection.

Therefore, we will also discuss options for protection of traditional knowledge outside the intellectual property system and identify *sui generis* measures developed by various levels of government and highlight key features for consideration in light of Nigerian traditional knowledge. These measures provide a starting point for the development of protection mechanisms for traditional knowledge and its holders in Nigeria while acknowledging they also present much room for further elaboration and improvement. To some degree these measures are narrowly focused and often employ open and ambiguous terms in certain elemental treatments regarding the protection of traditional knowledge; an approach that can subvert the peoples' interests except when implemented according to native customary laws.

Presently intellectual activities and knowledge creation in Nigeria are protected according to intellectual property standards. The Nigerian legal policies are yet to reflect international developments that incorporate measures for the protection of traditional knowledge. The only notable exception is the protection of "expression of folklore" as provided by the Copyright Act, 1988.⁴ The folklore regime is far from adequate because it limits protection to traditional cultural expressions, which is strictly within the traditional copyright category, and thereby excludes substantive

⁴ With amendments consolidated in 2004 under the *Laws of the Federation of Nigeria*, Cap. 28.

traditional knowledge. Further, it shows no particular interest concerning the rights of local communities to enjoy benefits from the exploitation of their traditional knowledge. Due to this absence of appropriate protection for traditional knowledge, developments have been left to the magnanimity of biodiversity prospectors who often utilize this legal vacuum to the disadvantage of the vulnerable locals. The question being asked is whether the fate of such important resources should forever be left to the whims of prospectors. It is true that customary law normally protects traditional knowledge within local communities, but its limited legal recognition, among other factors, seriously constrains effective applications beyond this domain.

Recently, the then President of the Federal Republic of Nigeria, Chief Olusegun Obasanjo, gave a directive to certain Ministers to deploy means to collect data on traditional knowledge practices in the country as a precursor for recognition and protection.⁵ A similar pronouncement was recently credited to the country's Minister of Science and Industry who declared that alternative treatments based on the system of traditional medicine would soon be offered by public hospitals in Nigeria. Despite these positive pronouncements by top government functionaries, recognition of traditional knowledge still has no significant legislative policy instrument to officially establish the implied effect. The closest legislative move towards the protection of traditional knowledge was the "Bill on Protection of Traditional Medicine recently proposed to the National Assembly by the Nigeria Natural Medicine Development Agency (NNMDA).

Nigeria is a multi-cultural nation of over 110 million people located in the west Coast of Africa. Its physical size is estimated at 923,768,000 sq km and it is

⁵ Abiose Adelaja, "Nigeria Boosts Research into Traditional Medicine," *Science and Development Network* (6 December 2006) available online at <<http://www.scidev.net/en/agriculture-and-environment/editorials/>> (accessed September 12, 2008).

greatly endowed with natural, biological and cultural resources throughout the nation. The largest percentage of its population resides in local communities and employs traditional knowledge that offers solutions for social, spiritual, economic and political problems. In particular, over ninety percent of Nigeria's agricultural products are produced by small scale (less than 5 ha) resource poor farmers, who sustain the national food supply via traditional knowledge.⁶ Furthermore, traditional medicine plays an important socio-economic role in the country to provide healthcare for a large percentage of the population and serves as an important source of income for numerous practitioners across the country.

1.2 AIMS AND OBJECTIVES OF THE STUDY

The debate on protection of traditional knowledge involves a number of complex issues and developments. Some of these relate to the suitability or adequacy of the dominant intellectual property system as a means for protecting traditional knowledge in developing countries, including Nigeria. Traditional knowledge faces a similar challenge in relation to other measures of protection developed by various levels of government and intergovernmental organizations. The fact that present models originate from a cultural context distinct to traditional knowledge constitutes sufficient grounds for concern. It is the argument of this thesis that since the models are intended to resolve the concerns of traditional knowledge holders for the protection of their knowledge and proprietary rights, their implementations ought then to be guided by the dictates of customary law of the holders. It is further argued that the rules of

⁶ Adedipe, N.O., Okuneye, P.A., & Ayinde, I. A., "The Relevance of Local and Indigenous Knowledge for Nigerian Agriculture." Paper presented at the conference on Bridging Scales and Epistemologies: Linking Local Knowledge with Global Science in *Multi-Scale Assessment*, March, 2004, Alexandria, Egypt. Available online at <<http://www.millenniumassessment.org/doc>> (accessed 22 Mar 2008).

customary law could be employed to interpret and implement the protection of traditional knowledge in biodiversity rich countries, particularly Nigeria.

Accordingly, the thesis aims to discuss intellectual property protection of traditional knowledge and its compatibility with the desires and aspirations of traditional knowledge holders. Its specific objectives include the following:

(i) To establish an understanding of the existing and emerging mechanisms on protection of traditional knowledge and analyse the respective capacity of each to address the needs, aspirations and expectations of traditional knowledge holders. The analysis focuses on selected regimes for the protection of traditional knowledge, particularly those emanating from various levels of government.

(ii) To describe customary norms and practices of traditional knowledge holders and highlight their perspectives regarding the protection of traditional knowledge. We believe that this will provide an opportunity to correct presumptive claims that customary laws treat traditional knowledge as ‘open knowledge’ subject to reciprocity and popular exchanges. In addition, the research could form part of the body of literature soon to emerge in response to the call by World Intellectual Property Organisation’s ‘Fact Finding Mission’ for the “study of customary laws and protocols in local communities, including conclusions regarding the formal IP system.”⁷ Thus, the thesis undertakes a study of Yoruba communities in Nigeria and explores their tradition of protection of traditional knowledge. These include legal and non-legal rules that have evolved overtime to regulate social conduct and relationships.

⁷ WIPO, *Report on the Fact-Finding Missions on Intellectual Property and Traditional Knowledge 1998-1999* (WIPO, 2001), 232.

(iii) To analyse customary norms and practices as a tool for implementing contemporary standards of protection for traditional knowledge, particularly in Nigeria.

1.3 SCOPE AND LIMITATIONS OF THE STUDY

This research focuses on the integration of customary norms into a system of protection for traditional knowledge in Nigeria. We argue that various modern rules on protection of traditional knowledge cannot operate in their present state without subverting the interests of traditional knowledge holders and therefore propose that customary law should be used to interpret and implement these rules.

To put the analysis in context, our discussion uses the example of the Yoruba custom in Nigeria to illustrate this approach. Although we specifically focus on particular aspects of traditional knowledge, namely agricultural and medicinal knowledge, this research actually adopts the holistic philosophy of traditional knowledge obtained under customary law. It is for this reason we canvassed and incorporated issues, concerns and arguments in relation to other aspects of traditional knowledge such as traditional cultural expressions.

The focus on the Yoruba custom is not intended to produce specific outcomes such as to provide binding rules of protection. Rather, it is to demonstrate that the interplay of customary law with modern rules on the protection of traditional knowledge can help us identify both problems and solutions thereto. However, it is important to note that the findings of this work should not be generalized due to a diversity of customs. In particular, the findings herein cannot be applied to address traditional knowledge concerns where local custom encourages open access and free exchanges thereof. Nonetheless, it seems these findings are generally complimentary