

RUAHA CATHOLIC UNIVERSITY (RUCU)



FACULTY OF LAW

BACHELOR OF LAWS DEGREE PROGRAMME (LL.B)

TITLE

**CRITICAL ANALYSIS ON THE PROTECTION OF TRADITIONAL KNOWLEDGE
AS PATENTS IN TANZANIA: A CASE STUDY OF TRADITIONAL MEDICINE**

**Submitted in partial fulfillment of the requirements for the Award of the Bachelor of Laws
Degree (LLB) of Ruaha Catholic University**

By.

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560/LLB/T/2017

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JULY, 2021

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Ruaha Catholic University dissertation titled: A Critical analysis of the protection of Traditional Knowledge as patents in Tanzania: A case study of Traditional Medicine.

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Signed on day of.....2021

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DECLARATION

I, Tula Msigala. Declare that this research paper is my own original work, and it has not been submitted to any other institution for similar or any other award that I am aware of.

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DEDICATION

I dedicate this research to my beloved mother Upendo Msigala for setting the education standard in our family and believing in whatever I do. Also, I would like to dedicate this research to all my relatives and friends who supported me and for their tolerance during my absence.

ACKNOWLEDGEMENT

First, I would like to thank the Almighty God for giving me good health and ability to complete this study. While it is not possible to mention everyone, who extended a hand in the course of preparing this work, here are few names for their invaluable assistance. I would like to thank my family for encouraging and supporting me financially, through the entire time of my studies.

Special thanks also to my supervisor, Mr. Barnabas Pascal Nyalusi, for his guidance through writing this research, his thorough process and intellect is truly an inspiration. My heartfelt thanks to all staffs at the Faculty of Law of the Ruaha Catholic University Iringa, Tanzania, for their unconditional assistance that enabled me to attain this important academic achievement.

I also thank my fellow students of Ruaha Catholic University, for their encouragement, support and cooperation during the whole course.

LIST OF ABBREVIATIONS

AU	African Union
BRELA	Business Registration and License Agency
CBD	Convention on Biological Diversity
ILO	International Labour Organization
IPRs	Intellectual Property Rights
IP	Intellectual Property
TK	Traditional Knowledge
TM	Traditional Medicine
THP	Traditional Health Practitioner
TCEs	Traditional Cultural Expressions
TRIPS	Trade-Related Aspects of Intellectual Property Rights
OAU	Organization of African Unity
WIMSA	Working Group of Indigenous Minorities of South Africa
WHO	World Health Organization
WTO	World Trade Organization

LIST OF STATUTES

Domestic Instruments

The Traditional and Alternative Medicines Act, 2002

The Constitution of the United Republic of Tanzania, 1977

The Patent (Registrations) Act, Act No.1 of 1987

International Instruments

The International Convention on Biological Diversity (CBD

ILO 169 Indigenous and Tribal Peoples Convention, 1989

Convention establishing the World Intellectual Property Organization of 14th July 1967

Paris Convention for the Protection of Industrial property, 1883

The Universal Declaration of Human Rights, 1948

The International Labour Organization Convention 169

The Nagoya Protocol, 2010

International Covenant on Civil and Political Rights, 1966

The Declaration on the Rights of Indigenous People, 2007

Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement

Case Laws

Egbert v. Lippman, 104 U.S. 333, 26 L. ED 755, 1881.

ABSTRACT

The purpose of this study is to establish the essence of protection of traditional knowledge in making traditional medicine as patent under the Patents (Registration) Act CAP 217 R.E.2002.

Generally, this research paper will comprise four chapters in establishing the purpose of invention, as people with traditional knowledge in Tanzania are protected by the Traditional and Alternative Medicines Act, 2002. So, the main objective of this research is for the traditional practitioners to be given patent protection as the Act that protects them only protects the traditional medicine and not the knowledge and intellect of the practitioner which such protection is provided under the patent law, which is responsible for the promotion of inventiveness and innovation for the facilitation of the acquisition of technology on fair terms.

Also, the research paper aims at establishing awareness to traditional knowledge with regards to their patent rights on their traditional inventions, as lack of protection of traditional knowledge as patent detracts the right of inventors of traditional medicine.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 INTRODUCTION

This study critically analyzes the protection of Traditional knowledge in making of traditional medicine as patents in Tanzania under the Patent (Registration) Act and its regulations.

For many years Tanzanian traditional communities have been practicing traditional knowledge that helped to protect their societies from natural disasters, illness and poverty prevention.¹

Traditional knowledge refers to the knowledge, innovations and practices of indigenous people also it can be defined as a body of knowledge built up by a group of people through generation of living close to nature.² Traditional knowledge is further explained as the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.³

Traditional medicine is the sum total of knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures that are used to maintain health, as well as to prevent, diagnose, improve or treat physical and mental illness.⁴

In the World Health Organization (WHO) African Region traditional medicine as it involves traditional knowledge which is handed down in a way of oral tradition while some specific recipes are provided to the family members only who can be trusted to keep such heritage.⁵

¹ G. Dutfield, *TRIPS-Related Aspects of Traditional Knowledge*, 33 *Case W. Res. J. Int'l L.* 233-240 (2001) 239.

² www.un.org. (Accessed 17 January 2021)

³ The International Convention on Biological Diversity (CBD), Article 8(j)

⁴ P. O. Amanze, *African Traditional Medicine*, Author House, United States of America, 2011.10

Further, traditional knowledge relates to traditional cures, curing properties of herbs, leaves and other treatments not known to the rest of the world.⁶

Patent Right is a legal right granted by a government to an inventor for invention, whereby the letters of patents when you are granted a patent do not Royal decree granting exclusive rights to certain individuals or business⁷. Therefore, patent is a right granted to a person who invents or discover of manufacture, composition of a matter or any new and useful improvement. Some of industries secure patents for the reason of commercial and generating revenue but others for competition.⁸

1.2 BACKGROUND TO THE PROBLEM

Traditional knowledge in the current international system for protecting intellectual property was fashioned during the age of industrialization and developed subsequently in line with the perceived needs of technologically advanced societies, however in recent years indigenous peoples, local communities and governments mainly in developing countries, have demanded equivalent protection for traditional knowledge.⁹

In Tanzania the recognition of traditional knowledge started even before the emerging or coming of colonialists, whereby bad enough the colonialists suspected and believed that traditional knowledge as a threat in their ruling system and decide to associate it with witch craft and uncivilization. But some of the missionaries who were Christians accepted traditional knowledge

⁵ T. W. Dagne, *Intellectual Property and Traditional Knowledge in the Global economy*, Routledge Group, 2015.15

⁶ <https://scholarship.law.umn.edu>. (Accessed 19 January 2021)

⁷ D. Bainbridge, *Intellectual property Law 8th edition*, Pearson Education Limited, 2010, 378

⁸ C. A Nard, *The Law of Patents 5th edition*, Wolters Klower, New york, 2011.5

⁹ www.wipo.int. (Accessed 19 January 2021)

and took doctors with plants species and send them for scientific investigation in Germany this is when traditional knowledge was incorporated in German East Africa in 1907.¹⁰

Before the existence of modern knowledge that established the modern medicines there was the use of traditional medicines helping in different aspects characterized by indigenous methods of healing dominated the medical and public health system, which urban and rural communities in Africa relied on dealing with various diseases that threatened their life.¹¹ But as explained before the traditional knowledge with the advent of colonialism was very much discouraged by colonialists which led to the imposition of Western medical knowledge as the only formally accepted public health standard.¹²

Despite western knowledge but still traditional knowledge was practiced but the problem comes when the traditional knowledge is not given priority as the modern one by being protected as Patent or not having patents right.

1.3 STATEMENT OF THE PROBLEM

In Tanzania, people with traditional knowledge in making traditional medicine are protected by the Traditional and Alternative Medicines Act, 2002 whereby under this Act only protects the traditional medicine as the end product (the medicine itself) and the traditional practitioners as provided under section 2(1) of the Traditional and Alternative Medicine Act, “This Act shall apply to traditional and alternative health practitioners and aides.¹³”, Also under section 6 (1) (n) provides for the protection of Tanzanian medicinal plants and other natural resources of medicinal value and not the knowledge¹⁴. Traditional knowledge in making Traditional medicine

¹⁰www.wipo.int. (Accessed 21 February, 2021)

¹¹ A. A. Abdullah, *Trends and Challenges of Traditional medicine in Africa*, 8(5) African Journal of Traditional Complementary and Alternative Medicines, 2011, 115-123

¹²<https://www.sciencedirect.com>. (Accessed 22 February, 2021)

¹³ Traditional and Alternative Medicines Act No. 23 of 2002, Section 2(1)

¹⁴ Traditional and Alternative Medicines Act No. 23 of 2002, section 6(1)n

needs to be protected by Patent rights as it involves inventions which could protect them from the third parties. And also, because the traditional practitioners are using their time, efforts and intellectual capabilities in making of Traditional medicine to cure their customers. In the eyes of intellectual property, the focus is centered in protecting the indigenous knowledge in existing classic protection mechanism under international instruments such as the member states should consider protection of Traditional knowledge using the existing Intellectual property system and *sui generis* form of protection. But unfortunately, Tanzania has not transformed and put Traditional knowledge into either Intellectual Property systems to be protected. This affect traditional practitioners as it makes difficult to protect Traditional Health practitioners with traditional knowledge, whereby the law which is responsible for the promotion of inventiveness and innovation for the facilitation of the acquisition of technology on fair terms through the grant and regulation of patents does not protect them, which is Patents (Registration) Act CAP 217.

1.4 LITERATURE REVIEW

The study went through various literatures on protection of Traditional knowledge as patents in Tanzania. It was observed that although many authors in different books have written on Traditional knowledge but the concept of being protected by having patent right have not included it.

L. Packer et al,¹⁵ The writers of this book have written on traditional medicine on the exploitation of traditional medicine knowledge for drug development without the consent of customary knowledge holders is not acceptable under International law, as set out in the International Convention on Biological Diversity (CBD). And have also explained about

¹⁵ L. Packer, *Herbal and Traditional Medicine: Molecular aspects of Health*, Marcel Dekker, New York, 2004. 5

patent to Biological Diversity and any product that has been in customary use is a de facto a holder of a patent use.

Another thing explained is only about the debate which discussed various things; In the case of dispute over state v. community ownership of indigenous knowledge, there was a question as to whether states should receive royalties from knowledge that originates from communities or whether royalties should go direct to the traditional knowledge holders, another issue discussed was disputes over patents on herbal products that may have an impact on local herbal use and developing countries experts of herbals. And suggested how the government dealt with insuring the safety and quality control of herbal medicines and not should allow traditional knowledge on traditional medicines to grant patent rights.¹⁶

P. O. Amanze,¹⁷ In this book of *African Traditional Medicine* the author has stated investigate the impact of the practice and use of African traditional medicine among seventh-day Adventists who are in Remoland of origin state who happened to establish various medical institutions based on her philosophy of health as indicated in the bible and writings of Ellen G. White;

“God has caused to grow out of the ground herbs for the use of man, and if we understand the nature of these roots and herbs, and make a right use of them, there would not be a necessary of running to the doctor so frequently and people would be in a much better health than they are”.

So, the writer only aimed to make Christians who do not want to be associated with anything that could link with magicians, native doctors or witch doctors believe on the importance and useful of traditional medicine that are not associated with magic or witches. But not on the

¹⁶ L. Packer, *Herbal and Traditional Medicine: Molecular aspects of Health*, Marcel Dekker, New York, 2004. 6

¹⁷ P. O. Amanze, *African Traditional Medicine*, Author House, United States of America, 2011

importance of the ones with traditional knowledge making the medicine been granted with patent right.¹⁸

I. Sindiga et al, the writer has only written about traditional medicine lacking of proper technical support for traditional medicine as there are no medical procedures and substances that could promote for the use by the general population. Whereby failure to do so then will be against medical ethics, also explained on traditional practitioners that should be trained and be supported and when it comes in terms of payments then the correction of money should be fair as it involved a person after getting treatment, he pays money which the practitioners wishes to.¹⁹

W. R. Cornish, Cornish has written by explaining in respect of food and medicines that no patent claim may be made for a substance capable of being used as food or medicine. He also stated that intended food or medicines could not be patented in themselves, but only when prepared or produced by the methods or processes of manufacture described in the specification or other obvious chemical equivalence, but did not explain on the protection of traditional knowledge as they have their own ways of methods also.

Also, Cornish has excluded other things which cannot be patented the exclusion of methods of surgery and other process of treating the human body may well lie outside the concept of invention because the whole subject is all about economically. So he has not explained why traditional medicines have no quality to be patented but only he excluded other things and the criteria to be patented.²⁰

G. Idour and B. A Terrel, In the law of patents in which have written that patent contain a claim for a new substance, but the claim is to be constructed as not extending to that substance

¹⁸ P. O. Amanze, *African Traditional Medicine*, Author House, United States of America, 2011. 4

¹⁹ I. Sindiga, *Traditional Medicine in Africa*, East African Educational Publishers Ltd, Nairobi, 1995.35

²⁰ W. R. Cornish, *Intellectual Property: Patent, copyright, Trademarks and Allied Rights*, 1998.

when found in nature. A new discovery is not proper subject matter for a patent but Buckley J. explained the distinction between a discovery and invention in the following terms;

A discovery adds to the amount of human knowledge, but it does not only by disclosing something. Invention also adds to human knowledge but not merely by disclosing something.

He did not tell us to whether traditional medicines are party of discovery or invention but only he differentiated the two terms.²¹

Shemdoe, G. S²² in his article writes that in Tanzania there is no official protection mechanisms for the protection of the knowledge and rights of Traditional health practitioners even though the government has enacted the Traditional and Alternative Medicine control. The author focuses to fit the protection of traditional knowledge in the existing mechanisms into Intellectual property system as a requirement provided under international instrument which require the member states to consider protection of traditional knowledge. However, the author has left the gap with no proper ways to enable traditional knowledge being protected.

Massango, C. A²³ in his article writes the indigenous traditional knowledge is being exploited by the third parties for the financial consideration such as the holders of the traditional medicinal knowledge are not benefiting from their knowledge. The foreigners from Europe come in Africa to exploit the traditional medicinal knowledge from the indigenous for the purpose of making modern drugs in their industries and leave nothing to the holders of that knowledge.

²¹ Guy a Idour and B. A. Terrell, *The Law of Patents*, 2011.

²² G. S. Shemdoe & L. Mhando, *National Policies and Legal Frameworks Governing Traditional knowledge and Effective Intellectual property Systems in Southern and Eastern Africa*. The case of Traditional healers in Tanzania, Africa Technology Policy Studies Network, 17, Research paper, (2012),7.

²³ C. A. Masango, Indigenous traditional knowledge: Prospects in South Africa's intellectual property framework? Department of Research and Innovation, University of Cape Town (available on <http://www.sajilis.journal.ac.za>)

The author has only suggested that in order to prevent this problem, the traditional medicinal knowledge should be protected through the sui generis system and others should be protected through the existing IP system. But has left the gap on how the holders of the traditional medicinal knowledge should claim their rights when violated.

1.5 HYPOTHESIS

It seems that in Tanzania traditional knowledge with regards to traditional medicine is not protected as patent, rather it is protected by the Traditional and Alternative Medicines Act which protects only the end product that is the traditional medicine and traditional health practitioners and not the knowledge of making traditional medicine as the intellectual property, this led to the exploitation by third parties.

1.6 OBJECTIVES

The objectives of this study are divided into general objectives and specific objectives;

1.6.1 General objectives

This research critically intended to make a critical analysis on the protection of the Traditional knowledge in making traditional medicine as patent in Tanzania, in that critical analysis the researcher has considered the mode of protection of Traditional knowledge with regards to traditional medicine under the Traditional and Alternative Medicines Act and how its detracts the rights of inventors of Traditional medicine.

1.6.2 Specific objectives

To examine the existing international and regional conventions and mechanisms for the protection of intellectual property with emphasis on traditional knowledge.

To analyze suitable mechanism upon which traditional knowledge in traditional medicine will be adequately protected as patent for the benefit sharing by indigenous communities.

Also, the researcher aimed at raising awareness on Traditional knowledge with regards to their patent rights on their traditional inventions, as lack of protection of Traditional knowledge as patent detracts the right of inventors of traditional medicine.

1.7 SIGNIFICANCE OF THE RESEARCH

It is expected that the findings of this research will serve as a catalyst to the policy and law makers, practitioners and other relevant stakeholders will ensure that and provide the protection of traditional knowledge, and also it is expected to be useful to researchers and the community at large. And be able to claim for infringement when his rights are used without authorization, as the study is upon the government to enact the law governing the protection of traditional knowledge.

1.8. RESEARCH METHODOLOGY

The research has involved both ways which are; primary sources, primary data collection, secondary data and secondary data collection.

1.8.1. Primary sources, the research involved the use of The Patents (Registration) Act Cap 271 R.E 2002 as the research is about the inventors or practitioners with traditional knowledge having protection of patent right as the law does not provide that protection to them.

1.8.2. Primary data collection, the research specifically involved the researcher going to the field whereby will be visiting some areas as will involve going to modern hospitals asking on the use of traditional medicine to patients, then involved visiting the BRELA offices which deals with registration of patents in Tanzania, And then to the sellers and inventors with the traditional

knowledge. The method the interview as I got more information that changed the outlook of the research, also getting quick response and get the nonverbal responses whereby it helped to know and be able to read the nonverbal language as body language contributes a lot in communicating.

1.8.3. Secondary sources, this included extensive reading of books, statutes, journals, newspapers and magazines.

1.8.4. Secondary data collection,

Whereby involved both physically library like the Ruaha Catholic University library and online library too in which involved going through internet and observing different materials written about traditional knowledge on traditional medicines.

1.9 SCOPE OF THE RESEARCH

The study specifically dealt with those people selling traditional medicines and with traditional knowledge at Iringa region at a place known as ‘Posta’ and also at Mafinga district, then also involved BRELA offices which are located at Dar Es Salaam and modern hospitals which are the Iringa Municipal Hospital and Muhimbili Hospital.

1.10 LIMITATION

The challenges that were faced in this research was the scarcity of research materials such as books in library especially the physical ones many books are not found in libraries, also insufficient funds as money needed to travel from Iringa to Dar Es Salaam in order to meet with specific people intended to interview them which took time waiting for them which increased cost as will need to stay much longer in order to complete the research

CHAPTER TWO

CONCEPTUAL, THEORETICAL AND LEGAL FRAMEWORK

2.1 INTRODUCTION

This chapter basically have two parts, whereby in the first part the researcher explained what the research is all about by giving definitions, elaborate terms that may be used throughout the research.

Then the second part on the legal frame work that analyzed the laws that governs Traditional knowledge and traditional medicine, and theoretical legal frame work which is on the Theories that have been developed: the domestic and international laws.

2.2 CONCEPTUAL FRAMEWORK

The purpose of this chapter is to know what is traditional knowledge, Intellectual property rights, Origin and nature of patent protection and why there is the need to protect traditional knowledge in making traditional medicine.

2.2.1 The Meaning of Traditional knowledge

There is no specific definition of Traditional Knowledge due to the fact that the term is so broad, more than ten years following the establishment of WIPO Intergovernmental Committee; has failed to give out a clear definition of traditional knowledge. The definition is complicated because indigenous people, communities and nations may be holders of traditional knowledge, but not all traditional knowledge holders are necessarily indigenous²⁴.

²⁴ World Intellectual Property Organizations (WIPO) Report on Fact-finding Missions on Intellectual Property and Traditional Knowledge (1998-1999)

According to Carlos Correa²⁵ Traditional knowledge can be distinguished by the elements involved, knowledge involved, potential or actual practice and level of codification, individual or collectively owned form of possession and its legal structure.

“Traditional Knowledge” lacks a clear definition and encompasses a diverse body of information, broadly, it refers to the “agricultural, environmental, medicinal knowledge” of indigenous and local communities, developed communally over generations.²⁶ Examples include knowledge of herbal remedies, plant breeding techniques, and the suitability of animal pelts for human clothing. Some commentators also use the term traditional knowledge to include “traditional cultural expressions” (TCES) such as folklore, songs and dances.²⁷

According to WIPO they refer traditional knowledge as:

.... Traditional-based literary; artistic; or scientific works; performance; inventions; scientific discoveries, design names and symbols; undisclosed information and all other traditional based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic field.²⁸

In the above definition the term traditional- based means knowledge system, creations, innovations and cultural experiences which have generality been transmitted from generations and regarded as original evolving in response to changing environment and life challenges.²⁹

²⁵ C. Correa, Traditional Knowledge and Intellectual Property. Issues and Options surrounding the Protection of Traditional Knowledge, A discussion paper commissioned by the Quaker United Nations Office (QUNO), 2001.

²⁶ WIPO, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Sixteenth Session Geneva, May 3 to 7, 2010, WIPO/ GRTICF/IC/16/5 Prov. Geneva, 2010

²⁷ <https://www.wipo.int/tk/en/folklore>. (Accessed 1st April, 2021)

²⁸ WIPO, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Third Session Geneva, June 13 to 21, 2002, WIPO/ GRTICF/IC/3/9. Geneva, 2002

²⁹ <https://www.wipo.int/tk/en/folklore>. (Accessed 1st April, 2021)

Traditional may be found in all societies no matter how modern they might be or appear to be difficulty is that T.K is not easy to find due to urbanization and westernization have resulted in one way or another into eradication of these T.K in countries with most experience these phenomena the most.

In this sentence we may find out that many people may define traditional knowledge as being held by traditional population whose material culture have changed little over centuries or millennium and are separate and outside the cultural mainstream of the country.

According to ILO Convention 169 concerning with Indigenous and Tribal people in industrial countries refers traditional people as;

“Whose social, cultural and economic conditions distinguish them from other sections of the national community and whose status is regulated whole and partially by their own customs or traditions or by special laws or regulations”?³⁰

Some people presume that TK is old and static, but according to the definition above TK is not static due to its nature of being adaptive because adaption is the key to survival in precarious environments, just because TK is handed down from one generation adding to stock of knowledge, used to cure people with various diseases and present-day innovations take place.³¹

As from the definitions traditional knowledge involve medicinal and scientific knowledge, this research critically based on traditional knowledge in making of traditional medicine.

Traditional medicine is the sum total of knowledge, skills and practices based on the theories,

³⁰ ILO 169 Indigenous and Tribal Peoples Convention, of 1989, Article 1

³¹ <https://www.wipo.int/tk/en/folklore>. (Accessed 1st April, 2021)

beliefs and experiences indigenous to different cultures that are used to maintain health, as well as to prevent, diagnose, improve or treat physical and mental illness.³²

In the World Health Organization (WHO) African Region traditional medicine as it involves traditional knowledge which is handed down in a way of oral tradition while some specific recipes are provided to the family members only who can be trusted to keep such heritage³³.

The definitions provided above are and the nature of continuing involvement of protection of traditional knowledge is the further justification that there is the need to effective system of protection of traditional knowledge not all in Tanzania but the world as a whole, rather than imposing difficulties in its protection which results in misappropriation of what is and could be valuable knowledge benefiting the person who has it and the whole people who may use it, that to mean the whole nation and the world.

This research is centered on the idea that, to assure that the African local societies benefit from their TK in making of traditional medicine, they need to protect it in a such way and that is under patent against any form of appropriation. However, TK in the current IPR regime seems to be a burning issue due to the nature of the existing system in IPRs. That is why TK seems not to be recognized and not protected by the existing system.

2.2.2 Meaning of Intellectual Property Rights

Intellectual property refers to creations of the mind: inventions; literary and artistic works; symbols, names and images used in commerce.³⁴ Also Intellectual property can be defined as

³² P. O.Amanze, *African Traditional Medicine*, Author House, United States of America 2011.10

³³ T. W. Dagne, *Intellectual Property and Traditional Knowledge in the Global economy*, Routledge Group, 2015.15

³⁴ What is Intellectual Property? WIPO Publication No. 450(E), Geneva, Switzerland.

what includes all rights resulting from intellectual activity in the industrial, scientific and literary and artistic field³⁵.

Intellectual property is divided into two categories:

Industrial Property includes patents for inventions, trademarks, industrial designs and geographical indications.

For the purpose of this research Patent is type of protection that is discussed about because it is only type that can protect inventions of the mind and the ideal for the protection of TK in making traditional medicine.

2.2.3 Origin and nature of patent protection

Patents can be defined as the exclusive right given or granted to an inventor to make, produce, distribute or sell the patented good or processes. In Tanzania a patent right is granted by filing a form No P2 accompanied by Patent Document Triplicate and which is submitted to the Registrar of Patents who is under BRELA.³⁶ According to section 8 of the Patents (Registration) Act provides for the requirements and one of the requirements is explained in the case of *Egbert v. Lippman*, 104 U.S. 333, 26 L. ED 755, 1881.³⁷

Whereby the case was about Barnes who invented a certain dress known as ‘corset’ special for women, but before filling application for patent right he gave his girlfriend and other friends to wear it. Then after he married his girlfriend, he improved the corset by adding some steel and continue giving his wife to wear it. Unfortunately, he died and the patent rights were given to his wife, Lippman happened to improve the same dress in different way which made Egbert to claim

³⁵ Convention establishing the World Intellectual Property Organization of 14th July 1967, Article 2(vii)

³⁶ Intellectual Property Needs and expectations of Traditional Knowledge, World Trade Organisation.35.

³⁷ *Egbert v. Lippman*, 104 U.S. 333, 26 L. ED 755, 1881.

for infringement of patent right. The defendant claimed that the dress invention was not novelty as one of the requirements of patentability as it was published to the public. The court held that it does not matter how many have seen the dress or wear it but it is already known to the public, so the court held in favor of the defendant.³⁸

Patent protection can be traced since the period of colonization where by the monarch gave reward for discoveries and conquest of foreign land (discovery land, conquest of foreign land) for example Christopher Columbus for the alleged discovery of America on his voyage that was intended to land in India.³⁹

In short Patent or Intellectual property rights stated with the colonization period that is the conquest of territory and now conquest of economy, Patent as it started from Italy and spread to other parts of the world was seen as the tool for rewards to from the 14th century where the Venetian Secrete passed the venetian Patent law as the tool for reward of inventions coming from men who were regarded as geniuses so that no one could take away their creations, novelty was also defined in the veteran law as new and indigenous in the Veteran domain.⁴⁰

Patent was an instrument for the technological transfer during the industrial revolution as technology was transferred and exclusive rights were given to the person who introduced that knowledge, rewarded as well as protection. It is for example in England and America

³⁸ <https://supreme.justia.com>federal> (Accessed 3 April, 2021)

³⁹S. Vandana, *Protect or Plunder? Understanding Intellectual Property Rights*, The University Press Ltd, Bangladesh, 2001.12.

⁴⁰ H. G. Fox, *Monopolies & Patents: A Study of the History & Future of the Patent Monopoly*, Oxford University Press, Canada, 1947, Xvii

innovations and technology like making of boats, steam engines were protected and later given exclusive rights to the owners of the innovations.⁴¹

Patent law was formulated to encourage such technology transfer and commercialization, US was the first nation to enact Patent law first known as “Colony” in as early as the 16th century whereby the US both as the importer and exporter of technology and inventions.⁴²

Due to these reasons today there is the ongoing debate between the developed and developing nations as IPR that includes Patent is seen by the developing nations as the tool incentive for the need of the western nations economic growth due to competition in capital accumulation and hence led to industrial nations searching for global market so that, to handle competition from other countries such as Japan, China, and hence serve globally free trade agreement such as WTO and TRIPs agreements in which they serve as the frame work of the Patent system in the world.⁴³

Therefore, as the nature and origin of patent was from the western countries that are highly developed industry and they formulated their law in order to encourage more inventions by insuring that the inventors are well benefiting from their work. This example then can be used in formulating our own law to protect traditional practices in our country and not following the western system which is biased to individual property and discourages traditional knowledge.

⁴¹G. Gooday and S.Wilf, *Patent Cultures: Diversity and Harmonization in Historical Perspective*, Cambridge University Press, New York, 2020, pg91

⁴² G. Gooday and S.Wilf, *Patent Cultures: Diversity and Harmonization in Historical Perspective*, Cambridge University Press, New York, 2020, pg91

⁴³ C. B. Graber, *Traditional Knowledge at International Level: Current Approaches and Proposals for a Bigger picture That includes Cultural Diversity* Schulthess: Zurich, 2006.8

2.2.4 The need for the protection of Traditional Knowledge in making traditional medicines

Before discussing how Traditional Knowledge can be protected, the first question to ask is why TK should be protected. Any system of protection, however, is an instrument for achieving certain objectives. Therefore, a fundamental question, before considering how TK may be protected, is to define why it should be.

The existing legal framework that is patent system is not effective in protecting traditional knowledge, the TRIPS framework does not include the protection of TK invention, with the need for amendment of patent law so that to include traditional knowledge as a patentable entity, this will enable most of Tanzania and developing nations to handle issues like misappropriation and lack of benefit sharing agreement with foreign research a pharmaceutical corporation.

2.3 THEORETICAL FRAMEWORK

The contribution of traditional medicine done by traditional practitioners to the accumulation of World Traditional medicinal knowledge was pliantly ignored to the extent that the existing Intellectual property rights system wholly ignores the contribution and legalizes only the rights of inventors and innovators of modern technology. This led to the searching and developing of various theories for the protection of traditional medicinal knowledge and the rights of the Traditional practitioners. These theories have been purposely to be the solution to seek for the protection of the Traditional knowledge on traditional medicine under the intellectual property in the form of “positive protection” and “defensive protection”.

Positive protection simply means the holders of traditional medicine knowledge decide to protect their knowledge through an IPR, for instance under a patent or an alternative right provided by *sui generis system*. While Defensive protection refers to the provisions adopted in the law or by regulatory authorities to prevent IPR claims to knowledge, to cultural expressions, or to a given

product being granted to authorized persons or organizations.⁴⁴ A researcher will attempt to express in more details these two theories how useful they are in the protection of Traditional knowledge as follows; -

2.3.1 Defensive Protection Theory

Defensive protection does not require the assertion of IP rights, but rather aims at preventing third parties from claiming rights in misappropriated subject matter.⁴⁵ This came out of the two important proposals which have emerged from international negotiations.

The first proposal is to require patent applicants to disclose the origins of genetic resources and associated TK relevant to their invention and, according to one variant of the proposal, to provide proof that regulations governing the transfer of the resources and associated TK were complied with.

The second is to compile databases of published information on TK to enable patent examiners to identify potentially novelty-destroying prior art. This can be ensured by making use of the existing legislation such that the principle consented to by all states is concerned. A State is obliged to do more than just to prevent the misappropriation of subject matter and this may also be done through human rights that can contribute to the protection of traditional knowledge.⁴⁶

⁴⁴ <https://www.researchgate.net>. (Accessed 3 April, 2021)

⁴⁵ Elements of *sui Generis* system for the protection of Traditional Knowledge, document prepared by the Secretariat, WIPO/GRTKF/IC/4/8, 30 September, 2002, 13.

⁴⁶ See United States, Article 27 3(b), Relationships between the TRIPS Agreement and the CBD and the Protection of Traditional Knowledge and Folklore, WTO Doc.IP/C/W/434, 26 November, 2004 para 5, where the CBD's of principle of "prior informed consent" (CBD Article 15 (5)) and equitable sharing of benefits (CBD ARTICLE 15(7), as well as "preventing the issuance of erroneously issued patents" (see also Paras. 28-32, which clearly points traditional knowledge) are identified by the United State as 'shared objectives'.

2.3.2 Positive Protection Theory

Positive protection entails assertion of IP rights in protected subject matter, with a view to excluding others from making specific forms of use of the protected material. Though positive protection can imply the adoption of new laws, existing categories of intellectual property can be used for protecting traditional knowledge.⁴⁷

Entitlement theory and experience to date both suggest that extant legal systems for protecting knowledge and intellectual works tend to operate as either property regimes, liability regimes, or as combined systems containing elements of both.⁴⁸

2.4 DOMESTIC LAWS

The protection of the knowledge and rights of Traditional Health Practitioners in making of traditional medicine in Tanzania lies within the arm of National laws as follows;

2.4.1 Constitution of the United Republic of Tanzania, 1977 (as amended from time to time)

The well-known manifestation of the approach of human rights is found in the Constitution of the United Republic of Tanzania provides for a Bill of rights and it allows any person to challenge any law or omission which contravenes his or her rights under Article 24(1), which provides for the fundamental rights which gives a person a right to own property which states that; -

“Every person is entitled to own property, and has a right to the protection of his property”

This Article gives all people the right to own property and the protection of that property owned with the rights of possession, use and enjoyment. The owner can exclude anyone else from using

⁴⁷ Paris Convention for the Protection of Industrial property of 1883, Article 10(3)

⁴⁸ H. M. Haugen, *Traditional knowledge and human rights*, J. World Intell. Prop., 2005, VOL 8, 663

it.⁴⁹ Therefore, when another person uses somebody 's property then that person has to be liable on infringing the exclusive rights of the owner of that property. When this occur, the person whose rights have been infringed will have to be given legal remedy before the court. In respect to this, the Constitution being a mother law of a country whereas all other laws must conform to it. The government at this point has to set legal mechanism for the THPs who are the owner of Traditional medicine knowledge and the rights accruing therein to claim their rights when exploited by the third parties. Just like other invention and inventors, tradition medicine are to be protected and being given exclusive right to their invention

2.4.2 The Traditional and Alternative Medicine Act No.23 of 2002

The first law that attempts to protect the traditional medicine is the Traditional and Alternative Medicine Act. This Act was enacted with the ultimate aim of making provision for promotion, control and regulation of traditional and alternative medicines practice. The also establishes the Traditional and Alternative Health practice Council, besides the good intention of the Act to vest these wide powers to the council including protection of traditional plants and other natural resources.⁵⁰ The Act does not categorically cater for protection of traditional medicinal knowledge in a comprehensive manner. In addition to that, the law is silent on how can the council achieve its mandate of protecting traditional medicinal plants and other natural resources.

Unfortunately, this law has some gaps that it leaves a great room for the third parties to exploit the traditional knowledge in making traditional medicine and thus the researcher found that there is need of amendment or incorporation of the provision to this legislation that can provide generally protection to the traditional medicine.

⁴⁹ <https://www.businessdictionary.com>. (Accessed 29 April 2021)

⁵⁰ The Traditional and Alternative Medicine Act No. 23 of 2002, section 4(1)

There is no legal protection that offers in order to protect the knowledge and rights to those people rather than demanding them to undertake registration for the practices of traditional healing and requires the THPs to be registered by presenting to the Registrar any relevant identification documents and written statement from the local government authority which he is practicing, and consequences for the failure to make such registration is the payment of fine. It is necessary for them to make registration in order to ensure the safety and better health of the people because when it comes to illness, the health of the sick lies upon the shoulders of the traditional healing, but it is not enough for the law to recognize the presence of its citizens only, and leaving behind the legal mechanism on how to protect their intellectual property rights which raise the economic gains in the community.

However, if there is no legal protection mechanism that has been offered by this law, then there will be a great possibility for the traditional medicinal knowledge and rights of the THPs accruing therein to be exploited by the third parties. Moreover, it is not enough to give the THPs a room to demand, sue for and recover in any court reasonable charges for professional aid, advice or visit and the value of any medicine rendered and supplied by them only, without showing which law should be applicable and where these people are supposed to begin their claims.⁵¹ It is necessary to show other legal proceedings like dispute resolutions mechanism that these may begin to claim their rights for instance mediation and arbitration. However, the recognition of these rights is not enough unless the law could have further provisions on the protection of the traditional medicinal knowledge and rights of the THPs which specify the real act or omission and amount for recovery the prompt the THPs to demand and sue in the court.

⁵¹ Traditional and Alternative Medicine Act No 23 of 2002, section 32, 14 (1)

2.5 INTERNATIONAL INSTRUMENTS

This involved the rules generally regarded and accepted as binding among states, those rules have been adopted by Tanzania in its jurisdiction hence forms part of the protection of TK in Tanzania.

2.5.1 Universal Declaration of Human Rights, 1948

Universal Declaration of Human Rights is the result of the United Nation's General Assembly Resolution 217 A of 10th December 1948.

This is the basis for the protection of human rights and fundamental freedom of all people in the world. Many International, Regional and National mechanisms which set forth for the protection of human rights have derived their purposes from this Declaration. The Universal Declaration of Human Rights provides for the protection of human rights without distinction of any kind like race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

The Declaration has gone further by providing one among important things that everyone has the right to be recognized everywhere as a person before the law.⁵² The people with traditional knowledge on making traditional medicine have been recognized by the law, but the existing law does not protect their rights even though they are recognized. The THP's have been violated their fundamental rights granted them by the Constitution.⁵³

In order to give and protect the rights of THP's in Tanzania as provided in this Declaration, the state is supposed now to create mechanism for the THPs who have been violated their rights to be given remedies for compensation accruing from the loss that they sustained and the benefit

⁵² Universal Declaration of Human Rights of 1948, Article 6

that were made up to get due to violation by the Third parties. Therefore, the legal protection of the IPRs of the THPs in Tanzania flows from a state's commercial to protect human rights, a fact which has been reflected in the wording of Article 27.⁵⁴

The basis of this Article is that, the legal protection for the products of human intellectual effort and ingenuity is granted to protect the products they create enrich a society's culture and knowledge and thus increase its welfare through access to the ideas and information contained in their products⁵⁵.

2.5.2 Convention on Biological Diversity, 1992

The united Nations decided to come up with the protection of human rights on the respect for the rights of indigenous people after a long debate and discussion on how to protect the indigenous people' rights. The exploitation of Traditional medicine knowledge for drug developments without the consent of customary knowledge holders is not acceptable. State parties are required to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote 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.⁵⁶

The State has to adopt benefit sharing principle such that those who exploit this knowledge have to share with the owner the benefit accruing therein from that knowledge and unlawful appropriation of it must be prevented in order to implement the protection of the rights of the

⁵⁴ Universal Declaration of Human Rights of 1948, Article 8

⁵⁵ L. R. Helfer, *Intellectual property rights in plants varieties: International legal regimes and policy options for national government*, FAO LEGISLATIVE STUDY 85,8

⁵⁶ Convention of Biological Diversity of 1992, Article 2

THPs under work programme. In order to make sure that the state implements its requirement, the United Nations has adopted the Declaration on the Rights of indigenous people for the protection of their rights. This Declaration ensures both individual and collective rights such that indigenous people have the right to full enjoy as a collective as well as individuals for cultural rights and identity, rights to education and health. This Declaration provides the rights to the indigenous people which is the matter given to the states by the Convention on the Biological Diversity which depends on the establishment of *sui generis* protection system at the national level such that the Declaration leave the obligation of protecting TK to states.

In addition, the protection of THPs would be nothing if there is a room for the foreigners to exploit genetic resources which associated with the traditional medicinal knowledge like medicinal plants. This has been seen by this Convention and therefore it avoids biopiracy; for instance, it requires each contracting state to develop national strategies, plans for the conservation and sustainable use of biological diversity⁵⁷.

Also, the convention promotes access to genetic resources in exchange for fair and equitable sharing of benefits through technology transfer, research results, training and profits can contribute to poverty reduction and sustainable development in biodiversity rich developing countries like Tanzania. But the method achieving this objective is left to individual nations. There is need of wide ranged program that should make sure that the states are promoting and supporting the invention and the exclusive use of traditional knowledge in making traditional medicine.

⁵⁷ Convention of Biological Diversity of 1992, Article 6(a)

2.5.3 The International Labour Organization, Convention 169

The International Labour Organization was the first United Nation Organization to address issues of traditional Knowledge, Convention 107 was revised in June 1989 as Convention 169 concerning Indigenous and tribal people in independent countries. The revised Convention outlines the approach of promoting the assimilation of indigenous and tribal people, this Convention is commonly referred to as Convention 107. A committee of experts established in 1926 examined and developed international standards for the protection of indigenous workers.

The committee generated the basis for the adoption in 1957 of the Convention concerning the protection and Integration and other Tribal and Semi- Tribal populations in independent Countries. It promotes the protection of indigenous people as distinct and separate people. Article 29(2) (b) imposes responsibility upon government to develop measures to promote full realization of the social, economic and cultural rights of indigenous peoples. Article 5(a) provides for the recognition and protection of the cultural, religious and spiritual values and practices of indigenous peoples.⁵⁸

These provisions should be broadly read to include recognition and protection of traditional knowledge of these indigenous people. The recognition of collective aspects is a critical feature of the Convention and is important in intellectual property issues, since collectively is fundamental to the transmission, use and protection of traditional knowledge and medicine.

2.5.4 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from the utilization to the Convention on Biological Diversity, 2010

Tanzania has not adopted this protocol but it is very important in the protection of the traditional medicine knowledge. This protocol was adopted at the tenth meeting of the conference of the

⁵⁸ the International Labour Organization Convention 169, Article 29(2) (b) and article 5(a)

parties on 29th October 2010, in Nagoya, Japan. The protocol significantly advances the fair and equitable sharing of benefits arising from utilization of genetic resources. It mainly promote and safeguard the TK held by indigenous and local communities when it is associated with genetic resources that may strengthen the ability to these communities to benefit from the use of their knowledge, innovations and practices.

Moreover, the protocol requires the member state to take legislative, administrative and policy measures to ensure that the benefits accruing from the utilization of knowledge of the indigenous and local communities are shared in a fair and equitable way with the communities concerned based on mutual agreed terms such that the use of indigenous knowledge has to be subject to the prior informed consent have to provide for a clear and transparent written decision by a competent national authority, in a cost- effective manner and within a reasonable period of time.⁵⁹ By saying so, through the prior informed consent by the THPs to allow their Traditional Medicine knowledge to be utilized by other jurisdiction, this shall help to protect their rights.

In addition, the parties are supposed to establish clear rules and procedure for requiring and establishing mutual agrees terms, such terms shall be set out in writing and may include, *inter alia* a dispute settlement clause, terms on benefit sharing including in relation to IP rights, and terms on subsequent third-party use.⁶⁰ By covering dispute settlement resolution, it has to be included therein the jurisdiction to which the parties shall subject their dispute resolution processes; the applicable law and options for alternative dispute resolution; for instance mediation and arbitration. In order to ensure the THPs are well protected, Tanzania has to set forth the dispute resolution clause so that the THPs may find a better place to bring their claims where there occur violation of their rights by third parties.

⁵⁹ Nagoya Protocol on Access and Benefit-sharing of 2010, Article 6, 2 and 3

⁶⁰ Nagoya Protocol on Access and Benefit-sharing of 2010, Article 6 and 18 (1)

2.5.5 International Covenant on Civil and Political Rights, 1966

The International Covenant on Civil and Political Rights is the basis foundation of the freedom, justice and peace in the World which recognizes the inherent dignity and of the equal and inalienable rights of all people without regarding their status and property. The State is supposed to create condition whereby the THPs in Tanzania may enjoy their rights. The State has obligation to make sure that there is observance of the respect of human rights including the right to own property by the practitioners of traditional medicine by virtue of their rights and human dignity, they have to be free determine to pursue their economic, social and cultural development in the society.

In order to ensure the rights of the people including THPs are protected and respected; Tanzania are state member to this covenant has to ensure that any person (THPs) whose rights as they have recognized have been violated, he is supposed to be given an effective remedy regarding that person acting in an official capacity.⁶¹ The THPs who claims his rights, it has to be determined by competent court provided for by legal system of the State and to develop the judicial remedy to ensure that the competent court shall enforce such remedies when granted. Therefore, if Tanzania comply with this covenant and set forth mechanisms, the rights of the THPs shall be protected against the third parties.

2.6 Conclusion to the Chapter

The protection of traditional knowledge raises a number of policy issues, namely the goals and methods of protection, and its implications for the indigenous people. Obtaining international consensus on binding instrument has so far proved to be quite a challenge. While some countries have simply not been convinced about the need to protect traditional knowledge internationally,

⁶¹ International Covenant on Civil and Political Rights of 1966, Article 2(3), 2(2)

other states which see such a need prefer that the matter be addressed in a non-binding declaration rather than a binding treaty

In this chapter there are two theories that have been proposed so far for the protection of traditional knowledge specifically in traditional medicine but none of the theories proposed have been worked out since no international treaty has been in place to date. Also, the instruments which involve the Domestic instruments and International instruments whereby each instrument has been explained the gap of not protecting traditional knowledge in making of traditional medicine.

The following chapter which is chapter three explained on the assessment of laws on the protection of traditional knowledge in the making of traditional medicine and the rights of the traditional practitioners, so the chapter included the scope and scale basing on the research

CHAPTER THREE

A CRITICAL ASSESSMENT OF THE LAWS ON THE PROTECTION OF TRADITIONAL KNOWLEDGE AND RIGHTS OF TRADITIONAL PRACTITIONERS IN TRADITIONAL MEDICINE IN TANZANIA

3.1 INTRODUCTION

This chapter included the scope and scale basing on findings of the research in the protection of the traditional knowledge as patents in Tanzania. Researcher has found that the laws are insufficient in protecting the knowledge and the rights in general of the practitioners against the third parties. The traditional medicine knowledge is used by the third parties without the consent of the traditional practitioners or the THPs who are the holders of that knowledge and also their rights are being violated.⁶² There is a room for third parties to exploit and use the knowledge of THPs for commercial gain without sharing benefits and acknowledging the traditional holders.

3.1.1 Broder and Narrower Definitions of Traditional Knowledge

As we have seen earlier the term traditional knowledge per se does not refer to any product eligible for patent under intellectual property protection. However, various terms have been proposed in order to recognize the rights which could be derived from traditional knowledge in traditional medicine. “Traditional intellectual property rights” is a term introduced by recognized authors,⁶³ whilst others prefer the term “community intellectual property rights”⁶⁴ or “traditional

⁶² <https://www.wipo.int>. (Accessed 28 April 2021)

⁶³ T. Cottier and M. Panizzon, *Legal Perspectives on Traditional Knowledge: The case of Intellectual Property Protection*, 7 Journal of International Economic Law, 2004, pg. 371 at pg. 387

⁶⁴ www.wipo.org/tk/en/publications/769e_unep_tk.pdf. (Accessed 28 April 2021)

group knowledge and practice”, while the Organization of African Unity (OAU) currently Africa Union (AU) Model Law simply applies the term “community rights”.⁶⁵

Despite the growing interest and popularity of traditional knowledge in many spheres, it is extremely difficult to describe this knowledge at a theoretical or methodological level, which leads to numerous or multitude of meanings and views when attempts are made to define traditional knowledge.

Despite these different views, the term “traditional knowledge” most commonly refers to knowledge associated with the environment rather than the knowledge related to, for example, artworks, handicrafts and other cultural works and expressions (which are usually assimilated to folklore)⁶⁶ According to one expert, traditional knowledge (or what she calls “Traditional Environmental Knowledge”) is a body of knowledge built by a group of people through generations living in close contact with nature. It includes a system of classification, a set of empirical observation about local environment, and a system of self-management that governs resource use.⁶⁷

From the above definitions of traditional knowledge, one encounters a definitional question of TK in making of TM, as one may validly respond to this definitional question in a very inclusive way or take a much more restrictive view of what a TK- holding society should look like. Starting with the inclusive view, one could reasonably argue that the existence of TK in traditional medicine is not limited to certain types of societies but, on the contrary, may be found in all societies, no matter how modern they might appear to be and how untraditional much of

⁶⁵ T. A. Imobighe, *The OAU (AU) and OAS in Regional Conflict Management*, Spectrum Books, The university of Michigan, 2003, pg. 13

⁶⁶ <http://www.biodiv.org/convention/articles.asp>. (Accessed 28 April 2021)

⁶⁷ <https://www.cambridge.org>. (Accessed 28 April 2021)

the knowledge in circulation within them is. This is not to suggest that TK is easy to find in every society. Rather, the urbanization and westernization process that has transformed many of the world's societies are unlikely to have resulted in the complete eradication of TK even in those countries that have experienced these phenomena that most comprehensively⁶⁸.

3.2 How the Laws are insufficient to protect the Traditional knowledge in making traditional medicine

The protection of indigenous traditional medicinal knowledge of the THPs in Tanzania is supposed to be done by considering the knowledge from not being exploited by appropriation for financial gains “by third parties”.⁶⁹ The laws are insufficient to protect this knowledge as follows;

3.2.1 Absence of the Principle of fair and Equitable Benefit sharing

The protection of Traditional medicinal knowledge should aim at meeting the needs of holders or owners who contribute to their welfare and economic, cultural and social benefit. Tanzania has not included the principle of fair and equitable benefit sharing with the holders of the Traditional medicinal knowledge such that the protection of the knowledge of THPs are easily be exploited and used by the third parties for the commercial gain.

Unfortunately, there is no step that Tanzania has taken to set legislatives to include this principle of fair and equitable benefit sharing with the holders of TK such that the protection of the knowledge and rights of the THPs are easily be exploited and used by the third parties for commercial gain. Much worse; third parties are making profits out of such traditional knowledge on traditional medicine. For practical example, the knowledge of THPs is vulnerable both

⁶⁸ L. Grenier, *Working with Indigenous Knowledge: A guide for Researchers*, International Development Research Centre, Ottawa, Canada, 1998, 1

⁶⁹ <https://www.wipo.int>. (Accessed 28 April 2021)

because it is exploited and has been exploited financially by global drug industries for commercial purposes. The drug industries financially benefit and exploit the medicinal properties in plants used by THPs to treat certain illness such as cancer without the recognition of the THPs knowledge.

One Traditional Healer or practitioner whom I interviewed noted that;

“I have been interviewed by one researcher from America wanted to know which plants I use to mix up and make medicine for treating cancer and promised me to pay one hundred million, but he did not pay that amount of money until today. Nothing from disclosing my knowledge to him.”

In addition, Tanzania has not put the traditional medicinal knowledge to be subject to the prior informed consent of the parties. This leads to inefficient protection against all acts of misuse, unlawful exploitation and misappropriation of the holders done by third parties. The THPs have exclusive rights to authorize the exploitation of their TK and have the rights to prevent anyone from exploiting their TK without their prior informed consent.⁷⁰ Worse more the government has not set the legal mechanism for the parties whose intention is to use the traditional medicine knowledge of the THPs to be under prior informed consent and provide for a clear and transparent written decision by a competent national authority, in a cost- effective manner and within a reasonable period of time.⁷¹

Moreover; as far as the traditional knowledge is someone's property then another person cannot use such property to do anything else without that owner's permission as the law allows its

⁷⁰C. Oguamanan, *International Law and Indigenous Knowledge: Intellectual Property Rights, plants Biodiversity and Traditional Medicine*, University of Toronto Press, London, 2006, pg. 36

⁷¹ <https://www.wipo.int>. (Accessed 28 April 2021)

owner to possess and control it.⁷² The indigenous people have the rights to maintain, control, protect and develop their intellectual property over such traditional knowledge and the manifestations of their sciences technologies and cultures including human and genetic resources, seeds and medicines.⁷³

3.2.2 Exploitation of the Traditional Medicine knowledge by companies

The laws of Tanzania are not protecting the genetic resources associated with the traditional medicinal knowledge of the THPs such that there is a room for this knowledge to be exploited by the big multi- national and pharmaceutical companies. Traditional medicinal knowledge faces a threat by “Biopiracy”, in other words called “theft of biological resources” where indigenous knowledge of nature, originating with indigenous people is used by others for profit without permission from and with little or no compensation and recognition to the indigenous themselves.⁷⁴ Developed countries are exploiting genetic resources and indigenous communities traditional knowledge in the name of patents on the inventions derived from those generic resources. Consequently, the threats posed by biopiracy are that the patent holder is unfairly profit from the patent and the patent claimed and awarded illegally and unethically is bound to disturb an established system somewhere in the world. There is danger to cause depletion of Biodiversity, the indigenous traditional knowledge is vulnerable both because it is exploitable and has been exploited financially by global drug industries. The drug industries, for instance, derive prescription drugs from indigenous traditional knowledge plant species by appropriation.⁷⁵

⁷² Constitution of the United Republic of Tanzania of 1977, Article 24(1)

⁷³ Declaration on the Rights of Indigenous People of 2007, Article 37

⁷⁴ <https://birac.nic.in>. (Accessed 28 April 2021)

⁷⁵ <https://www.wipo.int>. (Accessed 28 April 2021)

Following the IP Quarterly Update, Second Quarter 2007, there is a ‘growing recognition of the problems associated with the misappropriation and use of Traditional medicinal knowledge for commercial purposes. It has been observed that although trade in medicinal plants from developing countries has increased in the past few decades with more drugs developed, few if any benefits accrue to the source countries and the traditional communities. The drug industries financially benefit and exploit the medicinal properties in plants used by indigenous traditional people to treat certain illness such as cancer without the recognition of the indigenous traditional people’s knowledge of the plant and its medicinal properties. By saying so, the drug industries are exploiting the collective knowledge of indigenous traditional medicinal knowledge for the profit of the few.

3.2.3 Current position of the law

Even though 80% of the population depends on the traditional medicines in treating diseases and meeting their healthcare, Tanzania still lacks the frameworks for intellectual property of Traditional knowledge on how it can be protected as a product of intellect. Tanzania has also no comprehensive and appropriate mechanism for protection of rights arising out of use and exploitation of tradition knowledge. Lack of proper legal and policy frameworks for the protection of indigenous knowledge in the developing countries in general and Tanzania in particular provides a vacuum for industrialized nations to exploit indigenous knowledge and resources of the indigenous people in developing countries.⁷⁶

The researcher expected that the main legislative which could have provisions regarding the protection of traditional medicine knowledge of THPs in Tanzania is the Traditional and Alternative medicine Act No. 23 of 2002 because it is responsible for the conduct and practices

⁷⁶ Nagoya Protocol on Access and Benefit-sharing of 2010, Article 18(1)

of these people. But bad enough, this law does not cover proper mechanisms for the protection of the knowledge and rights of the THPs against the third parties.

The protection of traditional medicine knowledge is galvanized by the way in which healers keep their records and by what information is to be given to outsiders. The researcher after interviewing and observing the Traditional Healers in Iringa region, found that the knowledge given to foreigners about practices, the THPs are lacking necessary education to know the importance of it; that's why some medicinal knowledge is lost since it is taken by foreigners.⁷⁷ A researcher interviewed one the healer in traditional medicine and said,

“Many people are coming here, they want to know what types or which kind of plants I use that I mix them up to get the traditional medicines to cure typhoid and malaria. And most of these people are mostly the foreigners, I do not know what they are going to do after knowing which plants.”

3.2.4 Lack of Legal Mechanism for the Protection of Traditional Medicine knowledge

The government has not established clear legal rules and procedure for requiring and establishing mutual agreed terms which have to be set out in writing by the practitioners and the persons intended to use the knowledge. In addition to that, the state has not covered the dispute settlement resolution which includes the jurisdiction such that the parties are supposed to be subject to dispute resolution processes; the applicable law and options for alternative dispute resolution, for instance mediation and arbitration.⁷⁸ This is bad as Tanzania has not set forth this mechanism for court to determine the matter arising out of the use of traditional medicine knowledge without consent from the owner.

⁷⁷ Interview, Dr. j. Msimba, Mwembetogwa-Iringa, 28th April 2021

⁷⁸ Nagoya Protocol on Access and Benefit-sharing of 2010, Article 18(1)

3.2.5 Non-Adherence and Recognition of Traditional knowledge in making traditional medicine under Intellectual Property

The Tanzanian government has not recognized the traditional knowledge into IPRs system such that it is below the standard of international level whereas in the eyes of intellectual property. The Act which supposed to recognize the traditional medicine knowledge to fall under IP category is the Patent Act. Whereby this Act is very clear on the criteria for patentability which is novelty, inventive step and capability for industrial application such that an invention is new if it is not anticipated by prior art. In addition to that an invention shall be considered as involving an inventive step if having regard to the prior art, within the meaning of section 9(2) a.⁷⁹

It would not have been obvious to a person skilled in the art on the date of the filling of the application or, if priority is claimed, on the priority date validly claimed in respect thereof. An invention has to be capable of industrial application if according to its nature, it can be made and used in the technological sense in any kind of industry, including agriculture, fishery and services. Hence, the criteria for a patentable invention which is novelty, inventive step and capable of industrial application it is crystal clear that patent law is not the ideal law to protect TK since TK does not meet any of the above criteria.

In addition, the focus is centered in protecting the indigenous knowledge in existing classic protection mechanism under international instruments such that the member states have to consider protection of TK Using existing IP system or *sui generis* form of protection.⁸⁰

For instance, In South Africa following the great exploitation of the indigenous knowledge including the THPs and for a longtime by the scientists and anthropologists in exchange for

⁷⁹the Patent Act, Act No.1 of 1987, section 9(2) a

⁸⁰ Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, Article 27 (3) (b)

small gifts, a campaign was made in 2003 for a comprehensive benefit sharing agreement by the Working Group of indigenous Minorities in South Africa (WIMSA) to help to protect the holders of the traditional knowledge and to compensate them for the use the information that had not opposed to sharing their TK information. However, this was not enough to pay the indigenous people a small amount of percentage the agreed to be paid. In respect of this South African Government realized this and ultimately, chose to forego *sui generis*⁸¹ in the protection of indigenous knowledge as a separate and distinct species of Intellectual property.⁸²

Not enough; Namibia has succeeded to the great extent in protection of the rights of traditional practitioners and Traditional Knowledge at large since independence in 1900 when TM was legalized and the Ministry of Health and Social services adopted it as a primary health care to deliver health service. Due to the existing intellectual property rights regimes, notably patent systems to be inappropriate for the protection of TK for the reasons of originality and most traditional innovation at the local and community level being a result of a collective process of freely sharing new ideas, knowledge and practices that cannot be owned by an individual; Namibia has developed a draft policy which anchored in Namibian draft legislation on Access to Genetic resources that has proposes the creation of a *sui generis system* on the basis of Traditional resource rights and community intellectual rights to protect the knowledge, innovations and practices systems.⁸³ By saying so, both South Africa and Namibia abided by their provisions and implementing requisite national policies under Article 27 (3) (b).⁸⁴ This provision allows time, they have ensured implementation of Article 8 (j) relating to indigenous

⁸¹ Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, Article 27(1)

⁸² <http://www.siulaw.typepad.com/international-ip-policy> (Accessed 29 May 2021)

⁸³ Traditional and Alternative Medicine Act No 23 of 2002, section 27

⁸⁴ Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement

and local communities.⁸⁵ South Africa and Namibia's compatibility between TRIPS and CBD at national level.⁸⁶

The *sui generis* option gives countries the option to develop a law that will not undermine the tradition of their Traditional Medicinal knowledge. Unfortunately, the laws that Tanzania has developed to protect the TK into *sui generis* system are insufficient to cater that protection, this makes difficult to protect THPs under IP system and *sui generis* system, consequently the rights of the THPs in Tanzania are lost easily in the hands of the third parties.⁸⁷

As far as the knowledge and rights of Traditional practitioners are still vulnerable to be exploited due to the ineffective of the laws as concerned; there is no clear legal mechanism for how the rights of the THPs should be protected. Therefore, the laws are ineffective on protection of the knowledge and rights of the THPs in Tanzania.

3.2.6 The Question of Ownership

Who owns knowledge in making traditional medicine on traditional societies? Is it the individual creator or holder? The leader or leader of a community? The whole community? A group of people within a nation, tribe or community such as a clan or lineage group? Or alternatively, is traditional knowledge best viewed as something shared freely because traditional societies do not have concepts of property or least do not apply them to knowledge?

Discussion of these questions is often characterized by tendentious and misleading generalizations. Even if we narrow the scope of our inquiry to indigenous peoples, such as those

⁸⁵ Convention on Biological Diversity of 1992, Article 8(j)

⁸⁶ H. Krugman, "Namibia 's thematic Report on Benefit- sharing mechanisms for the use of Biological resources", Wind hock, Namibia, 2001,11

⁸⁷ Mality. S. J, "Trade Related Aspects of Intellectual Proper ty Law and the Kilimo Kwanza Programme in Tanzania", Ruaha Law Review, 1, 2013, 65

of the Amazon, Siberia or the Pacific, these questions defy easy answers. Many traditional communities have a strong sharing ethos, but this does not mean that everything is shared with everybody. This is confirmed by a wealth of anthropological literature, which reveals that such concepts as “ownership” and “property” or at least close equivalents of them also exist in most, if not all, traditional societies.⁸⁸

In fact, many traditional societies have their own custom based “intellectual property” systems, which are sometimes quite complex. Customary rules governing access to and use of knowledge do not necessarily differ all that widely from western intellectual property formulations, but in the vast majority of cases they almost certainly do. They also differ widely from each other. Therefore, to assume either that there is a generic form of collective or community IPRs or some generic form of sharing would be misleading since it would ignore the tremendous diversity of traditional proprietary systems.⁸⁹

Despite this empirical reality, it is often assumed that traditional knowledge in making traditional medicine have been shared freely and that, where property rights do exist, they are always collective in nature rather than individual as in the West. This view may do a disservice to traditional societies concerned about the misappropriation of TK. Consider that once TK has been disclosed to non-members of a small community or group of people, it is usually considered to enter in the public domain unless its disclosure arose through illegal or deceptive behavior by the recipient, such as a breach of confidence. If no property right exists, then whose rights are being infringed by somebody’s publishing this knowledge, commercially exploiting it, or otherwise appropriating it?

⁸⁸ D. A. Cleveland and S. C. Murray, *The World’s Crop Genetic Resources and the Rights of Indigenous Farmers*, 38 *Current Anthropology* 477(1997)

⁸⁹ <https://www.un.org>. (Accessed 2 May 2021)

Indigenous people generally think in terms of the freedom of individuals to be what they were created to be, rather being free from certain kinds of state encroachments. Along with this highly individualized notion of “rights” is a sense of unique personal responsibilities to kin, clan and nation. Each individual’s “rights”, then consists of freedom to exercise responsibilities towards others, as she or he understands them, without interference.⁹⁰

In short, indigenous societies often consider each member as having individual rights and collective responsibilities that are linked inextricably. Indeed, the persistence of these responsibilities is probably more of a reason why the formal IPR system is inappropriate than the supposedly collective nature of customary right over TK in making traditional medicine.

3.3 Conclusion of the Chapter

This chapter explained and has proved that; As far as the traditional knowledge in making of traditional medicine and rights of traditional practitioners are still vulnerable to be exploited due to the ineffective of the laws as concerned; there is no clear legal mechanism for how the rights of the THPs should be protected. Therefore, the laws are ineffective on protection of the knowledge and rights of the THPs in Tanzania.

The following chapter is on the recommendations and conclusions of the research, whereby it involved what the researcher thought to be done in relation to the protection of traditional knowledge in making of traditional medicine under patents.

⁹⁰ R. L. Brash, *Indigenous People and the idea of Individual Human Rights*, 10 Native Stu. Rev. 35, 44045 (1995)

CHAPTER FOUR:

RECOMMENDATIONS AND CONCLUSION

4.1 INTRODUCTION

This chapter comprised of the recommendation in relation to uncertain of laws relating to the protection of traditional medicine and knowledge in general in Tanzania, also under this chapter researcher provided for the conclusion in general.

4.2 Recommendation

Policies and laws in Tanzania in relation to TK in making traditional medicine must comply to the need or relaying to the benefit of the inventors, hence the government should provide wider national strategy to ensure protection on TK.

Also, there is need of incorporation of civil societies that they would be dealing with conservation of medical plants. Promoting effective use, respect of traditional medicine. This society will make sure that this TM are documented for the purposes of making it genuine

The need of government of Tanzania to secure local benefit from bioprospecting, this may be done by enacting specific legislation o access to benefit sharing on traditional knowledge, such legislation could require that local knowledge is always adequately remunerated by prospectors and funds should be allocated to ensure improvement of traditional health.

Specific training to be provided in relation to TK this can be very helpful to enlarge knowledge and skills based on policy maker, scientist and legal practitioners. Such course can be very focused on role of TK.

It is also recommended that we need to encourage the establishment of civil societies that will deal with conservation of medicinal plants, promote the use of safe and effective traditional medicines, and ensure that indigenous traditional medicinal knowledge and practices are respected and protected. These civil societies will also ensure that adequate training and awareness-raising are undertaken for the sake of promotion and protection of traditional medicinal plants.

4.3 Conclusion

Protection of TK is yet issue for further debate. This research revealed that protection mechanism among the community is mainly secrecy which is the root for the deficiency and problems relating to TK and TM arose. Lack of documentation of TK then there is great danger of it to be lost. Also, the inappropriateness of the existing intellectual property laws especially under patent for protecting TK has been discussed extensively in the past couple of decades, whereby the nub of the arguments presented thus far has been that the existing intellectual property laws have been the product of Western capitalism, which has glorified the virtues of individual efforts in furthering the knowledge systems.

Thus, the patent laws were designed to safeguard the interests of the individual inventor. The temporary monopoly that was provided to inventors through the grant of IPRs under patent, was aimed at providing them with incentive to further improve and sharpen their skills. By nature, therefore, IPRs, as we understand them now, are designed to prevent anyone other than the inventor from using these products of human intellect without express authorization from the owner under prior agreed arrangement.

The monopolistic and exclusionary characteristics of IPRs under patents are not suited for the protection of TK in making of TM on at least two counts. The first is that the existing intellectual property laws have not been applied to knowledge that is mostly collectively held. Traditional knowledge in traditional medicine has become to be collectively held primarily because of the fact that it has generally been free flowing, unbound by limits of time and space.⁹¹

The second issue, albeit a conceptual one, is the veracity of using certain forms of IPRs to protect knowledge that is essentially in the public domain. The major forms of IPRs, namely patent, trademarks and copyrights can only be used to protect knowledge that has not fallen into the public domain. This means, in other words, that patents can only be used to protect an invention in the case of the former, only if the embodied knowledge was novel.⁹²

Therefore, the traditional knowledge in making of traditional medicine and the rights of the practitioners are being used and violated by the third parties as it is due to the lack of legal mechanisms which leaves a room for them to use this knowledge for instance, the Traditional and Alternative Medicine Act No 23 of 2002.

Moreover, an intellectual property law which is responsible for the protection of the Traditional practitioners in Tanzania does not recognize the Traditional knowledge in traditional medicine because it does not fit under the protection of Patent Act.

⁹¹ P. B. Dhur and R. V. Anuradha, *Access, Benefit-sharing and Intellectual Property Rights*, Vol 7 No.5, 2004, pg. 623.

⁹² P. B. Dhur and R. V. Anuradha, *Access, Benefit-sharing and Intellectual Property Rights*, Vol 7 No.5, 2004, pg. 623.

These have been achievable through the findings of this research which have proved that until now the Traditional medicinal knowledge and the rights of the traditional practitioners are not protected such that these people are not benefiting from their knowledge.

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