INDIGENOUS KNOWLEDGE: WHAT IS IT? HOW AND WHY DO WE PROTECT IT? THE CASE STUDY OF TANZANIA.

Kihwelo, P.F.

Abstract: This article examines the legal protection of indigenous knowledge in Tanzania as well as the world at large. The paper starts by looking at various definitions of traditional knowledge as propounded by different scholars who have written in the subject. The paper examines also the relation between traditional knowledge vis-à-vis formal knowledge. It proceeds to examine reasons for the protection of indigenous knowledge and in addition the author surveys the protection mechanism of indigenous knowledge both in Tanzania and in the international arena. Lastly the paper recommends for the suitable mechanisms for the protection of indigenous knowledge.

INTRODUCTION

The term indigenous knowledge (IK) or traditional knowledge as is interchangeably used does not have a universally agreed definition. As such it has been defined and perceived differently by different groups of people and organizations at different times.

However, despite the existence of such disparities there seems to be certain common definitional aspects by some scholars. For istance, Hilde van Vlaenderen has attempted to provide a working definition of indigenous knowledge to be:

> a collection of ideals and assumptions that which tends to emphasize the knowledge internal to a particular setting differing from local knowledge which focuses on the locality in which the knowledge is used and embraces exogenous knowledge that has entered the local community overtime.[1]

Stephen Brush has defined indigenous knowledge as 'the systematic information that remains in the informal sector, usually unwritten and preserved in oral tradition rather than texts.... [It] is culture specific, whereas formal knowledge is decultured.[2]

According to Mugabe traditional knowledge is the totality of all knowledge and practices whether explicit or implicit which is used in the management of social-economic and ecological facets of life.[3]

Lugeye defines indigenous knowledge as the sum of experiences and knowledge of a given ethnic group that forms the basis for decision-making in the face of familiar problems solving. It is a mixture of knowledge created endogenously within the society and that from outside but then integrated within the society, and this knowledge is continuously changing and has an inherent capacity for absorbing relevant new knowledge from outside.[4]

Indigenous knowledge, as far as we are concerned, is that knowledge that is held and used by people who identify themselves as indigenous of a place based on a combination of cultural distinctiveness prior territorial occupancy relative to a more recently arrived population with its own distinct and subsequently dominant culture.[5]

TRADITIONAL KNOWLEDGE VIS-À-VIS FORMAL KNOWLEDGE

Traditional knowledge differs from formal knowledge in various aspects like ways of acquisition, storage and transmission. Whereas indigenous knowledge does not have a special institution to administer it, formal knowledge is administered through various institutions of learning and practices. Indigenous knowledge is

holistic in character and is passed down through generations and comes from personal or collective innovations. The processes of modern development are either marginalizing or integrating indigenous communities, making them abandon or lose their vast traditional or indigenous knowledge acquired over years.

Indigenous knowledge is established on the basis of past experiences and observations. It is usually a collective property of society. Many members of the society contribute to it over time, and it is modified and enlarged as it is used overtime. This knowledge is transmitted from one generation to the next.[6]

Formal knowledge is that type of knowledge that is produced and generated through formal institutions of learning such as schools, colleges and universities.

What is disappointing is the fact that the education system that we have been schooled in has succeeded in creating prejudices in our mindset against traditional knowledge. We have been schooled to believe and accept that knowledge is only that which is produced in universities or colleges and by those who have gone to formal universities or institutions of higher learning. Short of that, whatever is produced is not knowledge and those who produced it cannot be termed as scholars or intellectuals.[7] This has raised matters of great concern between intellectuals and traditional doctors or what some refer to as witchdoctors. The debate at one point arose in the national assembly when the House called for restrictions in the use of the title Professor! Most members of parliament wanted the title to be used by intellectuals only schooled in formal universities.

Today this knowledge which previously was equated as heathenism, barbarism and witchcraft is sought by hooks and cran sometimes even stolen to be stored in the citadel of West European institutions of higher learning and scientific research centres. Many researchers and scientists are going to Latin America, Asia and coming to Africa seeking to talk to traditional healers and wishing to collect samples of herbal flora and fauna and take them back to their countries.[8]

Pharmaceutical firms mostly based in developed countries stand accused of plundering native lore, leaping benefits and making fortunes from natural remedies. Forinstance a western drug industry has painted a Hoodia cactus plant known to and used by the Kung bushmen who live around Kalahari dessert in South Africa for thousand years as herbal medicine.[9]

Another area to which the prejudices of our mindset can be vividly reflected is in the media coverage where information on an innovation based on indigenous knowledge will attract scant attention from the reporters and editors. To the contrary a discovery emanating from an experiment conducted in a university will catch headlines and if possible in front page carrying a special prominence.[10]

THE CASE FOR PROTECTING INDIGENOUS KNOWLEDGE

One may be tempted to ask a couple of questions as to why should we protect indigenous knowledge? Indigenous knowledge encompasses information and know how on a variety of matters including resources management, traditional medicines, crafts, artistic designs, cultural assets including folk tales, indigenous poetry, dances, theatre, rituals that adopt artistic forms, drawings, paintings, sculptures, textiles, musical instruments and architecture.

Lack of proper legal and policy frameworks for the protection of indigenous knowledge in the developing countries provides a vacuum for the industrialized nations to exploit the indigenous knowledge and resources in the developing countries with at least 300 million indigenous people.

Protection of indigenous knowledge will stop giant pharmaceutical companies from the North (who purport to discover herbal medicine owned and used by the indigenous communities for thousands of years) from patenting the said plants at the expense of the indigenous communities. An example is the case of *Hoodia* drug in South Africa which has been patented by Phytopharm which inturn licensed itto Pfizer, the giant pharmaceutical company in USA for the price of US $21 million at the expense of the Bushmen's knowledge and ignorance of the invention protection procedures.

Protection of indigenous knowledge is essential so as to avoid or letting our indigenous knowledge to be racked and ruined as an aspect of ascertainable comparative advantage across the rainbow spectrum of agricultural crops, medicine, the environment and cultural values. This is a cultural heritage property right which we must correspondingly protect, and share equitably in the interest of all human kind![11]

The need for protecting indigenous knowledge is more relevant today than before due to the fact that the present global legal framework is the result of a grim unlawful past. It is hard to see how to find a lasting settlement without resolving core problems, one of which is the lack of protection for the fundamental indigenous rights, such as indigenous knowledge. It has been revealed that commercial interests very often violate indigenous intellectual property rights. Although, such violations do not formally constitute a breach of written legal standards, as neither national legislation nor international standards acknowledge the rights of indigenous people, these enterprises are still accountable to indigenous customary law.[12]

GLOBAL REGIME FOR THE PROTECTION OF INDIGENOUS KNOWLEDGE

The international community has realized the benefits that are and can be derived from indigenous knowledge and the risks that may occur to the communities that have produced such knowledge where a legal and institutional framework is lacking for their protection.

However it must be pointed out at the outset that in the sphere of international arena little effort have been made so far to secure adequate and effective protection of indigenous knowledge and this seems to be the outcome of the perceived prejudices of the developed world to regard indigenous knowledge as being primitive, barbarism, heathenism and associated directly to witchcraft.

On the other hand, it may be argued that leaving aside indigenous knowledge out of the negotiating areas within the Uruguay Round and the framework of WTO was intentionally done so as to enable the rich North to keep on plundering and pirating indigenous knowledge from the poor South.

International Principles and Conventions on Indigenous Knowledge

Issues of indigenous knowledge have been extensively discussed in the global arena but as rightly pointed out little effort have been done to enable its secure protection despite the fact that the international communities underscore the contribution of indigenous knowledge to sustainable development. This can be seen in a number of resolutions and principles developed from various fora which are very explicit on indigenous knowledge. These principles also underscore the need for communities to have their due share from benefits accruing from the use of their indigenous knowledge and resources.[13]

The Rio Principles on Indigenous Knowledge

One of the Principles of the Declaration on Development (1992) from the United Nations on Environment and Development (UNCED), held in Rio de Janeiro in 1992 is that local

institutions through which indigenous and local people socialize and conduct their economic activities should be strengthened. Though it did not explicitly address the question of intellectual property protection of traditional knowledge, it created a political framework for addressing these issues within environmental circles.[14]

The Rio Conference at the recommendation of WCED, addressed issues of intellectual property rights in traditional knowledge and innovations. Agenda 21, adopted by more than 160 states at the UNCED, contains a whole chapter on indigenous peoples' concerns and makes a wide range of recommendations on how these peoples' rights should be protected.[15]

Chapter 26 of Agenda 21 begins by noting that indigenous peoples and their communities, which represent a significant percentage of the global population, have developed a holistic relationship with the natural environment. Over many generations, they have developed a "holistic traditional scientific knowledge of their lands, natural resources, and environment."[16] It also recommends that governments should adopt policies and/or legal instruments that will protect intellectual and cultural property of indigenous peoples. Tanzania is a party to the Rio principles as it ratified the Rio Convention on 1st March, 1992.

The Convention on Biological Diversity

The Convention on Biological Diversity (CBD), signed by more than 150 states during UNCED, also explicitly recognizes the rights of indigenous and local peoples in traditional knowledge and innovations. Its preamble states that 'the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components."[17]

Articles 8(j), 10(c) and 18(4) make reference to the rights of indigenous and local people. Article 10(c), for example, provides that each contracting party 'shall [p]rotect and encourage customary use of biological resources in accordance with traditional cultural practices that are compartible with conservation or sustainable use requirements." Article 18(4) defines technologies broadly to include "indigenous and traditional technologies."[18]

Article 8(j), is perhaps the most authoritative provision dealing with traditional knowledge. It provides that each contracting party shall, as far as possible and as appropriate, "subject to its national legislation, respect, preserve, and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices."[19]

There are a number of limitations with Article 8(j) in so far as the question of intellectual property rights in traditional knowledge is concerned. First, the Convention leaves the protection of the knowledge, innovations and practices of indigenous and local communities to the discretion of parties. Some parties to the CBD may in fact invoke the language of Article 8(j) not to undertake any measures that protect indigenous and local peoples' knowledge, innovations and other rights. Language such as 'subject to national legislation" and "so far as possible and as appropriate" was promoted during the negotiations of the CBD by governments that did not want to commit themselves to protection of indigenous peoples and their

rights.[20] This has obviously been done by those states with prejudices in their mind in so far as protection of indigenous knowledge is concerned!

Second, article 8(j) does not talk of protection of the knowledge but merely calls on parties to 'respect, preserve and maintain" it. It does not guarantee indigenous and local people any rights to traditional knowledge.[21] Limitations of Article 8(j) have been recognized by parties to the Convention. This is implicit in a number of the decisions that the Conference of Parties (CoP) to the Convention has so far made. For example, the third CoP held in Argentina in November 1996 agreed (in Decision III/14) on the need to "develop national legislation and corresponding strategies for the implementation of Article 8(j) in consultation with representatives of their indigenous and local communities." The Parties also agreed to establish an intercessional process to advance further the work on the implementation of Article 8(j) and related provisions. In support of this process the Executive Secretary of the CBD was requested by the CoP to prepare background documentation on the following issues: (I) consideration of linkages between Article 8(j) and such issues as technology transfer, access, ownership of genetic resources, IPR, alternative systems of knowledge protection and incentives; (ii) elaboration of key terms of Article 8(j); and (iii) a survey of activities undertaken by relevant organizations and their possible contributions to Article 8(j).[22]

Paragraph 9 of Decision III/14 recommended that a workshop on traditional knowledge and Biodiversity be convened, prior to the fourth CoP, to deliberate on the implementation of article 8(j), assess priorities for the future work by parties and by Conference of the Parties, and provide advice to CoP on the possibility of developing a work plan on Article 8(j) and related provisions, including modalities for such a work plan.[23]

In response to this decision, a workshop on 'Traditional Knowledge and Biological Diversity' was held in Madrid, Spain from 24th to 28th November 1997 at the invitation of the government of Spain.

The Madrid workshop discussed a wide range of issues. There was consensus at the workshop that Article 8(j) of the CBD did no provide an adequate legal basis for protecting knowledge and innovations of indigenous peoples. Several of the participants called for a thorough re-examination and revision of current intellectual property protection systems to create flexibility for protecting indigenous knowledge and innovations. Others called for the establishment of a *sui generis* system that recognizes collective rights of indigenous and local peoples. It is important to note that some of the participants at the workshop argued that indigenous peoples are peoples with inalienable a *priority* rights and therefore they, in these rights, qualify to be parties to the Convention.[24]

A document prepared for the fourth CoP by the Executive Secretary of the Convention states that many governments are not implementing Article 8(j). None of the studies submitted by governments and other bodies to the CBD secretariat 'refer to a single piece of legislation which specifically addresses the implementation of article 8(j), but rather, its implementation is carried out, sometimes indirectly, through provisions contained in a wide variety of statutes regarding such matters as land tenure, protected areas, protection of endangered species, land development, water quality and so on. This wide variety of statutes is sometimes further complicated because similar legislation often exists at national, sub-national and local levels, with resultant inconsistencies"[25]

Concerns on intellectual property protection of traditional knowledge have occupied the agenda of the CBD CoPs. The third CoP called for dissemination of case studies on the relationships between intellectual property rights and the knowledge, innovations and practices of

indigenous and local communities. CoP 4, in Decision IV/9, recognized the importance of making intellectual property-related provisions of article 8(j) and related provisions of the Convention of Biological Diversity and provisions of international agreements relating to intellectual property mutually supportive, and the desirability of undertaking further cooperation and consultation with the World Intellectual Property Organization(WIPO).[26]

The CoP further decided that an *ad hoc* open-ended inter-sessional working group composed of parties including indigenous and local communities be established to, *inter alia,* "provide advice, as a priority, on the application and development of legal and other appropriate forms of protection for the knowledge, innovations and practices of indigenous and local communities.[27]

On the whole, these efforts are being made as a result of the recognition that the Convention does not contain adequate legal obligations to protect any property rights of indigenous and local peoples in their traditional knowledge.

Trade Related Aspects of Intellectual Property Rights (TRIPs)

Intellectual property rights are a form of ownership of human creativity. They take various legal forms including patents, trademarks, copyright, trade secrets and plant variety rights.[28] They give the holder of a right a legally protected monopoly over commercial use of his/her intellectual property, usually for a specified period. Controversy arises mainly concerning patents. These are often justified as an incentive to invest in research and development (R & D) which may lead to commercially exploitable innovations.[29] This view has been the subject of much debate, which the UN conference on Transnational Corporations attributes to insufficient and contradictory empirical evidence on linkages between IPR protection and investment and technology flows.[30]

The negotiation and adoption of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) as part of the Uruguay Round in 1994 have added new dimensions to the debate on intellectual property rights in traditional knowledge. Tanzania ia among the founder members of the Trips Agreement as it signed the Uruguay Round for Multilateral Trade Negotiations that culminated to the formation of the WTO which also formed the Trips Agreement.

The TRIPS agreement sets minimum standards for countries to follow in protecting intellectual property. Its objective is stated in the preamble as 'to reduce distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade."[31] Countries that ratify the Agreement are expected to establish comprehensive intellectual property protection systems covering patents, copyright, geographical indications, industrial designs, trademarks, and trade secrets.

However, Article 1 of TRIPS (on the nature and scope of the obligations) provides some flexibility in the implementation of the provisions of the agreement. It states in paragraph 1 of that Article that "[m]embers may, but shall not be obliged to, implement in their domestic law more extensive protection than is required by [the] Agreement, provided that such protection does not contravene the provisions of [the] Agreement."[32] According to Dutfield, parties to TRIPS can invoke this provision to enact legislation for protecting traditional knowledge. He asserts: "[t]he absence of any mention of traditional... knowledge in the Agreement, does not prevent any Member from enacting legislation to protect such category of knowledge."[33]

After reviewing TRIPS, we consider that it is not possible to protect traditional knowledge under current patent law.[34] The TRIPS Agreement requires member States to provide patent protection for "any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application."[35]

The "inventive step" and "capable of industrial application" requirements are deemed 'to be synonymous with the terms 'non-obvious' and 'useful respectively." [36] Traditional knowledge products fail the test for patenting on one, or all, of the "new" inventive step' and "industrial application standards. On the "new" standard they will probably fail because by its very nature traditional knowledge has been known for some length of time. One could try and argue that although traditional knowledge has been known for some length of time it is new to the world outside of the community from which it came. But in the real world this is unlikely to succeed!

Article 29(1) of TRIPS requires that a patent applicant should disclose sufficient and clear information regarding the invention so that another person "skilled in the art" would be able to reproduce the product or complete the process. This is a standard patent law condition. Opponents of patenting have been quick to point out that this condition of information disclosure could erode the rights of indigenous and local people because it would make traditional knowledge easily available to commercial entities. Given the absence of financial and organizational competencies by indigenous and local peoples to monitor and enforce patents in modern economic space, their knowledge could easily be used without due compensation.

On the whole, the conditions set under TRIPS do not enable the patenting of traditional knowledge and/or traditional innovations.

The International Labour Organization

The International Labour Organization (ILO) was the first UN organization to address issues of indigenous knowledge. A committee of experts established in 1926 examined and developed international standards for the protection of natural workers. This committee generated the basis for the adoption, in 1957, of the convention concerning the protection and integration of indigenous and other tribal and semi-tribal populations in independent countries. This convention is commonly referred to as Convention 107. It aimed essentially to integrate indigenous people into the modern production system.[37]

The Convention was revised in June 1989 as Convention 169 concerning indigenous and Tribal Peoples in Independent Countries.[38] The revised Convention schemes the approach for promoting the assimilation of indigenous and tribal peoples. It promotes the protection of indigenous peoples as distinct and separate peoples. Article 292)(b) imposes responsibility upon the governments to develop measures to promote full realization of he social, economic and cultural rights of he indigenous peoples. Article 5(a) provides for the recognition and protection of the cultural, religious and spiritual values and practices of indigenous peoples. As rightly pointed out by Mugabe these provisions should be broadly read to include recognition and protection of traditional knowledge of these indigenous peoples.[39] The recognition of collective species is a critical aspect of the convention and is important in intellectual property rights issues, since collectivity is fundamental to transmission, use and protection of traditional knowledge.[40]

It is important to stress that ILO Convention 169 is the only United Nations convention that specifically deals with indigenous peoples. Although the Convention does not specify Intellectual Property Rights, its language is conducive to protection of these rights. It is interesting to

note that the convention is not even mentioned in the Secretary General's concise report on "Intellectual Property of Indigenous Peoples."[41] This, to a great extent, leaves much to be desired as one would expect under normal circumstance that such a crucial convention that touches on indigenous peoples would have formed part of the Secretary General's report.

Indigenous Knowledge and Human Rights Conventions

The 1948 Universal Declaration of Human Rights (UDHR) and subsequent International Covenant on Economic, Social and Cultural Rights (ICESCR) of 1966 guarantee fundamental freedoms of personal integrity and action, political rights, social and economic rights of cultural rights. The principle problem with the "human rights approach" to cultural protection is that action (or inaction) is directed toward nation-states and does not easily provide a basis for claims against multinational companies or individuals who profit from traditional knowledge. Any remedies would be against either the state where the indigenous are located (for failure to protect them) or against the sate or the company profiting from the knowledge (if there are transnational obligations or if the state is partly owner of the enterprise).[42] Nonetheless, Intellectual Property Rights are consistently seen as basic human rights and are implicit in the Universal Declaration. For example, article 1 establishes the right of self-determination, including the right to dispose of natural wealth and resources, including intellectual property. Article 7 allows for equal protection under the law, implying that intellectual property rights (IPR) protection should be available to indigenous peoples as well. Article 17 provides for the right to own collective property and not to arbitrarily be deprived of that property. Article 23 guarantees the right to just and favourable remuneration for work, which could undoubtedly be interpreted as work relat[illegible] traditional knowledge.[43]

It is clear that IPRs should be seen as manifestations of basic human rights. Further more, it is clear that human rights organizations should take up the cause of IPRs, and appropriate international legislation should be used to defend indigenous and traditional knowledge from unjustified exploitation.[44]

The Paris Convention for the Protection of Industrial Property

The Paris Convention for the Protection of Industrial Property is an international and legally binding agreement concerning property rights in patents, utility models, industrial designs, service marks, indications of source or appellation of origin and trademarks. The Convention, that, as at December 1998 had 151 Member States, was adopted in 1883. Article 1 of the Convention defines the scope of industrial property. It states in Article 1(3) that "[i]ndustrial property shall be understood in the broadest sense and shall apply not only to industry and commerce proper, but likewise to agricultural and extractive industries and to all manufactured or natural products, for example, wines, grain, tobacco leaf, fruit, cattle, minerals, mineral waters, beer, flowers, and flour."[45]

Article 2 sets conditions for national treatment in that each Contracting Party to the Convention must grant the same intellectual property protection to nationals of other Parties that it gives to its own nationals. Article 5(a) of the Convention allows Parties to pass legislation that would grant compulsory licenses in order to prevent abuses resulting from the exercise of exclusive rights.

It is possible for innovations of indigenous and local peoples to be protected under the trademark, utility models, industrial designs, service marks, and indications of source or appellations of origin provision of the Paris Convention. In this respect, Article 7 of the Convention is worth noting. It allows member

countries to "accept for filing and to protect collective marks belonging to associations the existence of which is not contrary to the law of the country of origin, even if such associations do not possess an industrial or commercial establishment."[46] If indigenous and local peoples form associations that are legally legitimate in their countries, it is possible for them, as a collectivity, to acquire collective marks.

This Convention does not, however, contain provisions for granting patents to traditional knowledge *per se*, or any other kind of knowledge for that matter, although it recognizes and would protect modern industrial products and services generated from that knowledge. Tanzania ratified the Paris Convention on July 25th, 1994.

LEGAL FRAMEWORK FOR THE PROTECTION OF INDIGENOUS KNOWLEDGE IN TANZANIA

The legal regime governing intellectual property rights in Tanzania is based on the classical approach developed in the western capitalist system. The classical approach is the hallmark of individualism and exclusive and sometimes absolute ownership of property. It does not recognise or accommodate the communal ownership approach which is still common and relevant in most African communities especially in issues of indigenous knowledge.[47]

Intellectual property matters in Tanzania are governed by different pieces of legislation but the most relevant are Copyrights and Neighbouring Rights Act,[48] Patents Act,[49] Trade and Service Marks Act,[50] New Plant Varieties (Plant Breeders') Rights Act[51] and Traditional and Alternative Medicines Act.[52]

However of all the above pieces of legislation the most relevant to indigenous knowledge is the Copyright and Neighbouring Rights Act, 1999. It is the one governing copyright and neighbouring rights. But all in all, it does not specifically provide recognition and protection of indigenous knowledge except in relation to folklore.[53]

A thorough examination of the laws above reveals that, there is a very minimal attention if not none at all to the protection of indigenous knowledge whose owners are majority and this leaves much to be desired. The above trend compliments with the silence of the WTO and WIPO to address matters of indigenous and traditional knowledge, which benefits a lot the multinational companies of the rich North at the expense of indigenous communities of the poor south. One may be tempted to say that the silence in the framework of WTO and WIPO was so intentional so as to benefit the multinational companies from the North.

POINTER TO THE FUTURE

Having noticed that our IPRs laws do not exhaustively protect indigenous knowledge except for the Copyright and Neighbouring Rights Act, 1999 which touches in a peripheral manner matters of indigenous knowledge, it is high time that all laws on IPR are reviewed so as to respond to new emerging trends in IPR such as indigenous knowledge.

Alternatively a new law that addresses indigenous knowledge be enacted. This new piece of legislation is expected to translate the existing policies objective into a binding legal instrument.[54] The new law on indigenous knowledge should among other things provide for a system that will recognize and protect the rights of an individual as well as communities of indigenous knowledge and at the same time ensuring fair and equitable benefit sharing with communities from those who are using and reaping benefits by the use of that knowledge.[55]

It goes without saying also that the new law should be home grown and that it should not be imposed by external forces, which have so far indicated biasness in protecting indigenous knowledge in their legal framework and merely for the sake of necessitating unfair exploitation.

This is substantiated by the fact that it is the rich who reap the fruits of globalization since the world economy is tilted in their favour and not the favour of the poor countries that owns this indigenous knowledge. More worse, the rich nations don't regard poor nations as equals when it comes to global trading, they regard that poor countries have nothing to offer while at the same time they loot our indigenous knowledge through multinational companies.

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8 *Ibid*

9 In April 2001 Phytopharm, a small firm in Cambridgeshire had issued a statement that it had discovered a potential cure for obesity derived from an African Cactus.

10 Kabudi *op.cit* p.2

11 Speech by His Excellence the President of the United Republic of Tanzania, Benjamin William Mkapa, on being awarded the Honorary Degree of Doctor of Letters of the Open University of Tanzania on September, 18th 2003 pp.10-11

12 This fact can not any longer be ignored by Governments, UN-system and business entities or community.

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16. See generally United Nations 1992. *Agenda 21*, chapter 26 and particularly section 1.

17 UNEP, 1992. CBD. Also cited in Mugabe at p.22

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35 Mugabe *op.cit* p.13 also see generally Darell Possey.

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50 Act no. 12 of 1986 of the laws of Tanzania.

51 Act No. 22 of 2002

52 Act No. 23 of 2002

53 Kabudi P.J., *op.cit* p.1

54 A review of different national sectoral policies reveals that these policies do recognize the usefulness and potential of indigenous knowledge.

55 For similar comments see Kabudi P.J. op.cit at page 1.