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WIPO/GRTKF/IC/9/INF/7(c)

ORIGINAL: English

DATE: April 24, 2006

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WORLD INTELLECTUAL PROPERTY ORGANIZATION

GENEVA

**INTERGOVERNMENTAL COMMITTEE ON
INTELLECTUAL PROPERTY AND GENETIC RESOURCES,
TRADITIONAL KNOWLEDGE AND FOLKLORE**

**Ninth Session
Geneva, April 24 to 28, 2006**

**WIPO PANEL ON, “INDIGENOUS AND LOCAL COMMUNITIES’
CONCERNS AND EXPERIENCES IN PROMOTING, SUSTAINING
AND SAFEGUARDING THEIR TRADITIONAL KNOWLEDGE,
TRADITIONAL CULTURAL EXPRESSIONS AND GENETIC
RESOURCES”**

**PROTECTING TRADITIONAL KNOWLEDGE AND CULTURAL EXPRESSIONS:
THE EXPERIENCE OF INDIGENOUS PEOPLES IN THE PHILIPPINES**

APRIL 24, 2006

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* This document comprises the presentation in the form received from the presenter. Any views expressed in the presentation are not necessarily those of WIPO or any of its Member States.

Over the past few years, there has been a dramatic increase in interest concerning the role of indigenous knowledge in participatory approach to sustainable development. This is reflected in a number of activities generated within communities which are documenting and recording their knowledge for development planning purposes. It had also been utilized in the design of national development projects that emerge from problems identified by local communities which build upon community level knowledge systems and structures.

Likewise, traditional environmental knowledge has been recognized for its value to contemporary environmental management. This appreciation of traditional knowledge is being encouraged because it contributes much to innovations in modern agricultural technology and industries. Many products found in the market today are based on information derived from traditional knowledge. Plant-based medicinal products, cosmetics, food and agricultural products, non-wood products and handicrafts are just some examples of how the modern world has utilized indigenous knowledge.

For centuries, indigenous and traditional communities have practiced how to plant food and to survive in their environment. These include the intricate system of crop varieties, determining when to sow and how to harvest, at the same time, manage their environment in a sustainable and balanced manner. Such traditional knowledge is often passed down through generations orally and seldom in any form of documentation.

While many of the older generation still have and are keepers of their respective traditional knowledge, there is a great concern that such knowledge may soon be lost. This is due to acculturation, changing lifestyles, priorities and the availability of modern amenities, resulting in diminishing dependence of the younger generation on the traditional and indigenous knowledge of their elders or communities.

The saying "*when an elder dies, a library burns down*" clearly illustrates the magnitude and importance of traditional knowledge and the need for the full participation of everyone within the communities to document their respective traditional knowledge as their heritage. Attention should also be given to unauthorized and inappropriate patenting and use of traditional knowledge with no equitable sharing from resulting benefits to the holders or source communities.

New insights reveal how people use their own locally generated knowledge to change and to improve natural resource management. However, indigenous and local communities do not have a written tradition/culture thus recognition of traditional knowledge through a system of Intellectual Property Rights system has always been difficult. Greater efforts therefore, should be undertaken to strengthen the capacity of local communities to document, if they so decide, and develop methodology to promote activities that will interface indigenous knowledge and scientific disciplines. For if appropriately utilized, traditional knowledge can bring much benefit to the community and the country through equitable access and benefit sharing when such knowledge is used by modern industries and research activities.

I. Nature of Traditional Knowledge and Cultural Expressions as well as related Genetic Resources (TK/TCEs/GRs)

The Philippine traditional knowledge comprises the indigenous and other local people's knowledge and beliefs about the natural world, their ecological and natural resource management, social institutions and practices. It is a fundamental component of cultural adaptation to natural conditions (Twarog, 2004).

The Philippines with a diverse 110 indigenous ethnolinguistic/ethnic groups comprising of about 12 million in population has so much to tell. The diversity of ethnic groups in the country is reflective of the wide variety of traditional knowledge and cultural expressions. This diversity is further compounded by the fact that we are one of the 17 megadiversity countries. The Philippines boasts of more than 52,177 species of which more than half are found nowhere else in the world (DENR Report, 2004).

The environment and its resources is the main life source of indigenous peoples in the country and they have developed a certain degree of technology to harness the natural wealth. Integral to their traditional technology or knowledge is the acknowledgment of the ultimate source of all creation including intellectual creation that is inviolable to ensure life preservation on earth. The indigenous ethnic groups believe in the presence of unseen forces that have control over earthly conditions and thus they have to commune with them.

Hereunder are few of the documented traditional knowledge and/or traditional cultural expressions as well as related genetic resources of the indigenous and local communities in the Philippines.

1. *Traditional Medicines and Health Care*

Rituals are integral to the traditional health care practices and life preservation among the indigenous tribes or ethnic groups. From childbearing to sickness and death, laborious rituals are performed to appease the spirits and supplicate the intervention of the Supreme Being. Most of the practices are similar with few variations. The practices have yielded positive results such that they persist to this day.

To illustrate, the traditional practice of the *Tinguian* ethnic group (DWCB Research Center, 2003) in northern Philippines on life preservation and health care include: (a) performance of the *dawak* ceremony for couples who could not bear a child; (b) traditional baptism of the newborn or the rite of *sikki*; (c) the *apo* practice of bringing the newborn child to the grandparents for blessings and a celebration of the child's integration into the community; (d) the *sangasang* ritual performed during the teething period of the baby to free the parents anxiety of having a wayward child believed to be associated with irritable behavior at this period; (e) the *ud-udong* ritual to release spirits holding on to a person causing him/her sickness which could not be treated by any medicine; and (f) for death rituals, the *palpalubos* or farewell ceremony and the *senga* ritual which must be strictly performed lest the dead will cause misfortunes to the bereaved family.

On traditional medicines, an example comes from the *Dumagat* group along the central-eastern part delivers offspring with the assistance of a *hilot* or traditional

healer who cuts and treats the umbilical cord with ashes until such time that it heals. To cleanse the intestines, the newborn is given extract of the *ampalaya* or bitter gourd leaves. (From the community's own documentation)

Other health practices are:

- Among the *Mansaka* in Southern Philippines (CCP Encyclopedia, Vol. 1 &2) - Wounds are treated with a mix of crushed *marabiya* roots, chewed *sukati* sprouts, *pamantigi* leaves and oiled *linek*. For headaches and stomach trouble, the patient is given concoction of *kepet* leaves, roasted *baganga* fruit, *aribet* roots, and boiled *sapa* saps. For boils, crushed *dampang* flowers and/or *pitugo* fruit is applied. For constipation, ground *warasiman* and boiled *anuring* are eaten by the afflicted, and for malaria, the bark of the *bagil* tree is boiled for drinking. For fractures, the bark of the *theatrit* tree is heated and wrapped around the injured part of the body to aid in healing. They also have herbal (*agosis*, *basikay*, *gapas* and *baay*) bath prescriptions for mothers who have newly given birth.
- Among the Ibaloi of Northern Philippines, they went beyond life preservation and they had specialized in the mummification of their dead.
- The *Aeta* in Central Philippines claim traditional knowledge of a certain source of potency akin to Viagra.

Inherent in all healing and human preservation practices is the conduct of a ritual or prayer intoning the healing powers of the Divine Providence.

2. Traditional Agriculture

Rice producing indigenous ethnic groups in the country have developed a sustainable agricultural technology from seed selection and sowing to harvesting and preservation. This includes systems of ensuring that the soil retains its productivity through the years without resorting to commercial fertilizers. Organic farming is being practiced where special types of plants are used as organic fertilizers. The indigenous *kaingin* or the slash and burn system allows a recuperation period for a particular area. Moreover, the technology also addresses the problems on pests such as rats of which indigenous solution necessitates the conduct of rituals invoking the intervention of guardian spirits.

The indigenous groups practice both wet and dry agriculture. An example of the documentation on wet agriculture is the analysis on the role of indigenous women among the Ifugao ethnic group (Dunuan, 2006). It presents the tested traditional practices on wet rice agriculture from seed selection to soil preparation and planting to harvesting including manpower or resource management. The study showed that women play a vital role in traditional rice farming which is true in all the other ethnic groups in the country. Specific practices among the Ifugao women on their role in agriculture are shown in Annex A.

On upland or dry rice cultivation, a documented illustration is presented in the book entitled "The *Subanen* Seedkeepers" that depicts the cultural practices and

morphological characteristics of upland rice varieties of the *Subanen* (Suminguit, 2005). The following are excerpts from the book.

“The Subanen practice rice kaingin, the widely used term in the Philippines for shifting cultivation in upland areas. Accordingly, the kaingin has five well-defined stages: site selection, cutting, burning, cropping or planting and fallowing. These stages are marked with rituals primarily to maintain a harmonious relationship between humans and supernatural forces thus ensure bountiful harvest. The rituals are performed by the belyan (shaman): (a) during site selection, the ritual is dlabay that seeks permission from the unseen forces for the use of the land; (b) on cutting of trees, the ritual is pailis to inform the supernatural forces to vacate the area so that they will not be harmed by the cutting of trees; (c) on burning, the ritual is bakyag invoking the help of the god of fire to ensure that the burned vegetation will completely turn into ashes which will also serve as fertilizer; and (d) on planting, two rituals are performed. First is the dadjong (symbolic planting) to signify that planting has begun and in case that the bad spirits will come to plant first on the cleared site, the crops to be planted by humans will not likely to fail. The next ritual is the daga beni (“daga” means blood and “beni” means seeds) for the purpose of seeking permission to plant the seeds, an assurance that the malevolent spirits will not harm the seeds.

*Essential to the daga beni ritual is the gukay beni or collection of plants and objects that are included in the container of the rice seeds to bring luck and bountiful harvest. This includes the following plants/objects: dlulapay, a softwood that has great coppicing ability, also the salimbangon (*Pseuderanthem bicolor*) that even its fallen stems would coppice, tenlad (*Cymbogon citratus*) lemon grass with excellent tillering ability, and the tubo-tubo (*Kalanchoe pinnata*) that even a small slice of leaf would grow when in contact with the ground. The belief that the attributes of the gukay beni will be transferred to the rice is called **sen** that is based on the “Law of Similarity” that is “like produces like” as articulated by James Frazer (1955). Whereas to ward off undesirable agents, the gipo dagat (corral reef) is added to the gukay beni, and in contrast to **sen**, it is used as a **ted** (interpreted as something that drives away or repels bad spirits).*

The kaingin system of the Subanen commences with the medlegawen ritual and culminates with the buklog or thanksgiving ritual. Aside from the selection of seeds based on best performance and other attributes, the medlegawen is a ritual requesting the Gapu Palay (supernatural owner of the rice) for diverse varieties of rice. On the other hand, the buklog is performed after a bountiful harvest. All throughout the kaingin, the Subanen practice elaborate farm management including weed and pest management. Post-harvest handling, storage and processing are also well establishe”..

3. Traditional Cultural Expressions

Traditional cultural expressions vary from one ethnic group to the other, though maybe similar in purpose or objective. Some forms of traditional cultural expressions are as follows:

- **Music and dances** – these are often used rituals, feast, harvest festivities and other religious and social ceremonies or activities. The musical instruments are often bronze gongs – flat gongs in the north and embossed gongs in the south. Also common traditional instruments are made of bamboo. The south has a traditional stringed instrument known as the *kudyapi*. The ethnic dances likewise vary; dances of the ethnic groups in the north are often group performances in contrast to often solo performances of the central and southern ethnic groups. Each dance has its own relevance.
- **Literature** – the indigenous ethnic groups have rich literature with each group having legends of their own origin, riddles, proverbs, chants/songs, and poetry. More known epics are the *Hudhud* of the Ifugao in the north and the *Guman* and *Darangen* of the Subanen in the south. Ethnic communities also have their respective mythology or legends depicting supernatural creatures co-habit their ancestral territories in olden days.
- **Weaving** – indigenous weaving textile, mat, basket, rattan furniture, architecture and wood sculpture. Weaving is perhaps the most visual expression of indigenous culture that differentiates one ethnic group from the other. From north to south of the country, the ethnic groups take pride of their clothing design that are not only colorful but very artistic. The artistic designs are often impression that depicts the inner thoughts and feelings of the ethnic groups. Among the *Igorots* in northern Philippines, their clothing designs or drawings portray the omnipresence of the Almighty among His creatures. Among the southern ethnic groups, the intricate tie-dyed design on abaca textile called *t'nalak* is actually a dream manifestation such that no two designs are ever the same.

An elaborate description of the *t'nalak* design among the *T'boli* is presented in a feature in the Mabuhay magazine of the Philippine Airlines (PAL) as photographed by Kevin Hamdorf. “There are no fixed tribal designs from which the weaver can choose. Each design is new. No one person can make the exact same design as designs are revealed as in a dream, which comes in three ways: from the ancestors, from one’s mother, and from one’s own dream. In order to be woven, each new pattern must be dreamed anew. The channels for dreaming must never be interrupted. In fact, in weaving the *t'nalak*’s there are many restrictions. A man should not touch any of the materials the weaver uses. For the whole duration of weaving, which can take from one month to two years, the weaver should not mate with her husband. Otherwise, either the fiber would break or the design be destroyed.” Weaving *t'nalak* is basically a woman’s work, except for stripping the abaca fiber.

The same article above also mentioned that “*T'nalak* is one of the traditional properties exchanged at the time of marriage and is used as a covering during birth to ensure a safe delivery.” It further claimed that the “*T'boli* believe that cutting the *t'nalak* cloth will cause serious illness or death and if sold, a brass ring is attached to appease the spirits for the *t'nalak* involves not only the soul and spirit of the weaver, but her ancestors as well.”

More information on the traditional cultural expressions of the indigenous Filipino is contained in the book by Mrs. P.V. Valsala G. Kutty entitled the “National Experiences with the Protection of Folklore/Traditional Cultural Expressions: India, Indonesia and the Philippines.”

4. *Related Genetic Resources*

As a rice producing country, each indigenous ethnic group of the Philippines has developed an extensive method of rice cultivation with wide varieties of rice. To cite some statistics, the *B'laan* ethnic group of the south has more than 100 varieties of rice and the *T'boli* group has 160 known rice varieties. To further exemplify the type of rice varieties, the book of Sumingit also presents details of the characteristics of at least 38 varieties of rice among the *Subanen* seed keepers. There are two basic groupings of the varieties in terms of qualitative characters: Group I – the *Kibaba* and *Pulot Marem* without ligules and Group II – the rest of the varieties with ligules. To name a few under Group II are the *Bayawen*, *Binalibay*, *Magwas*, *Pulot Ginubang*, *Sinambawan* and *Suwakong*. In terms of quantitative characters, there are also two groupings: Group I – *Kaltak* and *Dlagut*, both are short with culm length of 43.3 cm and 48.8 cm.; and Group II – the rest of the varieties with lengths of 133.5 cm. to 180.6 cm.

Likewise, extensive documentation of the important plants of the *Subanen* ethnic group (Sumingit, 2005) revealed several medicinal herbs from 169 out of the 568 plants listed by the community elders. However, the pictorial book did not specify the medicinal significance or use of the plants. The identified medicinal plants are: (a) Herbs - *bebid*, *dawnggik*, *delay*, *dwalag*, *dlelepot*, *dienga*, *dienggong bisaya*, *pandan*, *payaw*, *salumaya*, *shabi*, *tubo-tubo*, *tuyabang geseg*; (b) Palms - *pugan*, *tigbengalan*; (c) Shrubs – *bangala*, *bawing tanto*, *dagum*, *diagundi*, *dialopang*, *diebulan*, *kusambi*, *malisa*, *nenagan*, *payas dlibon*, *salimbangon*, *selisip pilangan*, *selisip salot*, *silengka*, *tebayab*, *tegima*, *talong geledla*; (d) trees – *busying*, *dlago*, *dlambenog*, *dlindang*, *dlingateng gaksudimon*, *galig*, *gapeg dlibon*, *dlenggong*, *dlibas*, *dlupalay*, *gayonalaw*, *gesuso*, *mengopong*, *talan*, *balakbaan*, *bales labuyo*, *dlaktang*, and *talon*.

A general count of the diverse species that further reflects the vast potential of Philippine genetic resources as material base of traditional knowledge is shown by the following data taken from the report on Mapping of Population-Biodiversity Connections by the Department on Environment and Natural Resources:

- The country is considered a center of species diversity and endemism with more than 1,100 terrestrial vertebrate species, 895 species of butterfly (invertebrate specie), about 10,000 to 13,000 plant species, more than half of which is endemic.
- The Philippine rainforests has the highest level of endemism in the Indo-Malayan realm on a per-unit-area basis (Conservation, International 2003).
- On marine resources, the Philippines is richest in terms of coastal and marine species. It has 500 out of the world's 800 known coral species, 40 species of

mangrove and more than 2,000 species of reef fish, 800 species of marine algae, 16 species of sea grass, 23 species of cetaceans and 5 species of sea turtles.

II. Customary Law, Practices and Protocols in Sustaining and Safeguarding Traditional Knowledge, Traditional Cultural Expressions and Related Genetic Resources

1. *Traditional System of Sustaining and Safeguarding Traditional Knowledge, Cultural Expressions and Genetic Resources*

The indigenous and local communities in the Philippines have a swift way of sustaining and safeguarding their traditional knowledge, cultural experiences and genetic resources. Every aspect of IP life from social relations to relation with nature is governed by customary laws, the non-observance of which is subject to sanctions by the community or by nature and the spirits. The community sanctions may be in the form of prolonged admonition or banishment as proclaimed in the “dap-ays” of the “Kankanaey” ethnic group, restitution and reparation as “dusa” among the “Kalinga”, or physical retribution as in the case of the “pango” of the “Mangyans” of Mindoro. On the other hand, illness may also occur for violations of customary norms in accessing resources which are believed to be guarded by spirits. Cutting down of certain trees or passing through sacred grounds, for instance, without asking the permission of the spirits, cause certain illness that can only be cured through certain forms of ritual.

Each IP community has customary law that prescribes what and how resources may be accessed and utilized. The customary law conforms to the frameworks for protocols of respecting indigenous heritage that basically encourage ethical conduct and promote interaction based on good faith and mutual respect (Janke, 2002).

An illustration of customary law to protect the environment and genetic resources is the *Lapat* (DWCB, 2003) among the *Tigguian* ethnic group. It is a protocol of delineating and proclaiming a portion of the forest as a protected area for the purpose of maintaining the watershed, assuring fresh and clean air and water, and the conservation of the wild life. The *Lapat* undergoes a process of: (a) proclamation or public dissemination to the neighboring communities of the delineated protected area; and the (b) collective definition of the *sogsog* and *paglintegan* (rules and policies). Enforcers of the law are known as the *Lapat* holders and they are assisted by the traditional council of elders. Annex B is a sample *Lapat* proclamation.

2. *Integration of Customary Law and Practices in the Formal Legal System*

The customary laws and practices of the different indigenous ethnic groups in the Philippines are concerned with the protection of their respective territories but not specifically on the protection of traditional knowledge, cultural expressions and genetic resources. However, there are measures under the Philippine legal framework on how to protect traditional knowledge for use (Morales, 2002).

Listed below are national laws and policies that have incorporated to some extent the protection of traditional knowledge, cultural expressions and genetic resources.

1. Joint DENR-DA-PCSD-NCIP Administrative Order on Bioprospecting, 2005
2. Plant Variety Protection Act, 2004
3. the National Caves and Cave Resources Management and Protection Act, 2003
4. the Wildlife Resource Conservation and Protection Act, 2001
5. Plant Variety Protection Act, 2000
6. Indigenous Peoples Rights Act, 1997
7. Traditional and Alternative Medicine Act, 1997
8. Executive Order No. 247 on Bioprospecting, 1995
9. National Integrated Protected Area System Act, 1992

Republic Act 8371, otherwise known as the Indigenous Peoples Rights Act of 1997, gave the indigenous and local communities a legal framework for the recognition, protection and promotion of their interest and well-being with due regard to their ancestral domains and lands, self-governance and empowerment, social justice and human rights and cultural integrity. All other laws and policies passed after the enactment of IPRA are consistent with this framework.

Specifically, EO 247 and Joint DENR-DA-PCSD-NCIP Administrative Order entitle the indigenous community to royalties or other forms of compensation which may be negotiated in the event that these traditional and commonly known varieties are exploited for commercial or academic use. Likewise the Traditional and Alternative Medicine Act (TAMA) institutionalized the ownership of traditional medicines by the indigenous communities and as such, it requires that any outside use shall acknowledge the source or owner community which has the right to demand for a share in the financial return that may come from its authorized commercial use.

Under the Plant Variety Act, a *sui generis* protection is provided with the issuance of a Certificate of Plant Variety for plant varieties that are new, distinct, uniform and stable. In the case of the documented rice varieties of the *Subanen* mentioned above, they may apply for this Certificate after establishing novelty, uniformity and stability that may take a period of three to seven cropping cycles.

The Indigenous Peoples Rights Act (IPRA) provides the mechanism for the application of customary laws and practices in the protection of TK/TCEs/GRs. The law stipulates the identification by indigenous ethnic groups of their ancestral domains and it encourages the formulation of a long-term comprehensive sustainable development and protection plan of such domains (ADSDPP) in accordance to their customs and traditions.

Prior to the formal recognition of their ownership rights and the preparation of formal plans, the law also provides for the issuance of free and prior informed consent (FPIC) by indigenous ethnic communities on any extraction and exploitation or access to their indigenous knowledge systems and practices and genetic resources. The FPIC process requires the consensus building among the affected indigenous ethnic groups in accordance to their customary laws and practices.

The present guidelines issued by the National Commission on Indigenous Peoples (NCIP) on the FPIC provide for the decision-making process that respects the

customary laws and practices of the indigenous ethnic groups. This includes the imposition of penalties or sanctions in accordance to customs and traditions. The process requires full disclosure of the intention or project including the advantages and disadvantages, sharing of benefits and the measures to compensate for damages, if any, to the concerned indigenous peoples. The concerned ethnic community will be left to decide on their own after the disclosure but NCIP will have to issue a certification of FPIC compliance before a project will commence.

The issuance of FPIC is premised on the terms and conditions embodied in a Memorandum of Agreement (MOA) that shall stipulate among others, the following:

- the detailed premises of the agreement;
- the benefits to be derived by the host indigenous ethnic community, indicating the type of benefits, specific target beneficiaries, and other pertinent information;
- use of all funds to be received by the host indigenous ethnic community, ensuring that a portion of such funds shall be allocated for development projects, social services and/or infrastructures in accordance to their own development framework;
- detailed measures to protect the rights and value systems of the host indigenous ethnic community;
- detailed measures to conserve / protect any affected portion of the ancestral domain critical for watersheds, mangroves, wildlife sanctuaries, forest cover, and the like;
- monitoring and evaluation schemes; and
- penalties for non-compliance or violation of the terms and conditions.

III. Misappropriation and Misuse of Traditional Knowledge, Traditional Cultural Expressions and Genetic Resources

Modernization and globalization of trade and industry continue to cause problems among the indigenous peoples in the Philippines. Likewise, the implementation of Large-scale development projects such as mining, energy development, tourism, and so forth has contributed to the destruction of the natural habitat of indigenous communities, hence the loss of the material base of their culture or traditional systems.

Some illustration of misappropriation and misuse of traditional knowledge, traditional cultural expressions and genetic resources are:

1. Public mimicry is the more common misuse of traditional cultural expressions, whether in television or otherwise, often for commercial intentions and there is no avenue for complaint by the affected indigenous peoples.
2. Traditional music is being copied by local artists and commercialized with no benefit or due regard on the cultural meanings of the expressions to the concerned indigenous ethnic groups. Recently, there was also informal report on researches being conducted by foreign nationals on traditional music. The music industry has cashed in on adaptations of traditional music, textile designs and the like and the concerned indigenous ethnic communities have been disregarded.

3. No respect accorded to the source of textile designs and technology that had been copied for commercial merchandising.
4. Conduct of various researches on traditional medicines, music, folklores and the like that have been going on for years with covert intentions not disclosed to the target ethnic groups or communities.
5. On genetic resources, the traditional plant varieties are being genetically modified with their accompanying change in agricultural technology that impedes the proven sustainable traditional varieties and methods. In some ethnic communities, this has drastically contributed to the unfavorable changes such as increased dependence on destructive farming methodologies/ technologies.
6. Not to be overlooked is the fact that some indigenous peoples have also abused their traditional systems as in the case of the *kaingin* system as they also keep up with the trend of commercialization.
7. Specific cases of bioprospecting in the Philippines are listed below (Bengwayan, 2003, Source: "Traditional Knowledge of Biodiversity in Asia-Pacific by Grain and Kalpavriksh).

Biological Resource	Country	Notes
Soil microbes	USA	The multinational company Eli Lilly has earned billions of dollars from the erythromycin antibiotic, which was developed from a bacterium isolated from a soil sample that Filipino scientist Abelardo Aguilar collected in his home province of Iloilo (1949). Neither Aguilar nor the Philippines received any royalties.
Ilang-ilang (<i>Cananga odorata</i>)	France	The use of the extracts from ilang-ilang in the cosmetic industry is as old as perfume in France. There are several perfumeries in France that have used and continue to use it in their products.
Banaba	Japan, USA	US Patent No. 598094
Nata de coco	Japan, USA	US Patent Nos. 6280767, 6140105, 5962277 and 5795979
Snails (<i>Conus</i>)	USA	US Patent Nos. 6369193, 6344551, 6197535, 6153738, 6077934, 5633347, 5595972, 5589340 and 5514474

Michael A. Bengwayan noted in his paper that there are cases of bioprospecting without a trace on the outcomes. The first case involves two American researchers who took specimen of a mountain yew called *Taxus Sumatrana* from Mt. Pulag in 1993 and informed the Department of Environment and Natural Resources that they would analyze the needle and stem for taxol, an anti-cancer agent but no report was ever submitted. The other case is the smuggling of dwarf coniferous trees from the Sierra Madre mountains in northern Philippines. The trees are sold as ornaments and for an unverified effect on male virility and sexual potency.

IV. Community Responses to the Problem of Misappropriation and Community Initiatives to Safeguard and Sustain Traditional Knowledge, Cultural Expressions and Related Genetic Resources

In this era of commercialism, the notion of protecting and benefiting from TK/TCEs/GR is gradually being considered by the indigenous ethnic groups. Armed with the existing legal frameworks, there are already community initiatives and success stories on imposing customary laws and practices and sui generis forms of protection of traditional.

1. *Some community level responses*

- The documentation and initial processes of registering the *Subanen* rice varieties under the rice cultural and morphological documentation project of the Department of Agrarian Reform with funding from IDF-ICRAF with the *Subanen* community in southern Philippines. The memorandum of agreement (MOA) between the community and the project implementor provides protection over community intellectual property rights, where it is stated, among other things, that ownership of documented knowledge remains and belongs to the *Subanen* community. Furthermore, the project requires that electronic knowledge products are digitally encrypted to make it difficult for pirates to copy or print the pages from the digital photo album or electronic book without prior consent from the concerned ethnic community. The project also provides for sui generis registration and intellectual property protection.
- The compliance of the process and issuance of the free and prior informed consent by the drug discovery research project jointly implemented by the University of the Philippines and the Michigan State University in one territory of the *Aeta* community in Central Philippines. The MOA provides for royalty payment based on international rates to the *Aeta* community in case of drug discovery.
- In the local government level, the local office of the Department of Natural Resources and Environment took the initiative of entering into an agreement with the indigenous ethnic community on the application of the customary laws and practices for the sustainable development and management of the environment and natural resources.

2. *Government maintenance of data bank and inventory of plant and genetic resources and knowledge originating from indigenous and local communities*

- For plant genetic resources, the Department of Agriculture launched the National Network on the Conservation and Sustainable Use of Plant and Genetic Resources to establish a national system for the collection, conservation, evaluation, and documentation of plant genetic resources important to the Philippines. To date, the existing data base consists of 45,000 species of plants, fruits, and vegetables, including perennial crops. Other local public Research and Development institutions keep separate biological and genetic collections for specific crops. These include the Philippine Rice Research Institute for rice, the Sugar Regulatory

Administration for sugar, the Philippine Coconut Authority for coconut, and the Fiber Development Authority for abaca, among others.

- For cultural products and heritage, the National Museum keeps a national inventory.
- For traditional medicine, the Philippine Institute of Traditional and Alternative Health Care is maintaining a database of different traditional and alternative health care materials and products available for the Philippines.
- The Philippine Intellectual Property Office is concerned mainly on inventions, industrial designs and utility models.

V. Needs and Expectations with Regards to Traditional Knowledge, Traditional Cultural Expressions and Related Genetic Resources

1. *Need for Awareness Creation and Capacity Building*

The country may have well established its regulation on bioprospecting but there is need to widely disseminate the mechanisms to ensure maximum gains. Likewise, there should be wide promotion of the initiatives being undertaken along the enforcement of *sui generis* forms of protection such as the case of the certification and registration of the *Subanen* rice varieties and the community biodiversity conservation and management as demonstrated by the Tingguian *Lapat*. Strategic communication should be done at all levels: - the community, institutional, national, regional and international levels.

2. *Need to Strengthen Regulation on Access and Benefit Sharing*

The government should continuously review and improve its existing policies to complement and reinforce community initiatives. The guidelines on the issuance of free and prior informed consent should be reviewed in the light of complementing the IPR law. Meanwhile, the protection of traditional knowledge, cultural expressions and related genetic resources should be fully asserted in the ongoing review and amendment of the existing IPR Code.

Moreover, existing policies of all donor agencies/countries should be reviewed towards strengthening the respect and promotion of the interest of indigenous peoples which should include safeguarding their traditional knowledge, cultural expressions and related genetic resources.

3. *Need to Establish Database and Inventory*

The implementation of regulations should be complemented by up to date inventory and documentation of the traditional knowledge, cultural expressions and related genetic resources. Support should be accelerated along the systematic documentation and inventory of plant and genetic resources and knowledge originating from indigenous and local communities. The country should learn from the experiences of other countries along the conduct and protection of database and inventory of

TK/TCEs/GRs. However the indigenous ethnic groups or communities should be well informed on the advantages and disadvantages of the documentation and they should own the decision to conduct such after proper education.

4. *Need to Acknowledge the Role of Indigenous Communities*

There is need to fully acknowledge the traditional role of indigenous or local communities on resource use and management and food sovereignty. While strictly enforcing the need to acknowledge the source of traditional knowledge and related genetic resources to serve as tracer for complaints on misappropriation or misuse, adequate support should be provided for the holistic approach of empowering the indigenous communities building upon their traditional knowledge, laws and practices. Along this line, the NCIP is launching its program of assisting indigenous communities to formulate their own Ancestral Domain Sustainable Development and

Protection Plans (ADSPDD). However, it needs to generate local and international support to ensure the success of the program.

The ADSDPP fully acknowledges the role of indigenous communities on resource use and management. The plan espouses the use of customary laws and practices in the control and management of all development aspects of the concerned indigenous community and the resources within their ancestral domain. The ADSDPP envisions the comprehensive development and full empowerment of indigenous communities.

IV. Lessons for the Intergovernmental Committee

The IGC should focus attention towards strengthening the international legal and policy regime. Specifically, it should:

1. Encourage and support regular interactions at sub-regional levels or “people-to-people” exchange to generate more homogenous sharing and discussions of issues on protection and benefit-sharing
2. Develop a model law that is internationally harmonized building on the country/community initiatives and taking into consideration the following:
 - (a) protection of TK/TCEs/GRs
 - (b) application of customary laws and practices
 - (c) ensure equitable benefit sharing
3. Provide country assistance for:
 - (a) institution building in setting up secured database and inventory such as the digitally encrypted technology to make it difficult for pirates to copy and print
 - (b) advocacy or awareness campaign on the protection and/or sustaining and safeguarding traditional knowledge, cultural expressions and related genetic resources

4. Promote industries/development projects for indigenous communities that build in their traditional knowledge, cultural expressions and related genetic resources
5. Establish trust fund to compensate misappropriation or misuse of TK/TCEs/GRs and in providing technical assistance to:
 - (a) countries in building their capacities for protecting their TK/TCEs/GRs
 - (b) communities in transmitting TK and TCES to the present and future generations
6. Advocate for the ratification of ILO Convention 169 and the UNESCO Cultural Property Treaties in countries who have not yet done so.
7. Ensure the immediate adoption in its current form, the UN Draft Declaration on the Rights of Indigenous Peoples.

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ANNEX A
SOME EXAMPLES OF TRADITIONAL KNOWLEDGE AND
CULTURAL EXPRESSIONS IN THE PHILIPPINES

<i>Ethnolinguistic Groups</i>	<i>TK/TCE/GR</i>	<i>Description</i>
Kalinga – one of the ethnolinguistic groups inhabiting Northern Luzon	Bodong (peace treaty)	<ul style="list-style-type: none"> ▪ Instituted to end tribal war to establish peace and security for trades, travel and commerce, to ensure justice when crime is committed and to establish alliances ▪ The treaty holder must be able to settle disputes amicably
Tagbanua – most widely distributed groups in Palawan Island	Salugin – traditional costume fashioned from the bark of trees	<ul style="list-style-type: none"> ▪ The preparation of this bark is unique. After being felled, the tree would be cut around the trunk, the outer bark stripped off to expose the inner layer. This layer would be beaten with a wooden mallet, until it was soft and pliant enough to hang loose from the hole. This was then washed in the river and dried out under the sun. No dye was applied to it and no decorations either.
Manobo inhabit the river valleys, hillsides, plateaus and interiors of Agusan, Bukidnon, Cotabato, Davao, Misamis Oriental and Surigao del Sur in Mindanao.	Tattooing	<ul style="list-style-type: none"> ▪ This is being done for ornamental purposes. The men wore tattoos on their chest, upper arms, forearms and fingers. The women wore theirs on the same parts of the body, but the most elaborate tattoos were done on their calves. Tattoo designs are the same as those embroidered on their clothes with the addition of the crocodile figure, iguana, betel leaf and other leaf designs and stars
Mansaka found in Davao del Norte	Native Medicine /Herbal Medicine	<ul style="list-style-type: none"> ▪ For wounds – mix crushed <i>marabiya</i> roots, chewed <i>sukati</i> sprouts <i>pamantigi</i> leaves and oiled <i>linek</i> ▪ For headaches and stomach trouble – <i>kepet</i> leaves, roasted <i>baganga</i> fruit, boiled <i>aribet</i> roots, boiled buds and sterilized <i>sasa</i> saps. ▪ For boils – crushed <i>dampang</i> flowers, <i>pitugo</i> fruit ▪ For pinkish eyes – scraped <i>tambabasi</i> stalks ▪ For constipation – ground <i>warasiman</i> and boiled <i>anuring</i> ▪ For malaria – the bark of <i>bagil</i> tree ▪ For fractures – the bark of <i>thearit</i> tree ▪ For Mansaka mothers' first bath after giving birth – <i>agosis</i>, <i>basikay</i>, <i>gapas</i> and <i>bay</i>
Mandaya – groups found along the mountain ranges of Davao Oriental	Tagali (object of conception)	<ul style="list-style-type: none"> ▪ Pregnant wives are encourage to eat <i>ubod ng uway</i> (rattan shoots) or young coconut, if she wishes his child to have fair complexion. On the 3rd month of pregnancy, the <i>hilot</i> or <i>vanagamon</i> (local midwife) is invited to start the monthly massage. On the 9th month, the <i>tagalumo</i> or local medicine made from the burned bark of the <i>magasili</i> tree and leaves of the <i>tagsing</i> grass is prepared with coconut oil. This mixture is applied around the umbilical cord during contraction. ▪ To cut the umbilical cord, a sharpened bamboo is used the tip off the cord then applied with extracted <i>pugta</i> (juice) of <i>tatabako</i>, a herbal plant with leaves that looks like the tobacco plant. The cut portion with the cord is

<i>Ethnolinguistic Groups</i>	<i>TK/TCE/GR</i>	<i>Description</i>
		then unwrapped on a tree branch outside the house. This would prevent the child to be a cry baby.
Ifugao (Cordillera)	Seed Selection	<ul style="list-style-type: none"> Women have learned from experience or who have been taught by the elders to the fields ahead of the crowd of harvesters to select rice stalks with robust and heavy grains. The selected stalks are bundled together and set aside for seedling purposes. To identify these from the rest of the harvest, the selected stalks are usually cut much longer and sheaved together in bigger bundles. These are called <i>binong-o</i>.
Ifugao (Cordillera)	<i>Pingkol / Mun-opol</i>	<ul style="list-style-type: none"> This refers to the unique farming methods very commonly practiced in Kiangan area where rice cropping is done once a year. After the harvest of the rice crop, the rice stalks are uprooted and formed into big balls or bundles and thrust deep into the mud. These are next covered with mud, water lilies, algae and other plants that thrive in the fields. After the mud mounds (<i>pingkol</i>) are formed, seeds or seedlings of various vegetables (onions, garlic, cabbage, pechay, etc) are then planted and, thereafter, the fields are flooded. The mounds gradually decay and fertilize the growing vegetables. Meantime, the fields can also be planted with shells, mudfish, and <i>yuyu</i> (a variety of the jojo, also known as the Japanese small eel) and which serve as sources of food supplement. By the time the new planting season comes around the mounds would have been completely decayed and spread around to fertilize the fields. (Studies conducted by the Department of Agriculture have concluded that this indigenous farming method is a very good practice.)
Ifugao (Cordillera)	<i>Ubbu</i>	<ul style="list-style-type: none"> To make sure that one has enough workers to help in the work in the ricefields or gardens, women (including men) would agreed to work in the fields or farms of another without receiving any wages for the work done. But when the time comes for work to be done in her own field or farm, the other person must return the service previously performed by also rendering labor either personally or by a substitute. This practice ensures that work in the fields and other land resources can be accomplished even without actual cash paid for labor. This practice has been extended to other areas of mutual assistance. One of the latest innovations is in the formation of small informal groups who loan each other cash on a rotation basis among the members.
Ifugao (Cordillera)	<i>Baddang</i>	<ul style="list-style-type: none"> In its strict sense and in reference to customs pertaining to ancestral lands refers to the ceremony or ritual performed sometime after the marriage of a couple. The relatives of one spouse produce animals to be butchered for the harvest feast to be done during the harvest of the ricefields inherited by the other

<i>Ethnolinguistic Groups</i>	<i>TK/TCE/GR</i>	<i>Description</i>
		<p>spouse. They harvest the crops for free and try to harvest as wide an area as possible. Rice wine flows all throughout the day. While the occasion is more of a prestige celebration, its value is in the fact that all those who attended the event can stand as witnesses to the fact that the ricefields had been handed to the couple and that the metes and bounds of the land had been pointed out and identified at the same time.</p> <ul style="list-style-type: none"> ▪ Loosely translated to mean voluntary help or assistance, the <i>baddang</i> concept is more popularly applied to all forms of assistance, particularly during deaths in the family, calamity or disaster, and in community self-help activities.
Ifugao cordillera)	<i>Muyong</i>	<ul style="list-style-type: none"> ▪ A system of sustainable forest ownership, use and manage unique to the Ifugaos, especially in central Ifugao, including the Kiangan area. The <i>muyong</i> (private forest or tree farm) are usually owned by an individual, his family or clan. It is usually given to an heir in addition to inherited ricefield. Owners of private forests or tree farms generally allow other family members and relatives, and sometimes even non-relatives, to take products from the forest for their needs. The forests are well-kept and often planted to a variety of fruit-bearing trees, for lumber and other purposes. Forest fires are almost unheard of. Most of these forests are second growth and heterogeneous. Trespassing is strictly prohibited and severely penalized according to the custom law.
Ifugao (Cordillera)	<i>Alak / Palok</i>	<ul style="list-style-type: none"> ▪ Communal irrigation system, a sustainable use of water resources. The pre-war water canals, some of which still exist, irrigate neighboring ricefields and have been built largely through the community's own efforts. These are maintained by the landowners whose lands are served or provided with water. When the irrigation canals are destroyed, the concerned landowners contribute labor, food as well as materials needed to repair and maintain the irrigation system.
Ifugao (Cordillera)	<i>Ob-ob</i>	<ul style="list-style-type: none"> ▪ Springs of water sources when found in open or communal areas are always accessible to all the members of the community. It is prohibited for any member to use or control the water source for his own exclusive use. In recent years, these water sources have been developed by local government units as community springs. On the other hand, springs or water sources emanating from or found on private lands belong to the owner in a sense, as he has priority to the use of the resource and must give consent before others can utilize the same. Ifugao custom law provides clear rules on the use of water resources, especially in relation to water needed for cultivation of ricelands and farms.

<i>Ethnolinguistic Groups</i>	<i>TK/TCE/GR</i>	<i>Description</i>
Dumagat	<i>Childbearing</i>	<ul style="list-style-type: none"> ▪ The Dumagat delivers offsprings with the assistance of a hilot, cut the umbilical cord with the use of a sharpened bamboo and treated with ashes until such time that it heals ▪ The newborn is given ampalaya leaves extract to cleanse the intestines
Manobo	<i>Sickness</i>	<ul style="list-style-type: none"> ▪ It may come as a punishment for unkept promises, trespassing on the spirits rights and properties ▪ Sickness analysis performed: <ul style="list-style-type: none"> <i>Bala</i>-looking at the shapes of melted alum <i>Dangaw-dangaw</i>- finger measurements <i>Himulso</i>- pulse analysis: <ul style="list-style-type: none"> ⌘ rapid but regular- ailment is caused by spirits ⌘ slow and irregular – ailment caused by souls of dead relatives ⌘ alternate slow and rapid pulse-sickness caused by peoples having black tongue ⌘ natural beats – physiological ailments <p>Cure is usually done through heartfelt meal offering to the spirits</p>

Sources: (1) CCP, Encyclopedia, Volumes 1 & 2; and (2) An Analysis of the Role of Indigenous Women in the Sustainable Management of the Tawali Ancestral Domain in Kiangnan, Ifugao, Evelyn Dunuan, 2006

ANNEX B
EXAMPLE OF A *LAPAT* PROCLAMATION

**REPUBLIC OF THE PHILIPPINES
MUNICIPALITY OF MALIBCONG
BARANGAY DULAO**

AN AGREEMENT IN THE CARE AND RIGHT UTILIZATION OF THE FOREST AND THE ENVIRONMENT OF SITIO ADAAN, DULAO, MALIBCONG OTHERWISE CLASSIFIED AS LAPAT

If land is life, so is the forest. Therefore, it must be taken care of wisely as regard its usage. Protecting the environment shows one's care for the people. The forest is important because it is the source of livelihood such as wild animals, rattan, wood for building houses, and others. The trees give moisture to the lands where we plant. They are also the source of drinking water, as well as for irrigating the fields. The water current is the one which generates energy to micro-hydro that would give power to the rice mill, electricity for lights and others.

By means of the lapat, our forefathers took care of the forest and the surroundings so that we can have something to use for our living. So, it is a must that lapat will go on and be respected because this will prove our concern for our natural destiny, which, for us is important and meaningful.

The following activities are forbidden by the people based on the rules of the lapat: burning, land-grabbing, logging and gold-mining.

If anyone will be caught violating these rules which govern Sitio Adaan, he will be penalized with a P10,000.00 fine plus additional damages if there are. He will take care of those who will hear the case or solve the problem with a cow, basi (native wine) and rice.

These are the conditions:

- Anyone who has witnessed or who can pinpoint the one who violated the lapat will be rewarded. He will be given half of the fine which is P5,000.00.
- The other half of the fine which is P5,000.00 will be given to the people of Barangay Dulao and will be used for the preservation and/or safeguarding of the lapat.

Today, December 29, 1996, we, the townsfolk of Mataragan District, Barangay Dulao, Malibcong affix our signatures and we promise to abide by this agreement to take care of the forest and the environment of Sitio Adaan. We promise before God who created the heavens and the earth that this agreement on the lapat will not be dishonored. And if any townsfolk violates this, he/she must be punished based on the law of the lapat.

Therefore, in order to prove the veracity of this agreement, we, the townsfolk affix our signatures.

Source: Mataragan Tribal Development Foundation (MTDF) as published by DWCB

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