THE NEW OPERATIONAL SYSTEM FOR THE PROTECTION OF GENETIC RESOURCES AND RELATED TRADITIONAL KNOWLEDGE ASSOCIATED WITH PATENTS TO PROMOTE SUSTAINABLE DEVELOPMENT IN ACCORDANCE WITH THE 2024 WIPO TREATY ON INTELLECTUAL PROPERTY, GENETIC RESOURCES AND ASSOCIATED TRADITIONAL KNOWLEDGE

HADJ ABDELHAFID NESRINE[1]

[1]Lecturer Class A, Faculty of Law and Political Science, University of Lounici Ali, Blida 02 (Algeria).

The Author's E-mail: amira_adj@hotmail.fr

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Abstract: *Genetic resources and traditional knowledge play a pivotal role in achieving sustainable development, contributing to vital sectors such as agriculture, medicine, and biodiversity conservation. They hold profound economic, social and cultural value for indigenous communities. However, piracy and the appropriation of these resources and knowledge within the patent system without equitable benefit-sharing threatens the livelihoods of these communities and undermines sustainability efforts. In response to growing demands from indigenous peoples and governments of developing countries for the protection of their resources, WIPO has established a treaty on intellectual property, genetic resources, and associated traditional knowledge. This treaty serves as an international tool aimed at addressing the patent system and ensuring greater transparency by requiring patent applicants to disclose the source of these resources and knowledge. The treaty aims to put an end to unlawful appropriation and promote fair and equitable benefit-sharing, while also considering the potential challenges of effective implementation and ensuring the participation of all stakeholders. We will demonstrate this through an analysis of the treaty's texts and dimensions.*

Keywords: *Intellectual property, patent, genetic resources, traditional knowledge, sustainable development*

INTRODUCTION:

The issue of intellectual property rights concerning genetic resources and their associated traditional knowledge is of paramount importance to most developing countries. These nations have an inherent right to these resources and knowledge and have the full authority to determine how they are used, as well as the right to protect them from any unlawful exploitation or illegal copying — practices that have increased significantly in recent years.

In light of the steady and accelerating growth of investments from developed countries in modern technology, alongside their increasing reliance on the natural resources of developing countries, it has become imperative for these nations to join forces and protect their natural wealth and sovereign rights.

In light of the steady and accelerating growth of investments from developed countries in modern technology, alongside their increasing reliance on the natural resources of developing countries, it has become imperative for these nations to unite and protect their natural wealth and sovereign rights. This includes genetic resources, traditional knowledge and related local creative practices. These represent a rich cultural heritage and a manifestation of their ancestors' history. They are also essential components of sustainable growth and a vital pillar of their economies. They are also an indispensable source of food, clothing and medicine for themselves and humanity as a whole.

Until recently, the moral imperative formed the basis for the local inheritance and protection of traditional knowledge. However, with scientific advancements, its economic and scientific value in providing solutions to contemporary challenges, such as environmental depletion, resource scarcity and disease outbreaks, has

emerged, as has its potential to offer creative models that can be protected under intellectual property law, such as music, myths, fashion and cultural symbols.

The intertwining of moral, economic and scientific value in traditional knowledge makes it attractive to research laboratories and major corporations, exposing it to appropriation that targets its essential components and genetic resources. These entities view it as a free source of wealth creation and trade enhancement, using genetic resources and associated knowledge as the basis for numerous inventions that have been patented without the consent of the original owners or any recognition of their fundamental role in these innovations. Not to mention, they do not share any of the profits from their exploitation.

Axis One: The Conceptual Framework for Genetic Resources and Traditional Knowledge

Axis Two: The Procedural Framework for Protecting Genetic Resources and Traditional Knowledge Related to Patents in the WIPO Treaty 2024

Axis Three: The Preventive and Punitive System for Protecting Genetic Resources and Traditional Knowledge According to the WIPO Treaty 2024

AXIS ONE: THE CONCEPTUAL FRAMEWORK FOR GENETIC RESOURCES AND TRADITIONAL KNOWLEDGE

We will begin by defining what is meant by genetic resources and traditional knowledge, followed by the importance of protecting them under intellectual property rights to safeguard biodiversity and achieve sustainable development.

First: The Concept of Plant Genetic Resources and Traditional Knowledge

We will first establish the doctrinal and legal definition of genetic resources, and then define traditional knowledge doctrinally and legally.

1. Definition of Genetic Resources:

A. The Doctrinal Definition of Genetic Resources

Genetic resources refer to the genetic materials associated with traditional knowledge and local practices surrounding any plant, animal, or microorganism possessing specific characteristics, which have accumulated over the years and been passed down through generations, becoming a distinctive mark of a particular community. This means that a genetic resource is not necessarily a complete living organism, organ, or cell; rather, it is the genetic trait or structure that features rare physiological characteristics that can be transferred from one organism to another and can be used commercially or form a part of the cultural and intellectual environment of that community. Article Two of the Convention on Biological Diversity defines “genetic resources” as “genetic material of actual or potential value.”

Examples of genetic resources include plants known for their medicinal properties, unique geographical features, flowers used as national symbols, rare or sacred animals, and types of bacteria used in specific products, as well as any biological innovations[1].

The term ‘genetic resources’ was first used by the Anglo-Saxons to refer to ‘genetic materials’, which was translated into English as ‘germplasm’. This concept contrasts with the idea of somatic cells, which emerged during the latter half of the nineteenth century and the beginning of the twentieth century, at the dawn of Mendelian genetics.

B. Legal Definition of Genetic Resources

The Convention on Biological Diversity (CBD) has focused on establishing a set of definitions for several terms related to the subject of the convention, as clearly outlined in Article Two. It defines “genetic resources” as “genetic materials of actual or potential value.” The convention also defines “genetic material” in the same

[1]- Abdul Ghani Salama, "Intellectual Property for Genetic Resources and Traditional Knowledge," May 12, 2013, Sada Al-Samt, available at: http://abedelghani.blogspot.com/2013/05/blog-post_12.html

article as “any material of plant, animal, microbial origin, or any other origin containing functional units of heredity.[2]” This definition aligns with the WIPO Treaty on Genetic Resources and Associated Traditional Knowledge of 2024[3].

According to the World Intellectual Property Organization (WIPO), genetic resources refer to those genetic materials associated with traditional knowledge and local practices surrounding any plant, animal, or microorganism with specific characteristics that have accumulated over the years and been passed down through generations, becoming a distinctive mark of a particular community. This means that a genetic resource is not necessarily a complete living organism, organ, or cell; rather, it is the genetic trait or structure characterized by rare physiological properties that can be transferred from generation to generation and can be used commercially or form part of the cultural and intellectual environment of that community.

Examples of genetic resources include a specific plant known for its medicinal properties or unique features in a geographical area. The term “genetic resources” encompasses materials derived from any biological source, excluding humans, that contains genes or derived biochemical components that may be useful.

The term “derived” is defined in the Nagoya Protocol as “a biochemical compound that occurs naturally and results from the genetic manipulation of biological or genetic resources or from their reception, even if it does not contain functional genetic units.” The Nagoya Protocol also stipulates the necessity of sharing benefits arising from the use of genetic resources, as well as from their subsequent applications and commercialization, in a fair and equitable manner.

Genetic resources, in this sense, are not the creations of the mind, and therefore cannot be protected as intellectual property. However, various sectors utilize genetic resources for research and development, including pharmaceuticals, industrial biotechnology, agriculture, cosmetics, plants, food, and beverages. The information, products, and processes resulting from this research and development are clear intellectual creations, and thus, the use of genetic resources may create intellectual property that could be protected under intellectual property rights[4].

1.2 Definition of traditional knowledge:

A. Doctrinal definition of traditional knowledge:

Some define traditional knowledge as a body of knowledge, innovations and heritage practices covering areas such as medicine, pharmacy, the environment, biology and agriculture. Others define it as follows: ‘Traditional knowledge’ is the content or substance of knowledge resulting from intellectual activity within a traditional context. This encompasses scientific knowledge, skills, innovations, practices and learning that fall under traditional knowledge systems[5].

Traditional knowledge related to genetic resources is defined as a set of knowledge, innovations and heritage practices that have inherent value and are associated with genetic resources. This knowledge belongs to a specific community and reflects the social and economic value accumulated over generations. Ownership of this knowledge is considered an integral part of that community[6].

[2]-Khadija Ben Kattat, "International Legal Protection of Genetic Resources Against Biopiracy," Thesis submitted for the Doctorate in Law, Faculty of Law and Political Science, Abderrahmane Ben Boulaid University – Mostaganem, 2020, pp. 14-15.

[3]- Article 2 of the WIPO Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge, 2024.

[4]- World Intellectual Property Organization, "Guide on Intellectual Property Issues in Access Agreements and Benefit Sharing," WIPO, 2018, p. 16.

[5]- Jamal Abdul Rahman Mohamed Ali, "Legal Protection of Genetic Resources and Associated Traditional Knowledge," 2008, p. 15.

[6]- Jamal Abdul Rahman Mohamed Ali, previous reference, p. 16.

It is important to note that traditional knowledge is not synonymous with ancient knowledge; the term 'traditional' does not equate to 'ancient' or 'static'. Traditional knowledge intended for protection arises from the interaction of individual and collective creativity with the environment. It is by nature dynamic and evolves with the environment in which it exists. Traditional knowledge has no fixed limits and can be both ancient and contemporary[7].

B. Legal definition of traditional knowledge:

The World Intellectual Property Organization (WIPO) defines traditional knowledge as a living body of knowledge that has been developed and passed down through generations within a community, often forming part of its cultural and spiritual identity. It is generally understood to refer to practical knowledge, skills, innovations or practices that are passed on in a traditional context and form part of the traditional lifestyles of indigenous and local communities, reflecting their values or being safeguarded by them[8].

The Convention on Biological Diversity defines traditional knowledge as all the knowledge, innovations and practices of indigenous and local communities which embody ways of life that are relevant to the conservation and sustainable use of biological diversity[9].

In Order 03/05[10], the Algerian legislator addressed traditional cultural heritage classifications, commonly known as folklore. However, the legislator failed to provide a definition for these classifications or traditional knowledge itself.

Second: The Importance of Protecting Traditional Knowledge and Related Genetic Resources for Achieving Sustainable Development

Plant and animal genetic resources hold significant strategic importance, both in the present and in facing future challenges. The growing global population and the reduction of arable land necessitate an increase in food production. Additionally, changing environmental conditions, such as drought, wildfires, pests, and diseases, call for new and improved crop varieties capable of adaptation. Consequently, plant genetic resources will be a fundamental component in these improvements.

Genetic resources play a vital role in achieving food security, benefiting humanity as a whole. They particularly benefit specific groups, such as farmers, who are the first to preserve and develop genetic diversity. The "International Treaty on Plant Genetic Resources for Food and Agriculture" recognizes farmers' rights to benefit from the genetic resources they develop, protect associated traditional knowledge, and participate in decision-making related to these resources. Through the treaty, farmers can obtain desired traits from outside their local areas, enhancing productivity. Additionally, plant breeders can gather desirable genes (traits) that meet the needs of both farmers and consumers[11].

Moreover, manufacturers will be able to possess crop varieties with traits that reduce the energy required for production, impacting manufacturing costs and, consequently, consumer prices. Biological innovations resulting from hybridisation or genetic engineering, for example, can enhance specific traits in plants, animals or microorganisms, such as improving drought or disease resistance, increasing productivity or enhancing quality for commercial benefit.

A gene from a wild tomato variety, for instance, has been valued at one million dollars annually in California alone because it reduces energy requirements during processing. Undoubtedly, consumers will benefit the most from the treaty on genetic resource exchange, as food supplies will be safer and potentially cheaper.

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[7]- Amina Boutalji, "Biomedicine and Its Ethics," National Symposium on the Role of Biotechnology and Pharmaceutical Industries in Economic Development, held on October 7, 2019, p. 07.

[8]- World Intellectual Property Organization, "Traditional Knowledge and Intellectual Property," p. 5, 2024.

[9]- Article 8 (j) of the Convention on Biological Diversity (CBD), signed in 1992.

[10]- Order No. 03-05 dated July 19, 2003, concerning Copyright and Related Rights, Official Gazette No. 54, published on July 7, 2005.

[11]- Abdul Ghani Salama, previous reference.

Genetic resources will play an increasingly important role in the future, especially in adapting agricultural crops and important plant (and animal) strains to changing and harsh natural conditions, disease outbreaks, pest infestations and significant climate fluctuations. Given their agricultural and economic importance, particularly in ensuring food security, these genetic resources will be humanity's hope for the future. This means that we must maintain sufficient stocks of genetic material for valuable crops and develop strategies to protect, collect and conserve threatened wild species and varieties of plants and animals[12].

During the previous period, many technologies transitioned to civilian applications following their success in the military, including nanotechnology. This created a link between the Green Revolution and the electronic revolution, resulting in new applications and prospects for developing various industries. A new type of business known as 'bio-trade' has emerged, which is sometimes accompanied by biopiracy[13].

Traditional knowledge is an integral part of communities' cultural identity, with roots deeply embedded in their history and continuing into the present. It embodies the community's collective identity, encompassing cultural, social and cognitive traditions, as well as inherited beliefs and customary practices. These characteristics bestow profound moral value, making it a source of pride and a means of distinguishing the community from others, both domestically and internationally. It also serves as an effective tool for fostering a sense of belonging and strengthening bonds among its members.

Additionally, traditional knowledge has gained increasing economic significance due to its authentic creative aspect, as evidenced by its presence in various artistic and craft products. This gives it a unique competitive edge in global markets. It has also proven its ability to integrate with modern technology, contributing to industrial innovation and providing a basis for developing new products in various sectors. However[14], this has also attracted major companies to exploit it unlawfully, often appropriating it from indigenous and local communities[15], and using it as a basis for many inventions, particularly in agriculture, pharmaceuticals, cosmetics, food and beverages[16].

Biopiracy leads to disputes over the protection of indigenous peoples' rights, negatively affecting the sustainability of local flora and fauna, as well as the global climate. It also hinders countries' ability to ensure food security for their citizens[17].

Many expressions, symbols, and cultural significances have been registered as trademarks linked to goods and services, particularly in fashion, jewelry, tourism, and automobiles, without permission from the communities that own them or sharing in the revenues from such use. This results in significant moral harm, as it not only robs these symbols of their economic value but also extends to their moral value, which can sometimes reach sacred levels[18].

Genetic resources themselves are not eligible for patents; however, inventions based on them may qualify. The widespread use of genetic resources, alongside their technological and digital transformation for

[12]- Abdul Ghani Salama, previous reference, no page number.

[13]- Haj Abdul Hafiz Nasrin. "Protection of Pharmaceuticals and Plant Varieties According to International Law of Intellectual Property and Its Impact on Developing Countries," Doctoral Thesis, Intellectual Property Branch, Faculty of Law, Ben Youssef Ben Khedda University, 2017, p. 301.

[14]- Roza Giammina Alvarez Nunez, "Intellectual Property and Protection of Traditional Knowledge, Genetic Resources, and Folklore," University of Heidelberg, Max Planck Institute for Comparative Public Law and International Law, University of Chile, March 2007, p. 489.

[15]- Hafidha Ait Tafati, "The Status of Traditional Knowledge in the Intellectual Property System,"Journal of Rights and Human Sciences Vol. 14, No. 2, 2021, pp. 464-476, p. 465.

[16]- Yamina Hamdi. "The Legal System of Traditional Knowledge,"Journal of the History of Sciences, No. 1, 2016, pp. 15-25, pp. 16-17.

[17]- Riya "Protection of Traditional Knowledge Under Intellectual Property Rights Regime," E-Journal of Academic Innovation and Research in Intellectual Property Assets (E-JAIRIPA) Vol. 1 (01), Dec 2020, pp. 149-164, p. 155.

[18]- Hafidha Ait Tafati. same reference, p. 465.

innovation in the life sciences, necessitates a comprehensive approach that considers the intersection of intellectual property and genetic resources.

The new WIPO treaty concerning genetic resources and traditional knowledge is the first of its kind to address the interplay between intellectual property, genetic resources, and traditional knowledge. It is also the first WIPO treaty to include provisions specifically for indigenous peoples and local communities.

Once it comes into effect with 15 contracting parties, it will create a new international legal obligation for patent applicants whose inventions rely on genetic resources or associated traditional knowledge to disclose this information. Negotiations for this treaty began in 2001, following Colombia's proposal in 1999. This proposal was approved by consensus among the participating member states at the diplomatic conference dedicated to negotiations.

The adoption of this binding treaty 'represents a significant advancement in efforts to enhance the international legal framework for protecting genetic resources and associated traditional knowledge, strengthening the patent system and ensuring transparency and balance'. It is also "a strong signal of the member states' commitment to achieving a more balanced, inclusive, and fair intellectual property system".

AXIS TWO: THE PROCEDURAL FRAMEWORK FOR PROTECTING GENETIC RESOURCES AND RELATED TRADITIONAL KNOWLEDGE IN THE WIPO TREATY 2024

Research conducted on genetic resources and traditional knowledge can lead to inventions that may qualify for protection under intellectual property rights, such as patents. Intellectual property issues related to genetic resources and traditional knowledge are of great importance to developing countries, which are the original owners of these resources that possess growing moral, economic, and scientific value. The expansion of the exploitation of these resources and knowledge, including the registration of patents and trademarks without the consent of their owners and the sharing of benefits, has raised increasing concerns among these communities regarding the future of their resources and cultural identity.

In response to these challenges, international efforts culminated in the adoption of the WIPO Treaty on Intellectual Property, Genetic Resources, and Traditional Knowledge in 2024. This treaty includes rules aimed at achieving a balance between the rights of inventors and the rights of indigenous communities. This is achieved by imposing certain restrictions on the conditions for granting protection to inventions related to genetic resources and traditional knowledge, which we will discuss in detail below.

First: The new disclosure requirement for granting patents related to genetic resources and traditional knowledge.

The patent system aims to encourage innovation and creativity by granting inventors exclusive rights for a limited period. However, many of these inventions are linked to genetic resources and traditional knowledge that have been developed and preserved by indigenous and local communities over generations. This overlap has frequently resulted in imbalances and exploitation, with patents being obtained without due recognition or fair benefit-sharing with the owners of these resources and knowledge.

Against this backdrop, the WIPO Treaty on Intellectual Property, Genetic Resources and Traditional Knowledge of 2024 emerges as a vital international legal framework designed to address these challenges. This long-awaited treaty is an important step towards achieving greater justice and balance in the patent system, particularly with regard to the disclosure requirement.

1. The Importance of the Disclosure Requirement for Granting Patents

The principle of disclosing the secrets of inventions to the public in exchange for protection is one of the most important principles established by the TRIPS Agreement in Article Nine. This principle embodies the philosophy underlying the patent protection system, which balances the interests of inventors—encouraging them to contribute more innovations for humanity—and the interests of society, which grants protection to benefit from the fruits of the invention as a return for the long duration of protection afforded to the patent holder.

In line with the objectives of the Convention on Biological Diversity and its protocols, such as the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization, which consider genetic resources to be a fundamental component of biodiversity and a critical factor in research and development, there is an obligation to conserve genetic resources and use them sustainably.

In the case of technologies subject to patents and other intellectual property rights, the provision for access to and transfer of this technology is based on conditions that effectively and adequately protect intellectual property rights in a manner consistent with these rights. Furthermore, the contracting parties to the agreement also acknowledge that patents and other intellectual property rights may impact the implementation of the agreement, and thus they agree to cooperate in this regard according to national legislation and international law to ensure that these rights support the objectives of the agreement and do not conflict with them[19].

The WIPO Treaty represents the first international legal instrument addressing the relationship between intellectual property, genetic resources, and traditional knowledge. It recognizes the sovereign rights of states over their genetic resources and seeks to ensure fair and equitable sharing of benefits. It also aims to achieve a balance among different interests and promote justice for indigenous peoples[20].

Based on this, the WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge, which was adopted on 24 May 2024, sets out new conditions that include a disclosure requirement. This is intended to enhance the effectiveness, transparency and quality of the patent system with regard to genetic resources and associated traditional knowledge. The aim is to prevent patents being granted for inventions that are not new or do not involve an inventive step with regard to genetic resources and traditional knowledge[21]. This is achieved by expanding traditional disclosure obligations within the patent system and introducing supplementary disclosure requirements for patents that rely on genetic resources and traditional knowledge. Several countries require applicants to adhere to these disclosure conditions in accordance with the national laws of the country in which the application is filed[22].

The right to disclosure implicitly acknowledges the significant role played by indigenous and local communities in conserving and developing genetic resources and traditional knowledge. It is also important for enabling fair participation in benefits for rights holders.

2. Conditions for the disclosure requirement for granting patents

In light of the intellectual property issues surrounding the use of genetic resources, WIPO's work supplements the legal and political framework set out in the Convention on Biological Diversity, the Nagoya Protocol and the International Treaty on Plant Genetic Resources for Food and Agriculture, overseen by the Food and

[19]- Dana Hama Baqi Abdul Qader, "Intellectual Property Rights Related to New Plant Varieties and Pharmaceutical Products," Legal Books House – Shatat Publishing and Software, 2011, p. 54.

[20]- Hassan Al-Warith, "A Turning Point in the Protection of Genetic Resources and Traditional Knowledge," Shabwa News Portal, May 2024, available at: [https://shabwahportal.com/%D9%86%D9%82%D8%AA%D8%A9-%D8%AA%D8%AD%D9%88%D9%84-%D9%81%D9%8A-%D8%AD%D9%85%D8%A7%D9%8A%D8%A9%D8%A7%D9%84%D9%85%D9%88%D8%A7%D8%B1%D8%AF-%D8%A7%D9%84%D9%88%D8%B1%D8%A7%D8%AB%D9%8A%D8%A9-%D9%88%D8%A7/] (https://shabwahportal.com/%D9%86%D9%82%D8%AA%D8%A9-%D8%AA%D8%AD%D9%88%D9%84-%D9%81%D9%8A-%D8%AD%D9%85%D8%A7%D9%8A%D8%A9%D8%A7%D9%84%D9%85%D9%88%D8%A7%D8%B1%D8%AF-%D8%A7%D9%84%D9%88%D8%B1%D8%A7%D8%AB%D9%8A%D8%A9-%D9%88%D8%A7/)

[21]- Ali bin Hussein Al-Lawati, "Intellectual Property, Genetic Resources, and Associated Traditional Knowledge," Ishraqa, University of Nizwa, No. 183, 2024, available at: https://ishraqa.unizwa.edu.om/article_179105.html

[22]- Kemiawi Aqdam and Abdul Rahman Ismail Zidan. "Genetic Resources and Their Relation to Patents," Central Authority for Standardization and Quality Control, 2022, p. 06.

Agriculture Organization (FAO). The aim of this protection is to prevent patents being granted for genetic resources and associated traditional knowledge that do not meet the necessary patentability conditions, such as novelty, an inventive step and industrial applicability. The disclosure requirement obliges patent applicants to reveal the source of the genetic resources and provide evidence of prior informed consent for the fair and equitable sharing of benefits, should their invention be based on genetic resources and traditional knowledge[23].

The disclosure requirement is a fundamental element of the WIPO Treaty, obliging patent applicants to disclose the origin of any genetic resources or traditional knowledge used in their inventions. This obligation includes providing specific information regarding:

A. Source of Genetic Resources:

According to the Treaty, each Contracting Party must disclose the country of origin or source of the genetic resources, particularly if the invention for which protection is sought is based on traditional knowledge relating to these resources.

B. Source of traditional knowledge:

Each patent applicant must disclose whether the invention is based on the traditional knowledge of indigenous peoples or local communities, and specify the source of this knowledge.

Some genetic resources are linked to traditional knowledge through their use and conservation by indigenous peoples and local communities, often spanning generations. This knowledge may be used in scientific research, contributing to the development of a protected invention. Prior informed consent and fair benefit-sharing are therefore necessary when applicable.

Secondly, non-retroactivity:

According to Article Four of the WIPO Treaty on Intellectual Property, Genetic Resources and Traditional Knowledge, no contracting party is required to impose new obligations relating to the disclosure of the source of genetic resources and associated traditional knowledge in relation to patent applications filed before the treaty came into effect for that contracting party. However, this provision does not affect existing national laws regarding disclosure that apply to the aforementioned patent applications. This allows contracting states to continue enforcing these laws, even on older applications. This strikes a balance between implementing the treaty's new obligations and respecting existing legal systems, while providing legal certainty for applicants[24].

AXIS THREE: THE PREVENTIVE AND PUNITIVE SYSTEM FOR PROTECTING GENETIC RESOURCES AND TRADITIONAL KNOWLEDGE ACCORDING TO THE WIPO TREATY 2024

The World Intellectual Property Organization (WIPO) has developed several strategies and procedures to protect genetic resources and traditional knowledge. These strategies include preventive and punitive approaches to ensure the derived use of these resources and to protect the rights of the local communities that possess this knowledge, which we will clarify below.

First: The Preventive System for Protecting Genetic Resources and Traditional Knowledge

In the context of the WIPO Treaty, a legal tool has been developed that aligns with the needs of member states in the field of protecting genetic resources and traditional knowledge. This preventive system is characterized by the imposition of documentation and regulation mechanisms, along with raising awareness of their importance for resources and traditional knowledge.

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[23]- Abdul Ghani Salama, "Intellectual Property for Genetic Resources and Traditional Knowledge," previous reference, available at: https://abedelghani.blogspot.com/2013/05/blog-post_12.html

[24]- Article 4 of the WIPO Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge, 2024.

1. Documentation and regulation:

The process of documenting traditional knowledge involves identifying, collecting, organising, recording or noting it in some manner. The aim is to manage, use, disseminate and dynamically protect traditional knowledge according to specific objectives. Documentation is not simply a photograph or an isolated record of traditional knowledge, nor is it a quick descriptive note. Rather, these isolated actions should be part of a well-considered, comprehensive process in order to be deemed 'documentation'[25].

A positive aspect of protection is that documentation grants owners of traditional knowledge exclusive rights to their collective creations. This prevents others from accessing or benefiting from genetic resources, except under specific conditions such as prior informed consent and fair benefit-sharing from their use. Additional conditions may be added to meet the knowledge holders' aspirations and the measures they take when enabling others to access their knowledge. This ensures alignment with the provisions of legal texts and international agreements for sustainable development[26].

Education and Awareness

In the framework of raising awareness regarding the protection of communities' rights over genetic resources and access to traditional knowledge, the treaty states in paragraph three of Article Six that the Assembly of Contracting Parties may establish one or more technical working groups to address any issues related to information systems, such as facilitating access for offices with appropriate safeguards[27].

Information systems assist patent offices in examining patent applications to determine whether inventions are based on genetic resources or traditional knowledge and to verify compliance with disclosure requirements. These systems can include databases of public genetic resources and traditional knowledge, as well as tools for searching relevant information.

Additionally, information systems can support efforts to monitor compliance with disclosure obligations and facilitate the enforcement of penalties in cases of non-compliance by providing accurate and easily accessible records of relevant information[28].

Second: The Punitive System for Protecting Genetic Resources and Traditional Knowledge

The WIPO Treaty on Intellectual Property, Genetic Resources, and Traditional Knowledge of 2024 places special importance on establishing effective mechanisms to protect these resources from unlawful exploitation. Alongside preventive and procedural measures, the treaty includes aspects related to the punitive system to address violations concerning genetic resources and traditional knowledge. The punitive system for protecting these resources and ensuring fair benefit-sharing includes:

1. Mandatory Implementation of Deterrent Measures (Legal, Administrative, or Political):

According to Article Five of the WIPO Treaty, each party is required to implement punitive measures within its national laws, which may be legal, administrative, political, or a combination of all, ensuring their effectiveness. Consequently, the treaty does not impose uniform penalties but leaves it to the contracting parties to establish them. However, it requires all parties to adhere to fundamental principles when formulating punitive provisions.

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[25]- Begona Venero Aguirre, "Documenting Traditional Knowledge – Toolkit," WIPO Traditional Knowledge Division, 2017, p. 11.

[26]- Souad Benabi, "Documenting Traditional Knowledge to Preserve Rights: Challenges to Face Potential Risks,"Journal of Law and Environmental Sciences, Vol. 03, No. 03, 2024, pp. 116-138, p. 122.

[27]- Aliya Mohamed Ismail Mohamed. "Intellectual Property Legislation and Protection of Genetic Resources and Related Traditional Knowledge in Egypt,"Scientific Journal of Intellectual Property and Innovation Management, No. 4, January 2021, p. 172.

[28]- Ali bin Hussein Al-Lawati, "Intellectual Property, Genetic Resources, and Associated Traditional Knowledge,"Ishraqa, No. 138, November 2024, available at: https://ishraqa.unizwa.edu.om/article_179105.htm

2. Fundamental Principles Established in Cases of Non-Compliance with Disclosure Obligations:

The WIPO Treaty stipulates that, when establishing punitive measures, contracting states must provide patent applicants with an opportunity to disclose information regarding the source of genetic resources and traditional knowledge, as set out in Article Three of the treaty. This is an alternative to rejecting applications or declaring them invalid, unless the applicant has committed fraud or engaged in deceptive behaviour. However, the treaty does not clarify what constitutes intent to deceive, which is difficult to prove in court as it requires conclusive evidence that the patent applicant was aware of their obligation to disclose information and intentionally provided false information or concealed essential details[29]. Consequently, this requirement may impede the revocation or invalidation of patents, even in cases where the unlawful exploitation of resources and knowledge is evident.

CONCLUSION:

In concluding our analysis of the provisions contained in the 2024 WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge, we have reached the following findings. Based on these findings, we present the following recommendations:

FIRST: FINDINGS:

The WIPO Treaty recognises the valuable contribution of indigenous peoples and local communities in providing traditional knowledge related to genetic resources through an effective new system within the patent framework.

The treaty acknowledges the true value of genetic resources and traditional knowledge, as well as their vital role in sustainable development.

Despite the importance of the WIPO Treaty and the disclosure requirement it includes, challenges remain that could hinder the effective implementation of these provisions at national and international levels.

The treaty leaves the determination of penalties to the contracting states, leading to significant variations in the severity and types of penalties imposed for similar violations across different countries. This could undermine the Treaty's overall goal of achieving a certain level of transparency and accountability on an international scale.

SECOND: RECOMMENDATIONS

With the entry into force of the WIPO Treaty and member states beginning to implement its provisions at the national level, it will be essential to monitor and evaluate the impact of the disclosure requirement on achieving the desired objectives. Continuing international dialogue and cooperation to share experiences and overcome potential implementation challenges will also be important.

Ensuring compliance with disclosure obligations regarding the source of origin or the disclosure of indigenous peoples' and local communities' traditional knowledge requires the establishment of effective enforcement mechanisms at national and international levels.

Developing countries and indigenous and local communities require support to build their capacity to document and protect their genetic resources and traditional knowledge, and to participate effectively in the patent system.

- Mechanisms must be established to effectively verify the accuracy of information provided regarding the source of resources and knowledge, as well as consent and benefit-sharing.

Contracting states must work to include clear and enforceable punitive mechanisms in their national legislation, taking into account the challenges related to proving fraudulent intent.

[29]- Paragraph 4 of Article 5 of the WIPO Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge, 2024.

Efforts should be made to create bilateral or multilateral agreements to exchange legal assistance in enforcing provisions related to non-compliance with disclosure obligations.

States should raise awareness among their local communities about their rights and obligations regarding genetic resources and traditional knowledge, and communicate with them about these issues, highlighting the critical economic and social importance of these resources and knowledge.

Legal Sources:

- WIPO Treaty on Intellectual Property, Genetic Resources, and Traditional Knowledge, 2024.

- Convention on Biological Diversity signed in Rio de Janeiro on June 5, 1992.

- Order No. 03-05 dated July 19, 2003, concerning copyright and related rights, published in the Official Gazette No. 54 on July 7, 2005.

Books:

- World Intellectual Property Organization, Guide on Intellectual Property Issues in Access Agreements and Benefit Sharing, WIPO, 2018.

- Begona Venero Aguirre, Documentation of Traditional Knowledge – Toolkit, WIPO Traditional Knowledge Division, WIPO, 2017.

- Jamal Abdul Rahman Muhammad Ali, Legal Protection of Genetic Resources and Related Traditional Knowledge, 2008.

- Dana Hama Baqi Abdul Qadir, Intellectual Property Rights Related to New Plant Varieties and Pharmaceutical Products, Legal Books House – Shatat Publishing and Software, 2011.

Articles:

- Ait Tafati Hafiza, The Position of Traditional Knowledge in the Intellectual Property System, Journal of Law and Humanities, Vol. 14, No. 2, 2021, pp. 464-476.

- Benabi Souad, Documenting Traditional Knowledge to Preserve Rights: Challenges Against Potential Risks, Journal of Law and Environmental Sciences, Vol. 03, No. 03, 2024, pp. 116-138.

- Hamadi Yamina, The Legal System of Traditional Knowledge, Journal of the History of Sciences, No. 1, 2016, pp. 15-25.

- Aliyah Mohammed Ismail Mohammed, Intellectual Property Legislation and Protection of Genetic Resources and Related Traditional Knowledge in Egypt, Scientific Journal of Intellectual Property and Innovation Management, No. 4, January 2021.

Theses and Dissertations:

- Ben Qatat Khadija, International Legal Protection of Genetic Resources Against Biological Piracy, Thesis submitted for PhD in Science, Faculty of Law and Political Science, Abdelhamid Ben Badis University – Mostaganem, 2020.

- Hajj Abd Al-Hafiz Nasreen, Protection of Drugs and Plant Varieties According to International Intellectual Property Law and Its Impact on Developing Countries, PhD Thesis, Intellectual Property Branch, Faculty of Law, Ben Youssef Ben Khedda University, 2017.

Scientific Publications:

- Boutalji Amina, Regenerative Medicine and Its Ethics, National Symposium on the Role of Biotechnology and Pharmaceutical Industries in Economic Development, held on October 7, 2019.

- Kimiyaoui Aqdame and Abdul Rahman Ismail Zidan, Head of Biology and Sahar Fattah Mahmoud, Senior Biologist and Mahmoud Shaker Mahmoud, Genetic Resources and Their Relation to Patents, Central Authority for Standardization and Quality Control, 2022.

Websites:

- Hassan Al-Warith, A Turning Point in the Protection of Genetic Resources and Traditional Knowledge, Shabwa News Portal, May 2024, available at: [Shabwa Portal] (https://shabwahportal.com/%D9%86%D9%82%D8%B7%D8%A9%D8%AA%D8%AD%D9%88%D9%84-%D9%81%D9%8A-%D8%AD%D9%85%D8%A7%D9%8A%D8%A9%20%D8%A7%D9%84%D9%85%D9%88%D8%A7%D8%B1%D8%AF%D8%A7%D9%84%D9%88%D8%B1%D8%A7%D8%AB%D9%8A%D8%A9-%D9%88%D8%A7/)

- Abdul Ghani Salama, Intellectual Property of Genetic Resources and Traditional Knowledge, May 12, 2013, Sada Al-Samt, available at: [Sada Al-Samt](http://abedelghani.blogspot.com/2013/05/blog-post_12.html).

- Ali bin Hussein Al-Lawati, Intellectual Property and Genetic Resources and Related Traditional Knowledge, Ishraqa, University of Nizwa, No. 183, 2024, available at: [Ishraqa](https://ishraqa.unizwa.edu.om/article_179105.html).

REFERENCES IN ENGLISH:

[1] *Riya, Protection of Traditional Knowledge Under Intellectual Property Rights Regime; E-Journal of Academic Innovation and Research in Intellectual Property Assets (E-JAIRIPA) Vol. 1 (01), Dec 2020, pp. 149-164.*

[2] *Roza Giammina Alvarez Nunez, Intellectual Property and Protection of Traditional Knowledge, Genetic Resources and Folklore, University of Heidelberg, Max Planck Institute for Comparative Public Law and International Law, The University of Chile, March 2007, p. 489.*