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The Institute of Economic Affairs (IEA) is a civic forum which seeks to promote pluralism of ideas through open, active and informed debate on public policy issues. It advocates liberal values in society i.e. individuals' economic, social and political liberties, property rights, democratic government and rule of the law. The IEA is independent of political parties, pressure groups and lobbies, or any other partisan party.

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holders, there are some opportunities in the current systems that could be exploited. These include trademarks such as certification marks and collective marks that could be used by communities. The marks can be used to differentiate a community's artefacts with those from other communities. Others include use of geographical indications for identifying some artefacts and cultural products with the source. A good example is the Kisii soapstone used by that community for carving different ornaments. Wherever one finds this stone, it is always associated with the Kisii area .

In order to make maximum use of modern science and add value to Traditional Knowledge innovations, collaboration and joint ownership of patents between researchers and Traditional Knowledge holders could be explored under clear rules that are enforceable. Some of the research and development institutions are already operating under such arrangements.



MEDIA NOTES

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DISCLOSURE REQUIREMENT, TRADITIONAL KNOWLEDGE AND ECONOMIC DEVELOPMENT

BACKGROUND

Intellectual Property (IP) refers to creations of the human mind or intellect. This includes inventions, industrial designs, literary and artistic works, symbols, names and images. It confers exclusive commercial rights to the holder. It is intangible but can be sold, leased/licensed, mortgaged and acquired. Intellectual Property protection can be traced as far back as 1474 when the first patent statute was established in Venice followed by the monopoly statutes of England of 1624. The Intellectual Property Regime (IPR) took a global perspective with the signing of the Paris Convention in 1883 for the protection of industrial property rights and the Berne Convention in 1886 for the protection of copyrighted works. The World Intellectual Property Organization (WIPO), based in Geneva, Switzerland, administers the two treaties. Intellectual Property is divided into two main categories:

- ◆ The protection of industrial property has as its object; patents, utility models, industrial designs, trademarks, service marks, trade names, geographical indications (indications of source or appellations of origin), and the repression of unfair competition.
- ◆ Copyright includes literary and artistic works, such as novels, poems and plays, films, musical works, and drawings, paintings, photographs and sculptures, computer software, databases, and architectural designs. Related rights (also referred to as "neighbouring rights") include the rights of performing artists in their performances, producers of sound recordings in their sound recordings, and those of broadcasters in their radio and television broadcasts.



Additionally, plant varieties are protectable in many countries under the IP-related system of plant breeders' rights.

Traditional Knowledge (TK) is a new concept in the field of Intellectual Property Rights. Intellectual Property protection curves out exclusive rights to an individual (either a natural person or a legal one) to exploit particular creations of human ingenuity. Over the past decades, biotechnology, pharmaceutical and human health-care industries have increased their interests in natural products development. The decade has also witnessed a resurgence of interest in Traditional Knowledge and medicine. This interest has been stimulated by the importance of Traditional Knowledge as a lead in new product development.

TRADITIONAL KNOWLEDGE (TK)

Traditional Knowledge is that knowledge which is held by members of a distinct community or sometimes acquired "by means of inquiry peculiar to that culture, and concerning the culture itself or the local environment in which it exists." Indigenous knowledge fits neatly in the traditional knowledge category but Traditional Knowledge is not necessarily indigenous. Traditional Knowledge is thus the totality of all knowledge and practices, whether explicit or implicit, used in the management of socio-economic and ecological facets of life. This knowledge is established on experiences and observation. It is usually a collective property of a society. Many members of the particular society contribute to it over time, and it is modified and enlarged as it is used over time.

This knowledge is transmitted from generation to generation. It is generally an attribute of a particular people, who are intimately linked to a particular socio-ecological context through various economic, cultural and religious activities. In addition, Traditional Knowledge is dynamic in nature and changes its character as the needs of local people change. Examples of Traditional Knowledge include knowledge about the use of



- ◆ There is also lack of institutional linkages with communities where issues related to TK could be handled in a controlled manner.
- ◆ Some of the TK and associated genetic resources are subject to cross border ownership of IPR among different communities and individuals thus patent criteria is a challenge.

Intellectual Property Rights Issues Relating to Traditional Knowledge

There has been an increase in ownership of innovations based on Traditional Knowledge by third parties without following the right procedures, which has given rise to bio-piracy. Furthermore, the parties accessing the Traditional Knowledge have not provided enough and clear information that could form a basis for Prior Informed Consent by the Traditional Knowledge holders.

Secondly, majority of the Traditional Knowledge holders do not have the capacity to acquire and enforce Intellectual Property Rights. The reason for this problem is because of lack of formal education and therefore no awareness on Intellectual Property Regime and also because the Intellectual Property systems are quite complex.

Thirdly, the contractual instruments used by Traditional Knowledge holders are usually memorandums of understanding which in most cases are not legally binding outside the country, making enforcement of agreements with collaborators impossible.

Lastly, ownership of Traditional Knowledge related innovations becomes tricky because information genetic resources and the associated Traditional Knowledge is usually taken to be under public domain while the IP system requires that in patent applications, the name of the inventor and address must be indicated. In this case the question of whether the inventor, the community or the Traditional Knowledge holder becomes the owner, (public domain Vs TK holders).

Opportunities in the current IP Regimes

Although the current IP regime in Kenya does not offer adequate protection to the needs and expectations of the Traditional Knowledge



has often occurred over generations, and through their common use in modern scientific research. Disclosure is important because:

- ◆ It becomes possible for countries providing access to genetic resources to monitor and track compliance with national access and benefit-sharing rules.
- ◆ It provides the connection between the material and the patented invention.
- ◆ There is protection against loss of Traditional Knowledge through documentation for posterity .
- ◆ Income generation and employment opportunities arise through exploitation of the knowledge. For example, making and selling of artefacts and cultural products in Kenya has provided employment in the informal sector.
- ◆ It provides the basis for better development of natural products given the new challenges in lifestyles resulting in a growing demand for natural products.
- ◆ Development of natural products encourages innovation/inventions for value addition.

Challenges of the Disclosure Requirement

There are several challenges associated with the disclosure requirement:

- ◆ Modernization has resulted in changing lifestyles of the youth resulting in rural-urban migration in search of employment leading to neglect of cultural issues, which have been considered backward. This has resulted in the custodians of Traditional Knowledge dying without passing the information or documenting due to non-disclosure.
- ◆ Human activities such as deforestation, has resulted in the extinction of certain genetic resources or their disappearance at a fast rate.
- ◆ Over-harvesting of the natural products due to high demand without replacement.
- ◆ Unwillingness to disclose the knowledge in their possession for fear of bio-piracy has resulted in poor or no documentation and therefore no searchable database.



specific plants, identification of medicinal properties in plants, and harvesting practices.

Trade in Traditional Knowledge Products in Kenya

Trade in Traditional Knowledge products in Kenya include traditional cultural expressions or arts and crafts, which form part of daily life. These include tourism related activities such as traditional songs and dances, cultural artefacts such as woodcarvings, traditional baskets such as *Kiondo*, traditional medicine such as the *neem* plant, which treats different diseases and *artemesia* farming for production of anti-malaria drugs.

The economic value linked to the disclosure of Traditional Knowledge and the associated biological resources is being witnessed by the large number of the Kenyan people involved in selling of herbal medicine in public places and the mushrooming of herbal clinics in the urban centers.

BIOPIRACY

Bio-piracy is the misappropriation of traditional biodiversity knowledge and material. The knowledge and the material are accessed by third parties without following the proper laid procedures. The parties acquire IP rights on the same and proceed to commercialize it.

Bio-piracy normally involves organisms, plants, animals and genetic materials used by the developed countries to make drugs, crops etc. Many of these materials come from developing countries. The developing countries who are the source of these materials do not benefit from the commercialization or profits made from them. Bio-piracy is attributed to the lack of an appropriate bio-prospecting framework (institutional and legal) , which is a common challenge in most developing and Least Developed Countries (LDCs), Kenya being one of them.

Trade and Bio-piracy

Bio-piracy is a global problem and more often involves the acquisition of



material in one country and seeking of a patent in another country. This means that relying on national measures alone is not sufficient to address the bio-piracy problem.

The following illustrations are clear examples of the economic losses made by Traditional Knowledge holders. In Kenya for example:

- ◆ Industrial enzymes from microbes used for fading jeans that is worth US\$ 600 million. The enzymes were collected from Lake Bogoria in Kenya. However, the community has not benefited from the profits.
- ◆ The bark *Prunus Africanas* is used to manufacture drugs for treatment of prostate gland cancer. This plant has been heavily harvested in Mt. Kenya and exported out of the country, there are no records of the local community benefiting.
- ◆ Kenyan coffee had been blended with poor quality coffee from other countries since branding would attract high tariffs from importing countries. These resulted in revenue loss since there was no value addition allowed. It is in May 2008, when Kenya signed an agreement on branding allowing the country to sell branded coffee that currently fetch higher prices for farmers.
- ◆ In Southern Africa, *Hoodia plant* has been used by the *San* people to control hunger for years. Pharmaceutical companies have used the same to produce sliming/diet drugs. Recently, Phytopharm licensed Unilever to produce the drug at a cost of US\$ 40 million but no benefit is flowing back to the *San* people who provided the knowledge.

From the above scenarios, it is evident that disclosure of genetic resource and the associated Traditional Knowledge could reduce bio-piracy and lead to creation of new products, employment opportunities and revenue from benefit sharing for both local communities and the Government.



THE DISCLOSURE REQUIREMENT

Disclosure requirement is a proposal that has been discussed at various international fora. It refers to a set of components to be disclosed in Intellectual Property applications such as patent and plant breeders' rights. Patent applicants are required to mention in their applications where they got the genetic resources and associated Traditional Knowledge if their invention concerns living organisms or biological material. They are also required to submit a Certificate of Origin (CO), Prior Informed Consent (PIC), Certificate of Provenance and demonstrate that measures have been put in place to ensure fair and equitable sharing of the benefits accruing from genetic resources and associated Traditional Knowledge to patent offices. The combined disclosure of all the above-mentioned certificates and proof of measures for access to benefit sharing (ABS) is what is referred to as "Disclosure Requirement (DR)" or "Disclosure of Origin Obligation (DOO)" or "International Regime (IR)."

The disclosure requirement has arisen from growing evidence of the misappropriation of Traditional Knowledge and the rights of farmers and local communities, by the corporations and private research institutions that have been patenting biological and genetic materials and knowledge relating to their use. In Kenya, several indigenous items/material such as *Kiondo*, *Kikoy*, *Kikuyu grass*, *Prunus Africanas*, *Lake Bogoria Extremophile bacteria* enzymes have either been patented or protected under trademark or industrial designs by foreign firms or individuals without reference or compensation to the local communities.

Importance of Disclosure

Traditional Knowledge is closely associated with plants and other biological resources, such as medicinal plants, traditional agricultural crops and animal breeds. It often provides researchers with a lead to isolate valuable active compounds within biological resources. Such genetic and biological resources are linked to Traditional Knowledge and traditional practices through the utilization and conservation of the resource, which