

TECHNOPOLICY BRIEF 13

WHAT IS *SUI GENERIS* SYSTEM OF  
INTELLECTUAL PROPERTY  
PROTECTION?

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**AFRICAN TECHNOLOGY POLICY STUDIES NETWORK**

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## Acronyms

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ABS	Access and Benefits Sharing
AU	African Union
CBD	Convention of Biological Diversity
FTAA	Free Trade Area Agreements
IPRs	Intellectual Property Rights
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
MTAs	Multi-lateral Transfer Agreements
OAU	Organization of African Unity
PBRs	Plant Breeders' Rights
PIC	Prior Informed Consent
SSA	Sub-Saharan Africa
TK	Traditional knowledge
TKDL	Traditional Knowledge Digital Library
TRIPS	Agreement on Trade Related Intellectual Property Rights
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPOV	International Union for Protection of New Plant Varieties
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WTO	World Trade organization

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# 1.0

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## Introduction

Information on the use of plants in medicine and agriculture is enshrined in traditional knowledge (TK).

During seminars on biotechnology in agriculture and health in Entebbe, Uganda; Dakar, Senegal and Maputo, Mozambique participants observed that the current regime of intellectual property rights (IPRs), such as patents, trade secrets, plant breeders' rights, and industrial designs cannot accommodate TK, the basis of innovation in many African countries. They expressed much interest in the concept of *sui generis* and agreed that countries in Africa need to move with haste and take action to protect the rich plant genetic resources in Africa. They also expressed a need for more information on *sui generis*. Many policy makers supported the idea of putting such a system in place. However, a major problem lies in scarcity of information on *sui generis*.

This policy paper attempts to explain the concept of *sui generis*, justifies the need for such a system and offers policy options that countries may wish to consider as they navigate the cumbersome road towards a *sui generis* system.

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### **What are the Limitations of the Current Intellectual Property Regimes?**

There are two major features of intellectual property rights (IPRs) systems that make them inadequate to protect traditional knowledge (TK).

First is the notion of property ownership. IPRs are largely individual rights. Modern IPRs regimes recognize individual ownership based on time and labour expended in coming up with the new invention. Conversely, TK is passed on from generation to generation. There is no “effort” to come up with something new.

Modern IPRs do not recognize “community rights”. TK, therefore, does not fit in the straitjacket of IPRs. It is knowledge owned largely by the community and there is no “inventor”. TK is largely in the public domain but limited to certain families or communities.

Another limitation of the IPRs regimes in relation to TK is the requirements of novelty, inventive step and the patent’s commercial viability. A patent is given for an invention that fulfils all the three tests. TK does not pass the three tests because the knowledge under TK is not new, has no inventive step and the restriction of ownership within families or certain communities does not make it commercially viable. The families or communities in possession of specific TK take(s) pride in keeping it “secret”. Traditional medicine men and women, therefore, cannot use patents to protect their knowledge.

Realizing the difficulties associated with plant protection in relation to TK, the negotiators of the Agreement on Trade Related Intellectual Property Rights (TRIPS) inserted Article 27(3) (b) that allows member states of the World Trade Organization (WTO) to use a *sui generis* protection system, permitting countries to come up with specialized and appropriate forms of protection regimes.

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### **What is *sui generis*?**

*Sui generis* is a Latin term meaning “a special kind”. In intellectual property rights discourse (IPRs) the term refers to a special form of protection regime outside the known framework. It can also be viewed as a regime especially tailored to meet a certain need. In the African context, this regime becomes necessary in protecting traditional knowledge (TK) and associated natural resources. TK does not neatly lend itself to protection using the existing legal regimes because it is premised on the concept of community property ownership whereas the existing forms of IPR regimes are based on the Western concept of property ownership.

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### What is Traditional Knowledge?

Traditional knowledge (TK) has no clear definition. However, TK can be said to include information on the use of biological and other materials for medical treatment and agriculture, production processes, music, rituals, literature, designs and other arts. TK, therefore, includes knowledge that can be used in medicine, agriculture, engineering and cultural events. TK comprises knowledge mostly developed in the past and may still be developing. TK is knowledge used by generations and is passed on to future generations as part of the community's property. In sub-Saharan Africa (SSA) where the history of writing is still new, most TK is not codified. Such "uncodified" TK includes folklore and traditional medicine that are largely based on traditional norms, values and beliefs. TK represents a reservoir of knowledge accumulated during century's old experiences of trial and error, success and failure and has been passed on through oral tradition at the family level. TK, such as healing practices, may be possessed by individuals or by a group. Such practices may also be available to all members of a group, for example, knowledge on home herbal remedies. TK may, therefore, possess commercial value depending on its use. Some TK may be understood and used outside its origin but this is not always the case. TK also incorporates spiritual components peculiar to each community.

Debate on protection of TK has taken two different angles. The first school of thought looks at protection of TK as excluding others from unauthorized use by third parties. The second school of thought looks at protection of TK as a tool to preserve it from uses that may erode it or negatively affect the life or culture of the communities that have developed and applied it. The Organisation of African Unity (OAU) now renamed the African Union (AU) supports the second school of thought. The AU model I0000000aw for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources says in part:



What is *sui generis* System of Intellectual Property Protection?

*“Community rights recognize that the customary practices of local communities derive from a priori duties and responsibilities to past and future generations of both human and other species. ...community rights and responsibilities that govern the use, management and development of biodiversity, as well as the traditional knowledge, innovations and practices relating to them, existed long before private rights over biodiversity emerged, and concepts of individual ownership and property arose. Community rights are thus regarded as natural, inalienable, pre-existing or primary rights.”*

The African Union (AU) model law takes cognisance of the needs of local communities.

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### What is the Economic Value of Medicinal Plants or Traditional Medicine?

The world trade in medicinal plants in the late 1980s was about US\$500 million annually. In 1990, medicinal plants earned US\$43 billion globally. In 1996, Europe imported 26,500 tons of medicinal plants from Africa. The World Health Organization (WHO) estimates that 80% of the world's population depends on traditional medicine.

The Hoodia plant of South Africa is an appetite suppressant. The San tribe of South Africa sold the right of ownership of the plant to a British company for about US\$20 million. The Devil's claw is a plant in Namibia that is used as an analgesic and anti-inflammatory drug. Its export earns Namibia US\$2 million annually. *Prunus africana* is a plant that flourishes in the highland of Cameroon, Ethiopia, and Kenya. It has properties that boost immunity and cures prostate cancer. In 1994, Germany spent US\$150 million on importing this plant. Worldwide trade in Prunus-based products fetches an estimated US\$220 million annually. Other plants known to have medicinal value but whose economic potential is yet to be fully exploited include *Withania samnifora*, *Mondia whytei*, Rosewood, and *Mucuna pruriens*, to name a few. *Withania samnifora* boosts immunity and libido. *Mondia whytei* boosts lactation in cows and libido in men, among other uses. *Withania* and *Mondia* are found in Kenya. *Mucuna pruriens* neutralises venom from cobra and viper. It is found in Jos, Plateau State, Nigeria where the Rukuba people use it in its raw form to treat snake bites. These examples serve to illustrate the richness of the African flora in medicinal value. The medicinal value of the plants constitutes part of TK.

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### Why Protect Traditional Knowledge?

Five main reasons advanced for the need to protect traditional knowledge (TK) include:

- Equity
- Conservation of biodiversity
- Preservation of traditional practices
- Prevention of biopiracy
- Promotion of the use and importance of TK in development

#### **Equity**

TK generates value that is currently inadequately recognized and compensated. Traditional farmers, for example, conserve and use plant genetic resources. They improve the value of plant genetic resources through continuous selection of the best adapted farmers' varieties (landraces). Seed companies collect the varieties from farmers and process and produce them for sale. Seed companies can protect the improved varieties through plant breeders' rights (PBRs) and benefit from them, while locking out traditional farmers. Farmers and scientists thus rely on the store of genetic diversity present in crop plants that hundreds of generations have accumulated, observed, selected, multiplied, traded, and kept variants. The irony is that scientists can protect and benefit from their innovation, whereas the traditional farmer's contribution is overlooked. Traditional farmers are not paid for their value addition. The plant breeder and seed companies are also not charged for the samples they take, hence the inequality inherent in the current system of intellectual property rights (IPRs).

#### **Conservation of Biodiversity**

Knowledge, innovations and practices of indigenous peoples and local communities are a show of their cultures. Protecting a people's culture, therefore, entails preserving the link between the people and natural features including plants

and animals. Protection of TK can, therefore, help conserve the environment and promote sustainable agriculture and food security.

### **Preservation of Traditional Practices**

Protection of TK can provide a framework for maintaining practices and knowledge embodying traditional lifestyles. Preservation of TK helps to preserve the self-identification of a people and can ensure the continuous existence of indigenous and traditional people. This role is certainly beyond the scope of IPRs protection foreseen in TRIPS and similar multilateral instruments. The protection of TK through an appropriate form of IPRs can raise the profile of the knowledge and make it more attractive and worthy of preservation.

### **Prevention of Biopiracy**

Biopiracy is the process through which the rights of indigenous cultures to genetic resources and knowledge are ignored in preference of the Western model of IPRs. A large number of patents, for example, have been granted on genetic resources and knowledge obtained from Africa and other developing countries. An example is the US patent number 5, 401, 5041 granted for wound healing properties of turmeric acid. The innovation had been used in India for centuries prior to the registration of the patent. The Council of Scientific and Industrial Research (CSIR) from India successfully applied for its revocation.

A major concern is how to prevent misappropriation of TK. Three suggestions have been advanced:

- *First, documentation of TK with a view of establishing a TK digital library (TKDL).* A TKDL could enable patent offices to check for possible misuse of TK.
- *Secondly, the requirement for proof of origin of materials.* All those applying for IPRs should be compelled to disclose the origin of materials used in the innovation. This could allow protection of countries supplying the materials probably through benefits sharing.
- *Thirdly, prior informed consent.* Those seeking IPR protection should show evidence of free and informed consent of the traditional owners for the sharing of ownership, control, use and benefits. National laws should provide for labelling and correct attribution of TK.

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### **Promotion of the Use and Importance of TK in Development**

There is need to protect TK against loss and misappropriation. Some form of protection may make local communities willing to part with their TK and genetic resources. If the knowledge owners are compensated, they would be motivated to provide easy access to their TK. Moreover, they may be encouraged to conserve it and ensure future access. Policy makers are called upon to balance the expected benefits from an IPRs related form of protection as weighed against the costs likely to arise from limitations on its use. Concerning traditional medicine, IPRs-like protection may reduce access to products and treatment essential for a community. Governments may, therefore, consider promoting the use of TK and also attempt to prevent misappropriation.

The objectives to be pursued in the protection of TK are so diverse that they cannot be comfortably accommodated under existing IPRs systems, hence the need for a *sui generis* regime of protection.

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### What are the Examples of *sui generis* Applications?

#### ***Sui generis* system within the African context**

No country has put a *sui generis* system in place. Most are content using patents and International Union for Protection of New Plant Varieties (UPOV) to protect their genetic resources. Kenya and Malawi are making efforts to establish *sui generis* systems. Many other countries have been proactive in the debate attempting to link the objectives of Access and Benefit-sharing (ABS) as contained in the Convention on Biological Diversity (CBD) to Trade Related Aspects of Intellectual Property Rights (TRIPS). They are fighting for a modification of TRIPS to allow them control access to genetic resources and get some benefits from them.

#### ***Sui generis* system in an international context**

Costa Rica, the Philippines, Peru, Thailand and Venezuela have put *sui generis* regimes in place. Costa Rica has a law on biodiversity under which traditional knowledge (TK) is recognized. Article 82 provides:

“The State expressly recognizes and protects, under the common denomination of *sui generis* community intellectual rights, the knowledge, practices and innovations of indigenous peoples and local communities related to the use of components of biodiversity and associated knowledge. This right exists and is legally recognized by the mere existence of the cultural practice or knowledge related to genetic resources and biochemical; it does not require prior declaration, explicit recognition nor official registration; therefore it can include practices which in future acquire such status. ... no form of intellectual or industrial property rights protection ... shall affect such historic practices”

The 1987 Constitution of the Philippines recognizes traditional knowledge. Section 17 article XIV provides:

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“The State shall recognize, respect and protect the rights of the indigenous cultural communities to preserve and develop their cultures, traditions and institutions”

Peru developed a draft *sui generis* system whereby ownership, rights and appropriations of indigenous people to TK are recognized. The law provides for indigenous people to enter into “knowledge licensing contracts”. The law has also encapsulated the concept of “prior informed consent” for knowledge that is not in the public domain. The law created a fund for the development of indigenous people. The communities are expected to receive 0.5% of sales from products developed based on TK. However, the draft was widely resisted and is currently subject to further consultations. The local communities complained that the proposed law was not compatible with their understanding of resource rights.

Thailand developed the “Thai Traditional Medicinal Intelligence Act”. This Act recognizes three forms of protection.

- The first one is the *national formula that is given to the state*. Formulae accorded “national” status are those deemed to be extremely crucial to the national public health system. The Minister for Public Health may declare any formula of Thai traditional medicine to be a national formula. Such declaration vests the rights in a national formula in the state. The commercial use of a national formula for research and development and production of drugs is subject to permission from the government. Violation of the Act is punishable through criminal sanctions.
- The *second one* is the private formula. Third parties must seek permission from the private rights holder to a private formula. The rights over a private formula subsist throughout the life of the rights holder and extend up to 50 years after the person’s death. The aim of the Act is to ensure that the owner of TK is adequately compensated for their contribution.
- The third category is a general formula that covers knowledge in the public domain and is free for all to use. The law allows free domestic use of all types of TK in small quantities. The Act also provides for conservation and sustainable use of medicinal plants. The Act created the “Thai Institute of Thai Traditional Medicine” and the “Thai Traditional Knowledge Developing Fund”. This law has spurred a lot of activity in the registration

of traditional medicine. Thailand now gets substantial revenue from the use of TK.

The 1999 Constitution of Venezuela gives recognition to traditional knowledge. Article 124 provides:

“The collective intellectual property of indigenous knowledge, technology and innovations is guaranteed and protected. Any work on genetic resources and the knowledge associated therewith shall be for the collective good. The registration of patents in those resources and ancestral knowledge is prohibited”

The above cases illustrate the fact that some countries have taken steps to safeguard their biological resources.

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### What are the Policy Options for African Countries?

The development of a *sui generis* system of intellectual property rights (IPRs) poses the following challenges:

- Definition of the subject matter of protection, that is, what is traditional knowledge? As discussed earlier, the system covers a wide range of knowledge varying from cultural expressions, such as carvings to traditional medicine. The exact “material” to be protected must be identified before hand.
- Requirements for protection - the preconditions for registration
- The nature of the rights to be conferred, for example, the right to exclude others, the right to obtain remuneration, or the right to prevent misappropriation
- Title holders - individuals, communities or the state
- Modes of acquisition of protection - the process of registration
- Duration - that is, for how long should the rights conferred be protected?
- Enforcement measures - how can the rights holder assert his/her rights?

#### Policy questions

*Should there be a single or multiple regime(s)?*

Whether the *sui generis* regime should take the form of a single comprehensive regime or whether there should be a set of specific regimes adapted to various forms of TK is a vital policy issue. The advantage of a single regime is that it becomes a one-stop reference shop. The disadvantage lies in the complex nature of TK (covering artistic works, folklore, traditional medicine etc.). It can be laborious and nearly impossible to define common rules to cover the whole area. There may be need, therefore, to devise separate regimes for each TK component, for example, artistic creations and folklore, plant genetic resources for agriculture, traditional medicine, among others. United Nations Educational, Scientific and Cultural Organization/ World Intellectual Property Organization (UNESCO/WIPO) and some

countries have already done some work to protect artistic works including folklore. Part of such protection is found in the copyright laws of most countries. Concerning plant genetic resources, many countries have resigned to using UPOV. There is need to be proactive in this area. One area that seriously cries out for a *sui generis* system is traditional medicine.

Provisions within the Convention on Biological Diversity (CBD), the Agreement on Trade Related Intellectual Property Rights (TRIPS) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) give member states the “go ahead” to develop their own *sui generis* form of IPRs to protect plant genetic resources. Instead of moving on to do so, a number of developing countries are seeking a multilateral instrument that covers prior informed consent (PIC), access and benefits sharing (ABS) and multilateral transfer agreements (MTAs). Latin American countries were initially moving in the right direction by attempting to come up with *sui generis* system. However, these efforts are being frustrated through the free trade area agreements (FTAA) being concluded at a bilateral level with the US. The US does not accept agreements with clauses that recognize TK.

Traditional medicine is a rich area deserving specific regime for *sui generis*. Traditional medicine includes knowledge of properties of certain biological materials used in isolation, in their wild form or in combination as part of a mixture or concoction, methods of diagnosis and treatment including mental, physical and spiritual therapies. The World Health Organization (WHO) recognized the usefulness of traditional medicine as early as 1978. Both the WHO and World Bank are spearheading efforts meant to increase recognition and use of traditional medicine.

Another policy issue is whether the *sui generis* system can be accommodated within existing laws or whether they should be separate regimes.

### **Sui generis within existing laws**

The advantage of having *sui generis* within existing laws is that it will beef up already existing laws. However, the advantages include the following:

- Such an approach requires extensive revisions of certain laws, such as those dealing with wildlife (flora and fauna), public health laws, patent

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laws, copyright law, laws on research, and laws on agriculture among others.

- It can take a long time within a legislative calendar to amend all these multifarious laws to accommodate provisions on *sui generis*.
- Amendments do not usually attract as much publicity as new laws. The amendments are therefore likely to “disappear” in the forest of other laws in which they are to be accommodated.

### **Sui generis as stand alone legislation**

An advantage of this approach is that:

- Laws are likely to attract a lot of publicity and, therefore, generate interest.
- It will look neater.
- One is likely to deal with two to three pieces of legislation targeting the three main components of TK and is, therefore, easier to deal with and even to accommodate in a legislative agenda.

A major disadvantage is the likelihood of repetitions. The provisions of the new laws, for example, may overlap with those in other laws, such as wildlife or environmental laws.

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### Conclusions/Recommendations

The need for a *sui generis* form of IPRs was recognized early enough. Any procrastination in this area opens a window of opportunity for biopiracy and misappropriation especially of plant genetic resources. Moreover, such procrastination is dealing a death blow to the dream of conservation and sustainable use of plant genetic resources. It can also not be said that the absence of a *sui generis* system means many communities are being robbed not only of their TK but also of their inheritance. Closely connected to this is that the countries lose a lot of revenue which they actually need for their own further development.

It is, therefore, recommended that countries move with speed to put in place *sui generis* systems of IPRs. In so doing, the broader aim should be to plough back some benefits of TK to communities, biodiversity conservation and to ensure sustainable use of the resources.

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