# INTERNATIONAL LAW DIMENSIONS ON PROTECTION TRADITIONAL KNOWLEDGE

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Developing countries have a great interest in the protection of traditional knowledge. Through international diplomacy in related to international organizations, the developing countries concerns about misappropriation of traditional knowledge by transnational corporations. The protection of traditional knowledge must be provided in a legal system which does not only ensure economic benefit for the developing countries, indigenous people but it also reflects universal principles, namely justice and equity.

## I. INTRODUCTION

It could not be imagined before that indigenous traditional knowledge has become a wide discussion in international law. A few decades ago, indigenous peoples were largely considered by modern and industrial sectors of societies as obstacles to development, because their way of life was measured "backward". For example, often their existence in using traditional medicine was looked upon by scientists as ineffective even though they have practiced for generation.

Recently, scholars have argued that the knowledge of indigenous peoples can be 'a promising source of technologies for sustainable development'. Originally, traditional knowledge is lessons from nature which built up over generations and the

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Such as World Health Organization (WHO), Food and Agriculture Organization (FAO), United Nations Conference on Trude and Development (UNCTAD), World Intellectual Property Organization (WIPO), World Trade Organization (WTO) in the framework TRIPS Agreement, the Convention on Bio-Diversity. United Nations Educational, Scientific and, Cultural Organization (UNESCO), Sec, Silke Von Lewinski, Traditional Knowledge and Folklore – A New Topic in the International Arena, in F. Willem Grosheide and Jan. J. Brinkhof (Eds), Intellectual Property Law: Articles on Cultural Expressions and Indigenous Knowledge, (Antwerp: Molengrafica Series, 2002), p. 182.

<sup>2</sup> Graham Dutfield, Protecting Traditional Knowledge and Folklore, in F. Willem Grosheide and Jan. J. Brinkhof (Eds), Intellectual Property Law: Articles on Cultural Expressions and Indigenous

Knowledge, (Antwerp: Molengrafica Series, 2002), p. 63.
<sup>3</sup> For example, The Dogon of Mali has the traditional knowledge which can distinguish in detail on bases smell and taste between many varieties of main crop. See Walter E.A. van Beck and Fabiola Jara, Granular Knowledge, Cultural Problems with Intellectual Property and Protection, in F. Willem Grosheide and Jan. J. Brinkhof (Eds). Intellectual Property Law: Articles on Cultural Expressions and Indigenous Knowledge, (Antwerp: Molengrafica Series, 2002), p. 38.

knowledge is harmony with environment3. Beside that, traditional knowledge has important function in research and pharmaceutical industries, especially in development of new medicine.4 For example, pharmaceutical industries have benefited from biodiversity through drugs developed from natural compound, while agricultural industries improve crops by breeding them with wild relatives.5 -Developing countries have a great interest in the protection of traditional knowledge. Through international diplomacy in related international organizations, developing country governments state their concerns about misappropriation of traditional knowledge by transnational corporations. 2011 According to Graham Dutfield, there are several reasons why the protection of traditional knowledge is significant to developing countries but the most important reason is to provide:

> 'A legal system to protect traditional knowledge and folklore must therefore address not only concern about adequate remuneration but also considerations of equity, justice and cultural integrity'.6

The opinion as quoted above clarifies that the protection of traditional knowledge must be provided in a legal system which does not only ensure economic benefit for developing countries, but it also reflects universal principles, namely justice and equity, the majority of biological diversity on earth remains in developing countries7 and its value is very important into modern industries, the regulation of traditional knowledge, biodiversity, in particularly, must accommodate adequately the interest of developing countries and developed countries. Beside that, the legal system should also regard as cultural integrity of indigenous peoples. The question is what international law dimensions should be considered on protection of traditional

This writing begins by presenting a definition of traditional knowledge and characteristics; discusses international dimensions of protection traditional knowledge related to sustainable development, human rights and intellectual property rights.

<sup>&</sup>lt;sup>4</sup> Tshimanga Kongolo, Towards a Balance Coexistence of Traditional Knowledge and Pharmateucals Protection in Africa, Journal of World Trade Kluwer Law International, 35(2) (2001), p. 349.

<sup>5</sup> The value of the global market for pharmaceutical has reached at US\$ 410 billion with an expected growth rate of between 7 and 8 percent over the next five years. See, Grant E. Isaac and William A Kerr, Bioprospecting or Biopiracy: Intellectual Property and Traditional Knowledge in Biotechnology Innovation', The Journal of World Intellectual Property, Vol.7 No.1 (2004), p. 35.

<sup>5</sup> Graham Dutfield, Op.Ca., p. 64.

<sup>&</sup>lt;sup>6</sup> The reason of developing countries to protect traditional knowledge are " (i) To reward traditional knowledge holder and their communities for contributing to stock of knowledge which benefits the world; (ii) To improve the livelihoods of traditional knowledge holder and communities; (iii) To benefit national economies; (iv) To conserve the environment; (v) To prevent biopiracy; (vi) To strengthening cultural integrity. Ibid.

Erin Kathleen Bender, North and South: The WTO, TRIPS, and the Scourge of Biopiracy', in Tulsa Journal of Comparative & International Law, The University of Tulsa College of Law, Vol. 11 No. 1 (2003), p. 294.

### H.ANALYSIS

1. Definitions and Characteristics of Traditional Knowledge

It is not easy to definite 'traditional knowledge', Scholars and related international organization have given a broad definition to cover any knowledge acquired through traditional means by keeping away from a "definition altogether",8 and others have attempted to narrow its scope of application.9

Most of scholars tend to avoid a definition altogether in conclusion of traditional knowledge. According to Graham Dutfield, "traditional knowledge" refers to 'the knowledge held by traditional peoples and communities'.10 The definition is very simple and focuses on who posses the knowledge, but it has a broad meaning about what included in traditional knowledge. Tshimanga Kongolo, has also given a broad definition on "traditional knowledge", namely 'useful and valuable knowledge belonging to a traditional community and transmitted from generation to generation trough traditional means and that is originally non-commercial'. According to Stephen A. Hasen "traditional knowledge" refers to:

'The information that people in a given community, based experience and adaptation to local culture and environment, have developed overtime, and continue to develop. This knowledge is used to sustain the community and its culture and to maintain the genetic resources necessary for the continued survival of the community'.12

In the same line, national legislation of Philippines and the Convention on Biological Diversity (CBD) tend to follow to stay away from a definition altogether in concluding of traditional knowledge. According to the national legislation of the Philippines, Republic Act No. 8371 on Indigenous People Rights, "traditional knowledge" refers to:

10 Graham Dutfield, Op.Cit., p. 65. " Tshimanga Kongolo, Op.Cii., p. 357.

Stephen A. Hasen and Justin W. Vanfleet, Traditional Knowledge and Intellectual Property Rights: A Handbook on Issues and Option for TK Holder in Protecting Their IP and Maintaining Biological Diversity. http://shr.aaas.org./tck/handbook/handbook/pdf, diakses 28 Oktober 2010.

<sup>\*</sup> Graham Dutfield, Op.Cit., p. 65. " Tshimanga Kongolo, Towards a More Balance Coexistance of Traditional Knowledge and Pharmaceuticals Protection in Africa. Journal of World Trade, Kluwer Law International, 35(2). (2001), p. 357.

<sup>15</sup> The Philippine is one of the first states that have regulated traditional knowledge in a national legislation, as the 1987 Philippine Constitution mandates the recognition, respect and protection of the rights of the indigenous cultural communities and indigenous peoples. See Wend B. Wendland, Intellectual Property and the Protection of Cultural Expressions: the Work of the World Intellectual Property Organization (WIPO). See also WIPO, Report on Fact Finding Mission on Intellectual Property and Traditional Knowledge (1998-1999), (Geneva, Intellectual Property Needs and expectations of Traditional Knowledge Holders, 2001).

'...discoveries, innovations and technologies made by indigenous peoples and local communities that are usually nor recorded in written form, and are transmitted orally from generation to generation'. 13

According to the Convention on Biological Diversity (CBD), "traditional knowledge" refers to 'the knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles as well as indigenous and local technologies'. 14

On the other hand, WIPO has conclude traditional knowledge in a definition altogether. According to WIPO 'traditional knowledge' refers to:

'tradition-based literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks; name and symbols:' undisclosed information; and, all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic field. The notion tradition—based refers to knowledge systems, creations innovations and cultural expressions which have generally been transmitted from generation to generation, and that are generally regard as pertaining to a particular people or its territory, and generally have been developed in a non-systematic way, and, are constantly evolving in response to a changing environment. 15

For the purpose this study, the traditional knowledge means: "knowledge held by indigenous peoples and local community based on tradition, both cultural expression and indigenous knowledge"

There are five essential characteristics of traditional knowledge. Firstly, the knowledge must have been transmitted from generation to generation, secondly, must be regarded as pertaining to a particular people or its territory, thirdly, must have been developed in a non-systematic way and fourthly, be constantly evolving in respond to a changing environment, and lastly, the right holder is indigenous peoples and local communities. <sup>16</sup>

The categories of traditional knowledge are divided into indigenous knowledge and cultural expression. Indigenous knowledge include agriculture knowledge, scientific knowledge, technical knowledge, ecological knowledge, medicinal knowledge, including related medicines and remedies, biodiversity-related knowledge. The term "indigenous knowledge" can be distinguished between tangible

" See WIPO, (2001), Loc. Cit.

<sup>16</sup>F. Willem Grosheide, "General Introduction", in F. Willem Grosheide and Jan. J. Brinkhof (Eds), Intellectual Property Law: Articles on Cultural Expressions and Indigenous Knowledge, (Antwerp: Molengrafica Series, 2002), p. 24.

<sup>17</sup> WIPO uses 'expression of folklore' for cultural expression category, See, WIPO Loc.Cit. and see also, F. Willem Grosheide, 'General Introduction' in F. Willem Grosheide, and Jan. J. Brinkhof (Eds), ibid, p. 1

<sup>4</sup> See, Article 8 (J) and 18.4, Convention on Biological Diversity (CBD).

component and intangible component. For example, traditional medicinal knowledge has both medicinal plant as tangible component and medicinal knowledge as intangible component. <sup>18</sup>Cultural expression dealing with music, dance, song, handicrafts, designs, stories; and artwork, elements of languages, such names, geographical indication and symbols; and, movable cultural property. <sup>19</sup>

# 2. Protection Traditional: a View from International Law Dimensions.

The protection of traditional knowledge has varied dimensions. It can be approached from different perspective, such as sustainable development, human rights, intellectual property rights and others. This part is presenting all perspective, as follows.

# A. Sustainable Development Perspective

The basic notion of this perspective is that traditional knowledge gives valuable contribution to the sustainable development namely, the environment and the fulfillment of basic human needs. Traditional knowledge transmitted through generation to generation in indigenous people and local community has contributed to the general knowledge on sound environmental principle and management and human development especially in food production and traditional medicine. Based on this perspective, the approaches proposed to protect traditional knowledge are protection traditional knowledge through national legislation or reformation of tRIPS and CBD. The first approach is not a new one; because protections of traditional knowledge through sui generis has been used by some national and regional countries.

Sustainable development is a priority of the second approach. The objective of the approach is to operational the main paradigm of CbD as the main basis of the harmonization process, which can be suitable with the principles sustainable development. 22 Because of TRIPs is inconsistence with CBd in promoting sustainable

19 F. Willem Grosheide, Op. Cit., p.1.

20 Martin Khor, Intellectual Property, Biodiversity and Sustainable Development: Resolving

the Difficult Issues, (Malaysia: Zed Books, 2002), p.16.

22 Martin Khor, Op.Cit., p..67.

<sup>&</sup>lt;sup>18</sup> Geertrui Van Overwalle, 2002, Protection of Traditional Knowledge: A Critical Synthesis, in F. Willem Grosheide and Jan. J. Brinkhof (Eds), Intellectual Property Law: Articles on Cultural Expressions and Indigenous Knowledge, (Antwerp: Molengrafica Series, 2002), p.253

<sup>29 \*...</sup>countries that have ratified the CBD can fulfill their obligation to protect traditional knowledge and community rights through the enactment of national legislation that covers the following areas and elements: Recognition of traditional knowledge; Local community rights in relation to resources and knowledge; Access and benefit-sharing in relation to biodiversity resources and knowledge relating to their use, in which the rights of state of the country of origin, the farmers, indigenous peoples and local communities are fully take into account', Ibid.

<sup>21</sup> See WIPO at http://www.wipo.int/ducument/eu/2004/ige/pdf/

development, it is required to amendment the provisions of TRIPS which is not in line with this objective. Provision of TRIPS that allow members to exclude patents on environmental ground does not support protection of traditional knowledge.<sup>23</sup>

The approach of sustainable development to protect traditional knowledge will be effective if it concerns to strengthen capacities of indigenous people and local community to reach sustainable development as main stream.<sup>24</sup> 'To that end cBD introduces a rather ambiguous and not very reconcilable'.<sup>25</sup> The approach sustainable development through harmonization TRIPS and cBd is not visible to protect traditional knowledge; because harmonization or reformation itself is a reflection of the weakness of both institutions.

## B. Human Right Perspective

The second approach of traditional knowledge protection connects with perspective on human rights. There are three reasons to justify protection of traditional knowledge under human rights perspective, namely, based on indigenous cultural rights<sup>2011</sup>, right to food, and right health.

A number of human rights documents recognized cultural right of indigenous people. The Universal Declaration of Human Rights provides that 'everyone has the right to freely participate in the cultural life of the community, to enjoy the arts and to share the scientific advancement and its benefits. The Covenant on Economic, Social and Cultural Rights gives the duty of States to take necessary steps 'for the conservation, the development and diffusion of science and culture'. The UNESCO Declaration on the Principles of International Cultural Cooperation states that 'each culture has a dignity and value which must be protected and preserved' and that 'every people has the right and duty to develop its culture'. Protection of traditional

<sup>&</sup>lt;sup>23</sup> See, Article 27.2 TRIPS provides that 'Members may exclude from patentability invention, the prevention within their territory of the commercial exploitation of which is necessary to protect order public or morality, including to protect human, animal, or plant or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

<sup>24 &#</sup>x27;Sustainable development mean that current generation provide future generation with an environment and a stock natural resources that is as good and as rich as that which it received from post generations', See, F. Willem Grosheide, Op.Cit., p. 22

<sup>25</sup> Ibid.

<sup>&</sup>lt;sup>25</sup> For indigenous people culture is an integrally related concept, the outcome of the relationship between human being, plants and animals and the land, ... All products of the human mind and heart flow from the same source, the human being, her kinship with the other beings of the world and her relationship with the land and the spiritual world. See, Alexandra Xanthaki, Indigenous Cultural Rights in International Law, European Journal of Law Reform Kluwer Law International, Vol.2. No.3,(2000), p. 348.

<sup>&</sup>lt;sup>26</sup> See, Article 27.1, Universal Declaration of Human Rights, in Henry J. Steiner and Philip Alston, *International Human Rights in Context*, Second Edition, (Oxford: University Press, 2000), p. 1380.

<sup>&</sup>lt;sup>27</sup> See Article 15.2, International Covenant on Economic, Social, and Cultural rights, Ibid.
<sup>28</sup> See, UNESCO Declaration (1966)

knowledge as part of indigenous cultural right is also based on the ILO Convention No.169 on Indigenous and Tribal Population. The Convention urges signatories to promote 'the full realized of social, economic and culture rights of [indigenous and tribal peoples] with respect to their social and cultural identity, their custom and tradition and their institution'.<sup>29</sup>

Although the human rights documents recognize indigenous people rights, but they focus on the rights of the individual to have access to culture and development of their culture. <sup>2011</sup> The human rights approach to protect traditional knowledge has always been criticized, because both are different principles. On one hand, the exiting human rights concept is 'somewhat Western-centric perspectives that stress individual rights and freedom and on the other hand indigenous people rights based on cultural and collective rights. It does not adequately address traditional knowledge as collective rights. <sup>30</sup>

## C. Intellectual Property Right Perspective

In general, knowledge is a bundle of information; understanding and skill derive from the human experiences or the cognitive human capabilities. Some knowledge has been arranged by means of some formal method or symbolic system, in journals, in technical drawings, mathematical notion, and patent specifications and so on, called as codified information. On the other hand, there is also some knowledge only known by a particular person or as a social practice in a community. This knowledge is classified as uncodified information or tacit knowledge. It is more difficult and less ready to transfer to the other party than codified information.

Knowledge may be viewed as a public good. There are characteristics of knowledge that can be identified as a public good. Knowledge is non-rivalry intangible resource that cannot be over-exploited even though it is used to the largest possible extent. It can be also consumed jointly as much as possible by anyone without reducing the knowledge its self. In his letter, Thomas Jefferson expressed the characteristic of knowledge as lights. He wrote, "He, who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at

29 Alexandra Xanthaki, Op.Cu., p.349

<sup>33</sup> Jakob Cornides, Human Rights and Intellectual Property. The Journal of World Intellectual Property, Vol. 7, (2004), p. 147.

<sup>29</sup> See, Article 2, ILO Convention No. 169.

<sup>™</sup>The Crucible II Group, 2000, Seeding Solutions, Vol. 1. The International Development Research Center, p. 76.

<sup>&</sup>lt;sup>31</sup> Peter Drahos, The Regulation of Public Knowledge, in Keith E. Maskus and Jerome H. Reichman, (Eds.), International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime, (London: Cambridge University Press, 2005), p. 53.

<sup>&</sup>lt;sup>32</sup> Paul A. David, Kayaanisqatsi in Cyberspace: The economics of an "out-of-balance regime of private property rights in data and information, in Keith E. Muskus and Jerome H. Reichman, (Eds.), International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime, (London:, Cambridge University Press, 2005), p. 86.

mine, receives light without darkening me". Finally, knowledge has a non-exclusionary characteristic that an individual may exclusively possess as long as he keeps it to himself but once it is disclosed, it is difficult to prevent it being used by everyone. The knowledge is classified as public domain. In fact, the most of knowledge is in public domain belongs to nobody and thus, is free to use.

Some of the knowledge could be transferred into private domain by existing Intellectual Property Rights (IPR) mechanisms. In this concept, IpR protection means to exclude unauthorized use by third parties. According to Shubha Ghosh, the public domain is "a sanctuary only from the control of intellectual property law, contract but technology can be used to capture items from the public domain". Between these domains there is an exchange.

Unlike knowledge in general, traditional knowledge is any knowledge acquired through traditional means. "Traditional" refers to the knowledge system itself, how knowledge is developed and who the holders of the knowledge are. It does not mean that traditional knowledge is 'ancient' knowledge. "Traditional knowledge is the accumulated knowledge rooted in or based on tradition in human interaction with environment in a non-systematic way. As Barsh asserts: 38

'What is 'traditional' about traditional knowledge is not its antiquity, but the way it is acquired and used. In other words, the social process of learning and sharing knowledge, which is unique to each indigenous culture, lies at the very heart of its 'traditionality'. Much of this knowledge is quite new, but it has a social meaning, and legal character, entirely unlike the knowledge indigenous peoples acquire from settlers and industrialized societies.'

Moreover, traditional knowledge does not belong to individual but is rather owned and transmitted collectively. Based on these characteristics, some writers argue that traditional knowledge is uncodified public good.™ As knowledge, traditional knowledge is placed in public domain, because it has been acquired and divulged incrementally over the centuries. As abstract idea and discoveries, traditional

The Life and Selected Writings of Thomas Jefferson (Modern Library Editions), p., 629-630, as quoted from Paul A. David, Op. Cit., p.86.

M Arvind Subramanian, Property Protection of Genetic Resources and Traditional Knowledge in Netherlands Quarterly of Human Rights, p. 384.

<sup>&</sup>lt;sup>36</sup> Shubha Ghosh, The Traditional Terms of Traditional Knowledge Debate, North Western Journal of International Law and Business, Vol. 23, No. 3, (2003), p. 592.

<sup>&</sup>lt;sup>27</sup> Johanna Gibson, Community Resources: Intellectual Property, International Trade and Protection of Traditional Knowledge, (Ashgate, 2005), p. 28. See also, Graham Dutfield, Intellectual Property, Biogenetic Resources and Traditional Knowledge, (Earthscan, 2004), p., 94.

<sup>&</sup>lt;sup>38</sup> R.L. Barsh, Indigenous Knowledge and Biodiversity in Indigenous Peoples, their Environment and Territories, in Darrel A. Possey (ed). Cultural and Spiritual Values of Biodiversity, (London and Nairobi: IT Publications and UNEP, 1999), p.73.

<sup>&</sup>lt;sup>36</sup> Peter Drahos, The Regulation of Public Knowledge, in Keith E. Maskus and Jerome H. Reichman, (eds.), Op. Cit., p. 53.

knowledge is a product of collective invention.<sup>40</sup> Moreover, traditional knowledge, especially in agricultural practices, is often freely transferred with no expectation of payment.<sup>41</sup> based on the reasons, they argue that any attempt to delimit traditional knowledge within the conventional private ownership may be described as contradiction with thej essence of traditional knowledge itself as knowledge.

On the others provide that not all-traditional knowledge are classified as public knowledge. The assumption that traditional knowledge is common heritage is more relied upon misleading generalization than a fact. It is recognized that many traditional communities have "a strong sharing ethos", but it cannot be concluded that the whole thing in traditional knowledge is distributed to everybody. 42 In Northern Thailand, for instance, a general medical knowledge is regarded as local common property but a special medical knowledge is only owned by a person who has special status in the community called "moh muang" or a medical practitioner.2011 Both are common property of the community. The problem is whether the general knowledge owned by indigenous or local community is the public domain knowledge, which can be access freely by everybody outside of the member of community. Some writers argue that not all-traditional knowledge is public domain because every indigenous or local community has the different concept on properties included their knowledge. 43 In this concept, although a large part of knowledge has been revealed, however knowledge that is protected by customary law and practices is treated as private knowledge that not free to use for everyone.

Because of that reason, some countries with rich biodiversity resources have regulated traditional knowledge protection unilaterally. This regulation can fill the gap of international legal system in case of indigenous people rights as the owner of that knowledge and at the same time, provide access for stake holder namely

Women or mothers normally excel in expertise regarding the use of herbal medicine for curing simple illness of children. However, when the cure by a home remedy is not successful the mother will consult to "moh muang". See, Yos Santasombat, Biodiversity: Local Knowledge and Sustainable Development, (Thailand: Chiang Mai University Press, 2003),p. 104.

<sup>\*\*</sup> Stephen B. Bursh, Is Common Heritage Outmoded?, in Stephen B. Bursh and Doreen Stabinsky. (Eds.), Valuing Local Knowledge; Indigenous People and Intellectual Property Rights. (Washington DC: Island Press, 1996),p. 146.

<sup>\*\*</sup> Thomas Cottier, The Protection of Genetic Resources and Traditional Knowledge: Towards More Specific Rights and Obligations in World Trade Law, Journal of International Economic Law, Vol. 1, No. 1 (1998), p. 561.

<sup>42</sup> Graham Dutfield (2004). Op.Cit., p. 95.

<sup>&</sup>quot;According to Dutfield. "TK is classified in the public domain when it has been disclosed to non-members of small community or group of people", See, Graham Dutfield, Intellectual Property, Biogenetic Resources and Traditional Knowledge, Earthscan, 2004, Op.Cit., p.95. See also, Anil K. Gupta, Rewarding Conservation of Biological and Genetic Resources and Associated Traditional Knowledge and Contemporary Grassroots Creativity, in WIPO-UNEP Study on the Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Associated Traditional Knowledge, 2004, p. 11. See, Erica-Irene Daes, 'Intellectual Property and Indigenous People', the American Society on International Law, Proceedings of the 95th Annual Meeting, 2001, p. 147. See also Vandana Shiva, TRIPs, Human Rights and the Public Domain, The Journal of World Intellectual Property, Vol.7, No. 5, (2004), pp.668-670.

educational institution, researchers, domestic and foreign industry fairly and equally in taking advantage of indigenous knowledge. The problem grounds on what international legal principle to be subsumed in national legal to achieve this goal and how those countries apply its principle in protection of traditional knowledge.

## 1. Recognition Foreign Traditional Knowledge Rights

For the purpose of actualizing fair protection of traditional knowledge, unilateral regulation on protection of TK should honor and profess foreigner's rights of TK in their national jurisdiction. This principle is known as national treatment principle.

Tracing back the history of protection of intellectual property right in Europe, it was originally regulated on a national scale. Traditional knowledge possesses characteristic that follows national principle. It means that protection of intellectual property rights is limited in national jurisdiction of a country. Its protection cannot be applied outside of country territory that assures protection. However, the growth of international trade demands intellectual property rights, related countries agree to regulate its protection multilaterally. National treatment therefore becomes one of the main principles in international convention on intellectual property rights.

This principle is fundamentally constituted as the part of non-discriminatory principle. Paris convention on industrial property protection 1883 and Bern convention on protection of literature and art works have applied national treatment principle. Based on this principle, the member countries of Paris and Bern convention have to provide an equal protection to other member countries as their countries provide protection for their citizens. <sup>46</sup> Through application of this principle, a country owns autonomy in order to develop its intellectual property legal system as long as it follows the international convention. Thus, national treatment constitutes international protection mechanism without uniformity.

Foreigners Rights on TK is also validated through mechanism of mutual profession. Based on this mechanism, profession of foreigners<sup>2</sup> rights on traditional intellectual property by a country depends on the equal profession of traditional intellectual property in the country where the foreigners lives. Its mutual sphere includes protected material and its protection period.

A country is possible to regulate mutual profession on protection unilaterally in its national constitution which regulates traditional knowledge. Besides, mutual profession allows bilateral agreement by two countries. Both countries bilaterally to manage material sphere of protected TK including its protection period. In the

45 Christopher May and Susan K. Sell, Intellectual Property Rights: Critical History, (London: Lynne Rienner Publisher, 2006), p. 111.

<sup>&</sup>quot;WIPO, Traditional Knowledge, Traditional Cultural expressions and Genetic Resources: the International Dimension, IGC- IP GRTKF Document, 2004.

<sup>\*\*</sup> For more detailed See, Lionel Bently, and Bred Sherman, Intellectual Property Law, Second Edition, (London: Oxford, 2004), p. 5.

following part, review on national practice in applying profession principle of foreigners' right in constitution that protects "sui generis" Traditional Knowledge.

# 2. National Practice on Traditional Knowledge Protection "Sui Generis"

Based on it conception, protection of TK is classified into defensive and positive protection. Essential difference of both characteristic is sourced on the certain goal of its protection. The main goal of defensive goal is preventing third group taking benefits without regulated right (misappropriation) of traditional knowledge possessed by an indigenous community. <sup>47</sup> For example, it follows the case of preventing biopiracy or sort of action. <sup>48</sup> Otherwise, positive protection allows legal action that enables indigenous community to claim their possessed TK. Positive protection is sourced on the assumption that TK protection is important in order to defend the knowledge holder right towards exploitation and commercial benefit. <sup>49</sup> Both characteristics of protection have been adopted into national legal system either in the regime of intellectual property legal system or intellectual property "sui generis" system.

In defensive protection framework, there are two possible actions through patent legal system. Firstly, requiring all patent applicants to reveal the origin of genetic resource and related Tk which is relevant to their invention. Secondly, defining all TK as prior of art. All information about Tk which has been publicly revealed is to be compiled and widely published. The patent reviewer therefore easily identifies novelty aspect with its relation to existing "prior art". 50

Obligation of revealing TK origin at the level of patent registration is aimed to actualize the regulation of equitable benefit sharing as arranged in CbD.<sup>51</sup> This idea is supported by developing countries and it becomes a subject of discussion in the council of TRIPs.

There are three forms of obligation in revealing TK related to patent registration on genetic resources. Those three forms consist of weak, medium and strong characteristic. Each form is different to the others in the case of its legal consequence.<sup>52</sup>

There is no concerted agreement on this obligation among related countries at the international level. Leading countries, especially United States, rejects this

<sup>\*\*</sup> Overwalle calls this action as defensive approach in protecting TK whose the main goal is to impede non-authorized groups in exploiting Traditional Knowledge. Geertrui Van Overwalle, Protection of Traditional Knowledge: A Critical Synthesis, in F. Willem Grosheide and Jan. J. Brinkhof (Ed.), Articles on the Legal Protection of Cultural Expressions and Indigenous Knowledge, (Antwerp: Intersentia, 2000) p. 252

<sup>&</sup>lt;sup>49</sup> Geertrui Van Overwalle, Op. Cit., p. 248.
<sup>50</sup> Graham Dutfield (2005), Op. Cit., p. 506.

<sup>31</sup> Ibid.

No Draft on weak form emphasizes that the revelation to be encouraged even really expected but not to be required. The failure in revealing does not impede the patent release; 2) draft on medium form emphasizes that revelation of knowledge origin is obligatory. This revelation becomes substantive requirement; 3) draft on strong form requires every applicant to obey the regulation about access and benefit sharing managed in CBD mechanism. Graham Dutfield (2005), Op. Cit. p. 506.

obligation with the reason that the obligation in revealing origin of TK and genetic resources is regarded as additional constitution which is contradicted to Article 27 (1) TRIPs. In addition, this obligation constitutes discriminative action in the realm of technology and it leads barriers, either in legal aspect or administration for patent office. Otherwise, developing countries argue that arguments which comes from leading countries are no longer relevant to patent regime recently where inventions based on micro-organism is treated in different ways. 53

Although international regulation does not exist yet, some developing countries have applied this approach as one of TK protections with defensive characteristic.<sup>54</sup> Brazil, Costa Rica, and India have included obligation of origin revelation in national patent constitution as requirement of patent release towards invention related to genetic resources.<sup>55</sup> Practice in India is more classified into medium obligation. In India case, obligation to reveal the origin of TK contains substantive requirement in obtaining patent.

Meanwhile, EU arranges this problem in another way. The EU biotechnology directive only stresses that patent applicant should appropriately includes geographic origin towards his invention related to biological materials of plant or animal resource or its usage related to those materials, *if identified*, nonetheless it does not impede the process of patent release or determine legality of right which appears from that patent release. Recital 27 of the directive regulates this problem.

Although the step which is taken by EU has no legal consequence yet, but it shows that idea to reveal origin of TK as preventive step has gained supports, not only from developing countries but also a number of leading countries. it should be viewed as a meaningful starting point.<sup>56</sup>

Profession of foreigners' right of their Tk is not necessarily to be included in regulation of defensive protection. Defensive protection basically does not arise any right on TK. This protection only constitutes an instrument which hinders foreigners to obtain knowledge of indigenous community in a country without authorization. In the case of different patent system, therefore an individual occasionally is able to register somebody's knowledge in certain country that adopts relative novelty system.<sup>57</sup>

35 Surinder Kaur Verma, Op.Cit., p. 788.

36 Surinder Kaur Verma, Op. Cit., p. 788.

57 "Neem" tree patent case in US is one of the examples.

<sup>53</sup> Furthermore, based on Indian Patent Law 2002 (as amended), the failure to reveal TK origin and genetic resource are taken to be the basis of rejection or annulment of patent. Surinder Kaur Verma, Op.Cit., p. 787.
54 Sophia Twarog, Op.Cit., p.7

<sup>3&</sup>quot; Whereas if an invention is based on biological material of plant or animal origin or if it uses such material, the patent application should, where appropriate, include information on the geographical origin of such material, if known; whereas this is without prejudice to processing of patent application or the validity of rights arising from granted patent". See, EU Biotechnology Directive 98/44 of the European Parliament and of the Council of 6 July 1998 on the Legal Protection of Biotechnological Invention as quoted by Graham Dutfield (2004), Op. Cit., p. 111.

<sup>57</sup> In the Act on Protection and Promotion of Traditional Thai Medicinal Intelligence, B.E 2542

Conversely, positive Tk protection is necessary in the case of international principle application on foreigners' right profession. Positive protection promotes a right to the TK holder. Profession of foreigners' right on TK therefore to be recognized in order to profess that TK right in another country. This profession works through application of national treatment principle or mutual mechanism bilaterally or unilaterally regulated on a constitution of TK protection.

A country which has applied this international legal principle in protection of traditional medicine is Thailand. Thailand protects knowledge of traditional medicine by applying sui generis intellectual property right. <sup>2011</sup> This constitution is classified into positive protection. The owner of TK is given rights of his knowledge. Those rights are acquired through request to registrar. (i) Nationality and (ii) base qualification of the knowledge are the basis the regulation of authorized people to request registration in order to obtain intellectual property rights of Thai traditional medicine or Thai medicinal literatures.

From the viewpoint of nationality, it is a person with Thai nationality who is authorized to register medicinal knowledge. Hence, in its principle, only Thai people who will be the holder of intellectual property on medicinal knowledge. However, the legal subject of another country is also possible to be the holder of Thai traditional medicine knowledge if his country also authorizes Thai citizen to register Thai traditional knowledge in order to obtain protection of intellectual property right 2011

Thailand applies reciprocal principle in authorizing intellectual property rights of medicinal knowledge to foreign citizen. This international principle has been applied unilaterally. Thus, the constitution of sui generis traditional medicine protection has adopted international legal system in the case of TK.

## III. CONCLUDING REMARKS

Application of foreign citizen profession towards his intellectual property constitutes a crucial international legal dimension in Tk protection. This principle- in form of national treatment- has been applied in European countries in the beginning of intellectual property development. In regulating TK protection, this application assists its integration to multilateral intellectual property rights. Rights of indigenous people as the holder of knowledge therefore is protected and all at once the stake holder can access and prevailing knowledge of indigenous people fairly and properly.

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