



# **Protecting Shared and Widely Distributed Traditional Knowledge: Issues, challenges and options**

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## LIST OF ACRONYMS

ABS	Access to genetic resources and benefit sharing
CBD	Convention on Biological Diversity
FAO	United Nations Food and Agriculture Organization
GIs	Geographical indications
IGC	Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
IP	Intellectual property
OAPI	African Organization for Intellectual Property
PIC	Prior informed consent
TK	Traditional knowledge
TKDL	Traditional Knowledge Digital Library
UNESCO	United Nations Educational, Scientific and Cultural Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

## EXECUTIVE SUMMARY

This paper offers some initial ideas and suggestions on how to address the issue of traditional knowledge of indigenous peoples which is shared and distributed widely among communities and beyond. In a scenario where there is growing international and national interest to legally protect traditional knowledge related to biodiversity, the question of *how* to achieve this when traditional knowledge is shared, is particularly complicated. Who has rights, who consents to access and use of traditional knowledge, and how are benefits shared and between whom, are just some of the vexing questions which require responses to advance in the policy and legal arena. The Convention on Biological Diversity and the World Intellectual Property Organization, have been the key drivers of international initiatives to protect traditional knowledge – but they are hardly the only ones. National and regional processes are under way in this regard. The paper focuses on traditional knowledge *as it relates to biodiversity*, and does not address – given time, resources and scope limitations – other critically important dimensions such as traditional cultural expressions or folklore expressions of indigenous peoples.

*"It is our considered professional judgment that this dilemma has no technical solution"*  
Garret, Hardin. The Tragedy of the Commons. Citing Wiesner and York.

## 1. INTRODUCTION

Since the Convention on Biological Diversity (CBD) entered into force in 1993, countries and multilateral and regional organizations have been developing a wide range of conceptual proposals, policies and legislation to protect the traditional knowledge (TK) and collective intellectual rights of indigenous peoples, as they relate to biodiversity. The issue is not *whether* but rather, *how* TK can be legally protected in an effective manner, in absence (often) of tailored legal tools and instruments.

Many initiatives to date suggest the use of classic IP tools but adapted to respond to TK features, in combination with non IP tools such as contracts, registers and funds. Within this context, *sui generis* proposals for TK protection are in the making.<sup>1</sup>

Classic IP instruments – especially patents, breeder's rights, copyright – are considered unsuitable to protect indigenous people intellectual interests, both for technical reasons and often ideological reasons. These classic IP instruments promote individual recognition (in contrast to collective aspects of indigenous peoples livelihoods); grant monopoly, exclusionary rights which affect interests of other indigenous individuals and especially, groups; require specific identification of a creator or innovator (then again, impacting collective interests); result in high transaction costs (i.e. administrative processes, negotiation of licenses, legal fees, maintenance of right fees, etc.); grant rights over creations and innovations which need to have a pre-defined degree of creativeness and innovativeness, to name a few reasons why TK does not naturally at least, "fit" into IP protection frameworks and templates.

As part of these developments, growing evidence demonstrates that shared and widely disseminated TK is the prevailing rule rather than the exception, in the

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<sup>1</sup> This *sui generis* option should not be confused with the *sui generis* alternative proposed by article 27.3.b of the Trade Related Aspects of Intellectual Property Agreement (TRIPS), which refers to a combination of UPOV-type and patent protection for new varieties of plants. The draft text for an international regime for the protection of TK under the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) of the World Intellectual Property Organization (WIPO) is one recent example of a *sui generis* approach to the protection of TK, which combines a wide set of IP and non IP tools and instruments.

context of indigenous people's culture and livelihoods. Though certain TK is still secretly guarded by specific leaders and figures in communities (i.e. the shaman, the elder, the healer, and specific men and women), it is not surprising that a portion of this special knowledge is also kept by other leaders and figures in neighboring communities, is distributed across jurisdictions and is transboundary in nature. There is also evidence that a broader set of knowledge which is not secret or confidential, but can still be considered part of the cultural heritage and livelihood of communities, is even more broadly shared among and within communities and disseminated with non indigenous individuals, sometimes even codified in research papers and books. To some, this latter TK falls under the public domain.<sup>2</sup>

Not only is TK shared but often develops and evolves simultaneously and in parallel in various indigenous contexts. Similar and shared biodiversity and ecosystems inhabited by indigenous peoples imply similar responses and adaptation methods, which explains (to some extent) why TK is more often than not, shared and widely distributed.

In addressing the protection of TK, progress has been made at the conceptual and legal levels (i.e. Nagoya Protocol on Access and Benefit Sharing, Andean Community legislation, African Union Model Law, ARIPO proposal). However, each and every existing legal instrument including the draft international regime on TK protection under the *aegis* of the World Intellectual Property Organization (WIPO) Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC), recognizes that the issue of shared TK among communities and also across national borders, remains an area for which policy and legal solutions are still to be thought through and devised.

The debate on shared TK echoes some elements of the discussions regarding shared and widely disseminated genetic resources. The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (2010), expressly mentions and hints on the possibility for the development and future negotiation of specific multilateral approaches and options for this specific situation (articles 10 and 11).

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<sup>2</sup> Not all widely distributed and disseminated and distributed TK is part of the public domain. This will depend on the extent that the TK has been documented, is described in literature (i.e. academic journals and books) and is available from sources such as libraries, internet, publications, etc. For a detailed analysis of the issue of "public domain" see, See, [http://www.wipo.int/edocs/mdocs/tk/en/wipo\\_grtkf\\_ic\\_17/wipo\\_grtkf\\_ic\\_17\\_inf\\_8.pdf](http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_17/wipo_grtkf_ic_17_inf_8.pdf) Note on the Meanings of the Term "Public Domain" in the Intellectual Property System, with Special Reference to the Protection of Traditional Knowledge and Traditional Cultural Expressions.

Arguably, it is a paradox that an exceptional measure is suggested for a situation which is in fact the general rule and norm, i.e. that biodiversity, TK and genetic resources know no borders and are widely shared, especially among eco-regions (the Amazon, the Andes, Mesoamerica, etc.) and between indigenous people.<sup>3</sup>

## 2. A BRIEF OVERVIEW OF INTERNATIONAL AND NATIONAL POLICY AND LEGAL EFFORTS TO PROTECT TRADITIONAL KNOWLEDGE

In broad terms, international interest and efforts to protect TK can be traced to the 1960's, when WIPO and the United Nations Educational, Scientific and Cultural Organization (UNESCO), recognized the need to develop measures to protect expressions of folklore, mostly linked to the national cultural and artistic heritage and patrimony, and joined efforts to do so. This phase ended in 1985, with the adoption of the Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and other Prejudicial Actions.<sup>4</sup>

A second wave of interest in TK started in the United Nations Food and Agriculture Organization (FAO) context, in the 1980's, as part of the discussions on Farmers Rights and the efforts and intellectual contribution of small farmers, especially in centers of origin and diversification, to conservation and development of agrobiodiversity and native seeds in particular.<sup>5</sup> The FAO International Treaty on

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<sup>3</sup> For a description of the CBD and Nagoya Protocol and arguments on why ongoing policy and regulatory approaches to access to genetic resources – based on bilateral contracts regarding shared resources – may be flawed and misguided, see, Zamudio, Teodora, Vogel, Joseph, Ruiz Muller. *Logic Should Prevail: a New Conceptual and Operational Framework for an International Regime of Access to Genetic Resources*. Research Document. Initiative for the Prevention of Biopiracy. SPDA, Year V, No. 13, March, 2010. Lima, Peru. The main argument of the paper is that existing access and benefit sharing (ABS) policy and legal frameworks have lost sight of a fundamental characteristic of genetic resources: their informational nature. Genetic resources are not tangible material, but intangible, coded information, regardless of the legal definitions of the CBD. This fact – understood well by scientists but less so by politicians – substantially alters the policy, economic and legal approach which should be given to ABS.

<sup>4</sup> See, <http://unesdoc.unesco.org/images/0006/000684/068457mb.pdf> for the full text of the Model Provisions.

<sup>5</sup> See, definition of Farmers Rights in FAO Resolution 5/89. They are defined as “...rights arising from the past, present and future contribution of farmers in conserving, improving and making available plant genetic resources ... These rights are vested in the International Community, as trustee for present and future generation of farmer, for the purpose of ensuring full benefits for all

Plant Genetic Resources for Food and Agriculture (2001), later included *protection*, as one of the dimensions in the substantial content of Farmers Rights.<sup>6</sup>

The third phase or period where TK became once again part of international debates, started in the late 1980's and culminated with the adoption of the Convention on Biological Diversity (CBD) in 1992. The CBD expressly recognizes the importance of TK (knowledge, innovations and practices) in conservation, management and development of biodiversity and its components. The CBD also calls for prior informed consent (PIC), participation of indigenous and local communities, and benefit sharing, as conditions for the use of TK, and fell just short of specifically and expressly demanding the legal *protection* of TK.

The CBD and its discussions on access and benefit sharing (ABS) also triggered many of the existing TK protection processes, initiatives and frameworks.<sup>7</sup> Most notably, the Nagoya Protocol, a direct result of the ongoing and evolving CBD process, incorporates a series of provisions addressing TK. Neither does it specifically call for the *protection* of TK, but its general provisions offer in practice, tools and mechanisms which are driven by this underlying objective. The Nagoya Protocol provides, among other principles, that access to and use of TK should be subject to the prior informed consent of indigenous people. Indigenous people should furthermore participate in the benefits derived thereof.<sup>8</sup> Rights of access are one of the dimensions which TK protection generally advocates for.

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farmers..."<http://data.iucn.org/dbtw-wpd/htm/EPL057-expguide-international-treaty/Article9.html>

<sup>6</sup> According to article 9.9.2(a), the responsibility to realize Farmers Rights rests with national governments, and measures to protect these rights may include:[...] *(a) Protection of traditional knowledge relevant to plant genetic resources for food and agriculture.* [...]

<sup>7</sup> See, Chapter 2, The Current Law on Plant Genetic Resources and Traditional Knowledge, In: Biber-Klemm, Susette and Cottier, Thomas (Editors) 2006. *Rights to Plant Genetic Resources and Traditional Knowledge: Basic Issues and Perspectives*. CABI. United Kingdom. pp. 56-110

<sup>8</sup> Article 7 establishes that *"In accordance with domestic law, each Party shall take measures, as appropriate, with the aim of ensuring that traditional knowledge associated with genetic resources that is held by indigenous and local communities is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established "*.

Article 12 of the Nagoya Protocol establishes that *"1. In implementing their obligations under this Protocol, Parties shall in accordance with domestic law take into consideration indigenous and local communities' customary laws, community protocols and procedures, as applicable, with respect to traditional knowledge associated with genetic resources.*

Early on the CBD also permeated the World Trade Organization (WTO) debates and the discussion regarding the review of article 27.3 of the Agreement on Trade Related Aspects of Intellectual Property (TRIPS). The protection of TK was an initial starting point of these debates. It then moved on to disclosure of origin and legal provenance, as part of defensive protection mechanisms.<sup>9</sup> This can be attributed to the effects and spin-offs of the CBD dynamic during the late nineties and from 2000 onwards.

In 2001, and as a result of the World Intellectual Property Organization's (WIPO) interest and institutional competence regarding IP, as well as its mandates to protect intellectual rights, an international process was launched to explore how to legally protect TK (basically related to biodiversity) and folklore. The Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) was created for this specific purpose.

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*2. Parties, with the effective participation of the indigenous and local communities concerned, shall establish mechanisms to inform potential users of traditional knowledge associated with genetic resources about their obligations, including measures as made available through the Access and Benefit-sharing Clearing-House for access to and fair and equitable sharing of benefits arising from the utilization of such knowledge.*

*3. Parties shall endeavour to support, as appropriate, the development by indigenous and local communities, including women within these communities, of:*

*(a) Community protocols in relation to access to traditional knowledge associated with genetic resources and the fair and equitable sharing of benefits arising out of the utilization of such knowledge;*

*(b) Minimum requirements for mutually agreed terms to secure the fair and equitable sharing of benefits arising from the utilization of traditional knowledge associated with genetic resources; and*

*(c) Model contractual clauses for benefit-sharing arising from the utilization of traditional knowledge associated with genetic resources.*

*4. Parties, in their implementation of this Protocol, shall, as far as possible, not restrict the customary use and exchange of genetic resources and associated traditional knowledge within and amongst indigenous and local communities in accordance with the objectives of the Convention.*

<sup>9</sup> Defensive protection was initially conceived in the early nineties, during the Andean process for the development of an ABS regime. In simple terms, defensive protection creates a linkage between patent regimes and ABS and TK protection regimes. To grant a patent right or process a patent application in the field of biotechnology or natural products, the applicant is required to demonstrate the legal origin or provenance of materials or TK utilized – directly or indirectly – in the innovation. For a review of the origin of the concept see Caillaux, Jorge, Tobin, Brendan, Ruiz, Manuel. 1999. *Acceso a Recursos Genéticos. Lecciones y Experiencias*. WRI, SPDA. Lima, Perú. For a more detailed conceptual analysis of defensive protection see, Henninger, Thomas. Disclosure requirements in patent law and related measures: a comparative overview of existing national and regional legislation on IP and biodiversity. In: Werth, Alexander, Reyes, Susanne (Editors) 2010. *Triggering the Synergies between Intellectual Property Rights and Biodiversity*. GIZ, Eschborn, Germany. p. 293-226

There is at present and after ten years of work and very hard negotiations, a draft (albeit very bracketed) text for the protection of TK.<sup>10</sup>

Finally, though much broader in its scope and goals, the United Nations Declaration on the Rights of Indigenous Peoples (2007), is arguably, the most important international (non binding) instrument addressing indigenous peoples rights, including the protection of their intellectual, collective creations and innovations.<sup>11</sup>

International initiatives for TK protection have been rapidly followed, and almost surpassed, by a series of regional and national policy and legal initiatives. Their coverage, status, impacts and overall effectiveness vary considerably. However, they do reflect a dynamic policy and legal trend explained in part by the international drive and in part due to the role and influence of national actors and indigenous people representative organizations in particular.

Important and milestone setting regional and national examples in this regard include: the African Union Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources (adopted by the African Union in 2000), the Swakopmund Protocol for the Protection of Traditional Knowledge (adopted by the African Regional Intellectual Property Organization, ARIPO, and the African Organization for Intellectual Property, OAPI, in 2012),<sup>12</sup> Law 21 of Panama for the protection of TK and folklore expressions (adopted in 1998) and its regulation, and Law 27811 for the protection of biodiversity related TK in Peru (adopted by the Peruvian

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<sup>10</sup> See, The Protection of Traditional Knowledge: Draft Articles at, [http://www.wipo.int/meetings/en/doc\\_details.jsp?doc\\_id=238182](http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=238182)

<sup>11</sup> Article 31 (1) of the United Nations Declaration on the Rights of Indigenous Peoples expressly determines that *“Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.”*

<sup>12</sup> For a critical assessment of the ARIPO initiative see, Munyi, Peter. *Progress or Setback? An African regional Instrument for the Protection of Traditional Knowledge and Folklore.* <http://ictsd.org/i/news/bioresreview/12091/>

Congress in 2001), respectively.<sup>13</sup> A few other policy processes are also under way in the Pacific Region and other countries.

### 3. THE PREVAILING TRENDS TO PROTECT TRADITIONAL KNOWLEDGE

From 1992 onwards, much has been written and done in the field of TK protection. Literature and conceptual analysis has multiplied and awareness about its importance has been raised substantially amongst a wide range of stakeholders – not the least indigenous peoples. More importantly, as mentioned before, policy and legal measures have also been developed both at the international and national levels.

The term “protection” was initially used very loosely, meaning different things to different people. Only recently has analysis focused on the different facets of protection and a more systematic approach been developed to understand what exactly it may mean.<sup>14</sup> In a classic IP context, protection refers to granting exclusionary rights to inventors and creators through IP tools – patents, breeders rights, copyright, etc. In the IP realm, IP may also mean compensation, social recognition through moral rights, sharing benefits, and maintaining, preserving and controlling access and uses of TK through unfair competition principles.<sup>15</sup> Defensive protection is yet another form of safeguarding rights pertaining to TK (and genetic resources) (see footnote 9).

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<sup>13</sup> For a review of the existing legal instruments and tools for TK protection see, <http://www.wipo.int/tk/en/laws/tk.html>

<sup>14</sup> Dutfield has undertaken extensive analysis regarding TK and its special features. See, Dutfield, Graham. *Protecting Traditional Knowledge and Folklore. A Review of Progress in Diplomacy and Policy Formulation*. UNCTAD-ICTSD. Intellectual Property Rights and Sustainable Development. Issue Paper No. 1. June 2003.

<sup>15</sup> Most existing policy and legal initiatives are based on a *sui generis* approach to TK protection which entails the rational combination of different tools (i.e. registers, contracts), mechanisms (i.e. PIC), and procedures (i.e. consultation) which “protect” TK. The most notable example of this may be Law 27811 of Peru which combines: registers, licenses, trade secret and competition law principles and defensive protection principles, to ensure TK of indigenous people related to biodiversity is safeguarded and protected. See, Venero, Begoña. *Mitos y verdades sobre la biopiratería y la propiedad intelectual*. En: *Anuario de Derechos Intelectuales*. Kresalja, Baldo. Editor. Palestra, Lima, 2004.

Though TK protection initiatives vary considerably in their form and substance, there are some common features which stand out. To begin with, most policy and legal instruments (i.e. Peruvian law for TK protection, Costa Rica Law 7788, Panama Law 21) recognize that prior informed consent (PIC) as a critical condition which needs to be met as a pre-requisite for accessing and using TK for any purpose (in general terms). This involves some kind of bilateral approach or negotiation between a user and an indigenous peoples' representative.

Secondly, almost invariably, TK related policies and instruments include registers as a tool to support protection measures, whether defensively or to positively help in assigning rights to indigenous peoples. This is the case of existing laws in Peru, Panama, Costa Rica, the TKDL initiative in India, among others. This is not to say that registers are free from controversy, especially in regards to the fact that they systematize TK under certain pre established criteria and provide an informational platform which is often alien to indigenous peoples and communities – in content and process.

Thirdly, when discussing and developing these policies and laws, it is often suggested that classic IP tools – mainly patents, breeders rights, copyright – are intrinsically unsuitable to protect indigenous people intellectual efforts and creations. This has been explained above (see Introduction). This assertion however, must be qualified, given that there may be alternatives in “soft” IP tools such as collective marks or geographical indications, or even in the use of competition law principles, which could, given certain circumstances, provide some forms of protection to these efforts and creations (further reflection is provided below).

Finally, and one of the most critical but often under assessed aspects in the development of policies and legal frameworks, are the very general references to “traditional knowledge” and almost never a precise definition of the concept.

This last issue – together with unclear scope – is one potential limitation at the time of implementation. Do these policies and norms refer to TK as an intangible *per se*, or in its more tangible expression (i.e. a technique, a process, a product)? Do they cover only TK which is publicly accessible or do they mostly refer to TK which is still maintained as confidential by communities or specific community members? Without exception, broad definitions and scope facilitate legal drafting, and in fact even the TRIPS Agreement for example does not define “invention” in its text,<sup>16</sup> but

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<sup>16</sup> The TRIPS Agreement does not define an invention, but establishes criteria upon which an invention is measured: novelty, inventiveness and industrial application. These are technical concepts which over time have been précised in terms of content and their specific boundaries.

make practical implementation often complicated as is being experienced in many countries and regions.<sup>17</sup>

## 4. THE NATURE AND FEATURES OF TRADITIONAL KNOWLEDGE

What is TK? Even though there is no universally accepted definition for TK, some progress has been made to try and elaborate on its substantial content. The IGC of WIPO, in the text on draft articles for TK protection (2013), defines TK as including “...*know how, skills, innovations, practices, teachings and learnings of indigenous [peoples] and [local communities] that are dynamic and evolving, and that are intergenerational/and that are passed on from generation to generation, and which may subsist in codified, oral or other forms*”. It further proposes that TK “[...*may be associated, in particular, with fields such as agricultural, environmental, healthcare and indigenous and traditional medical knowledge and medical knowledge, biodiversity, traditional lifestyles and natural resources and genetic resources, and know-how of traditional architecture and construction technologies*]”.

The IGC elaborates a little more in conceptual terms. It describes TK as “...*referring in general to the content or substance of knowledge resulting from intellectual activity in a traditional context, and includes the know-how, skills, innovations, practices and learning that form part of traditional knowledge systems, and knowledge embodying traditional lifestyles of indigenous and local communities, or contained in codified knowledge system passed between generations. It is not limited to any specific technical field, and may include agricultural, environmental and medicinal knowledge, and knowledge associated to genetic resources*”.<sup>18</sup> Traditional knowledge can therefore mean many things at the same time.

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<sup>17</sup> Just as an example of the potential problems of inexistence of definitions, recently in India, the Supreme Court determined that Novartis would not be awarded a new patent over Gleevec (a cancer treating drug), basically because the “new” “invention” was not deemed significantly different from the original version of the drug. See, [http://www.nytimes.com/2013/04/05/opinion/the-supreme-court-in-india-clarifies-law-in-novartis-decision.html?\\_r=0](http://www.nytimes.com/2013/04/05/opinion/the-supreme-court-in-india-clarifies-law-in-novartis-decision.html?_r=0)

<sup>18</sup> See, WIPO IGC, *The Protection of Traditional Knowledge: Draft Gap Analysis: Revision 4*. WIPO Doc. WIPO/GRTKF/IC/13/5/(b) Rev. (2008) [http://www.wipo.int/edocs/mdocs/tk/en/wipo\\_grtkf\\_ic\\_13/wipo\\_grtkf\\_ic\\_13\\_5\\_b\\_rev.pdf](http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_13/wipo_grtkf_ic_13_5_b_rev.pdf)

On the other hand, the CBD approach to TK is to consider it entailing “knowledge, innovations and practices”.<sup>19</sup> It is actually quite useful to separate the elements of TK into three distinct, albeit related, categories: an intangible (knowledge *per se*), a tangible (material products or material innovations themselves), and processes or procedures (expressed in the form of techniques or more sophisticated technologies which can be expressed in some form – orally, in writing, through representations or exemplification). The reason is that this makes protection efforts more focused on more specific and somewhat better defined categories, rather than a broad and general concept.

Of course these different categories are often closely interrelated and can overlap. For example, a material product or innovation is the result of developing and using knowledge. They are the material support which expresses a knowledge application. The same is true in the case of a technique or technology, which is based on knowledge and sometimes even results also in a material product or innovation. Depending on the specific dimension or category of TK, a particular *form* of protection may be required or applicable.

A second feature of TK, relates to its development and how it responds and dynamically adapts to environmental, social, cultural and economic pressures and demands. Traditional knowledge is all but static. It is continuously subjected to social and environmental tests to prove its effectiveness and relevance over time. This feature contrasts with the commonly held belief that TK is “traditional”, simply because of the passing of time and its limited variations. There are indeed some very old, often religiously based expressions of TK, which have not suffered major changes over time, but these are mostly linked to cultural, spiritual and social traditions and ceremonies. Day to day adaptation by indigenous peoples to continuously changing environments requires rapid responses and adjustments of TK – especially in its applications.

A third feature of TK is who participates (and how) in this dynamic evolving process. Traditional knowledge is generally deemed the result of a collective, inter-generational effort, in the sense that it happens and evolves in a social context (i.e. communal) where social actors play different roles in creating TK over time, maintaining it, applying it, and adapting it according to needs and circumstances. Often, TK is part of a defined cultural, environmental, religious and

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<sup>19</sup> The Nagoya Protocol refers only to “traditional knowledge”, which begs the question whether this means an implicit exclusion of *innovations and practices* from its scope, especially since the CBD (article 8(j)) refers to *knowledge, innovations and practices* as a sort of single, all embracing concept.

social context in which different actors play different roles. They each understand this role as part of tradition and rigorously respect the established order. Outside of this context, TK simply dissipates and loses its special connotations. The “holistic” nature of TK is its most distinct feature. Having said this, especially difficult for policy making and legal constructions, is how to capture and reflect and incorporate these features either in a tool, framework or legal mechanism.

A fourth defining feature of TK, is that only in very exceptional cases is TK confined to a single indigenous peoples group or community. The rule is that TK is mostly shared between communities (in many cases across countries), which is not to say that there is no distinct and geographically confined TK. Many shamans, healers, certain farmers in rural communities have developed and hold TK which has not been passed to younger generations or community members at all and are thus maintained secret.<sup>20</sup>

But confined, confidential, unique TK is rather the exception than the rule. Though hard to quantify, there is agreement among experts that most TK is shared between communities in countries and even across geographical borders.<sup>21</sup> Sometimes it is shared consciously, sometimes it inadvertently passes and flows to neighboring communities, and sometimes even foreigners play a role in disseminating it more widely.<sup>22</sup>

Traditional knowledge manifests itself in many different forms and “packages” – sometimes as knowledge *per se*, often as part of a process or in a product. With a very broad set of indigenous peoples and communities dispersed all over the world, with extremely diverse conceptions, traditions, practices and cultural

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<sup>20</sup> This poses a continued and complex problem regarding the loss of TK. Often, TK is not passed on to younger generations simply because these generations are not interested and have been influenced by market-based and western type elements (i.e. money, jobs) which dramatically affect and change social structures and relations within community members. The “city lights” effect has been extensively documented and is considered a strong foundation for the erosion and loss of traditional cultures.

<sup>21</sup> When referring to shared and widely distributed TK, this paper focuses on specific TK which relates to medicinal uses and application of plants and natural products, conservation techniques for seeds, and knowledge regarding specific characteristics of biodiversity. Certainly, if the religious, spiritual and symbolic variables which surround TK are taken into account, they add considerable differentiation between communities and cultures. Nevertheless, in trying to set some boundaries and defined features, it could be argued that the *specific* TK (as knowledge, an innovation or practice) is common to many indigenous peoples and groups.

<sup>22</sup> Laird, Sarah (Editor) 2002. *Biodiversity and Traditional Knowledge. Equitable Partnerships in Practice*. People and Plants Conservation Series. WWF, UNESCO, Royal Botanic Gardens Kew. Earthscan Publications Ltd. London. New York.

frameworks, it is not surprising that efforts to conceptualize TK protection face very complex challenges, not the least in determining the subject matter and potential right holders. Furthermore, applying western legal concepts to a very distinct reality has often been deemed as inappropriate in as much as these concepts and approaches are very utilitarian and anthropocentric – excluding variables and elements which in the view of indigenous peoples and communities have to be part of the whole and be clearly reflected in whatever framework is devised. Most policy and legal frameworks recognize this, but seldom do they effectively reflect this in content and form.

## 5. THE CHALLENGE OF IMPLEMENTING PRIOR INFORMED CONSENT AND CONSULTATION PRINCIPLES IN THE CONTEXT OF SHARED AND WIDELY DISTRIBUTED TRADITIONAL KNOWLEDGE

Traditional knowledge in its more classic form (as an intangible), is *information*. Information related policy, management, institutional and regulatory frameworks have long been studied and abundant literature has been produced regarding its socio-economic role and implications, particularly in the context of markets, decision making and intellectual property.<sup>23</sup>

The economics of information theories are a good starting point to understand the best policy and legal options available, especially in the context of TK as information which is shared by and widely distributed among communities or indigenous peoples.<sup>24</sup>

Very simply, and in the context of indigenous peoples, certain types of goods (i.e. a medicinal potage, a food recipe, a cultivating technique, knowledge regarding the venomous feature of a plant), take very considerable time to be produced and developed. These “intellectual investments” often involve physical effort, passage

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<sup>23</sup> See, Boyle, James. The Second Enclosure Movement: and the Construction of the Public Domain. Duke University, 2003, Available at, <http://law.duke.edu/pd/papers/boyle.pdf>

<sup>24</sup> Joseph Vogel, since 1992, has been an active (often lonely) critic of how little information economics has been considered and assessed in the context of ABS and TK related negotiations, especially in the CBD. Vogel argues that the most limiting but overlooked flaw in the CBD and the Nagoya Protocol is, precisely, ignoring the *informational* nature of genetic resources and TK and their effects on sovereignty and contractual approaches to ABS. See, Vogel, Joseph. 1994. *Genes for Sale*. New York: Oxford University Press.

of time, continued observation, repeated trial and error processes, further testing and validation and the existence of cultural contexts under which they can effectively evolve.

At the same time, these categories of goods follow principles which are also applicable to other informational goods. On one hand, they are cheap to replicate. Any member of a community or a stranger can, with some observation, replicate the good at a very low marginal cost or effort. In very exceptional cases, certain information or TK is maintained, closely guarded and known only by a particular member of the community. These goods are also non rival and non exclusionary in the sense that a person's consumption or use does not deprive another from potentially exactly the same consumption or use opportunity.

Furthermore, these goods (and more specifically the TK embedded in them) once released by the creator – whether a single individual or a collective – cannot be easily controlled nor managed. Information and TK in this case, flow freely, unimpeded and easily.<sup>25</sup> It is almost impossible to maintain TK confined to a community cultural context. In practice, TK can become part of the public domain and/or are the very least, become freely accessible to many.<sup>26</sup> This applies to TK which effectively “escapes” a single person's control and becomes part of the collective knowledge assets which indigenous peoples and communities hold and claim to have rights over (often *collective* rights).

If this holds true, basic underlying economics and IP principles regarding access to and use of informational goods may be applicable. However, classic IP tools may not be fully applicable or effective in the case of TK given some additional variables, including difficulties in determining a right holder or singling out an inventor or creator, a cultural resistance to assigning monopoly like property rights,

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<sup>25</sup> This explanation is taken and adapted from, Vogel, Joseph (Editor). 2000. *The Biodiversity Cartel. Transforming Traditional Knowledge into Trade Secrets*. CARE. Quito, Ecuador.

<sup>26</sup> WIPO makes a useful distinction between TK in the public domain and freely accessible TK. It is often assumed that TK is mostly in the public domain and therefore available for free. However, it cannot be assumed that this TK has no owner or does not belong to an indigenous people group, community or indigenous individual. It may be possible to impose certain conditions and limitations on access to and use of TK which is in fact in the public domain. Furthermore, being in the public domain does not mean that it is in practice freely accessible: on the contrary there may be some very simple situations such as electronic safeguards (in the case of data bases), or remote and isolated archives, or very limited editions of certain publications, etc. which make the principle of freely accessible almost impossible to be realized. See, [http://www.wipo.int/edocs/mdocs/tk/en/wipo\\_grtkf\\_ic\\_17/wipo\\_grtkf\\_ic\\_17\\_inf\\_8.pdf](http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_17/wipo_grtkf_ic_17_inf_8.pdf)

plus the collective nature of the innovation process within communities and trans-generational passing on of specific TK, among others.

Indigenous peoples and their communities generally share TK and are also faced with its wide dissemination and distribution outside community contexts. This includes broad dissemination within and also across national borders, with concerns regarding the policy and legal implications of this “transboundary” situation. Only recently has the issue and related problems of shared and widely distributed TK (and genetic resources), been placed on the international agenda – albeit timidly.<sup>27</sup>

What makes TK different from other forms of shared and disseminated information and knowledge, may lie in the cultural context under which TK develops and the fact that classic IP tools seem unable to offer appropriate protection responses.

The Nagoya Protocol on ABS establishes in article 10 (Global Multilateral Benefit Sharing Mechanism) that:<sup>28</sup>

*“Parties shall consider the need for and modalities of a global multilateral benefit-sharing mechanism to address the fair and equitable sharing of benefits derived from the utilization of genetic resources and **traditional knowledge** associated with genetic resources that occur in **transboundary situations or for which it is not possible to grant or obtain prior informed consent**. The benefits shared by users of genetic resources and **traditional knowledge** associated with genetic resources through this mechanism shall be used to support the conservation of biological diversity and the sustainable use of its components globally.”*

These may be situations where TK is so disseminated and shared so extensively, that it is in practice impossible to celebrate a contractual agreement and ensure

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<sup>27</sup> Vogel argues that even the Nagoya Protocol falls short of adequately addressing the true nature of genetic resources (coded, natural information) and shared and widely distributed TK. See, Vogel, J., Alvarez-Berríos, N., Quiñones-Vilche, J.L., et.al (2001). *The Economics of Information, Studiously Ignored in the Nagoya Protocol on Access and Benefit Sharing*. 7/1 Law Environment and Development (LEAD) Journal (2011), p. 51-65, available at <http://www.lead-journal.org/content/11052.pdf>

<sup>28</sup> The rationale for articles 10 and 11 of the Nagoya Protocol is rather fuzzy. What is known is that very late in the negotiations of the Protocol (during COP 10 in Nagoya), the African Group insisted on incorporating provisions addressing genetic resources outside national jurisdictions and shared and widely disseminated resources and TK, among others. It is suspected that some of the ideas Vogel had been advocating since the early nineties finally permeated part of the policy discussions. Another point of interest, is that an initial draft text of the Nagoya Protocol, included a provision – now missing – regarding TK in the public domain.

PIC conditions of any sort. For these situations, a potential protection policy option may be to develop a multilateral funding mechanism (or use existing mechanisms i.e. GEF, The Global Trust Fund under the FAO International Treaty), which ensures some form of benefit sharing for accessing and using genetic resources and TK. A funding option does not curtail the possibility of other regulatory alternatives, but offers – arguably – a low transaction cost mechanism if designed adequately.<sup>29</sup>

The Nagoya Protocol furthermore recognizes in article 11 (Transboundary Cooperation) that:

*“1. In instances where the same genetic resources are found in situ within the territory of more than one Party, those Parties shall endeavour to cooperate, as appropriate, with the involvement of indigenous and local communities concerned, where applicable, with a view to implementing this Protocol.*

*2. Where **the same traditional knowledge** associated with genetic resources is **shared** by one or more indigenous and local communities in several Parties, those Parties shall endeavour to cooperate, as appropriate, with the involvement of the indigenous and local communities concerned, with a view to implementing the objective of this Protocol.”*

This provision leaves it to Parties to develop a cooperation scheme to ensure benefit sharing is realized in situations of shared, similar TK. Some national legal frameworks (including Andean Decision 391, the African Union Model Law, etc.) have also acknowledged the issue of shared resources and TK but have not really overcome a key challenge at the implementation level: how to technically and efficiently guarantee optimum solutions to a situation where subject matter (TK) is disseminated and widely distributed, and where an identifiable right holder is difficult to engage, is still a major challenge.<sup>30</sup>

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<sup>29</sup> A detailed study on whether and to what extent funding mechanisms effectively lower transaction costs is yet to be undertaken. Furthermore, resources – other than donor contributions – have to become sustainable end embedded in the system itself. The funding mechanism under the FAO IT, where commercial use of plant genetic resources have yet to materialize in monetary benefits, offers a useful albeit relatively new experience. What is certain is that existing regulatory and institutional frameworks offer few if any advantages in terms of supporting the realization of benefits and sharing them thereafter.

<sup>30</sup> Andean Decision 391 on a Common Regime on Access to Genetic Resources, 1996, and applicable in Bolivia, Colombia, Ecuador and Peru, includes a specific provision which recognizes that Member States may share resources and when this is the case, each State should take into

**Box No. 1 Examples of the treatment of shared or widely disseminated TK in some existing legal instruments**

Legal instrument	Provision
<b>Law 27811, for the protection of collective knowledge in Peru (2001)</b>	<b>Article 6.</b> The indigenous representative organization, whose prior informed consent is sought [representative organization are deemed the legitimate TK negotiating body on behalf of communities], must inform the widest possible number of communities holders of the same knowledge that it is entering into negotiations, and take into account their interests .
<b>Decision 391 of the Andean Community on ABS (1996)</b>	<b>First, Final Provision.</b> In the negotiation of the terms of access contracts in cases where more than one Member States is country of origin of genetic resources or derived products, as well as in regards to access activities, the National Competent Authority will take into account the interests of the other countries sharing these resources ...
<b>Nagoya Protocol on ABS (2010)</b>	<b>Article 10.</b> Parties shall consider the need for and modalities of a global multilateral benefit-sharing mechanism to address the fair and equitable sharing of benefits derived from the utilization of genetic resources and traditional knowledge associated with genetic resources that occur in transboundary situations or for which it is not possible to grant or obtain prior informed consent. The benefits shared by users of genetic resources and traditional knowledge associated with genetic resources through this mechanism shall be used to support the conservation of biological diversity and the sustainable use of its components globally.
<b>Nagoya Protocol on ABS (2010)</b>	<b>Article 11.2</b> Where the same traditional knowledge associated with genetic resources is shared by one or more indigenous and local communities in several Parties, those Parties shall endeavour to cooperate, as appropriate, with the involvement of the indigenous and local communities concerned, with a view to implementing the objective of this Protocol.

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consideration the *interests of the other states* when negotiating access agreements. The problem has been over time that countries are struggling to implement the Decision and *safeguard their own interest*, with little if any incentive to consider neighboring countries interests. On the other hand, article 10 of Law 27811 for the protection of collective knowledge in Peru establishes that collective knowledge *may pertain to various indigenous people*. More interestingly, article 6 establishes that “...*the indigenous representative organization, whose prior informed consent is sought [representative organization are deemed the legitimate TK negotiating body on behalf of communities], must inform the widest possible number of communities holders of the same knowledge that it is entering into negotiations, and take into account their interests ... [...]*”. See, [http://www.bnp.gob.pe/portalbnp/pdf/ley\\_27811.pdf](http://www.bnp.gob.pe/portalbnp/pdf/ley_27811.pdf)

The main limitations affecting bilateral, contractual negotiations when TK is shared are: a) how can a contract be negotiated (or PIC obtained) when there is no single, defined right holder? b) even if this is possible, assuming TK is in the public domain or publicly available, is it feasible, and economically viable, to negotiate an advantageous contract? and c) what are the effects of economic pressures (impacting benefit potential) when TK is in practice found and accessible from various sources?

One additional dimension affecting bilateral contracts in regards to shared TK – and any TK for that matter – are the information asymmetries which in these particular circumstances, indigenous peoples and their representatives may face.

## 6. THE POLICY AND LEGAL OPTIONS

The issue of shared and widely distributed TK has become part of international agendas rather recently. The ICG early in its process recognized that obtaining PIC in cases where right holders are not defined could be a problem and more importantly, affect and create tensions between communities sharing similar resources and TK but with different views about what to do with them. This included situations where TK might even be in the public domain and publicly available. These two well established principles in the IP realm, have been strongly contested by indigenous peoples who claim their rights over TK go way beyond whether or not they have lost control over their TK or whether their TK is now disseminated, in the public domain or readily available and accessible.

To define the best and most effective policy and legal option regarding the protection of shared and widely disseminated or distributed TK, decisions could bear in mind the following situations:

### **TK which is maintained confidential among different communities (and is “shared”)**

Many communities may possess the same or rather share very similar confidential and/or sacred TK.<sup>31</sup> If this is the case, there are unlimited options to obtain and access this TK from multiple sources – or at least as many options as communities there are with this TK. The almost certain scenario, is that only one or a few selected communities involved in a specific bioprospecting or ethnobotanic project, will directly participate in the benefits derived from it. Project proponents will enter

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<sup>31</sup> Clearly, sharing “*the same*” TK is ontologically impossible. What is shared is very similar or even almost identical TK related to biodiversity or genetic resources uses and applications.

into negotiations with one, two or a group of well represented communities. Negotiating with each and all communities is, in practice, impossible too.

If TK is restricted to one or just very few, closely related and integrated communities, applying a trade secret based approach may be one option to secure a certain level of exclusivity and control in regards to this category of TK.<sup>32</sup> This would require a certain level of agreement and coordination between communities to ensure the trade secret is maintained secret over time.

The advantage of this approach is that trade secrets are universally recognized and are present in almost all national legislations. One disadvantage is that there is a certain expertise and capacities required to enter into contractual negotiations which define conditions upon which this TK will be shared and used, apart from a legal framework which facilitates trade secret protection.

These capacities are almost certainly not available in communities today – at least in most. An unfair competition framework may also be required, which is flexible enough to incorporate and consider indigenous peoples TK as trade secret. Finally, in the case of shared and confidential TK, there is a potential downside to seeking trade secret protection, if there is the real possibility that the knowledge eventually “escapes” or is removed – by chance or on purpose – from a confidential context. This may happen when many communities share the TK and are not that closely integrated in a nation, tribe, group or whatever category is used.

The holder of the trade secret may be a representative member of a community(ies) or the specific individual holding the TK, on behalf of the community(ies). In this latter case, it would be expected that some form of internal benefit sharing is foreseen to ensure there is no single, individual beneficiary. But this will depend on customs and practices which socially organize each community(ies). It should be recognized *a priori*, that there may be inevitable exclusions of communities or individuals who hold similar TK but which – given the specific circumstance – will be unable to engage and participate directly in the project and its benefits.

Apart from trade secrets as a protection tool, national law may develop *ad hoc* tools to support registration of confidential TK and ensure its use only for defensive

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<sup>32</sup> In classic IP law, and according to the TRIPS Agreement, to be considered a trade secret information (i.e. secret or confidential TK), must: be secret; have some kind of commercial or potential value and have been subject to reasonable steps to be kept confidential. There must be a conscious act of maintaining TK secret – but available for use in a specific commercial or industrial endeavor.

purposes – through specific action by IP authorities or bodies responsible for preventing misappropriation or misuse of natural resources and TK.<sup>33</sup>

The advantage of this approach is that *all* indigenous people and communities who possess this category of TK may be protected and defended (provided they register their knowledge or are all recognized by the register as holders of TK) against misuse or “biopiracy”. The protection measure becomes immediately effective (potentially at least) and benefits a general group of indigenous people and communities. The potential shortcoming of this option is whether or not the registered TK – which is confidential – can validly be presented to attack novelty and inventiveness based on action from national authorities or entities managing this register.<sup>34</sup>

### **Shared TK which has passed and is already in the public domain**

As mentioned earlier, the most common situation is that TK is broadly and widely shared between communities and has also entered the public domain in its more classic form (i.e. it has been described in publications or is widely used by and documented outside rural, community contexts, for broader society).

In this particular case, and based on IP-related principles, TK cannot be strictly protected though certain limitations could be imposed on its use. Three possibilities which may offer a certain degree of “protection” come into mind. Protection in this context is defined broadly as indicated in point 2 above – mainly as exclusive rights, control, compensation and defensive protection.

Firstly, defensive protection measures could be implemented. The registration of TK may support the prevention of misappropriation of TK even if it is in the public domain or rather *because* of this factor.<sup>35</sup> Whether specific TK or a broad set of

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<sup>33</sup> The Peruvian National Commission for the Prevention of Biopiracy (Law 28216, of 2004), is formally responsible for identifying and taking action in cases where Peruvian biodiversity or its communities TK have been accessed illegally or misappropriated through granting of wrongful IP and patents in particular. See, <http://www.biopirateria.gob.pe>

<sup>34</sup> The Traditional Knowledge Digital Library (TKDL) in India for example, only uses the registered TK for defensive purposes and IP authorities can only access this database for these purposes: to review novelty and inventiveness. There are no other uses allowed, even for research purposes.

<sup>35</sup> The case of the Traditional Knowledge Digital Library in India is a case in point. Traditional Indian medicinal knowledge (Ayurvedic, Unani and Sidha formulations), widely shared, disseminated and firmly in the public domain (i.e. it has been documented and published for centuries), is systematized and organized in a database used for defensive protection and to prevent “biopiracy”. It is used *only* for this purpose. This entails institutional arrangements between the

systematized TK entries and registries, national authorities may be in the position to use these registers to attack novelty and inventiveness related to patents.<sup>36</sup> This approach has the advantage that it benefits a broad and general set of indigenous peoples and communities, though it does not secure benefit sharing. Defensive protection only defends against wrongful or openly illegal patents over biodiversity innovations and related TK. It does not secure monetary or any other type of benefit.

Secondly, though this has not been explored in detail in this paper, the copyright derived principle of “*domaine public payant*” may also be potentially useful, in this case in a compensatory context. In simple terms, this principle applies to works, crafts and arts which have lost copyright protection, are in the public domain but for some specific reason are deemed important enough to receive special policy attention which is expressed in the obligation to pay the state (for subsequent distribution) a fee for the use of these works, crafts and arts.<sup>37</sup>

Thirdly, a relatively new tool which is being explored as a means to ensure protection of TK (and other indigenous people values and resources) are

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Council for Scientific and Industrial Research (CSIR) in India, and the most important IP offices in the world: the European Patent Office (EPO), the Japanese Patent Office (JPO) and the United States Patent and Trademark Office (USPTO). See, <http://www.tkdil.res.in/tkdil/langdefault/common/Home.asp?GL=Eng> Another example is action undertaken by the Peruvian IP office (INDECOPI, which is also responsible for implementing the law for the protection of TK), which *ex officio* as well as upon request from indigenous people, is responsible for registering TK in formal, State recognized databases which may be used for defensive purposes. See, Venero, Begoña. La Protección Jurídica de los Conocimientos Tradicionales en el Perú. En: Kresalja, Baldo. Editor. *Anuario Andino de los Derechos Intelectuales*. No. VI, 2009. Lima, Perú. p. 86-102 INDECOPI's activities in this regard may be reviewed at <http://www.indecopi.gob.pe>

<sup>36</sup> Interestingly, in 1996 Peru adopted a national regulation on breeders rights (Supreme Decree 008-1996-ITINCI, 1996) which included the obligation of applicants to demonstrate the legal origin of genetic resources and TK which may have been used in the development of the new variety as a pre requisite for processing the plant breeders right application. This extended defensive protection measures to PBR. However, after adopting UPOV 91, as part of an obligation in the FTA with the US, the regulation was derogated and these requirements eliminated, in a clear example of the negative effects of adopting UPOV like regimes – and IP stricter rules in FTAs.

<sup>37</sup> See the work of the UNESCO Committee of Non-Governmental experts on the ‘Domaine Public Payant’, *Copyright Bulletin*, vol.XVI, no 3, 1982, 49. See also DIETZ, Adolf, “A Modern concept for the right of the community of authors (domaine public payant)”, *Copyright Bulletin*, 1990, XXIV, n°4, 13-28 Jerome Reichmann, a notable critic of the “enclosure movement”, has also contributed to this conceptual debate, see Reichman, Jerome, Maskus, Keith. The Globalization of Public Knowledge Goods and the Privatization of Global Public Goods. In: Maskus and Reichman, Editors. *Journal of International Economic Law*. 7(2)-279-320.

“biocultural or community protocols”.<sup>38</sup> These are basically management and planning tools elaborated by specific communities, which determine the conditions upon which their resources and TK may be accessed and utilized.<sup>39</sup>

Protocols are not binding on third parties but do provide with *ex ante* guidance regarding what to expect if projects and activities are planned in the lands or territories of indigenous peoples and communities. To some extent, they contribute to legal certainty. The most notable advantage of these tools is that regardless of the category or condition of TK, rules are freely set (including PIC principles in some cases) which offer the guiding pathway for researchers or entrepreneurs who are interested in accessing and using TK.

Finally, even if TK is clearly in the public domain, widely shared, available and known by broader sectors of society, recognition of TK holders and indigenous peoples in general in publications, audio and visual media materials, official campaigns, and other means, can serve an important goal in the revaluation of TK and social inclusion processes.<sup>40</sup> This is another variant of the “protection” concept which has little to do with substantial rights, compensation or control, but rather focuses on the distinct nature and socially valuable feature of TK which has, almost as a historic trend, been overlooked – until recently.

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<sup>38</sup> For specific examples of biocultural protocols in Africa, South East Asia, Asia and South America, see, [http://www.wipo.int/edocs/mdocs/tk/en/wipo\\_grtkf\\_ic\\_17/wipo\\_grtkf\\_ic\\_17\\_inf\\_8.pdf](http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_17/wipo_grtkf_ic_17_inf_8.pdf)

<sup>39</sup> The Nagoya Protocol recognizes community protocols. Article 12 of the Nagoya Protocol establishes that: [...] 3. *Parties shall endeavor to support, as appropriate, the development by indigenous and local communities, including women within these communities, of: (a) Community protocols in relation to access to traditional knowledge associated with genetic resources and the fair and equitable sharing of benefits arising out of the utilization of such knowledge; [...]*

<sup>40</sup> A notable example of this form of recognition is happening now in Peru. Through an intense and profoundly inclusive campaign to revalue national gastronomy, a potent side effect has been for very broad sectors of society to recognize, acknowledge and appreciate the value of TK and indigenous people contribution to the conservation, development and maintenance of native crops which are crucial to the “gastronomic boom” of the country. Peru is one of the three world preferred gastronomy destinations, a feat which has been achieved over a period of a decade or so of close collaboration between the State, the private sector, social actors (including communities) and a group of visionary cooks and chefs which have placed biodiversity and agrobiodiversity in particular in the national agenda. Sustainably using resources and TK is one way to secure “protection”. For an analysis of this process see, Ruiz, Manuel. 2009. *Agrobiodiversity Zones and the Register of Native Crops: Learning from Ourselves*. Genetic Resources Policy Initiative, SPDA, Lima, Peru. p. 55-86

## All forms of TK

The FAO International Undertaking process of the 1980's, offers an important, albeit often overlooked, lesson regarding policy options for addressing widely distributed resources.<sup>41</sup> The FAO Undertaking recognized early on, that the most practical and effective international measure to implement Farmers Rights,<sup>42</sup> was to establish an international (compensatory) fund.<sup>43</sup> Though the fund never materialized it is an interesting example of a multilateral mechanism which sought to overcome operational and management complexities regarding Farmers Rights (i.e. definition of "farmer", beneficiary, right holder, etc.).

On the other hand, the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (2001) process has also created a funding mechanism which seeks to ensure that benefits derived from seeds or materials accessed from a Multilateral System for *commercial purposes*, are distributed to farmers in countries of origin.<sup>44</sup> The Multilateral System is applied to a set and agreed pool of common genetic resources.

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<sup>41</sup> The International Fund for Plant Genetic Resources was created as the tool to realize Farmer Rights and compensate them for their contribution to maintenance, conservation, development and dissemination of plant genetic resources (FAO Resolution 5/89).

<sup>42</sup> At the time, FAO Resolution 5/89 defined Farmers Rights as *"rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources, particularly those in the centers of origin/diversity. These rights are vested in the International Community, as trustee for present and future generations of farmers, for the purpose of ensuring full benefits to farmers, and supporting the continuation of their contributions, as well as the attainment of the overall purposes of the International Undertaking) in order to:* a) ensure that the need for conservation is globally recognized and that sufficient funds for these purposes will be available; b) assist farmers and farming communities, in all regions of the world, but especially in the areas of origin/diversity of plant genetic resources, in the protection and conservation of their plant genetic resources, and of the natural biosphere; c) allow farmers, their communities, and countries in all regions, to participate fully in the benefits derived, at present and in the future, from the improved use of plant genetic resources, through plant breeding and other scientific methods."

<sup>43</sup> FAO Resolution 3/91 established that [...] *"Farmers' Rights will be implemented through an international fund on plant genetic resources which will support plant genetic conservation and utilization programs, particularly, but not exclusively, in the developing countries."* This fund was to be operated by the donors of genetic resources, funds and technology through the Commission on Plant Genetic Resources.

<sup>44</sup> The Multilateral System on Access and Benefit Sharing was developed due to the recognition that countries are interdependent in regards to genetic resources for food and agriculture in

In the case of TK, there is already relatively good and precise data and information regarding where indigenous people and communities are located worldwide. This coincides and overlaps almost perfectly with centers of megadiversity. In this regards, there is a good idea of potential TK holders and beneficiaries of a multilateral, fund-like, TK benefit sharing scheme.<sup>45</sup>

If in the context of shared or widely disseminated TK, PIC is too complicated to achieve, and most importantly, frictions and tensions begin to appear when certain indigenous groups are *excluded* from negotiations over TK which they claim is “theirs”, there may be a need to revisit contractual options and look at alternative possibilities. Compensatory funds are one of these possibilities.<sup>46</sup>

Paradoxically, funds offer – in comparison – an easier and more practical approach to address situations of shared and widely disseminated TK, at least more so than seeking PIC and agreeing to contracts where no defined right holders can be identified and on the verge of inequity if not all communities or groups who share the TK participate in the benefits being negotiated.<sup>47</sup> Transaction costs are reduced to the operational costs of the system.

Rather than create new taxes or impose additional burdens on the private sector, or seek additional resources from international cooperation and funding agencies, under an international agreement or decision, a small, fixed percentage (i.e. 1-2 %) <sup>48</sup> of *existing taxes on sales* of a certain category of products (i.e. natural

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particular and that efficient mechanisms are required to ensure continued flows of this special category of resources for breeding, conservation and to sustain agricultural systems worldwide. A Standard Material Transfer Agreement adopted in 2001, is a contractual tool which ensures expeditious access to the resources included in a list of resources – a common pool. For a detailed review of the International Treaty see, Moore, Gerald, Tymowski, Wytold. 2005. *Explanatory Guide to the FAO International Treaty on Plant genetic Resources for Food and Agriculture*. IUCN Environmental Law Programme. Environmental Law and Policy Paper No. 57. IUCN, Gland.

<sup>45</sup> This multilateral “protection” scheme would focus on the *compensatory element* (benefit sharing) and co-exist with parallel specific positive and defensive protection measures to be implemented at the national level.

<sup>46</sup> Graham Dutfield discusses the possibility of establishing and creating national “private collective management institutions” to monitor use of TK, issue licenses to users, and distribute fees to right holders in proportion to the extent to which TK is utilized by researchers, industry, etc. These functions could also be assigned to a public institution, depending on specific national contexts and to what extent indigenous people place their trust in the State. See, Dutfield, *Ibid.* at 14, p. 7.

<sup>47</sup> This paper does not analyze in depth the viability of an international or national fund. Both may be potential alternatives to promote compensatory measures for access to and use of shared TK.

products, biotrade products, natural cosmetics, pharmaceuticals), could contribute to an international compensatory fund which would then direct monies to conservation and sustainable use projects in selected areas in the world (pre defined and identified by countries in an official list)<sup>49</sup> Ideally, a binding international agreement would provide the basis for implementing this obligation and ensuring companies and profit making institutions commit to it.

This approach does not run counter to existing options, including those under consideration by the draft text in IGC – which leaves considerable leeway for action at the national level. However, agreeing and developing a list of such products or goods may not be simple. If there is a lesson to be learned from international processes, the FAO International Treaty managed to develop a closed (for the moment) list of plant genetic resources for food and agriculture for which very specific rules and a Multilateral System on ABS applies. It is almost irrelevant where these came from, as long as they are part of this pool of resources for which all contributing countries receive a portion of benefits (both momentary and non monetary).

The main advantages of a fund/compensatory approach include: there is a *de facto* recognition that access and use of TK will be compensated (regardless of its form or status); all indigenous people and communities are entitled to participate in the benefits derived from the fund (because of the fact that they are recognized as indigenous and communities); there is no need for a negotiation between indigenous peoples and communities and a specific company, project or enterprise, and therefore no transaction costs involved –at the negotiating level; indigenous people and communities are not selling their TK, but merely receiving a compensation due to a legal recognition of its value; TK can continue to flow and develop and benefit the broader society. Indigenous people should have an informed participation and involvement in discussions and debate regarding the formal and substantial operational features of such a mechanism, whether at a national or international level.

### **A comment on “soft” intellectual property tools**

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<sup>48</sup> This suggested percentage is a general figure. It is not the result of an in depth economic analysis. The point to be made is that the percentage should be derived from *existing taxes* and not impose additional costs.

<sup>49</sup> This assumes that States will have the political will to agree on this type of scheme, and in parallel leave the option open for existing IP based protection schemes, contractual negotiations, etc.

Geographical indications (GI's) and collective marks are often cited as IP tools which may, under certain circumstances, offer protection to indigenous people intellectual interests. They do not protect TK *per se*, but could protect its reflections in goods and services of a *collective or grouping*. What are the circumstances under which these interests may be protected? Firstly, GI's and collective marks are intrinsically related to markets and imply interactions with it. This is important because it means that indigenous people using these tools will probably be groups which have a close relation to relatively well developed markets and rely on it as a source of income.

Secondly, GI's and collective marks provide an option under which products developed through the use of shared TK, technologies and practices can be protected. They furthermore guarantee a regulated system under which whoever (indigenous peoples groups or associations) seeks to use the GI or collective mark does so under a common, and freely accepted, framework.

Finally, GI's and collective marks require certain levels of formalization on behalf of indigenous peoples. Whether through associations, a cooperative or a company, there is the need for a process under which a tribe, a community, a group of communities, etc. is recognized administratively by the State as an entity which can be granted exclusionary rights.

## **7. RECOMMENDATIONS: OPTIONS AND TEXT BASED LANGUAGE FOR IGC DISCUSSIONS**

The IGC process in WIPO and the existing draft text for an international regime for TK protection offers nations a broad range of tools which may serve to protect TK and indigenous people intellectual interests.

In the case of shared knowledge and widely disseminated TK, there seems to be no totally equitable nor fair technical solution to protecting shared and widely disseminated TK in particular. Either control or exclusive rights are impossible to exercise; or certain indigenous peoples or communities will be excluded from the benefits which could be generated from use of the TK; or PIC is impossible to obtain (no defined right holder, or representative group); or tensions and frictions may be created among and between indigenous peoples and communities –some of which participate in benefits and some of which are excluded from them.

If this is the case – and it should so be recognized – there is the need to acknowledge the potential of a set of measures and tools which may include: defensive protection, “*domaine public payant*” based schemes, biocultural or

community protocols or a funding, compensatory mechanism. The advantages of the latter option is that it is inclusive rather than exclusive and may have the potential of effectively implementing measures in practice which generate direct benefits to a broad set of indigenous people groups and communities. These funds – whether at the international level or at the national level – at the very least: secure social recognition of TK; place an economic value on TK; ensure benefits accrue directly to indigenous people and communities and are targeted towards conservation and sustainable use projects.

One recommendation for the ongoing IGC process may be to consider incorporating a draft article which refers to widely disseminated and distributed TK and the need to explore policy and regulatory options which reduce transaction costs, prevent tension and frictions among indigenous people and communities and ensure monetary benefits from the use of TK (even if in the public domain) are equitably shared with these groups.

A suggested draft article for the IGC text on TK protection may read, *“In cases where traditional knowledge is shared across borders, between two or more indigenous peoples or communities, in two or more countries, Member States/Contracting Parties, will collaborate to identify develop and implement, with participation of indigenous peoples and communities, appropriate, feasible, fair and equitable protection mechanisms”*.

A fund or permanent financial mechanism which engages private sector and commercial actors which directly or indirectly use TK and promotes mandatory contributions according to sales of natural or biodiversity products, could offer a cost-effective way for an “across the board” solution to compensate indigenous people and communities for their intellectual contributions.

As a pilot phase for this type of scheme, a list of potential endeavors or business which it is accepted use biodiversity and its components and to a lesser or greater extent benefit from TK (past or present) could include, for a start: biotrade activities; natural products development; cosmetics (which use natural products). Their contribution to a fund would not be an additional tax or cost but could be designed as part of express State incentives (reflected in taxes for example) directed specifically at promoting, preserving and developing biodiversity and TK in particular.

This alternative should not be seen as *replacing other potentially useful national or international approaches*, but could be prioritized as a practical multilateral option which reduces transaction costs and overcomes classic problems related to identifying a right holder, implementing a valid and legitimate PIC procedure,

potentially excluding indigenous people and communities from direct benefit sharing arrangements, etc. It is as in other cases, a second best solution to an otherwise technically insurmountable (almost) problem.

## 8. CONCLUSIONS

In the context of TK protection discussions, there is a widespread belief that TK (in its intangible form) can in fact be controlled and subject to effective use restrictions. Information is one of – if not *the* most – complicated goods to control and protect, especially once it becomes shared and spreads among social structures. Traditional knowledge is mostly, shared, dispersed and disseminated among communities and indigenous people. This is not to say that there may be very valuable TK which is still maintained and kept confidential within community structures – but for this category of TK, other alternatives should be kept open.

Except in very few cases where TK is still very unique, maintained by single individuals or for some reason has not escaped very confined communal contexts, control and restrictions are difficult (and extremely costly) to put into practice. When TK is part or becomes part of the public domain or is freely accessible, protection possibilities are more limited still.

Intellectual property was designed to protect and legally enclose informational goods. A highly complex albeit effective IP system governs creation and dissemination of ideas and innovation in its many forms. Though the use of certain IP tools for TK protection in particular is very difficult in the best of cases, there may be instances where certain IP tools (i.e. trade secrets, copyright) could serve the purpose of protecting certain intellectual interests of indigenous peoples and communities. However, the actual use and application of these tools, requires careful definition of the element of TK for which protection is sought: knowledge, a product or a process.

As in the case with genetic resources, TK is almost invariably shared –to some extent or degree. This is not an exceptional situation but, rather, the rule. As a result of this, the complete text of the draft

“Protection of TK” should be understood in a broad sense (i.e. exclusive rights, control, compensation, maintenance of TK, etc.), more like a strategic goal, than as an IP exclusive type of right. Depending on the emphasis placed on each element of protection, a specific tool or mechanism might be applied, including in the case where TK is shared.

## REFERENCES

Biber-Klemm, Susette and Cottier, Thomas (Editors) 2006. Rights to Plant Genetic Resources and Traditional Knowledge: Basic Issues and Perspectives. CABI. United Kingdom. pp. 56-110

Boyle, James. The Second Enclosure Movement: and the Construction of the Public Domain. Duke University, 2003

Caillaux, Jorge, Tobin, Brendan, Ruiz, Manuel. 1999. *Acceso a Recursos Genéticos. Lecciones y Experiencias*. WRI, SPDA. Lima, Perú

Dietz, Adolf, "A Modern concept for the right of the community of authors (domaine public payant)", *Copyright Bulletin*, 1990, XXIV, n°4, 13-28.

Dutfield, Graham. *Protecting Traditional Knowledge and Folklore. A Review of Progress in Diplomacy and Policy Formulation*. UNCTAD-ICTSD. Intellectual Property Rights and Sustainable Development. Issue Paper No. 1. June 2003.

Henninger, Thomas. Disclosure requirements in patent law and related measures: a comparative overview of existing national and regional legislation on IP and biodiversity. In: Werth, Alexander, Reyes, Sussane (Editors) 2010. *Triggering the Synergies between Intellectual Property Rights and Biodiversity*. GIZ, Eschborn, Germany.

Kresalja, Baldo. Editor. *Anuario Andino de los Derechos Intelectuales*. No. VI, 2009. Lima Perú.

Laird, Sarah (Editor) 2002. *Biodiversity and Traditional Knowledge. Equitable Partnerships in Practice*. People and Plants Conservation Series. WWF, UNESCO, Royal Botanic Gardens Kew. Earthscan Publications Ltd. London. New York.

Moore, Gerald, Tymowski, Wytold. 2005. *Explanatory Guide to the FAO International Treaty on Plant genetic Resources for Food and Agriculture*. IUCN Environmental Law Programme. Environmental Law and Policy Paper No. 57. IUCN, Gland.

Munyi, Peter. *Progress or Setback? An African regional Instrument for the Protection of Traditional Knowledge and Folklore*.

Reichman, Jerome, Maskus, Keith. The Globalization of Public Knowledge Goods and the Privatization of Global Public Goods. In: Maskus and Reichman, Editors. *Journal of International Economic Law*. 7(2)-279-320. 2004.

Ruiz, Manuel. 2009. *Agrobiodiversity Zones and the Register of Native Crops: Learning from Ourselves*. Genetic Resources Policy Initiative, SPDA, Lima, Peru.

UNESCO Committee of Non-Governmental experts on the 'Domaine Public Payant', *Copyright Bulletin*, vol.XVI, no 3, 1982, 49.

Venero, Begoña. Mitos y verdades sobre la biopiratería y la propiedad intelectual. En: *Anuario de Derechos Intelectuales*. Kresalja, Baldo. Editor. Palestra, Lima, 2004.

Vogel, Joseph. 1994. *Genes for Sale*. New York: Oxford University Press.

Vogel, Joseph (Editor). 2000. *The Biodiversity Cartel. Transforming Traditional Knowledge into Trade Secrets*. CARE. Quito, Ecuador.

Vogel, J., Alvarez-Berrios, N., Quiñones-Vilche, J.L., et.al (2001). *The Economics of Information, Studiously Ignored in the Nagoya Protocol on Access and Benefit Sharing*. 7/1 Law Environment and Development (LEAD) Journal (2011).

WIPO IGC, *Traditional Knowledge – Operational Terms and Definitions 11*, WIPO Doc. WIPO/GRTKF/IC/13/9 (2002).

WIPO IGC, *The Protection of Traditional Knowledge: Draft Gap Analysis: Revision 4*. WIPO Doc. WIPO/GRTKF/IC/13/5/(b) Rev. (2008)

Zamudio, Teodora, Vogel, Joseph, Ruiz Muller. *Logic Should Prevail: a New Conceptual and Operational Framework for an International Regime of Access to Genetic Resources*. Research Document. Initiative for the Prevention of Biopiracy. SPDA, Year V, No. 13, March, 2010. Lima, Peru.