

TOPIC: **THE ACCESS AND BENEFIT-SHARING LAW
REGARDING GENETIC RESOURCES AND
TRADITIONAL KNOWLEDGE IN AFRICA
UNDER THE INTERNATIONAL
INTELLECTUAL PROPERTY REGIME**

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DEDICATION

I dedicate this work to you Lord.
Jesus what will I ever do without you?
You are my life the rock I depend on.

I could not be where I am today without you Lord Jesus
You spared my life so many times when I could have died
My only desire is for your will to be done in my life Amen!

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DECLARATION

I declare that this mini-dissertation which is hereby submitted for the award of Legum Magister (LLM) in International Trade and Investment Law in Africa at International Development Law Unit, Centre for Human Rights, Faculty of Law, University of Pretoria, is my original work and it has not been previously submitted for the award of a degree at this or any other tertiary institution, and all the sources I have used or quoted have been indicated and acknowledged as complete references.

Gebrehiwot Tigist

ABBREVIATIONS AND ACRONYMS

GATT:	General Agreement on Tariffs and Trade
WTO :	World Trade Organization
TRIPS:	Trade Related Intellectual Property Right
WIPO:	World Intellectual Property Organization
GR :	Genetic Resource
TK :	Traditional Knowledge
EPO :	European Patent Office
USPTO:	United State Patent and Trademark Office
CBD :	Convention on Biological Diversity
MOU :	Memorandum of Understanding
GDP :	Gross Domestic Product
ARIPO:	African Regional Intellectual Property Organisation
OAPI:	African Intellectual Property Organisation of Franco Phone region
IGC:	Intergovernmental Committee on Intellectual Property & Genetic Resources, Traditional Knowledge and Folklore
IIP:	International Intellectual Property
ITPGRFA:	International Treaty on Plant Genetic Resources for food and Agriculture

DIRECTORY OF CASES

Court ruling on patent case as an example here from Massachusetts Circuit Court

Davoll et al V Brown:

LIST OF TREATIES AND INSTRUMENTS

The convention on Biological Diversity (CBD) of 1992

Berne Convention 1886

Paris Convention 1883

Ethiopian Code of Conduct Proclamation 2006

South African ABS Law 2009

Trade Related Intellectual Property (TRIPS) (1995)

UN Declaration on the Right of Indigenous Peoples (2007)

Protocol on Biosafety to the Convention on Biological Diversity (2000)

US Code of Federal Regulations

Nagoya Protocol to the CBD on Access to Genetic Resources and the Fair and Equitable sharing of Benefits Arising from their Utilisation (2010)

Convention for the Protection of New Varieties of Plants

International Treaty on Plant Genetic Resources for Food and Agriculture, the 2002 patent Cooperation Treaty,

ILO Indigenous and Tribal Peoples Convention 1989

International Convention for the protection of New Varieties of plants, as revised at Geneva on 19 March 1991

International Treaty on Plant Genetic resources for Food and Agriculture (ITPGR) (2002)

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ABSTRACT

This research critically analyse the existing international intellectual property regime with regard to protection of Genetic Resources (GRs) and Traditional Knowledge (TK) in respect of developing countries. It further discusses access and benefit-sharing (ABS) law and its agreement and the implications of such agreement for developing countries and the extent of effectiveness of the existing IIP regimes specifically on the protection of GRs and TK. Developing countries, such as Ethiopia, are considered to be rich in GRs and the associated TK. It is to their disadvantage in such cases that the current IIP regime is not able to protect GRs and TK, and to date, the international intellectual property regime has failed, permitting excessively broad patents over genetic biodiversity. The study also seeks to address the bearing of international intellectual property regimes on access and benefit sharing to biodiversity resources and associated knowledge. It then argues that there is an inherent gap in the current international intellectual property (IIP) regime with regard to GRs and TK, and unless IIP regime is revised in a manner that gives protection to GRs and TK, developing countries will remain disadvantaged.

KEYWORDS

Convention on Biological Diversity, Nagoya Protocol, Trade-related Intellectual Property, Access and Benefit sharing, Biodiversity, Bio-piracy, Genetic Resource, Traditional Knowledge, Country of origin, User, Provider, Mutually Agreed Term, Prior informed consent, Protection, Intellectual Property, Indigenous and Local Community

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Intellectual Property (IP) as a term is not a new invention but has its origin in the ancient Jewish laws.¹ The concept of mind creation regarded as property has been recognised in the 16th century.² In fact prior to 16th century, in 500 BC, the Greek State government recognised and gave only a year patent right to all who discovered new sophisticated, fashionable and extravagant creation.³ In 1558-1603, Queen Elizabeth the First initially started patent with the intention to have exclusive right in order to advance her interest to monopolise the economic and industrial policies of the time.⁴

In 1867, for the first time in Germany, intellectual property protection was granted in terms of the founding constitution of the North German Confederation.⁵ It was in 1883 when the Berne Convention established the administrative secretariat located in Berne and also adopted the term 'IP' as united with other nation called the United International Bureaux for the Protection of IP.⁶ In 1967, with the establishment of the World Intellectual Property Organisation (WIPO), it succeeded United International Bureaux for the protection of IP. WIPO was established by treaty as an agent of the United Nation (UN).⁷

¹ C Anthon, A classical Dictionary; containing an account of the principal proper names mentioned in ancient authors and intended to Elucidate all the important points connected with the geography, history and see <http://www.en.wikipedia.org> Intellectual Property (accessed 14/01/2014)

² n1 above

³ n 1above

⁴ A Mossoff a rethinking the development of patents, an intellectual history 1500-1800 Law Journal 2000-2001 , see also www.heinonline.org

⁵ Article 4 No 6 of the constitution of 1867 of German and see also <http://www.verfassungen.de> Hastings law Journal Vol 52 p.52 p.1255, 2001 (accessed 14/01/2014)

⁶ n5 above

⁷ n5 above

In the beginning, patent protection was only given when it was necessary in order to encourage the inventors for a limited time and scope, however, in recent years its scope has been changed from the little protection as strict rules continue to apply now.⁸

The objectives of IP law for example in terms of US Constitution are:

To promote progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.⁹

The US law provides that the inventors have guaranty that their limited exclusive rights are protected and in return to disclose their invention and creative works to the public and the owner of the patentee for shared benefit.¹⁰ The inventor legally will benefit financially from the property created for its development cost and associated expenses.¹¹

A document called ‘the human rights and intellectual property’ was released in 2001 by the UN Committee on Economic, Social and Cultural Rights (UNCESCR).¹² Intellectual property protection should be viewed initially as a social product to serve people but it became focuses on economic goals only.¹³ The UNCESCR also emphasise that IP laws must respect and conform to human rights law.¹⁴ However, IP laws failed to do so and infringing in many respect on the human rights to food, health and cultural participation and scientific benefits by focusing only on economical monopoly¹⁵ without considering the future.

⁸ AL Mark, Property , Intellectual Property and Free riding, Texas Law Review 2007 and also see <http://www.law.stanford.edu> Intellectual Property, and Free riding Texas Law Review 2005 (accessed 15/01/2014)

⁹ US Constitution Art.1 Section 8 clause 8 and see also <http://www.inventors.about.com> US constitution - Patents

¹⁰ n9 above

¹¹ <http://www.heinonline.org/HOL/> Journal of the patent office 2013 (accessed 15/01/2014)

¹² <http://www.refworld.org/pdf> Committee on Economic, Social and Cultural Rights, Economic and Social Council (2002) (accessed 16/01/2014)

¹³ n12 above

¹⁴ n12 above

¹⁵ n12 above

The economic importance of GRs and TK of developing countries has gained growing global interest.¹⁶ The World Bank estimates that agriculture comprises 31 percent of the Gross Domestic Product (GDP) of low income economies and the combined annual market of plant life forms is estimated at US\$500-800 billion.¹⁷ The estimated 95 percent of patents on GRs are done by the developed countries, the remaining 5 percent registered patent done by the developing countries but those companies owned by the developed-country companies established in developing countries.¹⁸ The developing countries' farmers are subsistence farmers and are normally not given opportunity to sell their GRs at the global markets.¹⁹

The utilization of GRs and its associated TK for the development of modern biotechnology is on the rise.²⁰ There is a particular growing interest on GRs, for economical, scientific research, and commercial, as well as cultural interests are also on the rise.²¹ Currently, the debate in the international level with regard to GRs and its accessibility and benefit sharing agreements among nations are on the rise. It is a concern for the international community for the future control of food and the influence of international rules on biodiversity and the conservation, administration and sustainable use of agricultural products in general.²² Furthermore, there has been debate and negotiation under way in international round-table with regard to the effectiveness of Access and Benefit Sharing (ABS).²³

There are conflicting opinions about the regulation of protection of GRs and TK. The current IIP regime does not give enough protection to GRs and TK. On the other hand, most African countries governments' participation in this regard is minimal.²⁴

¹⁶ <http://www.ethpress.gov.et> (accessed 16/01/2014)

¹⁷ Ikechi Mgbeoji, *Global Biopiracy: Patents, Plant and Indigenous Knowledge* (Vancouver: UBC press, 2006) and also look at B Tania and G Richard *Genetic Resources and Traditional Knowledge case studies and conflicting interest*(2012) 69

¹⁸ n17 above

¹⁹ n17 above

²⁰ n17 above

²¹ n17above

²² T Geoff and R Tasmin *The future Control of Food a guide to international negotiations and rules on intellectual property, biodiversity and food security*(2008) 3-11

²³ n22 above

²⁴ n22 above

IP is a new phenomenon for many developing countries.²⁵ Moreover, IP policy has not been practiced or used much within the developing countries, although the IP regime has existed for years. It is recently that developing countries began to participate in IIP arena, despite the unfamiliarity of IP policy within the developing countries, these countries have come under pressure by international community mostly developed countries to reform their national IP regimes to be consistent with the IIP regime and to become more vigilant nationally to respect and promote the protection of IP rights within their jurisdiction.²⁶

Main objective of the existing IIP regime supposedly to be the norm is to balance rights and obligations among all the stake-holders and to promote social and economic welfare. However, the participation of developing countries on the formulation of IIP regime is minimal. It is unfair to have a negotiation and formulate a treaty in a one-size-fits-all manner, where countries are in different stages of development. This is the fundamental concern for most developing countries where the international regime fails to fit in the perspective of most developing countries.²⁷

Ethiopia serves as a case study in this research for its experience in recent ABS agreement. The agreement was based on the framework of the Convention on Biodiversity (CBD). Ethiopia is a land with 85% of its population is farmers and the country is rich in biodiversity.²⁸ The local community that maintains adapts and provides these invaluable resources should be compensated in return and the farmers encouraged continuing to conserve for our sustainability.²⁹ According to the International Crop Improvement Programme, Ethiopia was identified as one of the world centres for crop evolution and origin and has long been an important area of diversity for several major and minor crops.³⁰ Ethiopia's gene bank so far accessed an estimated more than 62 000 seed and crops accession of

²⁵ Mo Ricardo and R Pedro Intellectual Property and Sustainable Development (2009) 46

²⁶ MO Ricardo and R Pedro Intellectual Property and Sustainable Development (2009)

²⁷ MO Ricardo and R Pedro International property and sustainable development (2009)

²⁸ <http://www.fni.no> farmers right (2006) (accessed 13/02/2014)

²⁹ <http://www.fni.no> farmers right(2006) (accessed 13/02/2014)

³⁰ <http://www.ibc.gov.et> Conservation, Sustainable use and Access and Benefit sharing (2007-2012) Ethiopia Biodiversity institute (accessed 13/02/2014)

indigenous.³¹ The country has hugely contributed to biodiversity development and accomplished a tremendous work in exploration, collection and conservation and becoming the leading gen bank in Africa.³² Furthermore, the country distributed for international institution about 92 000 accessions worldwide from its ex-situ collection for research and educational purposes.³³ It is important to note that the amount of collection may vary from time to time through collection as well as distribution.³⁴ The community gen bank is also expanding to conserve the in-situ and ex-situ seed, crops, endangered forest, medicinal and forage and pasture plants have been established.

Despite the fact that Ethiopia is rich in biodiversity wealth and a provider of multi GRs to the user countries for the purpose of scientific and commercial uses, the subsistence farmers as such have never benefited from it. The country has failed agreement with regard to its GRs and associated TK in terms of the CBD.

Teff, a particular ancient crop, can be found different parts of the world but never been used as edible for human consumption except in Ethiopia. The Ethiopian farmers uniquely adapted, preserve, collected and kept the resource from being lost. These farmers introduced for this century genetically diverse forms of crops through their long practised farming experience. Furthermore, maintain and use of these invaluable resources through farming accumulated experience and skill. It is undeniable that the contributions of these farmers are instrumental in conservation, scientific research and for technological development.

So far the developing countries' plants and GRs accessed as free goods for the rest of the world, especially from Africa are worth billions.³⁵ It is a known fact that most developed countries for the longest time accessed plants and genetic resources of developing countries and are still depending on it them, continue to receive benefits from them with no compensation paid in return for the contribution of the subsistence farmers of developing countries.³⁶

³¹ n30 above

³² n30 above

³³ n30 above

³⁴ n30 above

³⁵ CK Evanson & W Gerd Genetic Resources and Traditional Knowledge and the law (2012) 39

³⁶ n35 above

In response to these issues, there are different international intellectual property systems put in place to address the problem with regard to GRs and TK specifically.

1.2 Research problem

Developing countries, such as Ethiopia, are considered to be rich in GRs and the associated TK. It is to their disadvantage in such cases that the current IIP regime is not able to protect GRs and TK, and to date, the international intellectual property regime has failed, permitting excessively broad patents over genetic biodiversity.

This study argues that there is a gap in the existing international intellectual property protection regime concerning the protection of GRs and TK. TRIPS is the other current international legal regime for protection of intellectual property under the World Trade Organization (WTO), but has no opinion when it comes to the protection of GRs and TK. This has had impact on developing countries in the utilisation of their GRs for global commercial purposes, as they are disconnected from the global market.

The debate about giving appropriate protection to GRs and TK centres on the question of whether, and how, changes should be made to the existing boundary in current international regime. TRIPS are seen as the most divisive of all the WTO Agreement when it comes to GRs and TK³⁷, and it still requires revision. The fall out of this problem is the misappropriation and misuse of GRs and the associated TK by third parties. The existing international regime continues issuing patent right to third parties without any mandatory disclosure requirements in order to make known the source or origin of GRs and associated TK, or prior informed consent concerning access to GRs from the community where the GRs originated or a benefit-sharing agreement.³⁸

These challenges continue to discourage the developing countries' indigenous people to further develop and preserve biodiversity resources. This unfair practice continues to erode the sense of value and identity of traditional community practices, and further interfere with the peaceful existence and global preservation of biodiversity resource.

³⁷ n35 above

³⁸ n35 above

1.3 Research questions

This research aims to answer the following questions:

- i. What is the impact of the current IIP regime on the protection of GRs and its associated TK within the developing countries?
- ii. What are the role of IIP regime with regard to access and benefits sharing agreement arising from the utilization of biological resources and its impact on sustainable development?
- iii. How is the effect and compatibility of national legal framework in terms of international ABS law?
- iv. How are African countries participating in the formulation of international intellectual property norms?
- v. What changes should be introduced in the current IIP regime to be effective, enforceable, and binding in ABS agreement.

1.4 Thesis statement

This seeks to address the bearing of international intellectual property regimes on access and benefit sharing to biodiversity resources and associated knowledge. It then argues that there is an inherent gap in the current international intellectual property (IIP) regime with regard to Genetic Resource (GR) and Traditional knowledge (TK), and unless IIP regime is revised in a manner that gives protection to GRs and TK, developing countries will remain disadvantaged.

1.5 Literature review

This research draws its significance from the existing international intellectual property regimes which failed to protect human rights to food (GRs), health, cultural participation (TK) and scientific benefits as well as the existing literature review to lay the bases for critical review of these norms.

Many authors have different view on the protection of GRs and its associated TK. However the research is specific and focuses on the rule govern the accessibility of GRs and TK, benefit sharing arising from the utilization of GRs and the principles and applicability of patent on biodiversity resource, as well as the influence and applicability of international intellectual property laws.

G Tansey and T Rajotte argue in their book “Future Control of Food” that the international, regional and national IP laws have a significant impact in our food future in that the interaction between IP laws and biodiversity brought us about global legal requirements with regard to the utilization of GRs and TK. This has driven the most rapid and biggest ever biological experiment in the globe with the food we eat, raw materials used and the traditional techniques used which have commercial value and became subject to be redesigned by private actors for economic benefit mainly.³⁹

Initially, IP laws were mainly developed with focus on economic monopoly based on the culture and practice of the industrialized nation. It was not developed for biological system and its global extension has largely been brought about as a conservative, protectionist response to fundamental technical change by a set of industries whose business models may be non-operational and old-fashioned in this day and time which needed to create a new system.

This research agree with the above authors that for this reason the global community should rethink the manner in which the norms administering our resources are developed to be just and equitable for all.

³⁹ G Tansey and T Rajotte The Future Control of Food ; a guide to international negotiations and rules on intellectual property, biodiversity and food security (2008)

S Biber- Klemm and T Cottier in their book titled “Right to Plant Genetic Resource and Traditional Knowledge, Basic issue and Perspectives” posit that the formula for the equitable and fair sharing of the benefits arising from the utilization of GRs and TK indicates both a process and an outcome. According to the authors, equity indicates justice; or rather balance in the distribution of benefits from the utilization or access to resources and goods in the broader sense, although it varies on a case-by-case basis adapted to a given situation.

In the context of sustainability, this justice is not only to be considered for the present generation, but also for future generations. According to the equitable and fair formula, equity is to be seen in the context of fairness; fairness by itself indicates a specific participative, communicative procedure which takes account of the needs but also of the contribution of all stake holders in question.

This research shares the above authors’ view that in order to have sustainable use of natural resources as well as promote traditional techniques which brought the product into existence, there must be coordination and cooperation among all concerned stake-holders such as Users, Providers, States and international community in general to bring justice in their practices.

EC Kamau & G Winter in their book titled “Genetic Resource, Traditional Knowledge and The Law” highlight ABS law which is found in the CBD and described it as ambiguous and difficult to apply in practice, since few countries are sharing resources have agreed on an individual or collective right to control access and share benefits, or agreed on allocation percentage of such resources.⁴⁰

T Buble & E Richard in their book titled “On Genetic Resources and Traditional Knowledge Case Studies and Conflicting Interest” talk about the international approach to property and theft discourse dominates discussions on how to protect GRs and associated TK. The reality is that a property-based framework falls short of addressing the need of the indigenous people and cannot be justified based on the traditional justifications for granting IP rights.

This proposed study agrees with the contention of the above authors in that the patentability of genetic resource and the manner in which patents are granted in different parts of the world are questionable. It is ironic to justify the granting of intellectual property right as the regime’s current position, as it is

⁴⁰ EC Kamau & G Winter Genetic Resource, Traditional Knowledge and The Law (2012)

property-based framework. This approach already falls short when it comes to addressing the needs of the indigenous people and local community at large.

In this research, the arguments are made to justify the agreement and the different views thereof. In many international forum and writings, much has been debated and the debate continues to date, about the impact of international intellectual property regimes on the protection of biodiversity resources and associated TK.

It is hoped that this research will contribute to the current global debate on intellectual property protection for GRs, associated TK, and Traditional Cultural expression (TCEs). For century GRs received as a free goods under the impression that they are public domain, and the truth is these GRs received as free goods are majorly from developing countries and are worth billions of dollars extracted by developed countries for a very long time and derived the greatest benefits from and still depend on them.⁴¹

In conclusion this research hopes to contribute to the discussion and debate on the global forum and the discussion under-way on new rule- making regarding the protection of biodiversity and food security as well as to be able to help public to be more informed and to bring justice with fair distribution of resources for all. The reason to protect biodiversity resources and associated TK seems to be a demand from indigenous people and local community of developing countries for their development and other policy concerns. The reform may bring justice in the global trade practice and protect global food security as well as the well-being of society in general.

Importantly, the point of departure of this research from the sources reviewed above is to show the gaps created by the existing international law concerning ABS and to find the possible balance among all the stake holders.

1.6 Objectives

The purpose of writing this dissertation is to contribute to the current debate on the protection of GRs, and associated TK. It also aims to expose the gaps in the current international intellectual property

⁴¹ EC Kamau and G Winter Genetic Resource and Traditional Knowledge and the Law (2012) 39

regimes with regard to protection of GRs and TK, as well as to provide the practical aspect on ABS agreement.

1.7 Research methodology

This study is desktop and library-based and it relies on the relevant primary and secondary sources of information pertaining to this topic. This research uses comparative analytical and descriptive approaches in analysing the international intellectual property system and its objectives.

The primary sources of information are the WIPO rules, Nagoya Protocol, UN Declaration, CBD article on the topics, ABS regime. The secondary sources include journal articles, and papers written by academics on the reports by WTO (TRIPS) and WIPO. This analysis will draw evidence from the growing body of literature on the protection of GR and TK.

1.8 Limitation and scope

In the light of the stated objective of this mini-dissertation and the general international intellectual property protection principles noted above, the following limitation and scope must be noted:

Due to the wide scope of the IIP regime and in order to restrict this research to the above-mentioned objectives, an in-depth study and examination of the entire international intellectual property regime other than the aspects that touch on GRs and associated TK and ABS from the perspective of developing countries will not form part of this study.

1.9 Definition of terms

Intellectual Property-In terms of World Intellectual Property Organisation (WIPO), Intellectual Property (IP) is

A creation of the mind and has a commercial value, such as invention, literature, design, trade name or symbol etc. The World Trade Organisation (WTO) however defines IP as an exclusive rights granted to individuals over the creation of their minds.

Protection-In terms of IP laws, ‘protection’ means:

establishing exclusive property rights in creations and innovations in order to grant control over whose exploitation, particularly, commercial exploitation; provide incentives for further creativity; other forms of protection, for example moral rights protection, equitable compensation, and protection against unfair competition.⁴²

IP protection could make it possible, for example, to protect traditional remedies and indigenous crafts and music against misappropriation, and enable communities to control and benefit collectively from their commercial exploitation.⁴³

Genetic Resources (GRs)-The term ‘Genetic Resource’ (GR) is not a legal term in itself but the term became one of the legal terms from its inclusion in the Convention on Biological Diversity (CBD); it contains GRs as subject to sovereign rights of the source or Provider-State of the GRs. Since GRs starts to appear in the convention, it became visible in most of the international treaties as well as in international discussions and documents. Furthermore, it appears on most national laws in different parts of the world where the countries are a party to the treaties and conventions.⁴⁴

In international and national levels, GRs has been interpreted in different ways or forms and that create uncertainty on the effectiveness and implementation of ABS agreement. Thus, there is urgency to create a clear and concise meaning of GRs to make the ABS transaction governable in terms of the law.⁴⁵

The European Union Directives defines the term ‘GRs’ as: a material containing genetic information and capable of reproducing itself or being reproduced in a biological system.⁴⁶

⁴² See, e.g., the Intergovernmental Commission on Genetic Resources, Traditional Knowledge and Folklore (ICG), the discussions in the WIPO Standing Committee on Law of the patents (SCP), in FAO and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and in the TRIPS Council of the WTO.

⁴³ n42 above

⁴⁴ B Tania and E Richard Genetic Resource and Traditional Knowledge (2012) p62

⁴⁵ n44 above

⁴⁶ n44 above

Country of Origin-Article 2 of the Convention Bio Diversity (CBD) provides that the country of origin of genetic resources means:

Country of origin means, which possesses the genetic resources in-situ conditions. Other definitions include: genetic resources in ex-situ conditions”.⁴⁷

For instance, country of origin is defined by Article 1 of the Adean Community Decision 391

As a country that possesses genetic resources in-situ conditions, including those which, having been in resources in-situ conditions, are now in ex-situ conditions.⁴⁸

Traditional Knowledge-Traditional Knowledge (TK) refers to the knowledge system embedded in the cultural traditions of a region; it includes types of knowledge about traditional technologies of subsistence, for example, techniques for agriculture and ecological knowledge.⁴⁹ This kind of knowledge is crucial for the subsistence and survival and is generally based on accumulations of empirical observation and interaction with the environment.⁵⁰ TK in general is a human interaction with the natural environment and people’s collective body knowledge, practice and representation maintained and developed for extended time.⁵¹

10. Outline of chapters

Chapter one introduces the study, put the research problem in perspective, and formulate the research questions.

Chapter two examines the role and impact of international regimes on ABS agreements arising from the use of biological resource and its associated TK. It also examines IIP regime’s importance on sustainable development

⁴⁷ <http://www.wipo.int/edoc/GRTKF/IC/17/NF/13> (accessed 25/11/2013)

⁴⁸ n47 above

⁴⁹ n47 above

⁵⁰ n47 above

⁵¹ n47 above

Chapter three conducts an analysis of access and benefit sharing agreement underlying the concepts and the idea of justice, the effectiveness and compatibility of national legal framework. It discusses about the challenges faced in the process of concluding ABS agreement implementation, compliance and enforcement of the CBD at the national level using South Africa and Ethiopia as case studies.

Chapter four investigates the participation of African countries in the formulation of international intellectual property norms.

Chapter five draws curtain on the research through conclusions and recommendations.

CHAPTER TWO

THE RELATED INTERNATIONAL INTELLECTUAL PROPERTY REGIMES IN RELATION TO ACCESS AND BENEFIT-SHARING AGREEMENTS

2.1 Introduction

Prior to CBD coming into operation, GRs were believed to be common heritage for all and free to access. Although developing countries are exceptionally rich in biodiversity wealth, they have never benefited or been recognised for their contribution in this area as such.⁵² However, the industrialised nations get free access to GRs, including the traditional techniques used for breeding, as well as processes, for example fermentation, the process for the production of bread or beer.⁵³ Multinational companies from the developed countries continuously use broad IP protection to enhance market power and permit the use of manipulation in the global market.⁵⁴ The CBD came to existence evidently to balance the interest of producers of GRs with the users' intellectual works that comes with it. It is the reality that IP protection expanded widely and all too quickly in developed countries, even though the majority of biodiversity wealth is located in these developing countries.⁵⁵

This is due to the fact that there is a growing interest in Africa's biological diversity wealth by many multinational companies from the developed world.⁵⁶ The developing countries for various reasons still lag behind in many respects and continue missing out on the opportunity to capitalize on the

⁵² T Geoff & R Tasmin *The future control of Food* (2008) 82

⁵³ Andersen and Wing *Access and Benefit Sharing Agreement* (2012)

⁵⁴ n53 above

⁵⁵ n53 above

⁵⁶ <http://www.ai.org.za> *Genetic Resource and Traditional Knowledge* (2010) (accessed 05/03/2014)

global market and, they also fail to protect their investment in conservation and preservation of their resource and traditional technique in general.⁵⁷

2.2 Comparative analysis of the CBD with ABS

According to Article 1 of the CBD, the objectives Convention are: ‘conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of GRs’. It also includes the appropriate access to GRs and appropriate transfer of relevant technologies, taking into account all rights over those resources and technologies, and by appropriate funding.⁵⁸

Article 2 of the CBD states that:

Country providing genetic resources means the country supplying resources collected from an in-situ source, including populations of both wild and domesticated species, or taken from ex-situ sources, which may or may not have originated in that country.⁵⁹

Article 3 of the CBD also provides to the effect that:

The state has in accordance with the Charter of the United Nations and the principles of international law, ‘the sovereign right of state to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.’⁶⁰

⁵⁷ n56 above

⁵⁸The convention on Biological Diversity (CBD) Article 1 of the CBD see the Convention available at <http://www.cbd.int> (accessed 12th January 2014)

⁵⁹ The Convention on Biological Diversity (CBD) defines ‘genetic resources’ to mean ‘genetic material of actual or potential value’. See Article 2 of the CBD Available at <http://www.cbd.int/convention/text/> (accessed 12 January 2014) Tania and E Richard Genetic Resource & Traditional Knowledge (2012) 8

⁶⁰ The convention on Biological Diversity (CBD) see Article 3 of the principle of the CBD available at <http://www.cbd.int>

The CBD enjoins the member states of GRs and TK to provide access to their GRs to the user states with the condition that the TK must be respected and promoted.⁶¹ The COP mandated the collaboration of the Ad Hoc Open-ended working Group on Access and Benefit-sharing, and the Ad Hoc Open-ended inter-sectional Working Group in Article 8(j) and related provisions' and this Act was created to elaborate and negotiate an international regime on access to GRs and benefit-sharing, with the aim of adopting an instrument to effectively implement the provisions in Art 15 and Art 8(j) of the CBD and the three objectives of the CBD.⁶² The outcome of this work was the Nagoya protocol. The decision was also a future review of the Nagoya Protocol in light of the developments by the other relevant international organizations that include WIPO, which expressed their views against the objectives of the Convention and Nagoya protocol. The texts of the Nagoya protocol expressly recognise the inter-relation between GRs and TK, and it applies to GRs covered by the CBD.⁶³

2.3 The theory of turning GRs into intellectual property

There is a growing need to develop a global regime of intellectual property protection which derives from the fact that IPRs are national in application, and a patent traditionally could not be recognized internationally.⁶⁴ For example, a patent issued in the USA or European Union will not necessarily be protected in anywhere else. In order to safeguard such a patent the holder would need to apply for patent rights in all the countries where it may be needed and his/her ability to do so would depend on in the respective laws of those countries.⁶⁵ In general, patent has the nature of national basis rather than international, those who need legal protection of their own products should seek that the national laws of all countries are consistent to recognise patent rights or other forms of legal instruments qualified to give intellectual property protection. International agreements are therefore the means by which to

⁶¹ EC Anne 'will Plants Finally Grow In to Full patent Protection on an International Level? A Look at the History of US and International Patent Law regarding patent protection for plants and the likely changes after the US Supreme Court's Decision in JEM Ag Supply v Pioneer Hi-Bred' (2003) 8 Drake Journal of Agricultural Law 251.

⁶² B Tania & G Richard Genetic Resources and Traditional Knowledge (2012) 8-9

⁶³ B Tania & G Richard Genetic Resources and Traditional Knowledge (2012) 15

⁶⁴ EC Anne 'will Plants Finally Grow In to Full patent Protection on an International Level? A Look at the History of US and International Patent Law regarding patent protection for plants and the likely changes after the US Supreme Court's Decision in JEM Ag Supply v Pioneer Hi-Bred' (2003) 8 Drake Journal of Agricultural Law 251.

⁶⁵ n64 above

develop a uniform global system of IP protection, which requires of its parties that they harmonize their domestic laws in conformity with international regime.⁶⁶

This method has been played out in the International Union for the Protection of New Varieties of Plants (UPOV), the World Intellectual Property Organisation (WIPO) and the World Trade Organization (WTO) by way of the treaty administered by them.⁶⁷ The UPOV Convention deals with plant varieties and rights of ownership over them. The provision of the UPOV Convention established a specific system of intellectual property tailored to protect plant breeders' rights (PBRs), also called Plant Variety protection (PVP). These rights are similar to patents and copyrights, giving the breeder of a new plant variety of the exclusive rights of ownership over the product.⁶⁸

In general the IIP regime does not concern itself with the conservation and sustainable use of GRs or with the equitable sharing of their beneficial uses but to promote and enforce intellectual property rights protection in the global sense, including in relation to GRs. The International debate on GRs focused on efforts to resolve the conflicts which arise in the implementation of the regime.⁶⁹

According to WIPO, IP refers to creations of the mind, such as inventions, literary and artistic works; designs; and symbols, names and images used in commerce.⁷⁰ IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create. By striking the right balance between the interest of innovators and the wider public interest, the IP system aims to foster an environment in which creativity and innovation can flourish.⁷¹

⁶⁶ n64 above

⁶⁷ TW Max and C Paul, 'plant Variety protection – A fascinating subject' (2003) 25(3) world patent information 243. The Article also sets out the difference between plant variety protection and patents at 247.

⁶⁸ n67 above

⁶⁹ G Camena Genetic resources, equity and international law (2012) 128

⁷⁰ <http://www.wipo.int> What is IP (accessed 12th January 2014)

⁷¹ n70 above

IIP law is largely silent on TK and there is therefore, flexibility and scope for state and regional organizations to establish *sui generis* protection systems, as several have done.⁷² At international level, text-based negotiations are underway in the WIPO Intergovernmental Committee (IGC) on IP and GRs, TK, and Folklore towards the development of an international legal instrument or instruments which will provide effective protection for TK and TCEs. This study has included consideration of the flexibility within conventional IP systems which allow for the enhanced protection of TK, and TCEs, as well as *sui generis* adaptations to existing IP adaptations to existing IP systems. The IGC is also negotiating on the relationship between adaptations to existing IP systems.⁷³ And on the relationship between IP and access and benefit-sharing in genetic resources, and it is considering several options in this regard, including options within the IP system. The IGC's negotiations are on-going.⁷⁴

It is a reality that in part there is still unresolved tension between intellectual properties negotiations in international trade and environment that were being concurrently negotiated in different forums.⁷⁵ The environmental CBD was negotiated under the umbrella of the United Nations Environment programme and the international trade TRIPS was being negotiated under the umbrella of the General Agreement on Tariffs and Trade (GATT).⁷⁶ Essentially, the CBD attempted to set a balance by encouraging the biodiversity-rich countries to maintain their resources so that they might be sustainably used by the countries with highly developed technology, with the benefits accruing to both the biodiversity-rich and poor countries.⁷⁷ In contrast, TRIPS attempted to establish new rules and disciplines, moving intellectual property into the realm of international trade laws so as to reduce distortions and impediments to international trade while encouraging new inventions. The interaction between the CBD and TRIPS remains unceasing.⁷⁸

⁷² <http://www.wipo.int/>Traditional Knowledge, Genetic Resources and Traditional Cultural Expressions/Folklore (accessed 25/12/2013)

⁷³ n72 above

⁷⁴ n72 above

⁷⁵ T Bubela and EG Richard Genetic Resources & Traditional Knowledge case studies and conflicting interests(2012) 53

⁷⁶ n75 above

⁷⁷ n75 above

⁷⁸ n75 above 54

The inherent conflict between TRIPS and the CBD entails that TRIPS requires genetic materials to be protected by patents or a *sui generis* plant variety that privately appropriates GRs over which a country has a sovereign rights under the CBD; and that these privileges do not also require the additional measures set out in the CBD, such as prior informed consent, mutually agreed terms and benefit sharing.⁷⁹ These concerns were then addressed by the COP in separate but overlapping GRs concerning access and benefit sharing and TK Art 8(j) and related substantive provision work plans.⁸⁰

There was even then, an appreciation for the fact that intellectual property could both promote and undermine the CBD's conservation and sustainability obligations.⁸¹ As a consequence, the COP sought WIPO's assistance in resolving issues about the impact of intellectual property regimes on the access to and use of GRs; the role of customary laws and practices in relation to the protection of GRs and TK and their relationship with intellectual property;⁸² consistency and applicability of requirements for disclosure of country of origin and prior informed consent; the efficacy of country of origin and prior informed consent disclosures in examining applications and monitoring compliance with access provisions;⁸³ the feasibility of an internationally recognised certificate of origin system as evidence of prior consent and mutually agreed terms; and the role of oral evidence of prior art in the examination, granting and maintenance of intellectual property. As discussed above, WIPO provided various reports to the COP that incorporated those materials into its development of an international regime on Access and Benefit-Sharing that subsequently became the Nagoya protocol.⁸⁴

2.4 Patent and IP regime

WIPO's work on a patent law brings with it both costs and benefit for developing countries; the problem with patent and the WTO TRIPS agreement on minimum requirements on patenting is that they made the process more complicated because a system that was developed for innovation in

⁷⁹ n78 above

⁸⁰ n75 above 55

⁸¹ n80 above

⁸² n80 above

⁸³ n80 above

⁸⁴ n80 above 56

inanimate objects has, in some countries, been extended to cover living organism and genetic resources such as plants, and crops.⁸⁵ Patents are supposed to provide benefits to their owners and society at large. Patents are granted in the US on the basis that there has been an invention of something new, useful and non-obvious; and in Europe, on the basis of being novel, having industrial application and involving an inventive step.⁸⁶ A major concern today even in the US and EU is that the meaning of these words has been devalued and poor quality patents are being granted for ‘inventions that lacks novelty and an inventive step’.⁸⁷

The European Union countries implementation approaches of the ABS provision is just the recitation of one of the European Economic Commission provision 27 Directive of 99/44/EC, which has the characteristics of non-binding nature.⁸⁸ The directives provide that where application is made for patenting biological materials used in an invention, there has to be disclosure of geographical origin of the material if it is known. However, the directive is silent on where the applicant ignored to disclose the information and such action does not affect the application procedure or validity of granted rights.⁸⁹

Moreover, in reality, the basic patent bargaining works only in theory.⁹⁰ In practice, both sides cheat, argues, Stuart Macdonald Professor of information and organization at Sheffield University:

Most obviously, the patent affords protection only when the patentee can afford to enforce his rights, which may mean that the poor have no protection at all, and if society cheats in not providing the protection the inventor has a right to expect from the patent system, the inventor cheat too.⁹¹ Only in theory does the inventor provide society with the information of invention:

⁸⁵ G Tansey & T Rajotte *The Future Control of Food a guide to international negotiations and rules on intellectual property, biodiversity and food security* (2012) 17

⁸⁶ n85 above

⁸⁷ n85 above

⁸⁸ n85 above 38

⁸⁹ n85 above

⁹⁰ <http://www.geneva.info> Stuart Macdonald professor of information and organisation at Sheffield University, notes of talk given at Quaker House, Geneva, 16 May 2001 (accessed 2014/02/19), see also T Geoff & R Tasmin *the future control of Food* (2009) 17

⁹¹ n90 above

in practice, he discloses the information required by the patent system, not the information required by society to replicate and develop his invention.⁹²

This raises question both about the justice of the system and, if it is not equitable in its functioning, and about whether its application fails to meet the objectives for which it is designed. It is the fact that the wealthiest nation produce most of the world's IP, according to UNDP 97% of all patents granted in the world are held by the developed countries.⁹³

In conclusion, it is for this reason intellectual property rights on the international level seem to disproportionately benefits the firms of wealthy countries that produce most of the world's intellectual property. This state of affairs creates a problem for an international organization that aims to promote economic development in poor countries.⁹⁴

2.5 Patentability of GRs and TK

In terms of the WTO, patent protection is granted for any inventions, whether products or processes, in all fields of technology provided that the inventions are new, involve an inventive step and are capable of industrial application.⁹⁵ Furthermore, TRIPS exclude the patentability of plants or animals other than non-biological and microbiological processes. Yet, members are required to provide for the protection of plant varieties either by patents or by an effective *sui generis* system or any combination thereof.⁹⁶

The TRIPS agreement does not oblige member-states to recognize the deposit of self-replicable material as equivalent to the written, sufficiently clear and complete disclosure of an invention.⁹⁷ This non-recognition of the deposit of plants and parts thereof for patent purposes may *de facto* exclude

⁹² n90 above

⁹³ n90 above

⁹⁴ Bradly J. Condon & Tapen Sinha the New Economic of patents (2005) www.iicd.org 12 July 1999 (accessed 02/19/2014)

⁹⁵ Dan Lekien & Michael Flinter intellectual property Right &plan Genetic Resources (1997)

⁹⁶ n95 above

⁹⁷ n95 above

many plant genetic innovations from patentability, it may fall under the optional exclusion from patentability of invention of which falls within their norms. Furthermore, plant genetic innovations' territory is necessary to protect public or moral order.⁹⁸

WTO Art 27(3)(b) provides that:

The agreement requires the protection of plant varieties; however in 1999, this Article had to be reviewed just one year before developing countries had to implement the TRIPS agreement into their respective national laws.⁹⁹

Whether plant genetic materials may constitute the subject of an invention has been and is still controversial among the WTO member states.¹⁰⁰ The TRIPS Agreement is clearly based on the assumption that there may at least be inventions relating to plants, otherwise the negotiating parties would not have included the possibility of excluding plants from patentability.¹⁰¹

The first basic requirement that an innovation has to comply with, for the purposes of patent law, is that there is an invention.¹⁰² Neither the TRIPS nor the WIPO Paris Convention gives any definition of what an invention should be. 'The European Policy Centre (EPC) does not define the term invention, while US patent law only gives a definition of what may be invented, that is, any new and useful process, machine, manufacture or composition of matter, or any useful improvement thereof.'¹⁰³ There is however, general agreement that, for the purposes of patent law, innovations need to be practical and technical.¹⁰⁴ However, the first step concerning the required practical and technical character of

⁹⁸ n95 above

⁹⁹ G Tansey & T Rajotte *The Future Control of Food a guide to international negotiations and rules on intellectual property, biodiversity and food security*(2008) 59 60

¹⁰⁰ Verma 1994; Pacon 1995; WTO 1995

¹⁰¹ n100 above

¹⁰² n100 above, see also [http:// www.uspto.gov](http://www.uspto.gov) , www.suepo.org (accessed 20/02/2014)

¹⁰³ n102 above 35USCS 101

¹⁰⁴ European commission 1995

inventions may present serious impediments to the patenting of innovations which are composed of, use or are applied to plant genetic material.¹⁰⁵

2.6 International intellectual property regime on sustainable development

This research's particular concern are that IP in general will have a negative impact on agriculture, which is the largest source of employment and also a significant contributor to the economies of many African countries.¹⁰⁶ For an example, many Eastern and Southern African countries among others, have had to revisit their intellectual property rights' regimes in response to the agreement on TRIPS under the WTO. This has coincided with the development of new technologies that require change in domestic laws for the protection of new inventions.¹⁰⁷ The lack of human capacity and resources in both IP and emerging technologies, has constrained the ability of these countries to consider and respond to the growing needs of their national development agendas.¹⁰⁸

The intensive farmers' activities in agriculture brought about today's agricultural bio-diversity. However, the application of IP and the CBD form of access and benefit-sharing agreement law have not been to the benefit of large numbers of small-holding farmers.¹⁰⁹ In spite of their contributions in agricultural development and conservation, small-holding farmers never shared benefits. Furthermore, the restriction and application of IP laws in this area can have an adverse impact on scientific research and breeding.¹¹⁰

2.7 Conclusion

In conclusion, for control over GRs, countries need both legal and technological capacity; in the light of the lack of technological capacity in these countries, the best means of control is through a legal framework which will protect the GRs. But if there is no developed technology or legal framework to

¹⁰⁵ n104 above

¹⁰⁶ MO Ricardo & R Pedro Intellectual Property and Sustainable Development (2009) 209

¹⁰⁷ n106 above

¹⁰⁸ n106 above

¹⁰⁹ H Michael & N Kent giving priority to the commons: the international treaty and plan genetic resources for food and agriculture. See also T Geoff & R Tasmin the future control of food (2008) 83

¹¹⁰ n109 above

protect its resources, it is a danger to fall back and impossible to achieve Africa's development goal or to secure future food control of its own; that is what happens in Africa. The legislation on its own may leave the matter open to misinterpretation.

CHAPTER THREE

ANALYSIS OF ACCESS AND BENEFIT-SHARING AGREEMENT

3.1 Introduction

The CBD recognized sovereign rights of states over their GRs, unlike the non-binding International Undertaking on plant genetic resources for food and agriculture (IU) negotiation failing with its common heritage approach regarding GRs; where the developing countries seeks to obtain the right to control access to GRs.¹¹¹

3.2 ABS agreement and its underlying concepts

In terms of Article 1 of the CBD which provides that the fair and equitable sharing of the benefits arising out of the utilization of GRs and appropriate transfer of relevant technologies, and taking into account all rights over those resources and the technologies that are protected, the benefits also must be shared by providing appropriate funding.¹¹²

The CBD key objectives are firstly, conservation in order to protect biodiversity resources and sustainable use of biological resources to support conservation by providing local benefits, and finally, benefit-sharing resulting from the use of GRs.¹¹³ Many developing countries insisted that ‘the negotiations on the Convention should include access to GRs which they wished to have been recognised as subject to national authority and access to relevant technology, stressing that it includes biotechnology and access for the providing-states to benefit and ultimately gain from the use of genetic materials in the development of biotechnology.’¹¹⁴

¹¹¹ T Geoff & R Tasmin *The Future Control of Food* (2008) 84

¹¹² n111 above

¹¹³ n111 above 85

¹¹⁴ n113 above

Providing GRs for use in research and development, including commercialization and sharing the benefits of such activity, appeared to be beneficial both for the environment and for social and economic development. However, this vision of the CBD so far has not translated in to reality. Countries who provide GRs complain that they are the victims of misappropriation and bio piracy; on the other hand user industries and researcher concerns on the limitation and arbitrary decision by the provider with regard to accessing the GRs are an obstacle.¹¹⁵

In general the CBD promotes that the provider countries are to provide their GRs where it is needed for either commercial or research purposes, and in return the user countries are to share benefits from the utilization of GRs. This principle supposedly bring transparency and equity in the international flow of genetic resources; however there have been a few success stories around the globe in this regard, where-by countries are seen implementing the law.¹¹⁶

3.3 The idea of justice under the CBD

Justice it is about the fundamental economic and political arrangement of a just society, which places emphasises on the welfare and right to equal opportunity to all.¹¹⁷ The term ‘Access and Benefit Sharing’ in the CBD indicates that distributive justice among users and providers of GRs and associated TK are supposed to be applicable and implemented to achieve its goal.¹¹⁸ It further formulates the process of discourse, reasoning and negotiation if successful to an agreed formula that allocates itself at a conceptual intersection between various acceptable formulas for allocation.¹¹⁹ The CBD formula generally indicates a balanced right between users and providers in relation to the distribution of resources which closely related to sustainable development.¹²⁰

¹¹⁵ CK Evanson & Kamau & W Gerd Genetic Resources, Traditional knowledge & the Law (2009) 3

¹¹⁶ [http:// www.bokus.com](http://www.bokus.com) Access and benefit sharing agreement (accessed 17/03/2014)

¹¹⁷ SB Klemm & T Cottier Rights to plant Genetic Resources & Traditional Knowledge Basic issue and perspectives (2005) 40 41

¹¹⁸ n117above

¹¹⁹ n117 above

¹²⁰ n117 above

Developing countries' frustration with regard to bio piracy is a serious issue and there are many reported cases with regard to the illegitimate use of most developing countries' GRs without prior consent or benefit sharing agreements. It is evident that a few multinational companies monopolise most of the marketable GRs through patent by excluding developing countries that are the home of the majority of the world's GRs and benefited from them for years. In theory, Africa now has access to the global market but is not able to trade its own GRs due to the above reason. The question we ask here is; how do we bring fairness into the international trade arena? Although the CBD tries to promote the right of farmers and to acknowledge and honour the contributions indigenous people make through the principle of fair and equal benefit sharing among the stakeholders, there is no success story to tell. In the absence of the acknowledgement and honouring of benefit sharing, a situation is created whereby one country enriches itself by and at the expense of others and this amounts to unjust enrichment.

ABS-related intergovernmental obligations under the CBD reflect a concept of distributive justice. The CBD introduced the Sovereign right entitlement over GRs and created a bilateral contractual instrument for the management of ABS, with the aim to achieve cooperation, equity, fairness and justice but the operation of this principle proves to be difficult in practice.¹²¹

The CBD regime can be used as the basis upon which to establish national frameworks to facilitate bilateral contractual agreements negotiated between parties.¹²² The corresponding provisions regulating ABS are directed to the contracting parties, and their implementation is explicitly subject to national legislation.¹²³ The challenge here is the implementation of the CBD on the grass root level which is caused by different factors such as, lack of integration and identification among stakeholders, inaccessibility of information, lack of efficient national legislation, and the internationality of the trade relations between parties are few factors among others.¹²⁴

¹²¹ CK Evanson & W Gerd Genetic Resources, Traditional Knowledge & The Law (2009) 15

¹²² SB Klemm & T Cottier Right to plant genetic resources and Traditional Knowledge (2006) 295

¹²³ n122 above

¹²⁴ n122 above

3.4 Practicability of the principle of the CBD

The CBD objectives initially are to promote and incorporate the sustainable use of biological resources into conservation policy, recognizing the need of local people and sustainable development, by creating a mechanism which enables them to mobilize support for conservation by providing local benefits.¹²⁵

The third objective of the CBD mentioned in the Convention is a fair and equitable sharing of the benefit from the utilization of GRs which is also the subject matter of this study.¹²⁶ The ABS was introduced in the text of the CBD with the initiation of the developing countries, in which they themselves acquire approximately 80 per cent of the global GRs. It is vital that ABS law should be effective on a national, regional and international level in order to conserve biodiversity wealth in the globe. Moreover, the participation of all stake holders including governments, business people, local and indigenous communities on the negotiation and implementation of the regulation are also detrimental at the same time.¹²⁷

Initially ABS agreements were negotiated as part of environmental issues, in order to maintain conservation of biological diversity and to ensure that benefit are shared with the providers from the utilisation of GRs to help providers continue to conserve and recover their investment on conservation.¹²⁸ However, there has not been any significant progress made with regard to the adoption of the convention that might have any impact on the benefit received from ABS used to undertake conservation.¹²⁹ Besides considering the cost implication of the convention it is unfair for both parties, such as the cost national implementation of legislation, international negotiation, private transaction,

¹²⁵ T Geoff & R Tasmin *The Future Control of Food a guide to international negotiations and rules on intellectual property, biodiversity and food security.*

¹²⁶ EC Kamau & G Winter *Genetic Resources, Traditional Knowledge & The Law* (2009) 5

¹²⁷ n126 above

¹²⁸ n126 above 4

¹²⁹ n126 above

and cost resulting activities related to GRs no comprehensive implication on economic or social measure that act as incentives for the conservation and sustainable use of GRs.¹³⁰

On the other hand, on the question of sovereign rights on GRs, the position of states is stated in Article 15 of the Convention.

Article 15 of the Convention addresses access to GRs, and paragraph 1 of the article in particular reaffirms the principle in Article 3 of the CBD relating to state sovereignty over their resources.¹³¹ More importantly, these sovereign rights are now extended to GRs. The Convention encourages countries to formulate a regulation of their own with regard to access to GRs, to gain benefit from their own biodiversity wealth and encourage countries to conserve.¹³² Further, it confirms equitable right to their own resource for the purpose of generating income for their own benefit which enhances development and conservation.¹³³ The convention introduced obligation on the member states to facilitate access to GRs, which has never existed in international law before.¹³⁴ It is however unclear whether the provisions apply to GRs accessed prior to the coming in to force of the Convention. Article 15 in general provides the general principles on which access must be granted according to the mutual agreement of the parties and prior informed consent from the provider country to the user country, however, on the other hand the user country has a moral obligation for the fair sharing of benefits from the utilization of the GRs with the provider.¹³⁵

In a comparative study on the issue surrounding ABS, China is one of the 12 countries with the richest biodiversity in the world.¹³⁶ Currently, there are a number of international rules with regard to biodiversity and they constitute the primary ABS legal framework. However, all these laws have gaps

¹³⁰ n132 above

¹³¹ G Tansey & T Rajotte *The Future Control of Food, a guide to international negotiations and rules on intellectual property, biodiversity and food security* (2008) 86

¹³² n131 above

¹³³ n131 above

¹³⁴ n131 above

¹³⁵ n131 above

¹³⁶ EC Kamau & G Winter *Genetic Resources, Traditional Knowledge & The Law, solution for Access & Benefit Sharing* (2009) 226

and lack enforcement.¹³⁷ This situation urges China to develop its own special law with regard to ABS. During the past 15 years, China's effort have moved from general implementation of the CBD obligation to a ministerial decree, then to a special legislation or regulation through three stages.¹³⁸ Most foreign users appropriate GRs and associated TK illegally.¹³⁹

In 2000 Monsanto, an America company trying to monopolise the world's Soya filed to patent soya in over 100 countries apart from Europe and USA with the exclusion of and or no benefit sharing to China. China is the initial source of 90 per cent of the world's majority of wild Soya, and its interest is at stake.¹⁴⁰ China and the international community created an immense pressure on Monsanto's patenting claim over Soya; accordingly Monsanto withdrew most of its patent applications.¹⁴¹ Bio diversity rich countries should note the importance of their own legal control over their resources beyond the implementation of the general CBD in order to guard their GRs and associated TK.¹⁴²

The CBD in general is based on the public law approach, on the other hand national ABS law by itself does not effectively protect provider states and local stake holders against bio piracy.¹⁴³ It has been suggested that there is a need to have some kind of IPR law to make sure that GRs are not used without prior consent of the owner or fair and equitable benefit-sharing arrangements by users and this may be called a private law approach.¹⁴⁴ Public law approaches have not been sufficient to effectively protect the rights of indigenous communities against violation, but underlines those classic IPRs AND for a number of reasons, they are not suitable for protecting traditional resource rights either.¹⁴⁵

¹³⁷ n136 above

¹³⁸ n136 above 127

¹³⁹ n138 above

¹⁴⁰ n138 above

¹⁴¹ n138 above

¹⁴² n138 above

¹⁴³ EC Kamau & G Winter Genetic Resource, Traditional Knowledge & the Law , solution for Access and Benefit Sharing (2009) 350

¹⁴⁴ n143 above

¹⁴⁵ n143 above

3.5 Challenges faced in concluding ABS agreement under the CBD principles

For the purpose of this research, the writer chooses some countries for a closer look at their recent development on IIP and ABS law implementation. Some are for their experiences in the area and identifying that they are still in the beginning stages of experimentation.

In 1995, South Africa became a party to the CBD following its implementation of the Convention in 2004 as the National Environmental Management Biodiversity Act of 2004.¹⁴⁶ The Act specifically prescribed compliance for foreign users of its GRs and associated TK for commercial purposes. The provision further provides the manner in which the users must comply with the national legislation, policies and procedures of the country to get permit to utilise its resources.¹⁴⁷

In January 2013 South Africa ratified the Nagoya protocol, joining countries like Ethiopia, Fiji, Gabon, India, Mauritius, Mexico, Panama, Rwanda and Seychelles, to protect the country's biological diversity and associated TK.¹⁴⁸

It is crucial in the South African national law of biodiversity to get a permit from the competent central or provincial administration as well as prior consent.¹⁴⁹ It is also important to note that prior to utilisation of GRs, it is imperative to have on hand an ABS agreement with the relevant stakeholders, in case of GRs with the land owner, and in case of TK with local community.¹⁵⁰ In terms of the provision the stakeholders in case of GRs includes central or provincial body, the landowner where the GRs were found and in respect of TK the prior consent and ABS agreement should also include the local community.¹⁵¹ The landowner's entitlement to the benefit arising from the utilization of the GRs

¹⁴⁶ <http://www.environment.gov.za> National Environmental Management Biodiversity Act 2004 (accessed 25/11/2013)

¹⁴⁷ n146 above

¹⁴⁸ <http://www.southafrica.info> /about/sustainable/biodiversity (accessed 25/11/2013)

¹⁴⁹ C Evanson and W Gerd Genetic resource and traditional knowledge and the law (2012) xxvii

¹⁵⁰ n149 above

¹⁵¹ n149 above

theory in the provision might be violated in case such resources are found on many other properties.¹⁵² The provision is also vague when it comes to distinguishing the purpose of the usage of the resource as to whether it is for commercial or research purposes; and it also does not specify how benefit are to be distributed with regard to TK.¹⁵³

The ABS regulation in South Africa has been problematic with regard to the fact that one's land ownership is extended to GRs found in the land. In terms of South African ABS national law the state cannot be a party in ABS agreement with regard to biodiversity wealth found on private land in the country.¹⁵⁴ This is because the South African constitution provides that all law must be read in accordance with the constitution of the country of 1996¹⁵⁵. Furthermore, the constitution confers property right to individual and no one may be deprived of their property right arbitrarily.¹⁵⁶ In this regard the legislators identified that in terms of ABS law the vesting of ownership of GRs in the State will be contrary to the constitution of South Africa. Accordingly in May 2009 amendment to the ABS Act was published.¹⁵⁷

However this will be problematic where a dispute arises and the international law obligation with regard to the management and conservation of biodiversity are violated. The constitution confer that the owner of the land has right to exploit his ownership of the land without state interference.¹⁵⁸ Furthermore, if the state needed to protect the country's genetic heritage which is exploited by private individuals, it would have been difficult for the state to undermine the supreme law of the country which is the constitution and take ownership of GRs in terms of legislation if it vested ownership of GRs on the state but that is not the case.¹⁵⁹ It would have been better if the legislator considered

¹⁵² n149 above

¹⁵³ n149 above

¹⁵⁴ n149 above

¹⁵⁵ South Africa Constitution 1996

¹⁵⁶ n155 above 210

¹⁵⁷ n156 above

¹⁵⁸ n156 above

¹⁵⁹ n156 above 211

ownership of GRs as vested in the state in this regard for the wellbeing of the community as a whole but the ABS national legislation of South Africa in this regard failed to do so.¹⁶⁰

Ethiopia is a party to the CBD Convention and implemented the provisions of the convention in to its national law accordingly.¹⁶¹ The Ethiopia national code of conduct, Proclamation No 482/2006 page 3351, is a proclamation to provide access to GRs and community knowledge, and community right provides that ownership of GRs vested both in the State and Ethiopian People as a whole, with TK taking a different form as it is in the particular community.¹⁶² Several communities in the country are differentiated by their individual cultural form, which is traditionally organised. Each community has its own customs and preserves its social and economic foundation.¹⁶³ However, this Code of Conduct has number of gaps in terms of protection. The code does not specify any clear guidance with regard to:¹⁶⁴

- i. how to understand Community Knowledge;
- ii. how to obtain prior informed consent;
- iii. how benefit shared gets to the community;
- iv. how the procedure is used; and
- v. whether the GRs are used for research purpose or commercial.¹⁶⁵

Furthermore, the national law of most African countries lacks protection in terms of coordination of different administrative agencies with regard to GRs and associated TK.¹⁶⁶ It is vital to have broad capacity-development of the relevant personnel in order to achieve its goal effectively. Despite the fact that Africa in general is rich in biodiversity, the indigenous community is continuously being

¹⁶⁰ n159 above

¹⁶¹ <http://www.cbd.int> Ethiopian Code of Conduct (accessed 25/11/2013)

¹⁶² n161 above

¹⁶³ n161 above

¹⁶⁴ n161 above

¹⁶⁵ n161 above

¹⁶⁶ n161 above

dislocated from the global market and unable to trade or get a faire share from the utilization of GRs.¹⁶⁷

A closer look at Ethiopia's recent development and experience on the international level shows the negotiation and conclusion of an ABS agreement in terms of the CBD. We will also analyse the applicability and effectiveness of the CBD with regard to ABS agreement in practice.

In recent years, there has been an increasing demand for gluten-free products in the globe for different reasons; some for health reasons; some because of the aging people are diagnosed with Celiac Disease and are in need of gluten-free products, among others, and Teff. This crop is domesticated and mostly grown in Ethiopia; it has been a heritage and crucial food staple in the country for centuries. Despite Teff being Ethiopian cultural food, there has been a turn in the world and in mostly Europe and US billions of people now start using it. Teff has become a preferential food item in most parts of the world. The multilateral companies use this opportunity to exploit the resource and the associated TK and start marketing by broadly patenting for exclusive use in the growing market and Ethiopian farmers are out of market of their own resource from exploiting and reap benefit from the growing market for their contribution. It is ironic that this companies freely accessed the very thing that the subsistence farmers of African countries conserve, preserve and developed and being exploited without regard to their contribution.

Ethiopia is a land where 85% of its population are farmers and the country is rich in biodiversity.¹⁶⁸ It is for that purpose accessing biodiversity resources should be based on sharing the benefit of utilization of these resources.¹⁶⁹ The local community, who maintain, adapted and provide these invaluable resources, should be compensated in return and farmers should be encouraged to continue to conserve for our sustainability.¹⁷⁰ According to the International Crop Improvement Program, Ethiopia was identified as one of the world centres for crop evolution and origin and has long been an important area of diversity for several major and various minor crops.¹⁷¹ Ethiopia's gene bank's

¹⁶⁷ n161 above

¹⁶⁸ <http://www.fni.no> farmers right (2006) (accessed 13/02/2014)

¹⁶⁹ n168 above

¹⁷⁰ n168 above

¹⁷¹ n168 above

number of indigenous crops accessed is estimated to be more than 62 000 seeds and crops accessions.¹⁷² The country highly contributed to biodiversity development and accomplished a tremendous work in exploration, collection and conservation and becoming the leading gen bank in Africa.¹⁷³ Furthermore, the country distributed for international institution about 92 000 accessions worldwide from its ex-situ collection for research and educational purposes.¹⁷⁴ It is important to note that the amount of collection may vary from time to time through collection as well as distribution.¹⁷⁵ The community gene banks are also expanding to conserve the in-situ and ex-situ seed, crops, endangered forest, medicinal and forage and pasture plants.¹⁷⁶

It is to the disadvantage of the African countries the multilateral companies an unapologetically use the GRs and exploit the market by broadly patenting it to monopolize the growing market.¹⁷⁷ It is ironic that these companies freely access the very thing that the subsistence farmers of developing countries adapted, kept and preserved for so long and suddenly became a hot commodity and is being exploited with the exclusion of the source-countries for so long now.¹⁷⁸ The African countries GRs and associated TK are continuously accessed one way or another for scientific and/or commercial purposes without prior consent or fair and equitable benefit sharing arrangements from the source country.¹⁷⁹

Ethiopia was selected for a closer look into its recent experience with failed access and benefit-sharing agreement with the Netherlands. On 26th March 2003 a memorandum of understanding (MOU) on research and development on international markets for Teff- based products was signed.¹⁸⁰ The parties to this Memorandum of Understanding (MOU) were Ethiopian Agricultural Research Organization (EARO) and Larenstein Transfer and Soil and Crop improvements (S&C), which was a precursor to

¹⁷² n168 above

¹⁷³ n168 above

¹⁷⁴ n168 above

¹⁷⁵ n168 above

¹⁷⁶ n168 above

¹⁷⁷ <http://www.fni.no> farmers right (2006) (accessed 13/02/2014)

¹⁷⁸ n177 above

¹⁷⁹ n177 above

¹⁸⁰ <http://www.fni.no> ABS on Teff (accessed 10/02/2014)

Health and Performance Food International (HPFI).¹⁸¹ Based on the MOU, 1440kg Teff seeds were sent from Ethiopia to the Netherlands for research and development purposes: 120kg each of 12 specified Teff Varieties.¹⁸²

Following this development, the company filed a patent application on the processing of Teff flour and related products in the Netherlands as early as in July 2003; this application was later filed under the EPO in July 2004.¹⁸³ The Teff Patent was granted by EPO in 2007, in addition to USA and Japan later. Netherland's patent-right on Teff on a different continent raised the question whether the relationship between the patent regimes of the countries issued such right and if the conservation and sustainable use of biodiversity, prior informed consent and the equitable sharing of benefit considerations are not being taken in to account.¹⁸⁴ The general value and principles embodied in any intellectual property regime such as that of the creation of the human mind should be protected against misappropriation was also not being applied in this situation as a result of the sovereign entitlement to GRs, the host country suffers.¹⁸⁵

Furthermore, it is important to note that human rights form a crucial part of the context for protection of the Ethiopian farmers' right for their GRs and the associated TK.¹⁸⁶ It is unfair practice seen in this agreement, after the provider-country has disclosed all the information and the research outputs of its Biodiversity Institute and Agriculture Institute, divulged all the research outcomes on the crops and traditional knowledge in good faith during and after the conclusion of the contract, then failed to protect their rights and to get a fair benefit from its GRs.¹⁸⁷ The third party who initially was a party to the agreement was aware of the genetic resource and misappropriation of all the traditional knowledge attached with it and patented the invention derived from GR and the GR itself with the exclusion of Ethiopia and without prior informed consent or equitable benefit sharing.¹⁸⁸

¹⁸¹ n180 above

¹⁸² n180 above

¹⁸³ n180 above

¹⁸⁴ n180 above

¹⁸⁵ n180 above

¹⁸⁶ n180 above

¹⁸⁷ n180 above

¹⁸⁸ <http://www.fni.no> ABS on Teff (accessed 10/02/2014)

Given the irregularity of the power relationship between countries there can be no doubt what the unavoidable outcome could be. Ethiopia in this situation is left in a weaker position than the user country (Netherlands) that has better access to legal expertise and analytical capacity compared to Ethiopia.¹⁸⁹ The clever steps taken by the Netherlands' claims covered by the Teff patent have the intent to exclude Ethiopia from the market. Ethiopia found itself squeezed out of position to utilize its own Teff to the global market; at the same time losing all the prospects of sharing the benefits from the use of these GRs.¹⁹⁰

However, the international treaty on the protection on GRs and TK encourage and features the utilitarian provisions under negotiation aimed at the protection against misappropriation and misuse. It also provides a general obligation for protection followed by particular acts considered necessary to prohibit.¹⁹¹

Article 15 para 1 of the CBD states that:

Recognizing the sovereign rights of States over their natural resources, the authority to determine access to GRs rests with the national governments and is subject to national legislation.¹⁹²

From a legal perspective, the relevant provisions have a common structure.¹⁹³ In substance, they envisage certain ends and objectives, namely, utilization of GRs in accordance with fairness and equity and sometimes with due regard to the state of development of the country at hand.¹⁹⁴

In conclusion, from a procedural perspective, it is indispensable that all relevant actors are involved in an informed, meaningful way and that they have the right to say no.¹⁹⁵ From the perspective of

¹⁸⁹ n188 above

¹⁹⁰ n188 above

¹⁹¹ See IC, 'Revised Objectives and Principles' supra note 91 at Annex (17)

¹⁹² See Article 15 of the CBD para 6,7

¹⁹³ n192 above

¹⁹⁴ n192 above

substantive justice, it is important that a benefit-sharing deal contains mechanisms for empowering the weaker party.¹⁹⁶ Moreover, it should be ensured that the contributions of providers of GRs are acknowledged publicly, and in adequate forms.¹⁹⁷ Nonetheless, the quest for justice is never an easy one and transforming principles of justice into concrete rules remains a difficult task.¹⁹⁸

3.6 Implementation, compliance and enforcement of the CBD

The Convention as a framework for international cooperation on biodiversity relies on its parties to implement, comply and enforce the convention at the national level.¹⁹⁹ All countries becoming a party to the convention are automatically bound by the provision, however the provision does not put any restrictions or requirement for its undertaking by the member States.²⁰⁰

The CBD, with regard to compliance in general, is silent. However, Article 27 of the convention provides the mechanism to address dispute settlement.²⁰¹ The provision require parties to use negotiation to settle the matter is the first instance, if not settled by negotiation then allowing third party of their choice to mediate the matter, if still the matter is not yet concluded, parties have the option to reach an agreement to take the matter to arbitration in accordance with Part 1 of Annex II to the Convention and/or to the jurisdiction of the International Court of Justice for relief.²⁰² Nonetheless, so far, the dispute settlement mechanism have never been used to date, and this may be due to the gaps created by the Convention and the implementation of the Convention is dependent on the parties' willingness to undertake on their own accord.²⁰³

¹⁹⁵ EC Kamau & G Winter Genetic Resources, Traditional Knowledge & the Law, solution for Access & Benefit sharing (2009) 360

¹⁹⁶ n195 above

¹⁹⁷ n195 above

¹⁹⁸ n195above

¹⁹⁹ G Tansey & T Rajotte The Future Control of Food, a guide to International Negotiations and Rules on Intellectual Property, Biodiversity and Food Security (2008) 97

²⁰⁰ n199 above

²⁰¹ n199 above

²⁰² n199 above

²⁰³ n199 above

If parties decide to take the matter to the international court of justice for relief the court has no mandate to enforce its judgment by economic sanction or any other way because of the guilty party not complying with the court's judgment.²⁰⁴ Unlike WTO, the CBD has no mechanism to enforce its ruling which allows compensation or suspension of concessions and in case of non-compliance, it gets less bite than the dispute settlement mechanism which existed under WTO which has no enforcement.²⁰⁵ The CBD like other environmental agreement impose positive obligation, transparency and accountability to encourage parties to comply.²⁰⁶

In conclusion, parties to the convention are to achieve the objectives of the CBD and the onus is on the parties on their own accord to ensure compliance through their national legal framework.²⁰⁷ This has created a gap considering the development level of the developing countries and their capability to monitor and enforce the agreement in terms of ABS under their domestic law; compared with the sophisticated and highly skilled multi- national companies who are also parties in the agreement. More importantly, ABS is regarded as an international private law and is not subject to the dispute settlement provision under the CBD which makes the matter worse.²⁰⁸

3.7 The effectiveness and compatibility of national legal framework on ABS agreement

The effectiveness and compatibility of national framework on ABS is a challenge for most developing countries. An International regime on ABS for developing countries is an exceedingly complex exercise which requires the collaboration of experts in science, law and business.²⁰⁹ Many developing countries lack the capacity to bring these experts together and are therefore unable to implement ABS provisions of the protocol in their domestic law effectively.²¹⁰

²⁰⁴ n199 above

²⁰⁵ n199 above

²⁰⁶ n199 above

²⁰⁷ G Tansey & T Rajotte *The Future Control of Food, a guide to International Negotiations and Rules on Intellectual Property, Biodiversity and Food Security* (2008) 97

²⁰⁸ n207 above

²⁰⁹ n207 above

²¹⁰ n207 above 100

In countries, in order to achieve the Nagoya protocol objective there has to be a provision which can bring legal certainty to its local application. The protocol's initial purpose was to ensure, on the one hand that the user-state complies with the ABS agreement,²¹¹ in order for the provider state to get fair sharing of the benefits arising out of utilization of GRs and thereby contributing to the conservation and sustainable use of its components, which at the same time will achieve the protection and development of the general environment for the international communities concerned.²¹²

In terms of commercial law, legal certainty can only be achieved where all stakeholders, such as users, providers, legislators, administrators, courts, and arbitrators have to a certain degree, knowledge of the law as prescribed.²¹³ For example, the user should have the knowledge, and ability to identify the economic value of the GRs and the legal requirement to be complied with.²¹⁴ Furthermore, the user should know the resources required and the rule and procedure to be followed to fulfil the terms of the contract as a whole.²¹⁵ The user, for certain, should also know its rights, obligations and the manner in which the termination of the contract must be carried out is clearly as specified in the terms of the contract.²¹⁶ This can also help the user to protect its own investment and get protection from unwarranted accusations of the GRs by third parties during the subsistence of the contract.²¹⁷ The provider on the other hand ensures that users comply with all the terms and requirements and the manner in which the acquisition of the GRs takes place, whether there is a mutually agreed contract concluded and also for such terms are adopted by the users in order to ensure the user will respect the fair and equitable benefit sharing obligation terms as specified in the contract.²¹⁸

²¹¹ n210 above

²¹² <http://www.lead.journal.org> National Measures on Access to Genetic Resources (accessed 10th March 2014) and see also P Rodolphe Thesis on the Nagoya ABS Protocol: a legally sound Framework for an effective regime? Utrecht University (2011)

²¹³ n212 above

²¹⁴ n212 above

²¹⁵ n212 above

²¹⁶ n212 above

²¹⁷ n212 above

²¹⁸ n212 above

Most developing countries that provide the GRs face a challenge in their implementation of the protocol whereby access to GRs is granted but the resource was removed from the countries jurisdiction.²¹⁹ Considering that the developing countries have little ability to track how such resources were subsequently used or whether the terms of any negotiated ABS contract were being complied with by users of the GRs.²²⁰ Developing countries in general lack capacity and experience in negotiating access contracts and are vulnerable in that area when agreeing to terms that are not fair and equitable.²²¹ Most commercial users of GRs are the developed countries that have little interest in creating rules that would place obligations on the users in order to address the developing countries' concern in this regard and they prefer ABS purely on contractual bases negotiated between the parties.²²²

In 2001 the Ad Hoc Open-Ended Working Group on ABS drafted the Bonn Guidelines which were finalized and adopted at COP-6 in 2002.²²³ The Bonn guidelines are voluntary in nature and they further confirm the 'concept of prior informed consent and mutually agreed terms as contained in the CBD.'²²⁴ The guidelines also provide the list of suggested elements for inclusion in material transfer agreements and list monetary and non-monetary options for benefit sharing.²²⁵ The Bonn guidelines are aimed at, among other things, contributing to the conservation and sustainable use of biodiversity, promoting technology transfer; contributing to the development by parties of mechanisms and ABS regimes that recognize the protection of TK, innovations and practices of indigenous and local communities, in accordance with domestic laws and relevant international instruments.²²⁶

Although the Bonn guidelines have been used by few countries to develop their own national regime to govern ABS; it is however silent with regard to obligations on users of GRs or the issue of its

²¹⁹ G Tansey & T Rajotte *The Future Control of Food, a guide to International Negotiations and Rules on Intellectual Property, Biodiversity and Food Security* (2008) 100

²²⁰ n219 above

²²¹ n219 above

²²² n219 above

²²³ n219 above

²²⁴ n219 above

²²⁵ n219 above

²²⁶ n219 above

enforcement where there is a breach of contract.²²⁷ The creation of binding international rules on ABS is vital and the growing frustration by developing countries with the lack of obligation on users of GRs led to the formation of ‘Like Minded Mega diverse Countries’ (LMMC), a coalition of developing countries, with the objectives to create international binding rules on ABS.²²⁸ The group was instrumental in obtaining two commitments on ABS in the Johannesburg plan of implementation from the World summit on Sustainable Development held in September 2002. Chapter IV of the plan addresses the protection and management of the natural resource base of economic and social development and paragraph 44 of that chapter focuses on biodiversity, and subsection (n) encourages the implementation and further development of the Bonn guidelines.²²⁹

The CBD provides guidelines to implement ABS in domestic law but it is still blurred in many respects. Firstly, the unclear meaning of GRs; prior to the CBD, GRS did not exist as a legal term.²³⁰ The term does not contain the necessary element for it to be legally and practically possible to be implemented. On the other hand in terms of the ownership paradox of GRs, in terms of Article 15 of the CBD every country in which a particular species is found in situ has sovereign rights in the GRs of that species.²³¹

Furthermore, the user-country may also possibly avoid obligations under ABS once it has got all the information it needed to enable it to reproduce the resource on its own.²³² The user of GRs may need only a relatively small sample obtained from one provider, in order to utilize its genetic resources.²³³ The modern industrial and commercial development process can often find ways to duplicate or synthesize a species genetic and biochemical elements based only a few samples or in some case, no samples at all are needed. If the user-countries received detailed research data once the initial research

²²⁷ n219 above

²²⁸ n219 above 101

²²⁹ n228 above

²³⁰ <http://www.lead.journal.org> National Measures on Access to Genetic Resources (accessed 10th March 2014) and see also P Rodolphe Thesis on the Nagoya ABS Protocol: a legally sound Framework for an effective regime? Utrecht University (2011)

²³¹ n230 above

²³² n230 above

²³³ n230 above

and development is complete, the user will often need no further physical specimens from any source. This will be true regardless of whether the user first obtained an ABS contract or permit.²³⁴

3.8 Conclusion

In conclusion, it is important to note that all stakeholders should be accountable and transparent in order to have an effective international system which governs the interest of all stakeholders in a fair and equitable manner. It is generally seen as unfair practice with regard to utilization of GRs and associated TK, if one gets rich at the expense of others. Furthermore, the existing international system governing GRs failed to meet its objectives. The other contributory factor affecting the system is that the initial negotiation of the agreements is not sufficiently represented by the particular area of expertise, although, access to GRs and benefit sharing agreement is interrelated to agriculture, however most of the CBD negotiators from the globe, including Africa are conducted by ministries of environment rather than ministers of agriculture. These ministers have little knowledge of the characteristics of GRs for food and agriculture. For this reason, the negotiators of ABS are scientists researching rainforest, even though GRS or biodiversity are of critical importance in agriculture. The ABS text dose still not have the list of the GRs that are relevant to food and agriculture which is needed for their protection but it relies on the principle of state sovereignty. This highlighted the concern that it would jeopardize the food security of the future in general.

²³⁴ n230 above

CHAPTER FOUR

AFRICAN COUNTRIES' PARTICIPATION IN THE IIP SYSTEM

4.1 Introduction

The commercial relationship between Africa and Europe changed during the late nineteenth; more specifically, Europe became less interested being bound to the terms established by local rules in Africa in their trade relationship.²³⁵ The Europeans simply started changing their terms of trade with Africa and introduced a new form of formal and organised authorities and institutions with regard to trade dealings.²³⁶ The main objective of the establishment of the Paris and Berne Convention was to establish a network relationship between European countries.²³⁷ This relationship helped to 'consolidate colonial power by expanding the geographic scope of rights acquired in the governing country to the colonies.' The objective of the IP rights was to help to facilitate commercial relations among colonial powers.²³⁸

IIP law was part of the colonial legal tools with the strategy being to gain superiority over the weaker party as designed by the colonial powers in the commercial interaction with each other and beyond.²³⁹ This helped to expand their superiority geographically and where there were commercial relationships, the IP rights protection would also be acquired in the various territories.²⁴⁰

²³⁵ LO Ruth The International Relations of Intellectual Property : narratives of developing country participation in the global IP system journal of international and comparative law (2003) 322 324 and also see www.asianlii.org (accessed 10/04/2014)

²³⁶ n235 above

²³⁷ n235 above

²³⁸ n235 above

²³⁹ n235 above

²⁴⁰ n235 above

On the other hand, Africa started to develop its own IP laws only by 20th century and has two types of regional intellectual property regime, one is the African Regional Intellectual Property Organisation (ARIPO) for the Anglophone countries and the other one is Organisation Africaine de la Property Intellectuelle (OAPI) for the Francophone countries.²⁴¹

A major part of Africa's economy depends on biodiversity and natural resources. Africa's interest and commitment on biodiversity management and conservation continues to develop.²⁴² The main objectives of the African model law on biodiversity resources is to promote and protect, as well as to guide member-states on how to comply with the regional as well as the international law with regard to GRs and it further gives a guidance on how to access and transfer of genetically modified organisms.²⁴³ Africa has over the years developed biodiversity instruments specific to its needs. These instruments include, among others, the 2001 African model law for the protection of the rights of the Local communities, farmers and breeders and for the regulation of access to biological resources²⁴⁴

The 2001 African Model Law on Safety in Biotechnology was developed with the view to guide African countries in meeting their commitments on bio safety matters and to enable safe handling and transfer of genetically modified organisms. Furthermore, the 1968 African Convention for the Conservation of Nature and Natural Resources was revised in 2003 to bring it to the level and standard of modern multilateral environmental agreements. These actions demonstrate Africa's strong commitment in biodiversity related matters. This is because large majority of Africans directly depend on biodiversity and natural resources for their livelihood.²⁴⁵

²⁴¹ M Peter; Macelin T; DU Pierre ; Johnson; Kabir The ABS Capacity development initiative (February 2012) and also see www.ip-watch.org legal framework for plant variety protection ARIPO (accessed 10/4/2014)

²⁴² n241 above

²⁴³ n241 above

²⁴⁴ n241 above

²⁴⁵ n 241 above

4.2 The African Regional Intellectual Property Organization (ARIPO)

ARIPO is an intergovernmental organization for cooperation among African member states in patent and other intellectual property matters. Its head-office situated at Harare, Zimbabwe²⁴⁶

ARIPO is made up of a treaty and a protocol. The treaty basically sets up the administrative organs and financial obligations of its member state. It is constitutional in nature. It is similar to the regional patent filing system in Europe²⁴⁷. The protocol regulates industrial property rights and each ARIPO member state is tacitly allowed to operate separate from the national patent regimes.²⁴⁸

In 2009 at the twelfth session of the Council of Ministers of ARIPO held in Gaborone, the Council requested technical assistance from the UPOV for its legislative framework on the protection of new varieties of plants.²⁴⁹ In 2010 the organisation drafted a new legislation on the protection of new varieties of plants, and in 2011 this legal framework was reviewed by experts from the member states.²⁵⁰ Furthermore, the comments and suggestion of the international organisations present at the workshop including community plant variety Office of the European Union (CPVO), French National seed and Seeding Association (GNIS) and African Intellectual Organisation (OAPI) have been also incorporated in to the draft legislative framework of ARIPO.²⁵¹ It is also in the 2010 protocol on the protection of traditional knowledge signed by 9 member states of the organization. However, that has not come into force yet, as of July 2013.²⁵²

²⁴⁶ <http://www.spoor.com> African Regional Intellectual property Organisation

²⁴⁷ n246 above

²⁴⁸ n246 above

²⁴⁹ n246 above

²⁵⁰ n246 above

²⁵¹ n246 above

²⁵² n246 above

ARIPO has two organs: administrative and financial obligation of its members.

The organisation was created by treaties and protocol to the treaty. The treaties created the administrative organ and the financial obligation of its members and the protocol created industrial property rights.²⁵³ The member-states are allowed to operate on their own individual types of national patent regimes.²⁵⁴

The member states have three categories of patent regime:

- i. automatic protection of patents registered in member-states;
- ii. there are member-states that are required to be granted patent in the UK before their own countries; and
- iii. there are member-states that operate on independent patent regime.²⁵⁵

4.3 African Intellectual Property Organization (OAPI)

OAPI is an organisation which deals with patent and other intellectual property system for francophone region in Africa. Its member-states unlike ARIPO, revoked their own national intellectual property laws and developed the OAPI system into national law. All member states of OAPI have a uniform patent law and it is not possible for member-states to get intellectual property right except upon registering in the office of OAPI.²⁵⁶

The OAPI agreement was adopted and signed by its member-states was in 1977 in Bangui. The protocol came in to force Feb.8, 1982. Furthermore the instrument revised in 1999 in order to comply with the international intellectual property regime, more specifically with the TRIPS of WTO. All OAPI agreements are regarded as the national law of each member state. There is no national law of a

²⁵³ n246 above

²⁵⁴ n246 above

²⁵⁵ n246 above

²⁵⁶ n246 above

member-state of OAPI that shall give effect to the Bangui agreements; however it automatically applies to all member-states and has to be consistent with the international convention as well, and if in conflict, the international convention shall prevail.²⁵⁷

4.4 Developing countries approach to intellectual property negotiations

Developing countries have a challenge with the implementation of the existing IIP regimes.²⁵⁸ This is because majority of IIP regimes are negotiated by selected group of European countries in the 1983 and by that time most developing countries including African countries were colonised and became signatory through the agency of colonial rule.²⁵⁹ The 1980s IP regime including the Paris and Berne Conventions still exist in its initial form and moreover, these conventions continue to remain as the integral component of the newly adopted agreements such as TRIPS.²⁶⁰ The TRIPS agreement introduced a new era in the development of IP rights and afforded IP global protection.²⁶¹

The TRIPS was established when developing countries were becoming independent and signatory and participatory in the international treaties and demanded some kind of reform in the international treaties.²⁶² In 1980s and 1990s, developed countries became increasingly frustrated with WIPO, due to the fact that the developing countries had become signatories to conventions administered by WIPO and demanded reform to the colonial era treaties since the existing IIP regime does not cover the interest and desire of the developing countries.²⁶³ This motion gave rise to complex and highly politicized negotiations and WIPO could not resolve it and then designated specialists to resolve the very much politicized negotiation.²⁶⁴ On the other hand, the developed countries are a net exporter of intellectual property and demanded international enforcement mechanisms to be available to them and

²⁵⁷ <http://www.wipo.int> background information on member States of OAPI 2012 (accessed 6/4/2014)

²⁵⁸ <http://www.asianlii.org> LO Ruth Journal of international and comparative law (2003) (accessed 10/04/2014) 316

²⁵⁹ n258 above

²⁶⁰ n258 above

²⁶¹ n258 above

²⁶² n258 above

²⁶³ n258 above

²⁶⁴ n258 above

all the signatory-countries including developing countries must be bound by their conventional obligations.²⁶⁵ Due to this reason, the developed countries seek alternative solution to this problem by bringing other forms of international regulations of IP within the jurisdiction of the WTO.²⁶⁶ The TRIPS agreement was a product of the Uruguay Round of multilateral trade negotiations, which established the GATT. The TRIPS agreements formed part of the agreement established the WTO and thus bind all the WTO members.²⁶⁷

It is clear from this description that the TRIPS provisions have had an expected impact on developing countries interest.²⁶⁸ TRIPS became controversial due to this reason and its high level of harmonization in relation to various IP regulations as well as the strong-arm effect of the WTO dispute resolution procedure has created enormous pressure on developing countries to raise their standards of IP protection beyond their ability. Although they were given an opportunity of flexibility in the time frame for compliance nonetheless, the developing countries have been facing a challenge and it is difficult for developing countries to meet these standards.²⁶⁹

4.5 Challenges to developing countries' ability to effect change in IP

It is a challenge for developing countries to give effect to the changing global IP system so far.²⁷⁰ Developing countries continue to challenge the predominant forms of IP protection and the manner in which IP law-making carried out with the significant reliance on the narratives. The reason why the developing countries to resist the IIP protection is the narratives which create political space in international institution and further create countervailing norms. Unless the international IP protection law is reframed, it might continue to weaken the existing regime of IP protection.²⁷¹

²⁶⁵ n258 above

²⁶⁶ n258 above

²⁶⁷ n258 above

²⁶⁸ T Aplin and J Davis Intellectual Property Law (2009) 16

²⁶⁹ n 268 above 17

²⁷⁰ LO Ruth The International relation of Intellectual Property : narratives of developing countries participation in the global intellectual property system (Journal) international and comparative law (2003) 317and also see www.asianlii.org (accessed 10/04/2014)

²⁷¹ n270 above 318

TRIPS – Plus was created in an effort to mitigate the effects of exclusive registered interest, on the side of developing countries; it is to identify development benefits from intellectual property rights, and to stop the never-ending demand for stronger rights.²⁷²

It is clear that the participation of the developing countries in the IIP system in general is always associated with narratives such as:

- i. the human rights narratives
- ii. the cultural narratives
- iii. the welfare enhancing or doctrinal narratives.²⁷³

These narratives were fashioned in order to find a middle-ground for the developing countries' interests and priorities to be addressed and to create a mechanism to integrate developing countries values and interests in substantive intellectual property norms. Furthermore, this initiation will facilitate the developing countries' participation in the global IP standard setting. However, these narratives offer different perspectives to place developing countries interest as priorities on the global intellectual property agenda.²⁷⁴

Furthermore, the notion that the IIP rights were not drafted scientifically but rather understood from the cultural experience mostly by the industrialised nations and by negotiation amongst themselves, and private entity interests were also addressed.²⁷⁵ In order to show the justification of the existing IIP regime and to reflect that the interests were of the developing countries within the existing legal framework of IIP, the three narratives which are conceptually interrelated to each other, were created. However, these narratives support the existing underpinning norms of the IIP system.²⁷⁶

²⁷² n268 above 316

²⁷³ n268 above 317

²⁷⁴ n268 above

²⁷⁵ n268 above

²⁷⁶ n268 above

It is a challenge for developing countries' ability to give effect to the changing global IP system so far. Africa had been trading with Europe as far as fifteenth century, and by late nineteenth century, there was a dramatic change taking place.²⁷⁷ Although by that time, trade in agricultural commodities was a primary focus of trade interaction particular with Africa, and Europe was at the stage of industrial revolution.²⁷⁸

International agreements are in generally seen as hard to understand and legalistic.²⁷⁹ It is difficult to arrive at agreement and every state has different interests and development stage and it is complex for each state at their development stage to understand and be able to effectively negotiate and so, need longer time and effort to reach an agreement amongst the states. These treaties are the products of these mechanisms that govern the world and we all bound and affected by it in our day-to-day life.²⁸⁰

Various trade-related international agreements have the tendency to combine ulterior power and interests.²⁸¹ Trade in agriculture also has its own international systems that govern its administration as well. In the general norm the international regime main objectives are to inform and facilitate the wider population participation in shaping the rules that governs our conduct. It has to be noted that international negotiations and rules on biodiversity has a potential effect on the determination of the future food security globally.²⁸²

Currently, IP law reforms are political in nature rather than technical, both Europe and the US impose various forms of soft and hard pressure on developing countries to introduce IP rules which obviously protect only the industrialised nations' products rather than African agricultural commodities.²⁸³ Some

²⁷⁷ n268 above 320

²⁷⁸ n277 above

²⁷⁹ G Tansey and T Rajotte *The Future Control of Food: a guide to international negotiations and rules on IP, biodiversity and food security* (2008) 25

²⁸⁰ n279 above

²⁸¹ n279 above

²⁸² n279 above

²⁸³ n279 above

developing country such as India and China may be economically strong enough to resist these pressures from the EU and US, unlike African countries that are economically too small and weak.²⁸⁴

The rise of most international institutions helps to facilitate a smooth decolonization process to be smooth and integration of the new states also with special privileges when they wish to become a member to the international treaties, and these privileges include:

- i. financial assistance and
- ii. less onerous obligations with regard to the ratification of the treaties.²⁸⁵

The Paris Convention got resisted by developing countries and they had successfully whittled down the strength of the Convention. The Berne Convention, however, was modified by the Stockholm Protocol which was negotiated shortly after the independence era specifically to address needs of developing countries.²⁸⁶ The Uruguay Round indicates that the powerful nations still control the outcomes of various international negotiations and it is the continuation of the old system.²⁸⁷

International law played a vital role to ensure the participation of developing country in various international treaties negotiations. Developing countries integration in IP laws took place by using subjugation of non-European treaties.²⁸⁸ The Berne Convention, for example, had no provision which had formal means to recognize the former colonies states as independent state from their colonial power.²⁸⁹ For this reason a method was needed in order to recognize the new political status of the decolonized states as independent sovereign states.²⁹⁰ The method developed to integrate the new independent states was a declaration by these states that relevant provisions of the Convention which

²⁸⁴ n279 above

²⁸⁵ n279 above

²⁸⁶ n279 above 328

²⁸⁷ n279 above 329

²⁸⁸ n287 above

²⁸⁹ n187 above 330

²⁹⁰ n289 above

was applicable prior to independence would continue to be honoured.²⁹¹ This is an indication of the retention of the colonial rules.²⁹²

The institution responsible for administering the IIP system before 1967, the United International Bureaux for the Protection of Intellectual Property (BIRPI), facilitated this practice by providing standardised forms for the declaration.²⁹³ Later in 1967, it succeeded by the establishment of WIPO. These independent states were expected to implement the international laws in their perspective national laws.²⁹⁴

The application of international law depends on whether the state has a will to implement the international laws on its own national laws; although the colonial rules does not recognise the sovereignty of the independent states but the independent states continue to be bound by the colonial rules and has a duty and right derived from this convention.²⁹⁵

The protection of IP laws are not generally directed at the domestic innovation environment for those independent states but rather it protects foreign national innovations. Most IP exporter-countries in reality are developed countries and developing countries in essence serviced the international system and not the international system serving the developing countries' interest.²⁹⁶

The influence of IIP laws are generally not avoidable for most developing countries and rather, for example, the Berne Convention provides that if a country made a declaration it is presumed that the country has agreed to be bound by the pre-independence application of the convention and it remained enforceable.²⁹⁷ In terms of the Berne Convention, where a country after dependence did not denounce or do nothing the convention continued to apply on the terms of the pre-independence accession of the

²⁹¹ n289 above

²⁹² n289 above

²⁹³ n 289 above

²⁹⁴ n289above

²⁹⁵ n279 above 332

²⁹⁶ n295 above

²⁹⁷ n295 above

European power. If a country denounces the Berne convention the application of the convention has effect from the date of the independence until the date of denunciation on the country.²⁹⁸

4.6 Conclusion

In conclusion international laws in theory qualified developing countries as sovereign states through participation in the international community.²⁹⁹ This demonstrates the principle that full membership required observance to the universal declaration of human rights. The international trade regime, on the other hand, legitimized the colonial rules to continue to exist in the IP system and it is in conflict with the principle of free trade.³⁰⁰ Developing countries have the privilege of attendance with various international³⁰¹ forums as a confirmation that they are sovereign states and nothing more. The existing IIP laws have not yet being resolved satisfactorily or completely to enable the participation of developing countries in the IIP system negotiations.³⁰²

The fundamental challenge of the international system is how to manage or break off from the old colonial rule and engage with the newly established institution and structure with modern international system.³⁰³ Africa continues to favour its former colonial powers legal concept as a step for civilisation for international trade interaction with Europe. It is a challenge for Africa to divorce itself from the system where the international laws confirm that the governing powers of the colonial rule still exist.

The relationship between international law, colonialism and developing countries intertwined with each other. European law in general is the central tool of control, power and influence in the European colonies.³⁰⁴ The international customary law on the other hand contained the value and local practices of Europe and not developing countries values and practices as such; it is simply a replication of

²⁹⁸ n295 above

²⁹⁹ n279 above 359

³⁰⁰ n299 above

³⁰¹ n279 above 375

³⁰² n301 above

³⁰³ n301 above

³⁰⁴ n 279 above 360

colonial rules.³⁰⁵ IIP is undoubtedly European as well as American in nature and it is real challenge for developing countries to participate with the system that does not represent their interest but they continue serve the international laws for the benefit of others.

³⁰⁵ n304 above

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The aim of this paper basically is to contribute to the current debate on IIP and the issue surrounding to the protection of GRs and associated TK. It is also to show that there are gaps in the current IIP governing laws, more specifically with regard to GRs and associated TK, as well as to provide evidence on the subject further.

5.2 Conclusions

It is important to note that there is in-balance in resources and knowledge between developing countries and developed countries. Developing countries are rich in GRs and associated TK with which the developed countries have for so long extracted and derived the greatest benefits and gain billions of dollars from it with no compensation paid. It is vital to find a middle ground which can serve both sides' interests and this desire seems fair, but so far, the existing governing laws have failed to do that. The gaps created by the international intellectual property regime affect the developing countries development agenda especially in Africa.

It is the reality that a property-based framework of the existing international laws with regard to protection of GRs and associated TK falls short of addressing the needs of the indigenous people and local community in the developing countries. The newly developed international treaty as well falls short addressing the needs of indigenous people and local community interest in the developing countries and it cannot be justified based on the continuation of the old rules remain exist for granting intellectual property rights. There is a fundamental need to develop a new framework within which to understand calls to protect GRs and associated TK and to develop tools to address the needs of indigenous people and local community of the developing countries at large.

Prior to CBD coming into force, GRs was believed to be common heritage for all and free to access. The CBD was initially enacted in order to promote those provider-countries to provide their GRs where it was needed for either for the commercial or research purposes in return the user-countries to share benefit from the utilization of GRs. This was supposed to help to bring transparency, accountability and equity in the international flow of GRs and associated TK. Although the CBD tries to bring fairness, however, there is not much success story to tell so far.

Intellectual property rights protection on the international level seems to be disproportionately in beneficial to the firms of wealthy countries that produce most of the world's intellectual property.

It is important to note that the international regime for protecting intellectual property was created during the age of industrialisation in the west, and developed consequently in response to the apparent needs of technologically-advanced societies. However, in recent years, the indigenous people, local communities and governments, mainly in developing countries, have demanded equivalent protection for their TK and GRs. A number of recent reports have raised fundamental concerns that the one-sided nature of the new international regime may fail to contribute to the very objective of IIP regime that includes promotion of technological innovation, and transfer to the mutual advantage of producers and users and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

During the colonial era, the developing countries became a signatory through the agency of colonial rule which represented the needs and interests of the colonial power and not the countries as sovereigns. After independence, the new states ought to have been integrated into the international treaties as sovereign states. For this to happen, since the existing international rules had no provisions which had formal means to recognize the former colonies as sovereign states, which are independent from their colonial powers, there was a need to develop a method. The method developed by the institution was that the developing countries have to declare or denounce the treaties on their own. The countries who made a declaration gave their intention to retain the colonial rules. Those countries who denounced the treaties were regarded not bound by the colonial rules, which had its own consequences in order for these countries to play a role on the global level. On the other hand, those countries that did not declare or denounce, were automatically presumed to have agreed with the existing rules and bound themselves.

These colonial rules continued to exist in their initial form reflecting and protecting the interest and needs of the developed nations. The newly adopted international agreements such as TRIPS contain a replication of the Berne Convention which remains the integral part of it. In 1980s, the developing countries which were the newly independent states found that the existing treaties make no mention of their needs and interests and demanded some kind of reform. In WIPO, the developing countries demanded a reform to the existing colonial era treaties.

For this reason, the developed countries frustrated by the demand of the developing countries at WIPO with regard to reformation of the existing IP protection regime, formed coalition and developed an alternative international treaty concerning intellectual property within the jurisdiction of WTO called TRIPS. These treaties bound all WTO members majority of which are developed countries. TRIPS is a replication of the Berne Convention which was at the time under negotiation at WIPO for reformation. Due to this reason, TRIPS became controversial in nature.

The inherent conflict between TRIPS and the CBD is that TRIPS requires genetic materials be protected by patent and also has a minimum requirements. On the other hand, the CBD gives sovereign rights over GRs and require prior informed consent, mutually agreed terms and benefit-sharing. To make the matter more complicated, TRIPS developed with the aim to promote and protect innovation of inanimate objects which has been extended to cover GRs such as plant and crops. Patent supposed to provide benefit to their owners and society at large. The major concern of developing countries is that the meaning of patent has been diminished and poor quality patents are being granted that lacks novelty and inventive steps. That is why the international intellectual property regime at the international level seems disproportionately beneficial only to the developed nations where mostly intellectual property is exported from.

The vision of the CBD so far has not translated into reality. Countries that provide GRs complain that they are victims of misappropriations and bio-piracy; on the other hand, user-industries and researchers' concerns on the limitation and arbitrary decision by the provider with regard to accessing the GRs are obstacle. The legal entitlement of resource state to their GRs is insufficient to control the utilization of materials and to create the degree of confidence that is necessary to engage in and to maintain beneficial transaction in the use of GRs.

Furthermore, at the convention to achieve the objectives of the CBD, the onus was on the parties, own their own accord, to ensure compliance through their national legal frameworks. This has created a gap considering the development level of the developing countries' capability to monitor and enforce the agreement in terms of ABS under their domestic laws, in comparison with the sophisticated and highly skilled multi-national companies who are also parties in the agreement. More importantly, ABS is regarded as international private law and is not subject to the dispute settlement provisions under the CBD to make the matter worse. Unlike WTO, the CBD has no mechanism to enforce its ruling which allows compensation or suspension of concessions in case of non-compliant.

Although ABS as inter-governmental obligation under the CBD reflects a concept of distributional justice, while commercial transactions involving the utilization of GRs are driven by some sort of justice in exchange transactions. Even though, ABS agreement were negotiated as part of environmental issue, in order to maintain conservation of biological diversity and to ensure that benefit is shared with the providers, from the utilisation of GRs so that help providers may continue to conserve and recover their investment on conservation. However, there has not been any significant progress made with regard to adoption of the convention which might have impact on the benefit received from ABS used to undertake conservation. Besides considering the cost implication of the convention, it is inappropriate for both parties, such as the cost of national implementation of legislation, international negotiation, private transaction, and cost resulting from activities related to GRs, no sound implication on economic or social measure that act as incentives for the conservation and sustainable use of GRs.

It is important once again to note that the level of development between parties in the negotiation in respect of the capability to implement the international treaties to the national law which can correspond with the international law is not an easy task for the developing countries. The international law as noted above was drafted by developed countries in terms of their customs and practices. So to say that for the developed country is easy task to implement the international law in their national laws, since it is not foreign law for them unlike developing countries.

The developed countries national laws are highly sophisticated and developed in a way that it is well drafted, wide in scope and its structure is derived from their motivation, it can be political or economic

and has no clear indication of whatsoever for the consideration of the interest of other stake holders. On the other hand, the developing countries especially Africa's legal framework is under-developed compared to developed countries legal system. It is also vital to mention the root of all these inconsistencies in International Law was caused by the colonial rules which continue to exist and the level of development between nations is also a contributory factor.

It is important to build negotiation in good faith and all stakeholders should be accountable and transparent to have an effective international system otherwise, the world will be left ungovernable in this instance. The mistrust that exists so far in such transactions is between the user-states' willingness to cooperate. Some provider-states have failed to introduce corresponding legislation to protect their interests. The ambiguity and ambition of national requirements have had the un-cooperative effect that basic research has been hindered and our future food security is in jeopardy in this regard.

The other contributory factor affecting the system that should be addressed is the initial negotiation of the CBD which was not sufficiently presented by the particular area of expertise. Although access to GRs and benefit-sharing agreement are interrelated to agriculture, however, most of the CBD negotiators from the globe, including Africa, conducted by Ministries of Environment rather than Ministries of Agriculture. For this reason, the negotiators of ABS are those scientists searching rainforest, yet GRs or biodiversity are of critical importance in agriculture which needed protection but relies on the principle of state sovereignty. This has heightened the concern that it would jeopardise food security of the future once again.

5.3 Recommendation

The international law approach with regard to GRs and TK in general emphasise a property-based framework which falls short of addressing the needs of the indigenous people and cannot be justified based on the existing law for granting intellectual property rights. There is fundamental need to develop a new framework within which to understand the call to protect GRs and TK and to develop tools to address the needs of indigenous peoples.

The developing countries have to create a coalition that is responsive to their needs. There is a need for the like-minded group of developing countries to come together at the negotiation table to work and

design a better mechanism to tackle the problem and to deal with the issue of future food security. It is instructive to note that this is not an easy challenge considering the structural control of the EU and US which remains a problem for developing countries, particularly for Africa. It is vital for the developing countries to have broader capacity-development of the relevant personnel in order to achieve its goal effectively.

There is a need for the developing countries to reconsider their position on the international intellectual property regime negotiations. There is also a need to look for alternative forms of system to govern this complex issue and to address all interests in a way fair and equitable for all the parties concerned. It is also important to have certain type of measure to protect misappropriation, bio-piracy and theft of GRs and associate TK. There is a need to create a mechanism to ensure that benefits from utilized GRs and associated TK are shared fairly. It is possible to create effective mechanism which promotes fairness.

Standardised contract terms may help to reduce transaction cost caused by the existing ABS law considering the fact that the cost implication of the convention is inappropriate for both parties, such as the cost of national implementation of legislation, international negotiation, private transaction and cost resulting from activities related to GRS, no sound implication on economic or social development. Furthermore, this standardised contract term may also help promote confidence, however; the kind of cooperation of states as envisaged by the CBD appears to necessitate some additional elements which respond to the justification of distributional justice.

An international regime on ABS for developing countries is exceedingly complex exercise which is requiring the collaboration of experts in science, law and business. Many developing countries lack the capacity to bring this entire expert together and so are unable to effectively implement ABS provisions of the protocol in their domestic laws.

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