CHAPTER 7

PROTECTION OF TRADITIONAL KNOWLEDGE: EXPERIENCE
FROM SOME OTHER COUNTRIES

The aftermath of CBD and the TRIPS imposed IPR regime gave a strong message to the biorich developing countries that their traditional knowledge, cultures, long history, spiritual and community values which have evolved during centuries are being misappropriated by the unethical use of scientific and technological research, the imposition of intellectual property rights on life forms and on community innovations and practices. The developing countries realized that the post TRIPS-IPR regime is totally at odds with their centuries’ old culture, practices and tradition. This realization led to the enactment of important legislations by certain countries which are endowed with biogenetic resources and associated TK.

7.1. BRAZIL

Brazil has adopted a Provisional Measure, with force of law, known as Provisional Measure on Access to Genetic Resources and Traditional Knowledge, 2001.\footnote{Provisional Measure No. 2.186-16 of August 23, 2001.} The opening lines of the Provisional Measure state that the provisions are enacted for regulating access to the genetic heritage,\footnote{Article 1, §2 of the Provisional Measure states that access to components of the genetic heritage on the continental shelf shall be subject to the provisions of Law No. 8.617 of January 4, 1993.} protection of and access to associated TK, sharing of benefits and access to and transfer of technology for the conservation and of use genetic resources and TK as obligated by articles 1, 8(j), 10(c), 15 and 16(3) and (4) of the
Convention on Biological Diversity, 1992 and article 225 (1)(ii) and (4) of the Brazilian Constitution.

As stated in article 1, the Provisional Measure provides for the benefits, rights and obligations concerning (i) access to components of the genetic heritage\textsuperscript{458} of the country for purposes of scientific research, technological development or for bioprospecting (ii) access to traditional knowledge relating to the genetic heritage that is relevant to the conservation of biological diversity, the integrity of the country’s genetic heritage and the use of its components; (iii) fair and equitable sharing of the benefits deriving from exploitation of components of the genetic heritage and the associated traditional knowledge; and (iv) access to and transfer of technology for the conservation and use of biological diversity.

The Provisional Measure protects both individual and collective knowledge of the indigenous and local community.\textsuperscript{459} It controls access to genetic heritage\textsuperscript{460} and TK.\textsuperscript{461} Access to associated TK is defined as “acquisition of information pertaining to knowledge or individual or collective practices, associated with the genetic heritage, of an indigenous or local community for purposes of scientific research, technological development or biological prospection, with a view to its application in industry or elsewhere.”\textsuperscript{462}

\textsuperscript{458} Genetic heritage means information of genetic origin contained in samples of all or part of plant, fungal, microbial or animal specimens, in the form of molecules and substances deriving from the metabolism of such living beings and extracts obtained from such organisms, live or dead, encountered in situ, including domestic situations, or kept in ex situ collections after in situ collection within the national territory, on the continental shelf or in the exclusive economic zone (the Provisional Measure, Article 7. I)
\textsuperscript{459} Article 7. II defines associated traditional knowledge as the information or individual or collective practices of an indigenous or local community having real or potential value and associated with the genetic heritage.
\textsuperscript{460} Article 7. IV defines access to the genetic heritage as acquisition of samples of components of the genetic heritage for purposes of scientific research, technological development or bioprospection, with a view to its application in industry or elsewhere.
\textsuperscript{461} Traditional knowledge associated with genetic heritage also encompasses the cultural heritage of the country (Article 8. II).
\textsuperscript{462} Article 7.V.
The authority and permission of the Union is compulsory for obtaining access to components of the genetic heritage; and its use, marketing and exploitation, for all purposes, is subject to inspection, restrictions and benefit-sharing on the terms and conditions established by the Provisional Measure and its regulations.463

The exchange and dissemination of components of the genetic heritage and associated traditional knowledge practiced within indigenous and local communities for their own benefit and based on customary usage are preserved under the Provisional Measures.464 TK of indigenous and local communities relating to the genetic heritage is protected by the Provisional Measure against illegal use and exploitation.465 The right of indigenous and local communities to decide on the use of their TK associated with the genetic heritage is recognized by this legal instrument. Nothing is permitted to impede the preservation, use and development of TK of an indigenous or local community.466 However, the Provisional Measure explicitly states that the protection of traditional knowledge and genetic resources should not prejudice or limit rights pertaining to intellectual property.467

Article 9 of the Provisional Measure delineates the scope and extent of the right of indigenous or local communities over their TK. It prescribes as under:

Indigenous or local communities that create, develop, hold or preserve traditional knowledge associated with the genetic heritage are guaranteed the right to: (I) have the origin of the access to traditional knowledge mentioned in all publications, uses, exploitation and disclosures; (II) prevent

---

463 Article 2.
464 Article 4.
465 Article 8.
466 Article 8.III.
467 Article 8.IV.
unauthorized third parties from: (a) using or carrying out tests, research or investigations relating to associated traditional knowledge; (b) disclosing, broadcasting or re-broadcasting data or information that incorporate or constitute associated traditional knowledge; and (III) derive profit from economic exploitation by third parties of associated traditional knowledge the rights in which are owned by the community as provided in this Provisional Measure.

Any TK associated with the genetic heritage can be owned by the community, even if only one single member of the community holds that knowledge. The Council for the Management of Genetic Resources created within the Ministry of the Environment performs various functions related to access to TK and genetic resources.

Authorization of access to associated TK is subject to the prior consent of the owner.468 Authorization of the national authority is required for collecting components of the genetic heritage and access to associated TK by a foreign legal entity for the purpose of bioprospecting.469 Only a national institution, public or private, that carries on research and development activities in the biological and related fields will be given authorization for access to components of in situ genetic heritage and to associated TK.470

The person responsible for the expedition to collect samples has to, at the end of his work in each area accessed, sign with the owner a declaration listing the material accessed.

---

468 Article 11. IV(b).
469 Article 12.
470 Article 16.
If the owner of the area was not identified when the expedition to collect samples took place, the declaration needs to send to the Management Council.

When there is a prospect of commercial use, in situ access to samples of components of the genetic heritage and to associated TK is permitted only after the contract for use of the genetic heritage and benefit sharing has been signed. If potential for economic use has been identified in either a product or a process, whether or not it qualifies for any IPR, on the basis of a sample of a component of the genetic heritage and information derived from associated TK, the institution conducting the research is obliged to communicate the same with the Management Council and to execute a contract for the use of the genetic heritage and benefit sharing.

The institution accessing and receiving samples or TK is obliged to facilitate access to and transfer of technology for the preservation and use of heritage or knowledge with the national research and development institution responsible for access and dispatch of samples and information on the knowledge. As per the Provisional Measure, access to and transfer of technology between the national research and development institution, and the foreign institution can be effected by:

i. scientific research and technological development

ii. basic and specialized training of human resources

iii. exchange of information

iv. exchange between the national research institution and the research institution with its headquarters abroad

---

v. consolidation of the infrastructure for scientific research and technological development

vi. economic exploitation, in partnership, of a process or product derived from the use of components of the genetic heritage, and

vii. establishment of a technology-based joint venture.\footnote{Article 22.}

The Provisional Measure envisages a fair and equitable benefits arising from economic exploitation of a product or process developed from samples of components of the genetic heritage and associated TK between the contracting parties.\footnote{Article 24.} The essential clauses in the contract for use of the genetic heritage and benefit sharing include: (a) purpose, elements, quantification of samples and intended use, (b) duration, (c) method of fair and equitable sharing of benefits and, where applicable, access to and transfer of technology, (d) rights and responsibilities of the parties and (e) intellectual property rights.\footnote{Article 28.} The benefits can comprise: division of profits, payment of royalties, technology access and transfer, unrestricted licensing of products or services and training of human resources.\footnote{Article 25.}

It also attaches liability for contravention of the provisions of the Provisional Measure by making the guilty party liable to payment of an indemnity equivalent to a minimum of twenty per cent of the gross invoiced amount obtained through the marketing of the product or of royalties obtained from third parties by the guilty party as a result of the licensing of the product or process or the use of the technology.\footnote{Article 26.}
7.2. AFRICAN UNION

Africa has enacted a specific legislation to protect the rights of local communities over biological resources, knowledge and technologies which is known as ‘African Model Law’. African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 2000 asserts that the state and its people have sovereign and inalienable rights over their biological resources. It imposes duty on the state and its people to regulate access to biological resources and to community knowledge and technologies. The significance of the legislation particularity rests on the fact that it recognises the collective right of communities over their TK. The model law establishes the collective rights of the community in the following lines:

The rights of local communities over their biological resources, knowledge and technologies that represent the very nature of their livelihood systems and that have evolved over generations of human history, are of a collective nature and, therefore, are a priori rights which take precedence over rights based on private interests.

Community rights are defined as those rights held by local communities over their biological resources or parts or derivatives thereof, and over their practices, innovations, knowledge and technologies. Community knowledge or indigenous knowledge, under the scheme of the model law means the accumulated knowledge that is vital for conservation and sustainable use of biological resources and/or which is of socio-economic value, and which has been developed over the years in indigenous/local communities.477

---

477 Part II, dealing with definition and scope of the model law.
The law aims at protecting and encouraging cultural diversity, giving due value to the knowledge, technologies, innovations and practices of local communities with respect to the conservation, management and use of biological resources. It also acknowledges the vital role that women play in the generation, conservation and sustainable use of biological diversity and associated knowledge and technologies. The legislation emphasises much on the effective participation of its citizens in the protection of their collective and individual rights and decision making processes which affect their biological and intellectual resources as well as the activities and benefits derived from their utilization. The model law recognises the need to promote and support traditional and indigenous technologies for in the conservation and sustainable use of biological resources.

The legislation applies to (a) biological resources in both in situ and ex situ conditions, (b) the derivatives of the biological resources, (c) community knowledge and technologies, (d) local and indigenous communities, and (e) plant breeders. However, it does not apply to (i) the traditional systems of access, use or exchange of biological resources and (ii) access, use and exchange of knowledge and technologies by and between local communities.

As stated in its objectives, the main aim of the legislation is to ensure the conservation, evaluation and sustainable use of biological resources, including agricultural genetic resources, and knowledge and technologies in order to maintain and improve their diversity as a means of sustaining all life support systems. The specific objectives are as follows:\textsuperscript{478}

\textsuperscript{478} Part I of the model law.
i. to recognize, protect and support the inalienable rights of local communities including farming communities over their biological resources, knowledge and technologies

ii. to recognize and protect the rights of breeders

iii. to provide an appropriate system of access to biological resources, community knowledge and technologies subject to the prior informed consent of the state and the concerned local communities

iv. to promote appropriate mechanisms for a fair and equitable sharing of benefits arising from the use of biological resources, knowledge and technologies

v. ensure the effective participation of concerned communities, with a particular focus on women, in making decisions as regards the distribution of benefits which may derive from the use of their biological resources, knowledge and technologies

vi. to promote and encourage the building of national and grassroots scientific and technological capacity relevant to the conservation and sustainable use of biological resources

vii. provide appropriate institutional mechanisms for the effective implementation and enforcement of the rights of local communities, including farming communities and breeders, and the conditions of access to biological resources, community knowledge and technologies
viii. promote the conservation, evaluation and sustainable utilisation of biological resources with a particular focus on the major role women play, and

ix. to ensure that biological resources are utilised in an effective and equitable manner in order to strengthen the food security of the nation.

The model law requires written prior informed consent of the National Competent Authority before accessing to any biological resources and knowledge or technologies of local communities in any part of the country.\textsuperscript{479} The model law states in detail the mandatory information that an applicant must provide to the National Competent Authority in an application to obtain written permit. The applicant must give the following information to obtain PIC: \textsuperscript{480}

\begin{enumerate}
\item the identity of the applicant and the documentary proof for her/his legal capacity to contract
\item the resources to which access is sought and the sites from which it will be collected
\item its present and potential uses, its sustainability and the risks which may arise from the access
\item whether the collection of the resource will endanger any component of biological diversity
\item the purpose for which access to the resource is requested
\item type and extent of research
\end{enumerate}

\textsuperscript{479} Parts III articles 3 & 4.
\textsuperscript{480} Part III, article 4.
vii. commercial use expected to be derived from the research
viii. description of the manner and extent of local and national collaboration in
the research and development of the biological resource concerned
ix. the national institution/s which will participate in the research
x. the location where the research and development will be carried out
xi. the primary destination of the resource and its probable subsequent
destination/s
xii. the economic, social, technical, biotechnological, scientific,
environmental or any other benefits that are intended, or may be likely to,
accrue to the country and local communities providing the biological
resource as well as the collector and the country or countries where he/she
operates
xiii. the proposed mechanisms and arrangements for benefit sharing
xiv. description of the innovation, practice, knowledge or technology
associated with the biological resource, and
xv. an environmental and socio-economic impact assessment covering at least
the coming three generations, in cases where the collection is in large
quantities.

It is obligatory that the National Competent Authority must consult with the local
community or communities before granting PIC. The model law ensures the concerned local
communities participation in decision making processes. The model law declares as invalid
and makes penal any access carried out without the prior informed consent of the State and
the concerned local communities.
Any decision on the application for PIC will be taken only after publishing the application in gazette or newspaper for effective dissemination of the relevant information to the communities concerned and to other interested parties for their comments.481

The model law also lays down the essential contents in an agreement for access to resources and knowledge. It will have, inter alia, the following agreements:482

i. to guarantee to deposit duplicates of, with complete field information on, each specimen of the biological resource or the records of community innovation, practice, knowledge or technology collected with the duly designated governmental agencies and, if so required, with local community organizations

ii. to inform immediately the National Competent Authority and the concerned local community or communities of all findings from R&D

iii. not to transfer the biological resource or any of its derivatives or the community innovation, practice, knowledge or technology to any third party without the authorization of the National Competent Authority and the concerned local community

iv. not to apply for any form of intellectual property protection over the biological resource or parts or derivatives thereof and not to apply for intellectual property rights protection over a community innovation, practice, knowledge or technology without the prior informed consent of the original providers

481 Part III, article 6.
482 Part III, article 8.
v. to contribute economically to the efforts of the State and concerned local community or communities in the regeneration and conservation of the biological resource, and the maintenance of the innovation, practice, knowledge or technology, and

vi. to submit a regular status report of R&D to the National Competent Authority.

The application for access for research purposes must clearly state the objective of the research and the relation of the applicant to industry. Neither the sample nor the associated information can be transferred without a material transfer agreement reserving the prior rights of the state and communities. The model law prohibits patents over life forms and biological processes in connection with the access and use of a biological resource, community innovation, practice, knowledge, etc.483

Article 12 mandates the benefit sharing requirement. The state and the community are entitled to share the benefits arising out of the earning derived from the collected knowledge or resources. The concerned community or communities are entitled for at least fifty per cent of benefits and it is to be distributed equitably amongst the men and women in the community.484 The access permit is subject to the payment, made before commencement of collection. The quantum of the payment will be determined on the basis of purpose of research, the number of samples, the area of collection, the duration of collection, nature of rights etc. The National Competent Authority can grant the collector any appropriate permit for access: academic research permits, commercial research permit or commercial

483 Part III, article 9.
484 Article 22.
exploitation permit, as the case may be. In the event of any violation of provisions in the model law or terms in the agreement the National Competent Authority, in consultation with the concerned local community, has power to unilaterally withdraw the permit.\footnote{485}

The model law elaborately deals with community rights, farmers’ rights and plant breeders’ rights. The communities are given rights over biological resources and innovations, practices, knowledge and technologies acquired through generations. They also have the right to collectively benefit from the use of their biological resources; right to collectively benefit from the utilisation of their innovations, practices, knowledge and technologies; and rights to use their innovations, practices, knowledge and technologies in the conservation and sustainable use of biological diversity. The communities can exercise collective rights as legitimate custodians and users of their biological resources.\footnote{486} The state is obliged to recognise and protect the community rights enshrined and protected under the norms, practices and customary law. Access to biological resources, innovations, practices, knowledge or technology is subject to the PIC of the concerned community or communities. The state has to ensure equal participation of the local communities and women in all decision making processes.\footnote{487} The local communities have the right to refuse access to their biological resources and associated knowledge and right to withdraw consent or place restrictions on R&D if it is detrimental to their socio-economic life, or their natural or cultural heritage.\footnote{488} However, no legal barriers can be placed on the traditional exchange system of the local communities in the exercise of their rights.

\footnote{485} Article 14. \footnote{486} Article 16. \footnote{487} Article 18. \footnote{488} Articles 19 & 20.
The model law also recognises community intellectual rights of the local communities, including traditional professional groups and traditional practitioners. The community can identify, interpret and ascertain community innovation, practice, knowledge or technology, or a particular use of a biological or any other natural resource under their customary practice and law. Non-registration of any community innovations, practices, knowledge or technologies does not disentitle the community from protecting it as community intellectual rights.

Part V of the model law recognises farmers' rights. The law states that the farmers' rights stemming from the enormous contributions that local farming communities have made in the conservation, development and sustainable use of plant and animal genetic resources constitute the basis of breeding for food and agriculture production. Farmers have right to protect their varieties and breeds under the rules of customary practices and laws. A variety with specific attributes identified by a community is entitled for intellectual protection through a variety certificate which does not have to meet the criteria of distinction, uniformity and stability. This variety certificate entitles the community to have the exclusive rights to multiply, cultivate, use or sell the variety, or to license its use. The farmers' rights include the right to

i. the protection of their traditional knowledge relevant to plant and animal genetic resources

ii. obtain an equitable share of benefits arising from the use of plant and animal genetic resources

489 Article 23.
490 Article 26.
iii. participate in making decisions on matters related to the conservation and sustainable use of plant and animal genetic resources

iv. save, use, exchange and sell farm-saved seed/propagating material of farmers' varieties

v. use a new breeders' variety protected under this law to develop farmers' varieties, including material obtained from genebanks or plant genetic resource centres, and

vi. collectively save, use, multiply and process farm-saved seed of protected varieties.

Any product derived from the sustainable use of a biological resource is eligible for a certificate or label of recognition. Article 30 recognises plant breeders' rights in respect of new varieties. They have the exclusive right to sell or license other persons to sell plants or propagating material of that variety and the exclusive right to produce or license other persons to produce, propagating material of that variety for sale.

The implementation and enforcement these rights are carried out by the National Competent Authority. It is responsible to 491

i. create and operate a regulatory mechanism to ensure effective protection of community intellectual rights and farmers' rights

ii. identify types of community intellectual rights and farmers' rights

iii. identify and define the requirements and procedures necessary for the recognition of community intellectual rights and farmers' rights

491 Article 58.
iv. develop a system of registration of items protected by community intellectual rights and farmers' rights according to their customary practices and law, and
v. issue licenses for the exploitation and commercialisation of biological resources, including protected species, varieties or lineages, and community innovations, practices, knowledge and technologies.

The national inter-sectoral co-ordination body consisting of representatives from relevant public sectors, scientific and professional organizations, non-governmental and local community organizations coordinates and undertakes follow-up actions for proper implementation of the provisions in the model law.\textsuperscript{492} A technical advisory body supports the work of the national inter-sectoral co-ordination body.\textsuperscript{493} The national information system established under the model law\textsuperscript{494} compiles and documents information on community intellectual rights, farmers' rights and access to biological resources, community innovations, practices, knowledge and technologies. It also compiles information on piracy of biological resources and traditional knowledge and disseminates such information to all relevant and concerned bodies.

7.3. REPUBLIC OF THE PHILIPPINES

In Philippines the state has recognized the original rights of indigenous peoples and local communities over plant and genetic resources, traditional medicines, agricultural methods and local technologies which they have discovered and developed through the

\textsuperscript{492} Article 61.
\textsuperscript{493} Article 63.
\textsuperscript{494} Article 64.
Community Intellectual Rights Protection Act (CIRPA). The Act makes the communities as owners with primary and residuary title to the (a) the formal or informal communal systems of innovation through which they produce, select, improve and breed a diversity of crop and livestock varieties and (b) the plant varieties, genetic resources, traditional medicines, agricultural practices and devices, and technologies produced through these systems.

It is the policy of the state to document and make a systematic inventory of plant and genetic resources and knowledge originating from indigenous and local communities. The Act recognizes proprietary ownership in the unwritten traditional knowledge. The state has to strive to protect and encourage the customary use of biological resources in accordance with traditional cultural practices. Commercial utilization of TK and innovations are possible only with the free and informed consent of its general owners or custodians under terms mutually agreed upon. As per the law, all benefits arising from the knowledge and innovations by indigenous and local communities should accrue to their development and welfare and should therefore be equitably shared.

Section 4 of the Act delineates the scope and meaning of community intellectual property. The communities are entitled to hold the property in all perpetuity with primary and residuary title to the property. The intellectual property of the communities includes

---

495 S. No. 101.
496 Under section 3 (i) of the Act, indigenous peoples or indigenous groups or cultural communities, refers to a group of people sharing common bonds of language, customs, traditions and other distinctive traits, and who have, since time immemorial, occupied, possessed, and utilized a territory except when such possession is either prevented or interrupted by war, force majeure, displacement or force, deceit or stealth, or other usurpation.
497 As per section 3 (j), innovation refers to the process or products derived from such processes, whether documented in written, recorded, or oral form, which constitute an introduction of new changes, including alteration, modifications, or improvements.
i. parent strains and genetic material discovered or selected and conserved by local communities, which were used in the development of new plant varieties

ii. seeds and reproductive material selected, cultivated, domesticated and developed by local communities in situ

iii. agricultural practices and devices developed from indigenous material, customs, and knowledge

iv. medicinal products and processes developed from the identification, selection, cultivation, preparation, storage and application of medicinal herbs by local communities and indigenous peoples

v. cultural products from local communities, such as weaving patterns, pottery, painting, poetry, folklore, music, etc., and

vi. all other products or processes not made by a single person or juridical personality, which was discovered through a community process, or when the individual making the innovation does not claim the knowledge as his own, provided, that any individual or juridical personality making such a claim should present proof of innovation or a history leading to the discovery that would justify his claim.

Any group of people living in a geographically defined area with a common history and definitive patterns of relationship can register themselves with the appropriate government agency as a tribal council, foundation, cooperative, people’s organization, or any other form of organization and claim community ownership of IP. Failure to form and
register an organization, however, will not prejudice its status as custodians of TK.\textsuperscript{498} A community by virtue of its registration automatically will become the general owners of any form or product of TK. As general owners, they are entitled to collect a justifiable percentage from all profits derived from the commercial use of their TK for a period of ten years. The organization representing the community’s interest is entitled to directly receive all benefits. In the absence of such an organization, the benefits will be held in trust by the state which will be released only under the provisions of a legislation enacted in favor of the community.

The state in consultation with the academic experts, communities and non-governmental organizations take necessary initiatives in providing technical and other related forms of assistance in the documentation, identification and characterization of community IP.

As per the Act, all identified and documented community IP are to be entered in the concerned registers. The National Commission on Plant Genetic Resources maintains and updates entries regarding plant varieties and other plant reproductive materials. The National Commission on Plant Genetic Resources records and recognizes the contributions of local communities and indigenous peoples to the development and discovery of new plant varieties and it also provides for the protection of Philippine plant genetic resources from unfair and inequitable exploitation.\textsuperscript{499} The National Museum maintains a national register of indigenous cultural heritage for registering cultural products and heritage. the Bureau of Patents, Trademarks, and Technology Transfer (BPTTT) maintains and updates

\textsuperscript{498} Section 5.
\textsuperscript{499} Section 7.
a national register of indigenous inventions, designs and utility models which include agricultural practices and devices developed from indigenous material, customs, and knowledge as well as medicinal products and processes developed from the identification, selection, cultivation, preparation, storage, and application of medicinal herbs by local communities and indigenous peoples. BPTTT also has jurisdiction on all other products and processes of community IP which are not covered by the National Inventory of Plant Varieties or the National Register of Indigenous Cultural Heritage.

The Traditional and Alternative Medicine Act, 1997 (TAMA)\(^{500}\) is another important legislation in the Philippians enacted to protect knowledge related to traditional medicine.\(^{501}\) Through this enactment, the state strives to improve the quality and delivery of health care services to the Filipino people through the development of traditional and alternative health care\(^{502}\) and its integration into the national health care delivery system. The Act has provided for the establishment of Philippine Institute of Traditional and Alternative Health Care (PITAHC) to accelerate the development of traditional and alternative health care in the Philippines.\(^{503}\) The objectives of the Act include, \textit{inter alia},\(^{504}\)

i. to promote and advocate the use of traditional, alternative, preventive and curative health care modalities that have been proven safe, effective, cost effective and consistent with government standards on medical practice

\(^{500}\) Republic Act No. 8423.

\(^{501}\) Traditional medicine means the sum total of knowledge, skills and practice on health care, not necessarily explicable in the context of modern, scientific philosophical framework, but recognized by the people to help maintain and improve their health towards the wholeness of their being the community and society, and their interrelations based on culture, history, heritage, and consciousness: Section 4 (b).

\(^{502}\) Traditional and alternative health care means the sum total of knowledge, skills and practices on health care, other than those embodied in biomedicine, used in the prevention, diagnosis and elimination of physical or mental disorder. See, section 4 (a).

\(^{503}\) Section 5.

\(^{504}\) Section 3.
ii. to develop and coordinate skills training courses for various forms of traditional and alternative health care modalities

iii. to formulate standards, guidelines and codes of ethical practice appropriate for the practice of traditional and alternative health care as well as in the manufacture

iv. to formulate policies for the protection of indigenous and natural health resources and technology from unwarranted exploitation

v. to formulate policies to strengthen the role of traditional and alternative health care delivery system, and

vi. to promote traditional and alternative health care in international and national conventions, seminars and meetings

The Act recognizes the indigenous and local peoples’ right to own their knowledge of traditional medicine. When such knowledge is used by outsiders, the indigenous societies can require the permitted users to acknowledge its source and can demand a share of any financial return that may come from its authorized commercial use.

The Philippines Indigenous Peoples Rights Act, 1997\textsuperscript{505} recognizes, protects and promotes the rights of indigenous cultural communities/indigenous peoples by creating a National Commission on Indigenous Peoples and establishing implementing mechanisms for protecting right of indigenous communities. The Act mandates the state to recognize and promote all the rights of Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs).

\textsuperscript{505} Republic Act No. 8371.
Under the Act, ICCs/IPs refers to a group of people or homogenous societies identified by self ascription and ascription by others, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits.\footnote{Section 3 (h).}

The enactment establishes the concept of indigenous ownership. The ancestral domains and all resources found therein serves as the material bases of ICC’s cultural integrity. The indigenous concept of ownership generally holds that ancestral domains are the ICC's/IP's private but community property which belongs to all generations and therefore cannot be sold.\footnote{Section 5.} The ICC has rights to ancestral domains: the rights of ownership and possession of ICCs/IPs to their ancestral domains and the right to claim ownership over lands, bodies of water traditionally and actually occupied by ICCs/IPs, sacred places, traditional hunting and fishing grounds, and all improvements made by them at any time within the domains.

The inherent right of ICCs/IPs to self governance and self determination and respect the integrity of their values, practices and institutions is guaranteed under the legislation. ICCs/IPs have the right to participate fully at all levels of decision making in matters which may affect their rights, lives and destinies.\footnote{Section 16.} Cultural integrity of ICCs/IPs to preserve and protect their culture, traditions and institutions is also statutorily guaranteed.\footnote{Section 29.}
The legislation establishes the concept of community intellectual rights. The ICCs/IPs have the right to practice and revitalize their own cultural traditions and customs. The state has to protect and develop the past, present and future manifestations of their cultures. ICCs/IPs have the right of restitution if cultural, intellectual, religious, and spiritual properties are taken without their free and prior informed consent or in violation of their laws, traditions and customs.\textsuperscript{510}

Access to biological and genetic resources and to indigenous knowledge related to the conservation, utilization and enhancement of these resources, is permitted within ancestral lands and domains of the ICCs/IPs only with a free and prior informed consent of such communities, obtained in accordance with customary laws of the concerned community.\textsuperscript{511}

The National Commission on Indigenous Peoples (NCIP) is the primary government agency responsible for the formulation and implementation of policies, plans and programs to recognize, protect and promote the rights of ICCs/IPs.\textsuperscript{512} The NCIP is responsible to protect and promote the interest and wellbeing of the ICCs/IPs with due regard to their beliefs, customs, traditions and institutions.

\textbf{7.4. PERU}

\textsuperscript{510} Section 32.
\textsuperscript{511} Section 35.
\textsuperscript{512} Section 38.
The right of indigenous peoples in their collective knowledge is given statutory recognition in the Peruvian state. The Peruvian state, for this purpose, has enacted a law introducing a special protection regime for the collective knowledge of indigenous peoples derived from biological resources. The special protection regime for collective knowledge is totally independent of the Peruvian IPR regime. Through this legislation the state has recognized the rights and power of indigenous peoples and communities to dispose of their collective knowledge as they deem fit. However, the special protection regime shall not affect the traditional exchange between indigenous peoples of their collective knowledge. The law applies only to collective knowledge as opposed to individual knowledge. Knowledge belonging to two or more indigenous peoples is treated as collective knowledge. It acknowledges that the collective knowledge forms part of the cultural heritage of indigenous peoples and as such the collective knowledge is inalienable and indefeasible.

The objectives of the law are

i. to promote respect for and the protection, preservation, wider application and development of the collective knowledge of indigenous peoples

ii. to promote the fair and equitable distribution of the benefits derived from the use of collective knowledge

---

514 Collective knowledge means the accumulated, transgenerational knowledge evolved by indigenous peoples and communities concerning the properties, uses and characteristics of biological diversity.
515 Indigenous peoples a defined in article 2 (a) means aboriginal peoples holding rights that existed prior to the formation of the Peruvian State, maintaining a culture of their own, occupying a specific territorial area and recognizing themselves as such. These include peoples in voluntary isolation or with which contact has not been made, and also rural and native communities. The term “indigenous” shall encompass, and may be used as a synonym of, “aboriginal,” “traditional,” “ethnic,” “ancestral,” “native” or other such word form.
516 Article 4.
517 Article 10.
518 Article 12.
519 Article 5.
iii. to promote the use of the knowledge for the benefit of the indigenous peoples

iv. to ensure that the use of the knowledge takes place with the PIC of the indigenous peoples

v. to promote the strengthening and development of the potential of the indigenous peoples and of the machinery traditionally used by them

vi. to share and collectively distribute benefits arising out of the use of collective knowledge, and

vii. to avoid situations where patents are granted for inventions made or developed on the basis of collective knowledge of the indigenous peoples.

Access to collective knowledge for the purposes of scientific, commercial and industrial application is subject to the prior informed consent of the representative organizations of the indigenous peoples possessing collective knowledge. Access for the purposes of commercial or industrial application is regulated through a license agreement. A minimum of the ten per cent of the value of the gross sales resulting from the marketing of goods developed on the basis of collective knowledge is to be set aside for the Fund for the Development of Indigenous People.

The legislation has introduced three types of registers for the purpose of registration of the collective knowledge of indigenous peoples: public national register, confidential national register and local register. Through these registers the collective knowledge of indigenous peoples and their rights therein are preserved and safeguarded. The public national register contains collective knowledge in the public domain. The confidential
national register is not open for the third parties.\textsuperscript{520} Local registers of collective knowledge can be maintained by the indigenous peoples in accordance with their practices and customs.

The representative organization of indigenous peoples in possession of collective knowledge may, by a written contract, license third parties to use the collective knowledge. The contract must contain provisions for PIC and ABS. However, such licensing will not prevent others from using or licensing the same knowledge.

A fund known as Fund for the Development of Indigenous Peoples and Communities is created for contributing to the comprehensive development of indigenous peoples in Peru through the financing of projects and other activities.\textsuperscript{521} Indigenous peoples have the right to draw on the resources of the fund through their representative organizations for the purpose of development projects.

The indigenous peoples possessing collective knowledge not in the public domain have right to protect the knowledge from disclosure, acquisition or use without their consent.\textsuperscript{522} In case of violation of their collective right they can bring infringement actions wherein the burden of proof will be on the defendant.

The Indigenous Knowledge Protection Board established under this special law monitors and oversees the implementation of the protection regime for collective knowledge of indigenous people.\textsuperscript{523} The Office of Inventions and New Technology of the National Institute for the Defense of Competition and Intellectual Property (INDECOPI)

\textsuperscript{520} Article 18.
\textsuperscript{521} Article 37.
\textsuperscript{522} Article 42.
\textsuperscript{523} Article 65.
maintains and updates the register of collective knowledge of indigenous peoples and register of licenses for the use of collective knowledge. It also assesses the validity of contracts for the licensing of collective knowledge. Any disputes regarding the protection of the collective knowledge of indigenous peoples in Peru is settled in the first instance by the office of INDECOPI.\textsuperscript{524}

7.5. ETHIOPIA

Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation, 2006\textsuperscript{525} provides for the rights of Ethiopian communities over genetic resources and community knowledge. The Proclamation covers access to genetic resources found in \textit{in situ} or \textit{ex situ} conditions and community knowledge. The Proclamation strives to ensure that the country and its communities obtain fair and equitable share from the benefits arising out of the use of genetic resources. The ownership of genetic resources is vested in the state and the Ethiopian people whereas the ownership of community knowledge is vested in the concerned local community.

The Proclamation reaffirms the local communities’ inalienable right to use or exchange among themselves their genetic resources or community knowledge in accordance with their customary practices or norms. The Proclamation vests on the local communities the right to regulate the access to their community knowledge, inalienable right to use their genetic resources and community knowledge and right to share from the benefit arising out of the utilization of their genetic resources and community knowledge. Any access to the community knowledge is subjected to the prior informed consent of the

\textsuperscript{524} Article 63.
\textsuperscript{525} No. 482/2006.
community. The community may refuse consent for access if the access is detrimental to the integrity of their cultural or natural heritages.

The local communities are entitled to obtain 50% of the benefit shared by the state in the form of money from the benefits derived out of the utilization of their genetic resources. The Proclamation also provides the essential contents of access agreement and enlists the types of benefits the community can receive on permitting access to genetic resources and community knowledge. The benefits include

i. royalty

ii. research funding

iii. joint ownership of intellectual property

iv. employment opportunity

v. participation of Ethiopian nationals from the Institute or the relevant institutions in the research based on the genetic resources or community knowledge accessed

vi. priority to supply the raw material of genetic resource required for producing products there form

vii. access to products and technologies developed from the use of genetic resource or community knowledge accessed

viii. training, both at institutional and local communities levels, to enhance local skills in genetic resources conservation, evaluation, development, propagation and use, and

ix. provision of equipment, infrastructure and technology support.
7.6. PANAMA

The Law on the Special Intellectual Property Regime Governing the Collective Rights of Indigenous Peoples for the Protection and Defense of their Cultural Identity and their Traditional Knowledge, 2000 \(^{526}\) deals with the protection of TK in Panama.

It is enacted to protect the collective rights of intellectual property and traditional knowledge of the indigenous communities upon their creations such as inventions, models, drawings and designs, novelties contained in the pictures, figures, symbols, illustrations, old carved stones etc. It also protects the cultural elements of their history, music, art and traditional artistic expressions capable of commercial use, through a special registration system.

The collective rights of the indigenous communities are recognized on traditional dresses, their musical instruments, music, dances or form of performance, oral and written expressions contained in their traditions that constitute their historical, cosmological and cultural expression. These collective rights can be registered by indigenous traditional authorities before the General Office for the Registry of the Industrial Property.

The collective rights of the indigenous communities are recognized on their work instruments and traditional art, as well as the technique for making them, expressed in the national basic materials, through the elements of the nature, their method of process, elaboration, etc. The Department of Collective Rights and Folkloric Expressions (DIGERPI) grants registration for the collective rights of the indigenous communities. The registration of the collective rights of the indigenous communities is for indefinite duration.

\(^{526}\) Law No. 20 of June 26, 2000.
The rights of use and commercialization of the art, crafts and other cultural expressions based on the tradition of the indigenous community are governed by the regulation of each indigenous community, approved and registered in DIGERPI or in the National Copyright Office.

Apart from these legislations, there are other initiatives by many countries to protect their TK and bioresources. Decision 486 on the Biological and Genetic Heritage and Traditional Knowledge deal with protection of TK in Andean Community. Name of indigenous, African American, or local communities, or of such denominations, words, letters, characters, or signs used to distinguish their products, services or methods of processing constitute an expression of culture. Article 3 of the Decision states as under:

The Member Countries shall ensure that the protection granted to intellectual property elements shall be accorded while safeguarding and respecting their biological and genetic heritage, together with the traditional knowledge of their indigenous, African American, or local communities. As a result, the granting of patents on inventions that have been developed on the basis of material obtained from that heritage or that knowledge shall be subordinated to the acquisition of that material in accordance with international, Andean Community, and national law. The Member Countries recognize the right and the authority of indigenous, African American, and local communities in respect of their collective knowledge.
The National Heritage Resources Act, 1999\textsuperscript{527} introduces an integrated and interactive system for the identification, assessment and management of the national heritage resources in Republic of South Africa. The South African Heritage Resources Agency together with its Council coordinates and promotes the management of heritage resources at national level. The Law of the Republic of Azerbaijan on Legal Protection of Azerbaijani Expressions of Folklore, 2006 extends legal protection to expressions of folklore and protects it from unlawful use. Regional Framework for the Protection of Traditional Knowledge and Expressions of Culture, 2002 has been developed by the Secretariat of the Pacific Community (SPC). It also has drafted Guidelines for developing national legislation for the protection of traditional knowledge and expressions of culture based on the Pacific Model Law 2002. UNESCO-WIPO’s Model Provisions for National Laws on the Protection of Expressions of Folklore against Illicit Exploitation and other Forms of Prejudicial Action, 1982 is another remarkable endeavor for the protection of TK.


\textsuperscript{527} No. 25 of 1999.
Countries like Mongolia, Mexico, Malawi, Republic of Macedonia, Lithuania, Indonesia, Ghana, Fiji, Algeria, Morocco, Nigeria, and Tanzania protect folklore through their respective copyright laws.

There exists in some parts, regional agreements for the protection of traditional knowledge of local communities. The Andean Pact, 1996 adopted by Bolivia, Colombia, Ecuador, Peru and Venezuela, empowers the national authority and indigenous communities in each country, as the holders of traditional knowledge and resources, to grant prior informed consent in exchange for equitable returns. Similarly, the Association of South East Asian countries agreement respects the sovereignty of each Member State over their biological and genetic resources and recognizes the urgent need to protect these interests from biopiracy. The Asian framework agreement was developed to set minimum standards for determining access to genetic resources. It urges the member states to

1. recognize, respect, preserve and maintain the knowledge, innovations and practices of indigenous peoples and local communities embodying traditional lifestyles to their natural resources, including genetic resources.

---

529 Federal Law on Copyright, 1996.
530 Copyright Act, 1989.
533 Copyright Law, 2002.
534 Copyright Act, 2005.
535 Copyright Act, 1999.
538 Copyright Act, 1999.
539 Copyright and Neighbouring Rights Act, 1999.
ii. accord recognition and protection to traditional knowledge of indigenous peoples and local communities

iii. ensure fair and equitable sharing of benefits arising from the utilization of biological and genetic resources at the community, national and regional levels

iv. not allow the patenting of plants, animals, microorganisms or any parts thereof, and traditional and traditional knowledge

v. designate a competent national authority to be responsible for formulating and implementing national legislation on access and establishing procedures for the granting of prior informed consent which respect and comply with the customary laws, practices and protocols of indigenous peoples and local communities, and

vi. establish legal processes to ensure fair and equitable sharing of benefits arising from the use of such knowledge and resources.

As seen above, during the last decade, the protection of biogenetic resources and associated TK has attracted much attention of the international community and the questions of whether and how to protect TK have been of increasing practical concern for national policy makers in many countries. Some countries have ventured to enact specific laws for the protection of TK. The legislative endeavor of these countries provides certain legal mechanism to recognize and protect TK base of the country and rights of indigenous and local communities over their TK. However, the need to address the issue of violation of TK within the existing IPR regime and the need to afford positive protection to TK call for further development and implementation of TK initiatives at the international level.543

The national initiatives in various countries need to be transformed for reaching a

consensus on the protection of TK at international level. Such global consensus would facilitate and ensure better protection of TK.