CHAPTER 5

INTERNATIONAL AND NATIONAL INITIATIVES FOR PROTECTION OF TRADITIONAL KNOWLEDGE

5.1. INTRODUCTION

In this age of globalization, biopiracy has to confront the growing emancipation of hitherto ridiculed cultures. Until some decades ago, it was generally thought that indigenous people and cultures were doomed to extinction. However, in the past three decades there has been a renaissance of indigenous worldviews, a greater appreciation of the enormous contribution of indigenous cultures across the globe. Many scholars, activists, Non Government Organizations and international bodies have made significant efforts to identify the indigenous view point within the current dominant intellectual property regimes and have made efforts to protect the rights and traditional knowledge of indigenous people. Indigenous people and local communities have “sought to prevent the patenting of traditional knowledge and resources where they have not given express consent”. They have sought for “greater protection and control over traditional knowledge and resources. Certain communities have also sought to ensure that their traditional knowledge is used equitably, according to restrictions set by their traditions or requiring benefit sharing for its use”. From standpoint of law, an indigenous “tribe should be regarded as a single person or corporation having the right to control the use of and receive money for its patent rights and the products of land it owns. Benefits of patents should transcend evenly to creators and users without distinction or discrimination of any kind”.

Although intellectual property rights over intellectual creations derived from traditional knowledge may be acquired legally, the failure to recognise the contributions of the traditional knowledge holders and to share the benefits, the economic gains, derived from intellectual property rights, have made the relationship between traditional knowledge and the intellectual property system a strained one. These concerns have led to traditional knowledge receiving increasing attention in international forums. The direct and indirect appropriation of traditional knowledge has led to the realisation that procedures for access to traditional knowledge and biological resources are necessary given their increased economic importance. As a result, there has been increasing focus
at the “international and national levels on the development of legal regimes to regulate access” to traditional knowledge and to allocate the benefits accruing from products derived from traditional knowledge. While “international law presents the opportunity for community to act beyond the imbalance that frequently occurs in agreements at the community/state level (that is, agreements subject to domestic laws and policies), the administration of justice will often reinstate an artificial unity when conceiving of community”.

5.2. INTERNATIONAL INITIATIVES

The period of the early 1990s was characterized by the “rapid rise in global civil society”. A change was recommended in “development policy that allowed for direct community participation and respected local rights and aspirations”. Indigenous people had “successfully petitioned to the United Nations to establish a Working Group on Indigenous Population that made two early surveys on treaty rights and land rights. These led to a greater public and governmental recognition of indigenous land and resource rights, and the need to address the issue of collective human rights, as distinct from the individual rights”. Initial concern was over the “territorial rights and traditional resource rights” of these communities. Indigenous people soon showed “concern for the misappropriation and misuse of their intangible knowledge and cultural heritage. Indigenous people and local communities have resisted, among other things, the use of traditional symbols and designs as mascots, derivative arts and crafts, the use or modification of traditional songs and the patenting of traditional uses of medicinal plants”.

International attention has turned to intellectual property laws to “preserve, protect and promote the traditional knowledge of indigenous people”. Attempt was made by ‘World Intellectual Property Organization (WIPO)’ and ‘United Nations Educational, Scientific and Cultural Organization (UNESCO)’ on developing the model provisions of national legislation for protection of folklore. During the last three decades, especially since the formation of the ‘United Nations Working Group on Indigenous Population (WGIP)’ in 1982, international legal mechanism have developed extensively to promote the cause of indigenous people all over the world. No uniform norms were laid down for protection of traditional knowledge. This led ‘World Intellectual Property Organization’ to set up ‘Inter-Governmental Committee on Intellectual Property and Genetic
Resources, Traditional Knowledge and Folklore (IGC)’. The Committee was established as “international forum to debate and dialogue concerning interplay between intellectual property rights and traditional knowledge, genetic resources and traditional cultural expression”.

5.2.1. INTERNATIONAL LABOR ORGANISATION

The International Labor Organisation (ILO) is the first international organization which dealt with the plight of the indigenous people. The International Labor Organisation was the only residue of the League of Nations to have survived the Second World War. It became the first specialized agency of the United Nations and was given the mandate to address the indigenous issue for more than two decades. Though it had started promoting the cause of indigenous people since 1920s, it committed itself actively to indigenous issues only since 1950s, by adopting some landmark international instruments exclusively dealing with indigenous issues. It is with the publication on Indigenous People: Living and Working Conditions of Aboriginal Populations in Independent Countries in 1953, and the International Labor Organisation Convention No. 107 in 1957, that the ILO signaled its involvement in activities which would promote and strengthen the social, cultural, political and economic rights of the indigenous people of the world. Since then, the Organisation has been one of the most “dynamic specialized agencies of the United Nations actively engaging itself in the issues of indigenous communities all over the world”.

5.2.1.1. International Labor Organisation Convention No.107

The International Labor Organisation Convention No. 107 adopted in 1957, was a pioneering effort by an international body articulating standards to be followed by the ratifying countries in dealing with the indigenous people. The term indigenous people was first introduced at international level in this convention. The convention was related “to the protection and integration of indigenous and other tribal and semi tribal population in independent countries”. In this convention, the tribal and semi tribal population are considered as a broad social category and indigenous population as a sub category of the former who are descendants of the original population of the countries which were taken over by colonizers by conquest. The limited legal and political protection and safeguards provided for the assertion of indigenous rights in independent
nations led to the articulation of standards and guidelines to protect the rights of the indigenous people. In doing this, this convention sought to integrate indigenous people into the national mainstream stressing on land rights, recruitment and employment, health and education. This convention provides that the right of ownership, collective or individual, shall be recognized. This convention got ratified through Convention No. 169 of 1989, which is far advanced in scope and application and has been adopted by the International Labor Organisation.

5.2.1.2. International Labor Organisation Convention No. 169

The ‘International Labor Organisation Convention No. 169 of 1989’, which replaced the earlier ‘International Labor Organisation Convention No. 107of 1957’ “concerning indigenous and tribal people in independent countries, asserts the right of indigenous and tribal people over their land. This convention affirms the right of indigenous people to self identification”. It obliges “States to respect the special importance for the cultures and spiritual values of the people and also respect their relationship with the land or territories”. This convention provides that the “States should promote the social, economic and cultural rights of indigenous people with respect to their social and cultural identity, their customs and traditions and their institutions”. It was also, emphasized in this convention that “Governments have the responsibilities to develop, with the participation of the people concerned, the rights of the indigenous people and their integrity”.

The convention, although does not define traditional knowledge or explicitly mentions “indigenous resources of folklore, nevertheless, recognizes the rights of indigenous people over natural resources and their land and their traditional activities in order to maintain their culture and economic selfreliance and development, which are to be safeguarded”. The convention states indigenous people can “decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual wellbeing and also the extent of control over their own economic, social and cultural development”. This convention clearly “accepts the inter-relationship between cultural heritage, law, land rights and cultural rights of indigenous people in their own traditions, which includes traditional knowledge as well”. Thus, this convention revises earlier
convention and marked a change in the International Labor Organization’s “approach to indigenous and tribal people”. This convention is based on the belief that indigenous and tribal people have the right to continue to exist with their own identities and the right to determine their own way and pace of development.

‘Convention No. 169’ makes it obligatory for the states to accommodate tribal customs and customary laws when applying national laws to the people concerned. The convention recognizes the significance of customary laws for indigenous people and prohibits the national laws to undercut the power of indigenous legal system. While ‘Convention No. 169’ establishes the “basic rights of indigenous and tribal people”, in many respects, it sets out fundamental obligations, allowing each ratifying State to determine what specific measures it will take and setting minimum international standards.

5.2.2. WORLD INTELLECTUAL PROPERTY ORGANISATION

The result of the breakthroughs in international co-operation was the setting up of ‘World Intellectual Property Organisation (WIPO)’. ‘World Intellectual Property Organisation’ is the most specialized agency of the United Nations and is responsible for promoting creative intellectual activity and laws. ‘World Intellectual Property Organisation primarily functions as administrative organ for the Paris Convention and administers a host of other international legislative instruments and agreements that deal with patents” The constituent convention was “signed in Stockholm”, in 1967 but entered into force only in 1970. This organization is meant for promoting and protecting the intellectual property rights and ensuring its efficient administration by creating co-operation among the member states and to ensure co-operation among the intellectual property unions established by the treaties that World Intellectual Property Organisation administers.

Since its inception, the ‘World Intellectual Property Organisation’ has been eager to protect all forms of innovations and inventions. The ‘World Intellectual Property Organization’s’ “direct and positive involvement in the issue of traditional knowledge” started in 1998. During 1998-1999, the World Intellectual Property Organisation “embarked on nine fact-finding missions in various parts of the world, exploring the intellectual property aspects of traditional knowledge protection while bearing in mind the needs and expectations of traditional knowledge holders”. In its 26th session, in
2000, the ‘World Intellectual Property Organisation General Assembly’ “established the ‘Inter Governmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (Inter Governmental Committee or IGC)’ as an international forum for debate and dialogue concerning the interplay between intellectual property and traditional knowledge, genetic resources, and traditional cultural expressions (folklore)”. Inter Governmental Committee’s actions so far have focused on trying to understand the needs and expectations of traditional/local communities, ascertaining the adequacy of current methods for protecting traditional knowledge and surveying proposals to enhance such protection. It has produced a number of documents, including the model clause for genetic resources contracts, a toolkit for documentation of traditional knowledge protection and work on elements of a possible sui generis system of protection for traditional knowledge. The World Intellectual Property Organisation is also taking steps to enhance the coverage of documented traditional knowledge and to expand the International Patent Classification (IPC) to contain categories for traditional knowledge subject matter to provide for more accurate and focused searching for relevant traditional knowledge during the patent examination process.

World Intellectual Property Organisation has expanded its mandate to “include indigenous people’s intellectual property rights”, biodiversity and the protection of cultural heritage. The World Intellectual Property Organization’s “approach in the matter of traditional knowledge protection” is mainly related to intellectual property. The Inter Governmental Committee has “centered its activities mainly on solutions that tend to minimize the rigors of intellectual property criteria”. The intellectual property solution is “sought for traditional knowledge in the public domain which is small part of the vast arena of traditional knowledge that has strong moorings in cultures and traditions etc”. The committee is working in collaboration with all the stake-holders to evolve a mechanism to ensure that intellectual property rights are not given to parties other than the holders of traditional knowledge and that it is granted to the custodians of traditional knowledge and cultural expression and such custodians have an equitable benefit sharing in case their knowledge is commercially exploited. In order to achieve this, efforts are on to make suitable amendments to all the World Intellectual Property Organisation administered treaties on intellectual property in order to “add a disclosure clause making it compulsory for the applicant to disclose the source or origin of
traditional knowledge, traditional cultural expression, and genetic resources while applying for intellectual property protection”.

The committee’s deliberations, however, “have revealed a clear division of views among the countries regarding the need, scope and nature of legal protection of traditional knowledge and its format”. Despite their “strong, polarized positions on these issues, the developing countries have agreed that the World Intellectual Property Organisation should produce the elements for a model sui generis system” of protection for traditional knowledge, though “the developed countries are of the view that any legally binding international sui generis system at this stage is premature and unnecessary” and that “attempts should first be made at the national level to determine its feasibility”. Developing countries, on the other hand, desire “expeditious work to be undertaken on this”.

5.2.3. WORKING GROUP ON INDIGENOUS POPULATION

Demand for a mechanism in the United Nations in which indigenous people could engage in dialogue and assert their rights in international law was proposed and discussed several times. Such a demand reached its culmination in the creation of the ‘Working Group on Indigenous Population’ in 1982 when Martínez Cobo, first ‘United Nations Special Rapporteur of the Sub-Commission on Prevention of Discrimination and Protection of Minorities’ for the “study on the problem of discrimination against indigenous population”, presented his report of a study titled The Study of the Problems of Discrimination against Indigenous Population. The ‘Working Group on Indigenous Population’ was “a subsidiary of the ‘Sub Commission on Prevention of Discrimination and Protection of Minorities’ which, in turn, was a subsidiary organ of the Commission on Human Rights”. The ‘Economic and Social Council Resolution, 1982’ which established the Working Group had given it a twofold mandate, first, “to review the developments pertaining to the promotion and protection of the human rights and fundamental freedoms of indigenous people” and second, to enunciate and develop international standards pertaining to specific indigenous rights. Thus, according to the mandate given, the Working Group used its platform to hear indigenous and government representatives explaining the human rights situation in their respective countries. Such a hearing gave an opportunity for indigenous groups and the Governments to dialogue and address on issues that were affecting indigenous people.
Working Group on Indigenous Population forum was open to indigenous representatives from all over the world. Thus, a large number of representatives and observers from indigenous communities from various parts of the world used to attend the sessions of the Working Group. Major decisions of the Working Group had to be approved by the ‘Economic and Social Council (ECOSOC)’ or the General assembly of the United Nations. Though according to its mandate it was not a chamber of complaints, yet during its annual meetings it turned out to be a place for indigenous groups to discuss their grievances against the States. Most governments accepted the role of the Working Group as a venue for indigenous people to ventilate grievances against their national governments.

The most important achievement of the Working Group was the articulation of the international standards in dealing with indigenous people. With this end in mind, in 1985, it started the task of drafting the ‘United Nations Declaration on Rights of Indigenous People’ which had to be eventually approved by the ‘General Assembly of the United Nations’. In August 1988, during its sixth session, the Working Group considered the draft declaration which covered a broad range of areas affecting indigenous people including culture, identity, language, education, religion, land, forests, environment, autonomy, political participation and other issues. Its efforts bore fruit when in September 2008, after more than a decade long discussion and deliberations, the ‘United Nations General Assembly’ ultimately ratified the ‘United Nations Declaration on Rights of Indigenous People (UNDRIP)’.

5.2.4. DRAFT UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLE

The ‘Draft United Nations Declaration on the Rights of Indigenous People, 1994’ by the ‘United Nations Sub Commission on the Promotion and Protection of Human Rights’ “includes human rights principles which have implications for traditional knowledge and biodiversity”. It “accepts the right of self determination of indigenous people and recognizes their collective right to live in freedom, peace and security as distinct people, their right to the full recognition of their laws, traditions and customs; and full maintenance, protection and promotion of past, present and future manifestations of their cultures and are entitled to the recognition of the full ownership, control and
protection of their cultural and intellectual property”. The Declaration demands “States shall abstain from removing indigenous people from their lands or territories, respect their traditions and indigenous knowledge (Part III) and restore and protect the environment”. States must “obtain their free and informed consent before any projects affecting their lands, territories or resources may be approved, particularly in connection with the development, utilization or exploitation of minerals, water or other resources” There is “no explicit mention of traditional knowledge and traditional resources”. The rights recognized in the draft declaration shall be adopted by the states and shall be included in national legislation in such a manner that indigenous people can avail themselves of such rights in practice”.

The provisions are wide in implication, “establishing a link between cultural property, cultural identity and the collective right to own and control one’s own cultural property”.

5.2.5. UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

With the rise of western models of science and the growing knowledge of genetics, the breeding process of plants came to involve greater degrees of complexity. Consequently plant breeding became increasingly specialized and scientific, and as it did so, the site of breeding began to shift from farmers in their fields to scientists in laboratories. Correspondingly, plant breeding began to resemble modes of industrial innovation and production and plants began to resemble inventions. The world’s first intellectual property rights regime for new forms of plants was instituted in 1930 with the United States Plant Patent Act. The act initiated a process through which private plant breeders acquired ever greater monopoly rights over products from their manipulations of naturally occurring plant species.

One of the most notable features of the successive institutionalization of plant variety protection is the way they have systematically eluded farmer’s role as breeders. This can be seen in the 1978 version of the ‘Union for the Protection of New Varieties of Plants’. Originating as an agreement among the economically advanced countries of Western Europe, the 1978 ‘Union for the Protection of New Varieties of Plants’ became the “primary international framework for plant variety protection” and, arguably, a model
for TRIPs Agreement. In the year 1991, the “1978 Union for the Protection of New Varieties of Plants” was revised to restrict farmer exemptions. In particular, it restricted the rights of farmers to use engineered seeds as breeding material in their own fields. With this, seed collection of patch seeds would be made the object of authorization. Unauthorized use without the intellectual property rights holder’s permission was made punishable by law. Seeds are treated as special commodities. The convention seeks to provide for a better control of the plant breeder. In 1994, with the signing of TRIPs Agreement at the conclusion of the ‘Uruguay round’ of negotiations over the ‘General Agreement on Tariffs and Trade (GATT)’, which generated the World Trade Organisation, the institutionalization of plant variety protection was given its greatest international scope.

5.2.6. TRADE RELATED ASPECTS OF INTELLECTUAL PROEPRTY AGREEMENT

The international community began discussions for a ‘General Agreement on Tariffs & Trade [GATT]’ in 1944. However, negotiations took place in 1947 and ‘General Agreement on Tariffs & Trade’ came into effect in 1948. The main object of ‘General Agreement on Tariffs & Trade’ was to remove the inequalities and difference of tariff structure and to establish a common code of conduct in trade. The “Uruguay Round negotiations of General Agreement on Tariffs & Trade” was the turning point as after the Uruguay round between 1986 & 1994, the ‘World Trade Organization (WTO)’ was formed which “came into force on January 1, 1995”. The object of the World Trade Organization is to establish a common code of conduct in service as well as intellectual property rights. World Trade Organization is stated to be mainly a dispute settlement body under the framework of a single institution. The Organisation was established to monitor and regulate the trade between contracting member states. According to the provision of the Final Agreement, all the member states are obliged to rationalize their fiscal and economic laws pertaining to custom duties, tax rates, import duties, export subsidies and the like, having a direct bearing on the transfer of technology and supply of goods and services including “trade related intellectual property rights”. The enormous effect of the intellectual property rights was recognized at the international platform, and, therefore, a separate chapter was devoted in the Final Act to the ‘Trade
Related Aspects of Intellectual Property Agreement’. The agreement was result of intense negotiations and a compromise between different sets of interests. The preamble to this agreement envisages the reduction in impediments to international trade and recognizes need to promote and protect intellectual property rights and also to ensure that the measures of enforcement do not become barriers to the trade. The TRIPs Agreement incorporates a minimum set of basic procedural regulations to achieve effectiveness in the enforcement of these rights. The Agreement, by “taking into account differences in national legal systems”, has sought uniformity on the rules of enforcement. It contains specific provisions for standard which should be provided in the laws which may be framed by the member states for the protection of intellectual property. The agreement “binds the member countries to “bring their domestic laws in consonance with the provisions of the agreement”. But, whereas, the objective is to achieve sufficiently effective protection through the rules, it is also the aim of TRIPs Agreement that they should not become barriers to free flow of goods and services. Thus, it leaves a considerable freedom to the members to give effect to these provisions under their national law.

The TRIPs Agreement provided that distortion and impediments of any nature shall be reduced and “effective protection of intellectual property rights” shall be guaranteed. This agreement is a key “international agreement promoting the harmonization of national intellectual property rights regimes”. The effect of this harmonization would be to provide minimum standards and to make national intellectual property rights regimes more similar to each other. The Agreement allows, “subject to certain exceptions, patents for any invention, whether products or processes, in all fields of technology”. It also provides a member, which “did not make available as of the date of entry into force of the World Trade Organisation Agreement, patent protection for pharmaceutical and agricultural chemical products, is required to provide a means by which applications for such invention can be filed”.

The TRIPs Agreement regime had at least two far reaching effects in relation to the knowledge and resources of indigenous people, first, the agreement greatly altered the use and control of biodiversity. There was a shift in the ways and norms according to which nature was intercepted. Secondly, the agreement greatly exacerbated the debate already raging between developed and developing countries over trade-related issues. It brought to fore the assumptions behind intellectual property rights and the dangers that
it held for the food and ecological security of developing nations. Above all, it brought into focus the issue of the knowledge rights of indigenous people and the inequity or absence of benefit-sharing mechanisms.

5.2.7. CONVENTION ON BIOLOGICAL DIVERSITY

In the wake of the “advances in biotechnology and the extension of patent protection to living organisms, both developed and developing countries realized the importance of access to genetic resources”. This was the “basis for the conclusion of the Convention on Biological Diversity (CBD) in 1992 at Rio de Janeiro”. The Convention on Biological Diversity is “the only major international convention that assigns ownership of biodiversity to indigenous communities and individuals”, through the state and asserts their right to protect this knowledge’. The convention reaffirms that “countries have sovereign rights over the genetic resources in their jurisdiction and calls for the fair and equitable sharing of benefits arising out of the utilization of genetic resources”. This convention has “three objectives: first, the conservation of biological diversity; second, the sustainable use of its components and third; the fair and equitable sharing of the benefits, arising out of the utilization of genetic resources”. This convention provides for “appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies and by appropriate funding”. The convention is the “principal international instrument which explicitly acknowledges the role of traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyle in biodiversity conservation and its sustainable development”. The convention defines “biological diversity as the variability among living organisms from all sources including, inter alia, territorial, marine and other aquatic ecosystems and the ecological complexes of which they are part, this includes diversity within species between species and of ecosystems”.

However, the “scope of the traditional knowledge covered by the convention is confined to genetic materials”. It is a “framework convention, setting out general principles that the parties agree to be guided by and work towards in a long term process”. According to the Convention, “each contracting party, subject to its national legislation, is required to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities, promote the wider application of such knowledge, innovation
and practices with the approval and involvement of their holders and encourage the equitable sharing of benefits arising from the utilization of such knowledge, innovations and practices”.

This convention is the first international convention to “recognize the sovereign rights of states over natural resources and their authority to determine access to genetic resources”. It provides “access, where granted, shall be on mutually agreed terms and subject to prior informed consent of the provider party (a contracting party)”. Another important provision of the convention requires “parties to co-operate, subject to national legislation and international law, in order to ensure that patent and other intellectual property rights are supportive of and do not run counter to the convention’s objectives”. Convention, also, states that “contracting parties shall encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional knowledge”.

In furtherance of this framework, “traditional knowledge has been on the agenda of the convention since 1996, and an extensive and complex work program has grown around the issue of intellectual property rights and their role in the implementation of the convention”. The ‘Conference of the Parties’ (composed of all Contracting Parties, COP) meets periodically (usually biannually) to “review the implementation of the convention” The ‘Conference of the Parties’ has become a forum in which intellectual property rights are debated, critiqued and defended in a fairly open way. The “Fourth Conference of the Parties to the Convention on Biological Diversity (COP-IV), held in 1998, recognizing the importance of making intellectual property related provisions of Article 8(j) of the Convention on Biological Diversity and provisions of international agreements relating to intellectual property mutually supportive, and the desirability of undertaking further cooperation and consultation with the World Intellectual Property Organisation, decided to establish an ad hoc open-ended inter-sessional working group”.

The mandate of the working group was “to provide advice on the application and development of legal and other appropriate forms of protection for the knowledge, innovations and practices of indigenous and local communities”. The mandate of the group was further “extended to case studies on the protection of indigenous knowledge”. The working group is “working towards strategies to protect traditional knowledge based on a combination of approaches and with full respect for customary laws and practices, including the use of existing intellectual property mechanisms”. The
group is, also, “considering the *sui generis* mode of protection of traditional knowledge by focusing on the specific needs and interests of indigenous and local communities in the protection, utilization and equitable sharing of benefits when access to their genetic resources are sought”.

The ‘Sixth Conference of the Parties’ (COP VI) to the Convention on Biological Diversity in 2002, “called upon the parties to use the Bonn guidelines when drafting their laws and policies on access and benefit sharing and contracts and other arrangements under mutually agreed terms for access and benefit sharing”. The guidelines are “voluntary in nature, which the parties may take into account while giving effect to their obligations under the Convention on Biological Diversity”. They provide some “background to the discussion on the practical interaction” between the intellectual property rights system and the Convention on Biological Diversity. The guidelines suggest “Material Transfer Agreements on genetic resources may include conditions under which the user of accessed genetic resources may seek intellectual property rights and monetary and non-monetary benefits may include joint ownership of relevant intellectual property rights”. Parties have been invited “to encourage the disclosure of the country of origin of genetic resources in applications for intellectual property rights”, where the subject matter of the application “concerns or makes use of genetic resources in its development, as a possible contribution to tracking compliance with prior informed consent and the mutually agreed terms on which access to those resource was granted”. They have further been invited to “encourage the disclosure of the origin of the relevant traditional knowledge, innovations and practices of indigenous and local communities”.

The ‘Seventh Conference of the Parties’ to the Convention on Biological Diversity (COP VII) further “elaborated on issues and has invited parties to recognize traditional knowledge, whether written or oral, as prior art. Parties are to ensure under their domestic law compliance with the requirement of prior informed consent of indigenous communities and put in place mechanisms to ensure fair and equitable benefit sharing at the national level with relevant stakeholders and indigenous communities”.

Being first of its kind, the Convention has an important place among global efforts directed at the preservation of flora and fauna. Currently, the Conference of Parties to Convention on Biological Diversity is actively cooperating with the World Intellectual Property Office in an effort to ensure that the multiplicity of provisions does not result
into either illegal exploitation of genetic resources or the neglect of the local communities or other holders of traditional knowledge.

The Convention on Biological Diversity fundamentally reconceptualized sovereign rights over biodiversity. Specifically, it “recognized that nation states have sovereign rights over their biological resources”, and that the access and use of those resources should be determined by national legislation. The convention has established rules on the “access to genetic resources and on benefit sharing” in the context of the state’s sovereignty over such resources.

5.2.7.1. RECONCILIATION OF TRIPS AND CBD

Though there is no link between “the TRIPS Agreement and the Convention on Biological Diversity”, yet “discussion about the relationship between the two has come to the fore” quite occasionally. In particular, “many arguments about the implementation of the TRIPS Agreement and the Convention together were raised in the Doha Ministerial Declaration in 2001”. TRIPS Agreement “does not make any reference to the Convention on Biological Diversity” in its provisions. Some countries argue that there is inherent conflict between TRIPS agreement and Convention. Though TRIPS Agreement was adopted after the convention, it “failed to take note of Article 16(5) of the Convention on Biological Diversity, which observes the patents and other intellectual property rights may have an influence on the implementation of the convention and that parties shall ensure that intellectual property rights do not run counter to convention’s objectives”. Proponents of “patent protection for plant varieties and animal invention have submitted that adequate international protection was necessary to facilitate the transfer of technology. Opponents countered that broad patent protection would facilitate biopiracy”. So, there is a difference in views between the developing and developed countries about the need to reconcile the need of TRIPS Agreement with the convention. Developing countries have suggested that the “patentability of genetic resources under TRIPS Agreement leads to the appropriation of those resources by private parties and is inconsistent with the sovereign rights of countries supported by the Convention on Biological Diversity”. On the other hand, developed countries have argued that “TRIPS Agreement did not prevent member-states from protecting farmers' rights within their national sui generis systems of protection”. They also take the stand that there is “no conflict between TRIPS Agreement and
Convention on Biological Diversity” because the “objectives and purposes of both agreements are different. Granting exclusive rights over natural material and respecting the sovereign rights of countries over their genetic material are also reconcilable in their view”. However, poor countries and communities still complain of biopiracy because “access to biodiversity is difficult to restrict and control and there is a structural imbalance between countries rich in biological diversity and those strong in technological and legal instruments”. Thus, there is need to balance the provisions of TRIPs Agreement and Convention on Biological Diversity for the protection of rights of indigenous people. The two Conventions should compliment and complete each other and reconciliation between the two conventions should be ensured for the betterment of indigenous people.

5.2.8. PERMANENT FORUM ON INDIGENOUS ISSUES

Many indigenous representatives and others in the ‘Working Group for Indigenous Populations’ felt that the structures and agencies in the United Nations were inadequate “to address the concerns of indigenous people”. They also felt that the current system in the United Nations did not give sufficient representation to indigenous people to assert their rights. The United Nations made a ‘proposal to establish a new body that would focus on issues related to indigenous people and create opportunities for indigenous people to creatively advocate their concerns in various United Nations bodies’. Such an idea of creating a United Nations forum to focus on indigenous issues was officially discussed for the first time at the ‘Vienna World Conference on Human Rights in 1993’. The ‘Commission on Human Rights’ perceived the need of such a forum and during its 56th session it recommended to the ‘Economic and Social Council’ that a permanent forum on indigenous issues should be set up to voice the concerns of the indigenous people. Thus the ‘Permanent Forum on Indigenous Issues’ formally came into being on July 28, 2000 with the adoption of a resolution by the ‘Economic and Social Council’.

The ‘United Nations Permanent Forum on Indigenous Issues’ (PFII) is an “advisory body to the Economic and Social Council (ECOSOC)”. Its mandate is to “discuss indigenous issues related to economic and social development, culture, the environment, education, health and human rights. It provides expert advice and recommendations on indigenous issues to the Economic and Social Council”. One of the important mandates of the forum is to “raise awareness and promote the integration of the activities related
to the indigenous issues within the United Nations system”. It also “prepares and disseminates information on indigenous issues”.

The forum is the foremost body for dialogue between indigenous people and states. The ‘Permanent Forum on Indigenous Issues’ creates a space for cooperation with United Nations system through recommendation in all of its mandates. The forum has also brought together the United Nations specialized agencies, programmes and funds to include indigenous people in their global efforts. Thus the Permanent Forum on Indigenous Issues has played an effective role by addressing issues that matter most to the indigenous people.

5.2.9. UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

The ‘United Nations Conference on Trade and Development (UNCTAD)’ has “addressed the issue of traditional knowledge from the trade and development perspective”. It began its work on traditional knowledge in ‘October-November 2000’ by “convening an expert meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices”. Accepting the “importance of traditional knowledge in the sustainable development of national and international economics, the meeting recommended the United Nations Conference on Trade and Development further work on its protection”. Possible “means for the protection of traditional knowledge were identified, which would include traditional/customary law, modern intellectual property rights instruments and sui generis systems”. It recommended that “United Nations Conference on Trade and Development explore an international mechanism that might include minimum standards of an international sui generis system for traditional knowledge protection”.

Based on the report of the expert meeting, ‘United Nations Conference on Trade and Development’s Commission on Trade in Goods and Services and Commodities’ made a “set of recommendations which emphasized capacity building in implementing a traditional knowledge protection regime, fair and equitable sharing of benefits and encouraging the World Trade Organisation to continue discussions on the protection of traditional knowledge and exchange of information on national systems of traditional knowledge protection”. At the international seminar on ‘Systems for the Protection and
Commercialization of Traditional Knowledge’, jointly organized by the ‘United Nations Conference on Trade and Development’ and the ‘Government of India’, held in New Delhi in April 2002, participants considered how “evolving national systems for the protection of traditional knowledge could be supported or augmented by international measures”. They were of the view that “countries supportive of traditional knowledge protection could enact provisions designed to prevent misappropriation of traditional knowledge protection but that such action would not be effective beyond those countries borders unless an international system is put into place”.

5.2.10. UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLE

On September 13, 2007 the ‘General Assembly’ adopted the historical ‘United Nations Declaration on the Rights of Indigenous People’ amidst thunderous applause and grand celebration in its meeting. The declaration is arguably the single most important achievement for indigenous people in their history of finding justice in the international legal processes. It was the culmination of twenty years of hard labor especially by the Working Group of Indigenous Population and the indigenous people represented by their experts and organizations. Some nations expressed the concerns with regard to some core provisions, namely the “right of self determination” of indigenous people and the control over the natural resources exiting on indigenous people’s traditional lands.

The ‘United Nations Declaration on the Rights of Indigenous People’ is a comprehensive instrument on human rights for indigenous people. It outlines a set of principles concerning equality, non-discrimination, partnership, consultation and cooperation between indigenous people and governments. The “declaration does not create new rights, rather, it elaborates existing human rights as they apply to indigenous people”. It affirms “indigenous people have the right to the full enjoyment, as a collective entity or as individuals, of all human rights and fundamental freedoms as recognized in the Charter of the United Nations, the Universal Declaration of Human Rights and international human rights law”. The ‘United Nations Declaration on the Rights of Indigenous People, 2007’ deals with indigenous people’s proprietary right to land with a very wide approach by putting together notions of ownership, possession, and use. It states “indigenous people have the right to own, use, develop and control the
lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired”.

The declaration is celebrated globally as a symbol of triumph and hope for indigenous people. It continues as the most comprehensive United Nations document on the rights of indigenous people emphasizing the significance of collective rights to a degree unparalleled in international human rights law. Effective implementation of the declaration would result in significantly improving the living standard of the indigenous people in a big way. New Zealand, which vociferously opposed the ratification of the declaration in the General Assembly, has already signed the declaration. Recently, Australia not only signed the declaration, but its government also apologized to its aboriginal communities for the unfair policies that previous governments had adopted. However, the declaration has its limitations. Some critics hold that the declaration is not a legally binding instrument. The United Nations Declaration on the Rights of Indigenous People is generally considered an aspirational document that broadly declares a set of rights and morally obligates all declaring states to implement and enforce those rights. It is true that the declaration is nonbinding and relies much on the voluntary acceptance of its provisions by the members of the United Nations. This does not diminish its value as an international instrument which sets standard and mainstreams the human rights of indigenous people.

5.2.11. THE NAGOYA PROTOCOL
The Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the Convention on Biological Diversity is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components. It was adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting on 29 October 2010 in Nagoya, Japan. The Nagoya Protocol applies to genetic resources that are covered by the Convention on Biological Diversity, and to the benefits arising from their utilization. The Nagoya
Protocol, also, covers traditional knowledge associated with genetic resources that are covered by the Convention on Biological Diversity and the benefits arising from its utilization. The protocol sets out core obligations for its contracting parties to take measures in relation to access to genetic resources, benefit-sharing and compliance.

The international law’s protection of traditional knowledge must be based on domestic law. The domestic law’s protection of traditional knowledge should be taken into developing intellectual property conjunction with other legal system. As far as the situation at national level is concerned, the Government of India and some Non Government Organizations are putting efforts to protect the knowledge of indigenous people.

5.3. NATIONAL INITIATIVES

In India, the “legal regime for traditional knowledge protection is still largely in the process of being developed”. Provisions concerning “access and benefit sharing” have, for instance, been developed in the context of the ‘Protection of Plant Variety Act, 2001’ and the ‘Biodiversity Act, 2002’. There has been a lot of “debate on the systems of protection that can be adopted to provide legal protection to the intellectual property of indigenous people and communities, but there are no uniform norms regarding the protection of different types of traditional knowledge owned by local communities”. The extension of the “recognition of rights to traditional knowledge is still new. It has been aided by the increasing activism and awareness of indigenous people and the increasing recognition of indigenous rights by national governments”. The Government of India has made efforts at different levels to protect the traditional knowledge of its indigenous people. These initiatives have resulted in positive protection of traditional knowledge.

There is no specific legislation for protection of traditional knowledge in India, but the Government of India has introduced new acts and amended existing laws for attending to the traditional knowledge issues. ‘Patent (Amendment) Acts of 2002 and 2005’, the ‘Protection of Plant Variety and Farmers Rights Act, 2001’; the ‘Biological Diversity Act, 2002’; the ‘Scheduled Tribes and Other Traditional Forests Dwellers (Recognition of Forest Rights) Act, 2006’; and the ‘Geographical Indication of Goods (Registration and Protection) Act, 1999’ are the examples of initiatives taken by the Government.
These acts have certain provisions that can be utilized for protecting traditional knowledge.

5.3.1. PATENT LAWS

Over the past few years, the “patent system has come under considerable criticism because of its failure to prevent the misappropriation of traditional knowledge”. While there is agreement that “positive protection of traditional knowledge cannot be successively accomplished through the patent system, increasingly, consideration is being given to suggestions to use the patent system as a defensive measure against misappropriation of traditional knowledge”. The Indian Parliament amended the Patents Act in 2002 and 2005 to bring it in compliance “with the TRIPs Agreement”. The first TRIPs Agreement compliant amendment to the ‘Patent Act, 1970’ came via the ‘Patent (Amendment) Act, 2002’. The Amendment made several broad reaching changes to the existing Act to provide adequate and necessary safeguards for “protection of public interest, national security, bio-diversity and traditional knowledge”.

The Amendment, introduced in 2005, via the Patent (Amendment) Act, 2005, was enacted with nearly similar objectives. The amended patent law contains “provisions for mandatory disclosure of source and geographical origin of the biological material used in the invention while applying for patents in India”. Provisions have also been incorporated to include “non-disclosure or wrongful disclosure of the same as grounds for opposition and for revocation of the patents, if granted”.

5.3.1.1. Patent (Amendment) Act, 2002

Patent Law Amendment Act, 2002 reflects concern for traditional knowledge. The Act provides “innovations based on traditional knowledge or aggregation or duplication of known properties of traditional knowledge is not patentable”. The Act also, provides “any invention, which is traditional knowledge” that is already existing knowledge or any invention, which is actually an aggregation or an invention, which is duplication of traditional knowledge, is not to be considered as invention under the Act.

The grounds on which a patent can be opposed include that the “complete specification does not disclose or wrongly mentions the source or geographical origin of biological material used for the invention”. One more ground, important in view of protection of traditional knowledge, is that the “invention so far as claimed in any claim of the
complete specification is anticipated having regard to the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere” i.e. the invention is, actually, traditional knowledge based. Any patent granted may be revoked, “whether granted before or after the commencement of the Act, on a petition of any person interested or of the Central Government, by the Appellate Board or on a counter claim in a suit for infringement of the patent by the High Court”.

5.3.1.2. The Patent (Amendment) Act, 2005
With the “adoption of TRIPs Agreement in 1995”, India had to amend its patent laws before the time given for the purpose to fulfill its obligations under TRIPs Agreement. Accordingly, in 2005 India has enacted the ‘Patents (Amendment) Act, 2005’ and “introduced product patents alongwith some provisions relating to traditional knowledge”. The Act repealed the controversial Section 5(1) of the Patents Act, 1970, which provided for process patents. The Act introduces the pharmaceutical product patents in India. This Act “attempts to balance out competing interest of a variety of stakeholders including domestic generic medicine producers, foreign multinational pharmaceutical companies and civil society groups concerned with access to medicine”. While Section 2(1)(j) retains the old definition of term invention, a new definition for new invention has been added. New invention is defined as “any invention or technology which has not been anticipated by the publication in any document or used in the country or elsewhere in the world before the date of filing of patent application with complete specification, i.e. the subject matter has not fallen in public domain or that it does not form part of the State of the Art”. The Act defines inventive step as a “feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art”. Definition of “pharmaceutical substance” has been added as “any new entity involving one or more inventive steps”. The changes were made through the” inclusion of the new provisions of patent opposition proceedings which can be done on limited grounds”. The Act states “where an application for a patent has not been granted, any person, may, in writing, represent by way of opposition to the Controller against the grant of patent on the ground of patentability including novelty, inventive step and industrial applicability, or non disclosure or wrongful disclosure in complete specification, source and geographical
origin or biological material used in the invention and anticipation of invention by the knowledge, oral or otherwise available within any local or indigenous community in India or elsewhere”.

The reason for the inclusion of these provisions is “to defy the challenges of misappropriation of the traditional knowledge which is already in the public domain in India or its use is known to the Indian communities or individuals” from the time immemorial. The ‘Amendment Act, 2002’ and the ‘Amendment Act, 2005’, are welcome changes for the protection of traditional knowledge in the wake of growing patents based on traditional knowledge.

5.3.2. BIOLOGICAL DIVERSITY ACT, 2002

India became a signatory to the ‘Convention on Biological Diversity’ signed at ‘Rio De Janerio’ on June 5, 1992. The said Convention “reaffirms the sovereign rights of the states over their biological resources”. India is “rich in biological diversity and associated traditional knowledge system” relating thereto. In order to ‘implement and give effect to the Convention on Biological Diversity, India enacted the Biological Diversity Act, 2002”’, an Act with the “principal objective to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto”.

The ‘Biological Diversity Act, 2002’, primarily aims at regulating “access to genetic resources and associated knowledge for the purpose of securing equitable sharing of benefits arising out of the use of these resources and knowledge with the local people, who are conservers of biological resources and holders of knowledge and information relating to the use of these resources”. This Act also “protects knowledge of local communities” related to biodiversity. The concept of “benefit sharing” is innovative under this Act so far as it provides that the authority can decide joint ownership of monopoly intellectual rights to “both the inventor and the authority or to the actual contributors, such as, farmers, if they can be identified”.

The Act creates a three tier system for the implementation of its purpose, the “National Biodiversity Authority” (NBA) at the national level, “State Biodiversity Board” (SBB) at the state level and “Biodiversity Management Committees” (BMC) at the local level. This system was also meant to be a “response to check the alarming increase in bio
piracy and restrict biodiversity based trade”. Its mandate was also to look at “conservation of biodiversity and traditional knowledge as a whole”.

The ‘National Biodiversity Authority’ is the “nodal agency in the country for implementing the Biological Diversity Act, 2002”. For “obtaining any biological resource occurring in India or knowledge associated thereto for research or for commercial utilization or for bio-survey and bio utilization or transfer the results of any research relating to biological resources occurring in, or obtained from India, an application is to be made to this authority for its approval”. Approval by National Biodiversity Authority is also “required for applying for a patent or any other form of intellectual property protection for any invention based on biological resource obtained from India”. The authority “can grant approval subject to such terms and conditions as it may deem fit such as imposition of royalty, sharing of profits” etc. “No person shall transfer any biological resource or knowledge associated without the permission of the authority”.

A “National Biodiversity Fund has been created, where the National Biodiversity Authority may direct any amount of money given by way of benefit sharing to be deposited”. The fund is to ‘be applied for channeling benefits to the benefit claimers, conservation and promotion of biological resources, socio-economic development of areas from where such biological resources or knowledge associated thereto has been accessed’. If biological resource or knowledge is “accessed from specific individual or groups of individuals or organizations, the National Biodiversity Authority may direct that the amount be paid to them directly in accordance with any agreement or as decided by the authority”. The provisions for such a right are essential for the proper recognition of farmer’s contribution to develop, preserve and sustainable use of biodiversity.

The National Biodiversity Authority may, “on behalf of the Central Government, take any measures necessary to oppose the grant of intellectual property rights in any country outside India on any biological resource obtained from India or knowledge associated with it”. While the National Biodiversity Authority “gives Indian nationals/researchers permission to access biological resources, it also lays down conditions as to how any benefits that arise should be shared with local communities”. The Act provides that “benefit sharing may include monetary payment, technology transfer or joint ownership of intellectual property rights, but this is not exhaustive list”. The Act, “subject to Sec. 21 and Rule 20 of the Biodiversity Rules, insists upon including appropriate benefit
sharing provision in the access agreement on mutually agreed terms related to access and transfer of biological resources or knowledge occurring in or obtained from India for commercial use, bio-survey, bio-utilization or any other monetary purposes”. The suggested benefit sharing “measures may include monetary benefits such as royalty, joint ventures, technology transfer, product development and non monetary benefits such as education and awareness raising activities, institutional capacity building, venture capital fund”, etc. The “time frame and quantum of benefits to be shared shall be decided on case-to-case basis on mutually agreed terms between the applicant, authority, local bodies and other relevant stakeholders, including local and indigenous communities”.

One of the mechanisms for benefit sharing includes “direct payment to persons or group of individuals through district administration, if the biological material or knowledge was accessed from specific individuals or organizations”. In case where such ‘individuals or organizations could not be identified, the monetary benefits may be paid to the National Biodiversity Fund”. Out of this amount “five percent of the benefits may be earmarked for the National Biodiversity Authority or State Biodiversity Board towards administrative service charges”.

At the state Level, the “State Biodiversity Board (SBB)” has the authority to “deal with matters of access to biological resources and associated knowledge by Indians for commercial purposes and to restrict any activity, which violates the objectives of conservation, sustainable use and equitable sharing of benefits”. The State Biodiversity Board shall also “create a State Biodiversity Fund that will be used for management, conservation and promotion of biological resources”. It is compulsory to give “prior intimation to the State Biodiversity Board by any citizen, body corporate, association or organization for obtaining any biological resource for commercial utilization. But, this is not applicable in case of local people or communities, growers and cultivators of biodiversity and vaids and hakims practicing indigenous medicine”.

At the local level, there are the ‘Biodiversity Management Committees’, created for the purpose of “promoting conservation, sustainable use and documentation of biological diversity, preservation of habitats and preservation of knowledge relating to biological diversity”. The main function of the Biodiversity Management Committee, constituted under as per sec. 41(1) of the Act and rule 22(1-11) of Biodiversity Rules, 2004 is to “prepare People’s Biodiversity Registers, which shall contain comprehensive
information on the availability and knowledge of local biological resources and medicinal or any other traditional knowledge associated with them”. It is “obligatory for the National Biodiversity Authority and the State Biodiversity Board to consult the Biodiversity Management Committees while taking any decision relating to the use of biological resources and knowledge associated within its territorial jurisdiction”. Also, a ‘Local Biodiversity Fund’ shall be constituted by the state at the local level. The fund shall “be used for conservation and promotion of biodiversity and for the benefit of community within the jurisdiction of the local bodies”.

Most importantly, the Central Government is empowered “to protect the knowledge of local people relating to biological diversity, as recommended by the National Biodiversity Authority through such measures, which may include registration of such knowledge at the local level, state and national levels, and other measures” for protection, including a *sui generis* system in the light of ‘Art 8(j) of the UN Convention on Biological Diversity, 1992’.

**5.3.2.1. Biological Diversity Rules, 2004**

In exercise of the powers conferred by the Biological Diversity Act, 2002, the Central Government has made the following rules for better protection of traditional knowledge:

1) To organize comprehensive programmes regarding conservation of bio-diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.

2) To build database for information and documentation of biological resources and associated traditional knowledge through bio-diversity registers and electronic data bases.

3) The National Biodiversity Authority shall take steps to widely publicize the approvals granted and periodically monitor compliance of conditions.

4) The formula for benefit sharing shall be determined on case-by-case basis.

5) The quantum of benefits shall be mutually agreed between the persons applying for such approval and the National Biodiversity Authority in consultation with the local bodies and benefit claimers.

6) Where biological resources or knowledge is accessed from a specific individual or a group of individuals or organizations, the agreed amount is to be paid directly to them through district administration.

7) The Biodiversity Management Committees will advise State Biodiversity Board or National Biodiversity Authority on any matter referred to it by them. It will maintain data about the local vaids and practitioners.
The main thrust of the ‘Biological Diversity Act’ and the Rules made there under is on access of biological resources based on biodiversity, benefit sharing, and its conservation from the commercial perspective. The issue of conservation of biological diversity and traditional knowledge are indeed a matter of serious concern today.

5.3.3. THE GEOGRAPHICAL INDICATION OF GOODS (REGISTRATION AND PROTECTION) ACT, 1999

The ‘Geographical Indication of Goods (Registration and Protection) Act, 1999’ passed by Parliament is another step forward, taken by India in “fulfilment of the obligations under General Agreement on Trade and Tariff” to which India is a signatory. The Act primarily “intends to protect the valuable geographical indications of our country”. This purpose is sought to be achieved by granting protection to geographical indications for local names and also for the names abroad which have gained reputation and goodwill. The “protection under the Act is available only to the geographical indication registered under the Act and to the authorized users”. Geographical Indications suggests the special and particular quality of goods produced in a specified area or country. The geographical indication can have a reference to the agricultural produce, natural products or products manufactured or processed. Such goods must have a reputation and quality, which are attributable to the place of origin, environment and other inherent natural and human factors. The protection is granted through registration. The Act “permits any association of persons or producers or any organization or authority established by law representing the interest of the producers of goods to register a geographical indication”. Registration is not granted to any individual. After the geographical indication is registered in the name of association of persons, separate and individual registration is granted in the names of actual users of the indication. The registered proprietor and the authorized users shall have exclusive rights to use the geographical indication in relation to the goods in which the indication is registered. The provisions of the Act can be used by the indigenous people. The knowledge held by the indigenous people can be registered in the name of community holding the knowledge in their name and then, whosoever wishes to use the traditional knowledge of any indigenous community should seek permission from the community and use the knowledge complying with the provisions of this Act.
5.3.4. PROTECTION OF PLANT VARIETIES AND FARMERS’ RIGHTS ACT, 2001

India is the original “home for many crops such as, rice, red gram, moth bean, jute, pepper cardamom, many vegetables and fruit species”. These plants were “identified, selected and cultivated by Indian farmers” over hundreds of years. The “present wealth of varieties in India includes both crops that have originated in the country and those that were introduced from other countries in the past”. Indian farmers have “evolved a rich diversity out of these crops. During the long process of selection, conservation and cultivation, farmers have gained extensive knowledge of each variety”. This knowledge includes “suitability of variety for specific growing seasons and conditions, its maturity duration in different seasons, resistance to different diseases, pests, and other natural vagaries, suitability to different soils, and quality of the produce”. Its “availability with farmers is as highly valuable to modern scientific improvement as the genetic diversity of crop plants”. This makes the “contribution of farmers to plant genetic diversity as important as the contribution scientists make in developing modern plant varieties. Therefore, when scientists are given the right of ownership on new varieties created by them, this right concurrently recognizes the right of farmers on their varieties”. Farmer’s seeds embody a significant intellectual contribution by traditional practices, generations after generations. Monopoly of transnational company in seed through intellectual property is neither desirable nor necessary even from the public interest perspective.

The positive assertion of farmers’ rights, create an opportunity to the supreme law making authority to take into consideration the role of traditional farmers in protecting the rich biodiversity and improving the plant genetic resources in India. It also creates an opportunity, to define and give recognition to farmers’ rights in India which can be seen in the ‘Protection of Plant Varieties and Farmers’ Rights Act, 2001’, without which the conservation of biodiversity is, perhaps, impossible. The Act “intends to provide an effective system for protection of plant varieties, the rights of farmers and plant breeders. Recognition and protection of the rights of the farmers in respect of their contribution made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties is one of the main objects of the Act”. A “farmer who had bred or developed a new variety shall be entitled for
registration and other protection in like manner as a breeder of a variety under this Act”. The Act “ensures the farmers’ rights to save, use, sow, resow, exchange, share or sell his farm produce including seed of a protected variety under this Act”. It recognizes the role of farmers, traditional, rural and tribal communities as cultivators and conservers, and their contribution to the country’s agro biodiversity by rewarding them from the gene fund through benefit sharing. The authority under this Act is empowered to invite claims of benefits sharing to the variety registered. The study of the Act shows that, being a signatory to the agreement of Trade Related Aspects of Intellectual Property Rights (TRIPs) Agreement, India has responded favorably and opted for a *sui generis* system through this Act. In spite of having some complications in implementation, the Act is the first legislation of the world to grant formal rights to the farmers’ and recognizes the contribution of the local communities for conservation of biodiversity.

**5.3.5. THE SCHEDULED TRIBES AND OTHER TRADITIONAL FOREST DWELLERS (RECOGNITION OF FOREST RIGHTS) ACT, 2006**

Growing consciences about environment and maintenance of the traditional rights of the forest dwellers made the legislation to take a step forward to enact the provisions for maintaining the balance between rights of these people and environment. In 1980, the Act known as the ‘Forest (Conservation) Act, 1980’ came into force to maintain ecological balance. This Act was passed to provide conservation of forests by checking indiscriminate “diversion of forest land for non forest purposes”. The object of this Act was to “preserve forest land from non-forest purposes”. The Act was amended in 1988, to restrict lease of forest land to private person and second to restrict felling of naturally grown trees.

New forest policy known as the ‘National Forest Policy, 1988’ came into existence with some important objects, such as “maintenance of environmental stability through preservation and restoration of ecological balance, conservation of the natural heritage of the country, increasing forests through massive forestation, meeting basic requirements of the people for the rural and tribal population and increasing efficient utilization of forest produces and maximizing substitution of wood.” The revised policy envisages that “forests are not to be commercially exploited for the industries but
industries must contribute to the conservation of soil and environment and meet the subsistence need of the local people”. The welfare of forest dwelling communities has been accepted as a major objective of the revised policy.

Till 2006, it was found that no sufficient provisions were there to protect the rights of forest dwellers. The Parliament passed the Act to “protect the scheduled tribes and other traditional forest dwellers” known as “Scheduled Tribes and Other Traditional Dwellers (Recognition of Forest Rights Act), 2006”(also known as Forest Rights Act). The object of the Act is to “recognize the rights of forest dwellers, maintaining ecological balance and to do away with the injustice meted out to tribal people”. Non tribal forest dwellers have also been brought under the ambit of the Act. The Act “recognizes and vests the forest rights and occupation in forest land in forest dwelling scheduled tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded”. According to the Act, forest dwelling scheduled tribes means the “members or community of the scheduled tribes who primarily reside in and who depend on the forest or forest lands for bona fide livelihood needs, and includes the scheduled tribe pastoralist communities”.

The Act defines other traditional forest dwellers as “any member or community who has for at least three generations prior to December 13, 2005, primarily reside in and depended on the forest or forest land for bona fide livelihood needs” and forest land means land of any description falling within any forest area and includes unclassified forests, existing or deemed forests, protected forests, reserved forests, sanctuaries and national parks”.

Few forest rights of forest dwelling scheduled tribes and other traditional forest dwellers on all forest lands are recognised by the Act. The Act provides for a “framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land”. While ensuring livelihood and food security of the forest dwelling scheduled tribes and other traditional forest dwellers, the Act also recognizes “rights of the forest dwelling scheduled tribes and other forest dwellers including the responsibilities and authority for sustainable use, conservation of biodiversity and maintenance of ecological balance and thereby strengthening the conservation regime of the forests”.

The rights provided under the Act are as follows:
a) Right to hold and live in the forest land under the individual for common occupation for habitation or for self cultivation for livelihood by a member or members of a forest dwelling scheduled tribe or other traditional forest dwellers;
b) Right of ownership, access to collect, use and dispose of minor forest produce which has been traditionally collected within or outside village boundaries;
c) Rights including community tenures of habitat and habitation for primitive tribal groups and pre agricultural communities;
d) Rights for conversion of Pattas or leases or grants issued by any local authority or any State Government on forest lands to titles

e) Rights of settlement and conversion of all forest villages, old habitation, unsurveyed villages and other villages in forests, whether recorded, notified or not into revenue villages;
f) Right to protect, regenerate or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use;
g) Rights which are recognized under any State law or laws or which are accepted as rights of tribal under any traditional or customary law of the concerned tribes of any State;
h) Right to access to biodiversity and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity;
i) Any other traditional right customarily enjoyed by the forest dwelling scheduled tribes or other traditional forest dwellers, as the case may be, which are not mentioned in clauses (a) to (k).

This Act is an effort to harmonize two goals first environment conservation and second, justice to scheduled tribes. It is an effort to reconcile the debate on Conservation v. Tribal rights. The ‘Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006’ represents a major paradigm shift in approach towards addressing the concerns for providing tenure security, livelihood and traditional rights to the forest dwelling scheduled tribes who have been living in forests for generation without legal protection. The Act confers on “scheduled tribes and other forest dwellers right to hold and live in the forests” which protects them from being called encroachers and intruders and also removes threat of eviction looming large in their mind.

In a letter to all Chief Ministers seeking their cooperation and commitment to ensure its effective implementation, then Prime Minister Dr. Manmohan Singh qualified the Act as a “piece of landmark legislation in independent India that seeks to provide rights over land in their occupation to forest dwelling scheduled tribes and other traditional forest dwellers who have been residing there for generations but whose rights could not be recorded”.

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5.3.6. THE TRADITIONAL KNOWLEDGE (PROTECTION AND REGULATION TO ACCESS) BILL, 2009

A “Round Table conference on Protection of Traditional knowledge” was concluded on January 25-26, 2010 at ‘National Law School of India University (NLSIU), Bangalore’, along with ‘Ministry of Human Resource Development’. The two day conference was held for the “deliberations on the sui generis model developed for the protection of traditional knowledge and traditional cultural expression”. One of the highlights of the discussion was “The Traditional Knowledge (Protection and Regulation to Access) Bill 2009” drafted by NLSIU, Bangalore. This Bill is the “first ever attempt made in India for a separate and complete regime for protection of Traditional knowledge in India”. The present draft Bill “aims to provide for protection, conservation and effective management of traditional knowledge”. It further provides “the need for protection of integrity and sentiments of communities against distortions and disrespectful representations of forms of traditional knowledge and protection from improper commercial exploitation of such forms”. It emphasizes the “need for sustainability of resources on which traditional knowledge is based, as well as ensures the continuation of the customary practices of the traditional knowledge”. The Bill is divided in “nine different chapters providing for definition of terms such as traditional knowledge, abuse, access, accessor, benefit, informed consent, misappropriation, prior informed consent, traditional community, identification of the sources and maintenance of the register of traditional knowledge, identification of the sources from where the informed consent to use the traditional knowledge has to be gained, restriction on the access of traditional knowledge for a fixed period of time, preparation of national policy, strategy and action plan by the Traditional Knowledge Authority every five year which ensures the protection, continuation of use and practice of traditional and steps to be taken by the Traditional Knowledge Authority to prevent bio piracy and other misuses of traditional knowledge and to take preventive /punitive actions to safeguard the same”. The Bill is yet to be considered by the Parliament.

5.3.7. TRADITIONAL KNOWLEDGE DIGITAL LIBRARY
Bitter experiences of turmeric, neem, basmati and many other cases led to the creation of this mammoth “digital database of traditional knowledge called Traditional Knowledge Digital Library (TKDL)”, a first of its kind. ‘Traditional Knowledge Digital Library’ is a project sponsored by the Government of India to create a database on Indian traditional medicinal practices using the tools of digital technology, to prevent bio-piracy and grant of questionable patents. Traditional Knowledge Digital Library is a “collaborative project between the Council of scientific and Industrial Research, Ministry of Science and Technology and Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Ministry of Health and Family welfare, and is being implemented at Council of scientific and Industrial Research”. It was an outcome of the realization that large number of patents is taken in United States and European Union based on the traditional knowledge from India. The project Traditional Knowledge Digital Library was initiated in the year 2001. One of the reasons for this creation is the non-availability of adequate database on these knowledge systems with the patent offices to conduct prior art search before grant of patents. It was also realized that traditional knowledge lack proper classification under the International Patent Classification System so as to conduct proper prior art search. The language in which traditional knowledge is available also is a significant factor. It was believed that if the traditional knowledge available in the public domain is properly organized and made available using digital technology it could to a large extent prevent bio-piracy and grant of patent to the existing traditional knowledge products”

Though the Indian system of medicine consists of Ayurveda, Yoga, Naturopathy, Sidha and Unani, the first phase of the project was to undertake the creation of database on ayurveda. Ayurveda is being practiced for about 5000 years ago and is transferred from generation to generation. Ayurveda is now a documented knowledge system and the information is of about 36,000 compositions of medicines practiced for centuries available in Sanskrit language scattered in fourteen texts. The ‘Traditional Knowledge Digital Library’ project was to document by shifting and collecting the information in “digitized format in Hindi and five international languages (English, German, French, Spanish and Japanese) using Traditional Knowledge Resource Classification (TKRC)”. ‘Traditional Knowledge Resource Classification’ is an “innovative structured classification system developed to facilitate the systematic arrangement, dissemination and retrieval” of this information under 5000 subgroups. An interdisciplinary team
consisting of twenty five Ayurveda experts, one patent examiner, three scientists, five
information technology professionals and four technical officers worked together for
one and a half years to create the Traditional Knowledge Digital Library.

5.3.7.1. FEATURES OF TRADITIONAL KNOWLEDGE DIGITAL
LIBRARY
The main feature of ‘Traditional Knowledge Digital Library’ is the innovative
classification system that will facilitate the interaction of modern scientific medicinal
knowledge with Ayurveda. This is expected to enhance the research in Ayurveda using
modern scientific knowledge to invent new products. The second feature is the software
that could facilitate the understanding of the complex Sanskrit Shlokas by laymen that
too in different languages. This is achieved by creating codes of these Shlokas with
interpretations by the Ayurveda experts. The decodified format of the formulations
could be read and understood by common man as well. The third feature is the web
version of the Traditional Knowledge Digital Library, where it is possible to have
access to this information through full text search and retrieval. Modern scientific
names are given to the traditional names of plants, disease and preparations to establish
relationship with traditional knowledge and modern science. This is expected to help
patent examiners to find prior art and reject patent application in case it is based on
existing products or processes. This will also facilitate the researchers to find out new
products and processes from the exiting one. The search is possible by using the name
of the formulation, ingredients used in the formulation, method of preparation, method
of administration of the medicine, name of the disease and name of therapeutic action.
The glossary of the traditional terms explaining it in simple language will also facilitate
the user to understand the terminology used in the Shlokas. The help on diacritical
where the Devanagiri script of Sanskrit is explained using roman script and giving
meaning in English is also added to make it more users friendly and to avoid ambiguity
on the translation and interpretation. There are pictures of the plants and other
ingredients to facilitate identification of the same.
It is true that Traditional Knowledge Digital Library is a very useful tool using digital
technology to enable people who have no understanding on Ayurveda to find out
relevant information about Ayurveda. It will surely help in preventing grant of turmeric
type patents in future. It made the life of researchers very easy in finding out the
existing drugs and its ingredients to conduct research to develop modern drugs. Thus, the valuable public domain information that remained scattered and inaccessible to modern drug developers is now consolidated. Traditional Knowledge Digital Library “gives legitimacy to the existing traditional knowledge and enables protection of such information from getting patented by the fly-by-night inventors acquiring patents” on Indian traditional knowledge systems. It prevents misappropriation, mainly, by “breaking the format and language barrier and making it accessible to patent examiners at international patent offices for the purpose of carrying out search and examination”, thus, making it a potent evidence of prior art in digitized format. It has been reported that with the help of Traditional Knowledge Digital Library database, fifteen patent applications at European Patent Office have been withdrawn. This digital library has become a “model for other countries on defensive protection of their traditional knowledge from misappropriation”.

The creation of ‘Traditional Knowledge Digital Library’ and its linking to the ‘International Patent Classification system (IPC)’ through Traditional Knowledge Resource Classification system is conceptually a step forward. Eventually, the creation of ‘Traditional Knowledge Digital Library’ in the developing world would serve a bigger purpose in providing and enhancing its innovation capacity. It could act as a “bridge between the traditional and modern knowledge systems”. Sustained efforts on the modernization of the traditional knowledge systems of the developing world will create higher awareness at national and international level and will establish a scientific approach that will ensure higher acceptability of these systems by practitioners of modern systems and public at large. Apart from above, the Regional Tribal Research Centers and Indian Council of Agricultural Research is also working very hard in documenting traditional knowledge. In many universities and research institutions ethnobotanical researches have been carried out. It will be useful document in protecting traditional knowledge.

5.3.8. NOVARTIS CASE

Indian Supreme Court has “rejected drug maker Novartis's attempt to patent a new version of a cancer drug”, in a landmark decision that “ensures poor patients around the world will get continued access to cheap versions of lifesaving medicines”. The Swiss pharmaceutical giant “Novartis has fought a legal battle in India since 2006 for a fresh
patent for its leukaemia drug Gleevec, known in India and Europe as Glivec”. India's patent office had “rejected the company's patent application because it was not a new medicine but an amended version of its earlier product”. Novartis had approached the apex court in 2009 “against the order of Chennai-based Intellectual Property Appellate Board (IPAB), which had rejected its claim for patent”. The multinational company had applied for patent in 2006. Earlier, the “Comptroller General of Patent and Design had denied patent to Gleevec on several grounds including its alleged failure to meet stipulations under sections 3(d) and 3(b) of the Indian Patent Law”.

Novartis appealed, arguing “Gleevec was a newer, more easily absorbed version of the drug that qualified for a fresh patent”. Novartis had argued it “needed a patent to protect its investment in the cancer drug Gleevec”, while activists said the “company was trying to use loopholes to make more money out of a drug whose patent had expired”. The court ruled “a patent could only be given to a new drug, patents will be given only for genuine inventions, and repetitive patents will not be given for minor tweaks to an existing drug”. The decision has “global implications since India's $26bn (£17bn) generic drug industry supplies much of the cheap medicine used in the developing world”. The ruling sets a “precedent that will prevent international pharmaceutical companies from obtaining fresh patents in India on updated versions of existing drugs, said lawyer for the Indian generic drug manufacturer Cipla, which makes a generic version of Gleevec”.

5.3.9. NON GOVERNMENT ORGANISATION EFFORTS

The efforts put in by the Government have not been enough to safeguard the traditional knowledge of India Few Non Government Organisations have stepped into the field to fill the vacuum left by the Government. Different Non Government Organizations have tried sincerely to protect the traditional knowledge of India. The revocation of patents granted to turmeric, neem, basmati and wheat were successful because of the efforts of Government as well the Non Government Organizations.

The ‘Honey Bee network in India’, works to protect the intellectual property rights of grassroots level innovators through the documentation and dissemination of their innovations and has compiled a database having around 10,000 entries. This activity is based on the fundamental belief that when people’s knowledge is collected and recorded, they should not become poorer for sharing their insights and for connecting
innovators through the networking in local languages. If income is generated by
developing people’s knowledge, they must be rewarded with a fair share. The network
acknowledges the innovations of local groups and “ensures a fair and reasonable share
of benefits arising out of any use of knowledge”. The ‘Society for Research and
Initiatives for Sustainable Technologies and Institutions (SRISTI), Ahmadabad’ has
been for years developing databases of traditional knowledge and innovation in close
collaboration with local community members. It provides organizational support to
Honey Bee Network. Global registration system is proposed so that individual and
collective innovators can receive acknowledgement and rewards for commercial
application of their knowledge and practices.
‘Navdanya’ and ‘Research Foundation for Science and Technology and Ecology
(RFSTE)’ have been fighting against biopiracy for over a decade & half. Navdanya
“started the campaign against biopiracy with the Neem campaign in 1994 and mobilized
1,00,000 signatures against neem patents and filed a legal opposition against the United
States Department of Agriculture and W.R. Grace Company’s patent on the fungicidal
properties of neem (no. 436257 B1) in the European Patent Office (EPO) at Munich,
Germany”.
In 1998, Navdanya started a “campaign against basmati biopiracy (Patent No. 5663484)
of a United States company Rice Tec”. On Aug 14th 2001, it “achieved another victory
against biopiracy and patent on life, when the United States Patent and Trademark
Office (USPTO) revoked a large section of the patent on Indian basmati rice by the
United States Corporation Rice Tec Inc”. The next major victory against biopiracy
for Navdanya came in October 2004, when the ‘European Patent Office’ in Munich
revoked Monsanto’s patent on the Indian variety of wheat Nap Hal’. This was the third
consecutive victory on the intellectual property front after neem and basmati.

5.4. CONCLUSION
The protection of traditional knowledge is a marginal but challenging subject in the area
of intellectual property. With the development of modern science and technology, the
value of traditional knowledge has been increasingly recognized and widespread used.
Traditional knowledge is not only the foundation of the development of sustainability
for the traditional community residents but also a core element in the cultural heritage of
mankind. However, the survival and protection of traditional knowledge is facing a very
serious crisis. In the communities, nations and countries that owned traditional knowledge, especially developing countries, the wish of the legal protection of traditional knowledge has been getting stronger and stronger. The protection of traditional knowledge makes it convenient for the traditional communities to be actively engaged in the traditional practice and promote the importance of traditional knowledge to the development of human society and protect the human being’s survival and development. The multi-national commercial use and improper possession of traditional knowledge are justifiable reasons for the international protection of traditional knowledge.

International law is increasingly recognizing that indigenous people are the appropriate authorities in matters relating to the protection of indigenous knowledge. There is a gradual shift in international intellectual property law towards the legal plurality, especially on matters pertaining to indigenous people’s knowledge. People might say that the United Nations declarations and conventions are not enforceable, and thus they have no palpable force on the decision making process of the government concerning the future of indigenous people. Despite this, one cannot deny the moral value of the international standards of these international conventions and declarations. At the end of the day, a realistic strategy by indigenous people of using various international legal mechanisms can enhance their possibilities to improve their legal rights and status in national law.

Decision makers should “balance the possible benefits and costs of establishing legal systems and evaluate what other policies would be needed in order to effectively protect traditional knowledge from erosion and ensure its continuous development and wider use”. Additionally, indigenous people “should have more pro-active means by which to protect and promote their traditional knowledge, instead of having to rely on defensive protection”. With enough “political solidarity and enough careful consideration from both the industrialised and the developing countries, a new structure for international intellectual property rights law could be implemented”. Recognising the “rights of indigenous people within this new structure would be a significant step forward in the economic development of the poor, while also granting the global community access to valuable natural resources in the third world”. Stronger levels of empowerment must be exercised toward indigenous people so that these people consent to development that concern their lands, natural resources, environment, and means of subsistence. Serious
efforts to address imbalances between States, multinationals, and indigenous people must be ensured so that indigenous people have the means and capacity to fully participate in the international legal arena. Indigenous people must have the right to say no to extraction or any other form of development that would destroy their lands, territories and cultural integrity. Indigenous people are the true owners of their lands and resources as stipulated under the numerous guarantees under international law. Poor countries and communities “still complain of biopiracy because access to biodiversity is difficult to restrict and control and there is a structural imbalance between countries rich in biological diversity and those strong in technological and legal instruments”. Effective legal instruments are, therefore, needed to prevent the loss of this traditional knowledge.

While the Indian Government has gone to great lengths to protect the intellectual property rights of foreign companies in the food, agribusiness and pharmaceutical sector, it has done little to protect the intellectual property rights of local farmers. The story of Khobragade, a Maharashtrian farmer of modest means, provides a compelling illustration of this worrying phenomenon. Khobragade, without any formal scientific training, has developed no less than seven indigenous rice varieties including one that has become the most popular rice variety in central India. Khobragade spent six years breeding this particular rice variety from 1983 to 1989. In April 1990, it was introduced to the market through the Agricultural Research Market Committee, which dubbed it ‘HMT’ rice after a popular watch company.

In 1994, the Punbajrao Krishi Vidyapeeth University (PKV) which is affiliated with the Government of Maharashtra, obtained samples of the HMT rice from Khobragade. They then released their own version of that the claimed was a purified version of the HMT rice, naming it PKV-HMT rice, into the market in 1998 but did not give credit to Khobragade for his development of the original HMT rice variety. The university made no mention of him in the University’s varietal research proposal, a record of the development of the rice variety. As a result, although the National Research Development Corporation selected Khobragade for an award, he was unable to receive it because he was not named in the Varietal Research Proposal. While the Protection of Plant Varieties and Farmer’s Rights Act, 2002 now provides some breeder’s rights and farmer’s rights, many farmers like Khobragade are unaware of this law and its
provisions. This is worrying in light of the newly amended patent laws, which have potentially opened to obtain patents over common seed varieties developed or widely used by local farmers. Such an attempt was already made when the multinational Syngenta Corporation signed a memorandum of understanding with the Indira Gandhi Agricultural University in Chattisgarh. The deal allowed Syngenta to obtain patents over traditional rice varieties collected from local farmers over the years by paying royalties to the university. Fortunately, the MOU was cancelled in 2002 after widespread protests. The efforts of the government should be towards protecting such innovation not towards exploitation of such people.