

Biodiversity Protection, Farmers and Breeders Right

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Lecture 19 : TRIPS and CBD Relation

Welcome to the course on Biodiversity Protection, Farmers Rights and Breeders Right. This lecture will be about the relationship between TRIPS and CBD. The concepts that will be covered in this lecture will be biodiversity and interface with intellectual property rights, biodiversity pattern landscape, TRIPS and CBD relationship, the areas of conflict in this relationship and the main demands from the developing world. The TRIPS and CBD are two international agreements, the Convention on Biological Diversity of which more than 190 countries are party and the other one is agreement on intellectual property rights of the WTO, which is also having significant implication on the trade related aspects of intellectual property rights and biodiversity. So, these are two different treaties completely under two different frameworks and the focus or the scope of these two treaties are also completely different. So, one the focus is on conservation of biodiversity while the focus of TRIPS is on facilitating international trade.

So, the Convention on Biological Diversity requires parties to safeguard their biodiversity and the traditional knowledge, especially of the indigenous and local communities and it also creates a regulatory regime for access to biodiversity resources and associated traditional knowledge. At the same time, the trade related aspects of intellectual property rights or the TRIPS agreement obligates the parties to modify their national IPR regimes and they have to meet a much enhanced international standards, which will have significant implication for biodiversity and associated knowledge systems. So, on the one side, the Convention on Biological Diversity recognizes the sovereign right of countries and it allows the countries to safeguard their biodiversity. So, it creates a regulatory regime of access and benefit sharing, wherein the provider countries have complete rights or sovereignty over their genetic resources.

So, the access and utilization of those genetic resources shall be in accordance with the domestic legislation of the provider country. At the same time, the TRIPS agreement obligates the parties to modify their IPR regimes. So, the domestic IPR regimes have to be modified and it have to meet a much enhanced international standards. So, this will have significant implication on the national implementation of intellectual property rights. So, sometimes this will also require covering of biodiversity aspects as well as associated traditional knowledge.

The conflict between these two regimes is mainly because of the intersect between

biodiversity and intellectual property rights. The modern technology allows industries to pursue advanced research on various components of biodiversity. So, it allows research on genetic resources and developing innovations, which can be protected under patent. So, many times, many components of biological diversity, once it is submitted for, once it is used for research and then it is protected by intellectual property rights, it leads to proprietization of biodiversity. So, this intersect is what creates the conflict between the biodiversity regime and the trade regime.

There were a lot of cases relating to biopiracy in the early 1980s and 90s. So, there was case relating to turmeric, neem and basmati. So, there was an allegation that there is an attempt to patent the traditional knowledge associated with turmeric in United States and also in some other foreign countries. Similar allegations were there regarding neem and also regarding basmati. So, this sensitized the developing countries about the need to have a comprehensive regime to protect their biodiversity and associated traditional knowledge.

In the case of turmeric, the attempt was to patent its cosmetic effect or its medicinal effect. In the case of neem, the attempt was to patent its fungicidal properties. So, all these are well known traditional knowledge in India as well as in some South Asian countries. So, it necessitated the introduction of an international legal regime to protect biodiversity and the associated traditional knowledge. So, if you look at the different categories of intellectual property rights, the patent and the plant varieties protection are the types of intellectual property rights which are having direct intersect with biodiversity.

So, many components of biodiversity can be used for research and once an innovation is developed, then it can be patented. Similarly, if a new variety of plant is developed, then it can be protected under the category plant variety protection which is also known as breeders right, plant breeders right. If you look at the patent landscape related to biodiversity, there are several industry sectors which are utilizing components of biodiversity and now there is an increased demand for bio-based products. So, because of this increased demand, industries are utilizing different components of biodiversity to develop innovative products. So, whether it be pharmaceuticals, biotechnology sector, agriculture sector, food and beverage sector or fertilizer sector or cosmetics, all these industry sectors utilize the different components of biodiversity to develop innovative products and processes and traditionally medicinal.

So, again just so similarly in traditional medicines also, the different components of biodiversity are used and apart from all this, academic research also utilizes different components of biodiversity. So, that means that the patent landscape surrounding biodiversity is actually split among all these industry sectors. So, all these industry sectors are utilizing components of biodiversity and then developing products and then applying

for intellectual property rights. So, this may include patent, if you take the example of pharmaceuticals, biotechnology, traditional medicine, agriculture sector, food and beverage sector etc and in case of seed industry or agriculture sector, it can also include plant breeders right which is protected under the plant variety protection and farmers rights act in India. The TRIPS as an international regime attempt to homogenize intellectual property rights and it limits a country's ability to choose the way in which it want to deal with the use and protection of knowledge.

So, TRIPS to some extent can be said to have standardized the intellectual property norms all across the world. So, it required countries to change their domestic intellectual property legislations and then adopt a standard which is specified in the TRIPS agreement. So, this necessity to legal change especially in developing countries and it also impaired the ability of these developing countries to decide the way in which they want to deal with innovative information or inventions or knowledge. And at the same time, the TRIPS agreement had no provision to deal with the protection of indigenous or local community knowledge. So, TRIPS only speak about the new knowledge or the inventions or new technologies which are developed using advanced research.

So, it does not speak about the traditional knowledge which is protected by communities which includes indigenous and local communities all across the world. So, such knowledge because of its nature may not be amenable to protection under the current intellectual property regimes. So, that cannot be the traditional knowledge cannot be protected under patent or under other forms of intellectual property rights. And TRIPS does not provide any recognition for the need to provide any share of benefits when this traditional knowledge is utilized for advanced research by any industry sector. So, it does not recognize the access and benefit sharing principle.

It also have direct impact on the three objectives of the Convention on Biological Diversity. So, whether it be conservation, sustainable use or the equitable sharing of benefits arising from the utilization of biological resource. So, this is not covered under the TRIPS agreement. So, thus there is a need for developing countries to identify their national priorities and look for available options within the TRIPS regime to find a balance between these two competing interest and to foster conservation, sustainable use and equitable sharing of benefits. And TRIPS does give some limited scope for accommodating national priorities.

For example, Article 8 provides that members may in formulating or amending their laws and regulation adopt measures necessary to protect public health and nutrition and to promote public interest in sectors of vital importance to their socio-economic and technological development provided that such measures are consistent with the provisions

of the agreement. So, again there is a condition that the measures taken by a country shall be consistent with the provisions of the agreement. And part 2 also requires that the appropriate measures provided that they are consistent with the provisions of the agreement may be needed to prevent the abuse of intellectual property rights by right holders or to resort to practices which unreasonably restrain, trade or adversely affect the international transfer of technology. So, to some extent it can be said that the TRIPS under Article 8 provide some limited scope for inclusion of national priorities. Similarly, Article 27 requires that patent shall be available and patent rights enjoyable without any discrimination as to place of invention, field of technology and whether products are imported or locally produced.

So, it means that patents shall be available to all fields of technology which includes biotechnology, which includes all types of research which uses genetic resources. But at the same time some exception is given under Article 27. So, members may exclude from patentability inventions the prevention within their territory of commercial exploitation or which is necessary to protect ordinary public or morality including protect human animal or plant life or health or to avoid serious prejudice to environment provided that such exclusion is not made merely because the exploitation is prohibited by their law. So, this exemption also is available for the utilization by the developing countries. So, there is another exclusion under Article 27(3)(b).

So, it provides that plants, animals and other microorganism and essentially biological processes for the production of plants and animals other than non-biological and microbiological processes can be excluded from patentability by the member states. But however, members shall provide for protection of plant varieties either by patents or by an effective sui generis system or by a combination thereof. So, it allows the member states to exclude from patentability certain aspects related to biodiversity, but at the same time it requires that protection for plant varieties has to be given either by patents or by an effective sui generis system or by a combination of both. So, this means that member countries are getting some leverage to develop their national policies accommodating their national priorities, but at the same time the minimum standards of protection stipulated under the TRIPS has to be followed. So, even for plant variety protection either it has to be protected under the patent regime or through an effective sui generis system or it can also be through a combination of patents as well as the sui generis system.

So, for example, if you take India has utilized this provision and then adopted a sui generis system in the form of protection of plant varieties and farmers rights act. So, this is a sui generis system for plant variety protection in India. So, it is actually utilizing the flexibility provided under article 27.3(b) and it grants plant breeders right. So, this legislation provides for the grant of breeders right for new plant varieties and it attempts to balance

the competing interest of the seed industry as well as the farmers.

So, that is why it recognizes the farmers right and also the rights of the community in case a community in case a variety developed by community is used for the development of a new variety and this legislation also has provisions for benefit sharing in case a variety is used for the development of a new variety. The Convention on Biological Diversity recognizes the sovereign right of states over their natural resources. So, the authority to determine access to genetic resource rests with the national government and it is subject to national legislation. So, the CBD stipulates that access to genetic resource can only occur with the prior informed consent of the provider country. So, that means that if the genetic resource originating from a country has to be used for research or for commercial utilization, then the prior informed consent of that country has to be taken in accordance with the national legislation of that country.

So, CBD requires signatories to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities and promote wider application with the approval and involvement of holders of such knowledge, innovations and practices and encourage equitable sharing of benefits arising from the utilization of such knowledge, innovations and practices. So, Article 8J requires the member states to adopt policies which respect, preserve and maintain the knowledge of indigenous communities as well as local communities and also whenever there is utilization of this knowledge, the approval and involvement of the holders of such knowledge also has to be considered. So, this means that CBD adequately recognizes the importance of traditional knowledge and the right of indigenous and local communities over such knowledge. So, CBD establishes access to genetic resources of developing countries on a quid pro qua basis with the technology transfer from the industrialized countries. So, CBD also provides for provisions related to technology transfer.

So, the underlying presumption is that when the transfer of genetic resource from a developing country to a developed country is facilitated. So, at the same time it facilitates technology transfer from the developed countries to the developing countries. So, this is specified under Article 16. This is specified under Article 16. So, Article 16 also provides that the country should ensure that intellectual property rights are supportive of and do not run counter to these objectives under Article 16.

So, as we understand there are lot of areas where there is conflict between the Convention on Biological Diversity and the TRIPS agreement. So, TRIPS stipulates that countries have sovereign right over their genetic resource. So, if you look at TRIPS, it provides that patent shall be available without discrimination as to the field of technology, products and processes involving genetic resource will be patentable. So, that means that TRIPS

provides for private property protection in the form of intellectual property rights while CBD recognizes that countries have sovereign right over their genetic resource. So, TRIPS regime facilitates obtaining of patents over genetic resource which may sometimes run in counter to the objectives of Convention on Biological Diversity.

So, if you look at the conflicts, the biodiversity regime justifies state control while trade regime facilitates private appropriation through intellectual property rights. Another area of conflict is that the CBD provides that the utilization of genetic resource must lead to equitable sharing of benefits. So, this is also one of the core objectives of Convention on Biological Diversity. The TRIPS provides that intellectual property rights are private rights and limits the authority of states to interfere with its enjoyment. So, the countries under TRIPS are obligated to follow minimum standard of protection with regard to intellectual property rights and the countries can interfere with the enjoyment of these rights only in very limited number of ways which are provided under the TRIPS agreement.

So, the conflict is that CBD recognizes that providers are entitled to benefit sharing which arises from the utilization of genetic resource. But at the same time, TRIPS only recognizes the rights of intellectual property holders. So, this intellectual property may have been developed using genetic resource which is taken from a provider country. So, the TRIPS agreement does not have any provision to ensure that there will be sharing of benefits with the providers. CBD provides for promoting knowledge innovations and practices of indigenous and local communities with their approval and involvement and encourages equitable sharing of benefits arising from its utilization.

But TRIPS does not recognize the rights of indigenous and local communities over their knowledge. So, the indigenous and local communities will be having traditional knowledge which is also much valuable. But the TRIPS regime does not have any measures to protect the interest of this traditional does not have any measures to protect the interest of indigenous and local communities. So, CBD gives the developing countries a legal basis to demand a share of benefits while TRIPS negates this legal authority. Under TRIPS access to genetic resource requires the prior informed consent of the provider country.

It also requires approval and involvement of local communities. But there is no such provision for seeking prior informed consent under the TRIPS agreement. So, even if the invention is going to be protected under the intellectual property rights and even if it is based on a genetic resource which is taken from the provider country, there is no provision under the TRIPS agreement for seeking prior informed consent. So, the conflict is that the imposition of conditions like the requirement of prior informed consent for obtaining intellectual property rights may conflict with the TRIPS mandate. Under the CBD, the

state should promote the conservation and sustainable use of biodiversity as a common concern of mankind taking into account all rights over genetic resource.

But TRIPS promotes private interest more than public interest. So, the conflict is that CBD places the public interest above private property rights and related interest. So, it runs into conflict with the objectives of the TRIPS agreement. So, broadly if you see the different areas where there is conflict between the TRIPS and the CBD regime are one the propertization of biodiversity. So, the TRIPS agreement facilitates obtaining of intellectual property right which sometimes leads to propertization of biodiversity.

So, intellectual property rights can be taken over inventions which are based on genetic resources, but at the same time the CBD requires that the utilization of the components of biodiversity shall be in accordance with the prior informed consent of the provider country as well as following the legal obligations under the national legislation of the provider country, but such stipulations are not present under the TRIPS agreement. Another area of conflict is with regard to national sovereignty. So, the CBD recognizes the national sovereignty over genetic resources while TRIPS is silent about this aspect and only facilitates the grant of intellectual property rights following a standardized norms all across the globe. Another area of conflict is technology transfer. Both the CBD and the TRIPS agreement has provisions for ensuring technology transfer from the developed countries to the developing countries, but many times the intellectual property rights over the technology will stand as an impediment at the time of technology transfer.

So, there are no adequate provisions to handle with such situations. So, another area of conflict is the challenges in ensuring access and benefit sharing. Access and benefit sharing is a core objective of the Convention on Biological Diversity. So, a party to the CBD may require that access to genetic resource shall be in accordance with prior informed consent and also subject to following of the national legislation of the provider country. If such a prerequisite is made for obtaining of intellectual property rights, it may run in conflict with the obligations under the TRIPS agreement.

So, these are the areas where there is a conflict with the mandates under the CBD and the TRIPS regime. For resolving the conflict, recognizing the need for balancing the competing agendas under the TRIPS and the CBD regime is extremely important. Recognizing that CBD had primacy over trade regime at least in the areas like biodiversity, traditional knowledge and the rights of indigenous people and local communities is also essential. So, this also requires revisiting the TRIPS agreement to effectively address the concerns about propertization of genetic resources, traditional knowledge and cultural expressions. Recognizing the collective rights of indigenous people and local communities over the biodiversity and related knowledge is also important for resolving this conflict.

For resolving these conflicts, there are several demands from the developing world. So, one such demand is recognizing the rights of indigenous people and local communities or in certain cases the rights of states over their genetic resource or traditional knowledge and cultural expressions. So, cultural expressions is not specifically covered under the conventional biological diversity, but if it is associated with some traditional knowledge related to biodiversity, then it can come under the ambit of the conventional biological diversity. But if it is a mere expression, then it may not be a subject matter under the conventional biological diversity. So, there is a demand to recognize the rights of indigenous people and local community over their genetic resource and traditional knowledge.

And adequate measures to prevent biopiracy and misappropriation of genetic resource and traditional knowledge is also required to resolve the conflict. So, adequate measures to prevent biopiracy means that developing countries have always alleged that their traditional knowledge as well as genetic resources are utilized by industries without following the norms prescribed under the CBD. So, this leads to biopiracy. So, developing countries were demanding that there should be adequate measures within the trade regime to prevent such patents. So, inclusion of such norms is extremely important for resolving the conflict.

Ensure complete disclosure of source and origin of genetic resource while acquiring intellectual property rights. So, this is another demand from the developing countries that there should be adequate disclosure of source and origin of a genetic resource while acquiring intellectual property rights. So, for example, if a genetic resource is used for developing an innovation and finally, an application is made for obtaining intellectual property rights. So, proper disclosure regarding the genetic resource is important for the grant of patent. Sometimes this disclosure will not have indications about the source and origin of the genetic resource.

So, developing countries have been demanding that the source and origin of the genetic resource also has to be given in the patent application. So, over a period this will lead to access and benefit sharing. There is also a requirement to comply with access and benefit sharing obligations and this shall be a prerequisite for the grant and enjoyment of intellectual property rights. So, the demand is that before the grant of intellectual property rights over an invention which is based on a genetic resource that patent office has to ensure that the patentee has complied with the access and benefit sharing obligations. So, for example, a party who is applying for the patent has obtained the genetic resource from country A.

So, in such case the party has an obligation to comply with the access and benefit sharing requirements set by country A. So, in case there is a non-compliance the patent will not be granted. So, before granting the patent, the patent office will have to ensure that the party is providing with the has to ensure that the party is complying with the access and benefit sharing requirements of the country A. So, to conclude the TRIPS agreement and the Convention on Biological Diversity should be mutually supportive and promote the conservation of biodiversity. Presently the main areas of conflict are with regard to the properization of biodiversity, the intellectual property rights over genetic resource and traditional knowledge, the impediments to benefit sharing and impediments to technology transfer.

But currently there are lot of discussions going on at international level in CBD as well as TRIPS forums and also in the intergovernmental committee of World Intellectual Property Organization which is intended to resolve these conflicts. The references to this lecture are given here. Thank you very much for listening to the lecture, I hope you are enjoying the course.