Protecting Bio-Assets of Third World: Emerging Challenges for South Asia

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Introduction

The World Trade Organization (WTO) with the consent of all member countries is now implementing a new world order equitable to all member countries, as agreed by them under the General Agreement on Tariffs and Trade (GATT). Although certain amendments to National Law of many countries yet to be carried out, the WTO has been busy with appropriate counseling for negotiations and dispute settlements amongst its members. The legal battle at WTO dispute settlement body with the western countries on neem, turmeric, basmati has perceived fear on most of the developing countries and the South Asian countries in particular that, by using the instruments of the present global regime of Intellectual Property Rights (IPRs), much of their natural wealth in the form of biodiversity aspects are being exploited by Trans-National Corporations (TNCs). The WTO under the agreement of Trade-related Aspects on Intellectual Property Rights

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(TRIPs) Agreement imposes on all member states, the introduction of plant variety protection either through patents or an alternative system. Both patents and plant breeders' rights are monopoly rights, which seek to give the private sector incentives to enter the seed business. The main difference between the two is that the later provides rights, which are less extensive than the former. Although, TRIPs Agreement does not imply in any way that member states have to adopt plant breeder's rights if they do not wish to introduce patents on plant varieties. However, there has been a pressure on developing countries to choose plant breeder's rights as an alternative to patents. The situation is of a grave concern for the Third World countries and it requires a careful study of the existing international protection regime on bio-resources.

The prime tenets of biodiversity and its relationship with the existence underlying environment factors represent the very basis of human existence. The conservation of biodiversity can only be achieved through protection of biological habitats, which requires an indepth analysis of the existing bio-resources. The conservation strategies are now moving from static or habitat oriented policy to a more dynamic and realistic approach. The aim of this approach is to protect the total diversity at the landscape levels of ecological organization.

The concept of biodiversity goes beyond this definition and is directly linked to the sustainability of livelihood. Thus it is a means of production as well as an object of consumption especially in the third world society. In such a scenario bio-diversity means not only the diversity of species but also the diversity of livelihood. Therefore, any loss in biodiversity affects the human life and culture. Apart from this sociological justification there are certain other justifications which emanate from ethics, of economics practical and scientific values. However, now we are witnessing the depletion of biodiversity. Prima facie, responsibility can be attached to the modem paradigm of economic and social development that encourages excessive human intervention with nature.

Methods and techniques of biodiversity conservation are based on two approaches viz. protecting the habitat *(in-situ)* and protecting the individual

species outside the habitat *(ex-situ).* Protected areas covers only limited territory and latter especially gene banks prevent further evolution. Both the techniques lack peoples' participation as the important aspect of flow in both the strategies is out of their scope. New strategies were introduced in late 1970's by UNESCO and in late 80's by the International Union for Conservation of Nature (IUCN). The IUCN plan is known as conservation strategy-II, which contains a three-tier (global, natural and local) to conserve the biological diversity. The Convention on Bio Diversity (CBD) provides the legal basis for this action plan. The other remains of the theme elucidate the history of negotiation of the CBD, important provisions of the Convention, issue of Intellectual Property Rights and Community Intellectual Right and the position of South Asian countries on this issue.

Convention on Biodiversity: History and Structure

The idea of an umbrella convention addressing the whole gamut of biodiversity first emerged in the Third World Congress on "National Park" held in October 1982. But the turning point was in 1987 when United Nations Environmental Programme (UNEP) governing council established an ad-hoc working group to decide upon the necessity of such a convention. After the affirmative decision of the ad-hoc working group, formal negotiation started in February 1991 on a draft prepared by the UNEP secretariat based on the IUCN and Food and Agriculture Organisation (FAO) drafts on the subject. The Intra-Governmental Negotiating Committee for CBD, namely, ad-hoc working groups, undertook the negotiation. The Committee was divided into two groups. The first group negotiated on fundamental principles, general obligation measures of conservation, relations with other instruments etc. The second group negotiated on issues like access to genetic resources and relevant technologies, technology transfer, technical assistance financial mechanism and international co-operation.

Like many other international negotiation this also turned as a North-South debate. This time it was between technology-rich North and resource-rich South. However, the technology of the North depends on the South's

resources. The Northern countries need a conducive international legal regime to assure raw material supply for their biotechnology oriented agro-fertiliser and pharmaceutical industries. They also wanted the new legal regime in harmony with the evolving international trade regime under WTO. Moreover the developed countries are not ready to change their development paradigm for biodiversity conservation. The South on the other hand wanted to exchange their resources with technology. To achieve these goals both groups had heated debates on access to genetic resources, transfer of technology, bio-safety, and financial mechanism for conservation. The northern attitude was to help the biotechnology based TNCs in capturing world agriculture and pharmaceutical market. But it is generally believed that the North could not achieve its goal. United States reluctance to sign the agreement is shown as an example to make this point. Finally, on 22nd May 1992 in Nairobi, the international community adopted the Convention on Biological Diversity (CBD) and on 5th June 1992 at the Rio Conference 150 states became signatories to the convention. After 18 months, on 29 December 1993 the convention entered into force.

The CBD is a framework agreement because its provisions are expressed in broad terms rather in narrow than and precise terms and also leaves the responsibility of implementation on the Parties. Moreover, CBD permits the Conference of Parties (CoP) to negotiate further and attach the outcome either as Annex or as Protocol to the convention. But the uniqueness of the CBD lies in its approach, for the first time the conservation sentiments were linked with the concept of sustainable development. Thus, it addresses the issue of conservation in a more comprehensive manner. Sustainable development concept while accepting the need of conservation recognizes the need to emphasize on meeting the human needs. Unlike concept of conservations the concept of sustainable development recognized both inter and intra generational equities.

The CBD contains a preamble a set of 42 articles and two annexes. The long preamble narrates the general principles of international environmental law laid down in the Rio Declaration and certain goals of Agenda 21. The preamble while stating the reason for the destruction of biodiversity on a

political stand by stating biological diversity is being significantly reduced by certain activities**.** This obscure statement is an attempt to condone the North's role in the biodiversity destruction. Articles 1 to 5 deal with general principles. Articles 6-21 laid down the specific commitments to achieve the objective of the convention. Articles 23-25 deal with institutional mechanism established by the convention, viz. CoP, its secretariat and subsidiary body on scientific technical and technological advice. Article 27 contains the dispute settlement provision and Articles 28-42 spell out the technical details of the convention.

Commitments under the Convention

The broad objectives of the convention are the conservation of the biodiversity, the sustainable use of the components and the fair and equitable sharing of the benefits arising out of the utilization of generic resources. Therefore, all the commitments are focused on the above-mentioned objectives and also inter-related to each other. At the same time as stated earlier, commitments are drafted in broad terms with qualification in every step to create checks and balances of rights and duties. Due to its broad nature the parties cannot implement any of the specific commitments. The commitments include general measures for conservation and sustainable use, *in-situ* and *ex-situ* conservation and sustainable use of components of biological diversity, access to genetic resources, access and transfer of technology, handling of biotechnology and distribution of benefits and financial mechanism.

Article 6 obligates contracting parties to develop and adopt national strategy for the conservation and distribution of benefits, sustainable use of biological diversity and also to integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies. This should be done in accordance with each party's peculiar conditions and capabilities. Thus this article provides the basis for Article 10 which contains more concrete provisions related to national strategy and commitments to avoid or minimize the adverse impact on biological diversity, protect and encourages customary and traditional culture, use

and practices, supports local people and encourages co-operation between government agencies and private sector. Thus both Articles 6 and 10 encourage an interdisciplinary approach to biodiversity conservation. However, it seems that the last provision in the Article 10 reflects the hidden agenda of the North - the term private sector is not defined in the convention. Therefore, it includes huge TNCs of North and legitimises its operation in the developing countries.

Articles 8 and 9 provide the central theme of the convention i.e. the conservation technique viz. *in-situ* and *ex-situ*, conservation measures. *In-situ* conservation measures under Article 8 include not only the conservation of ecosystem and wild species but also domesticated plants and animals and strike a balance envisaged either within or behind the protected areas. Measures also address the threat of biotechnology and introduction of alien species to the biodiversity. The measures of in-situ conservation go beyond the mere idea of conservation to a positive obligation, to rehabilitate and restore the degrading ecosystems and to promote the recovery of threatened species. As a part of the measures, each state should respect, preserve and maintain knowledge innovation and sustainable uses of biological diversity. Article 9 requires contracting parties to adopt, establish and maintain measures and facilities *ex-situ* conservation preferably in the country of origin of species. Many fear that the provision for *ex-situ* conservation, that too without a provision for non-commercialization of such collection would serve as a means of conservation of raw material in the form of germplasm collection.

Article 15 is about rights and obligations regarding access to genetic resources and their subsequent uses. It recognizes, for the first time, the sovereign rights over the genetic resources and rejected the Northern notions of "common heritage". Thus, now access to genetic resources is subject to national legislation and a prior informed consent depending on the discretion of the 'contracting party providing such resources. At the same time contracting parties are under a general obligation to provide access to genetic resources for environment friendly uses. This obligation should be reciprocated by showing the benefits derived from the subsequent use of

such genetic resource in a fair and equitable manner. But these rights of the providing countries are subjected to 'mutually agreed terms'. This qualification gives room for negotiation. In an unequal world negotiation generally would work in favour of the dominant party i.e. the developed country. Moreover these promising of showing of bayonets apply only to those resources, which are provided by the parties in accordance with the convention. Thus the convention does not apply to the past transactions but only apply to the future transactions. Hence the convention legitimized the bio-exploitation committed by the North in the past and denied the South's legitimate share in the benefits. Apart from this, the convention is salient about the access to genetic resources in the high-tech gene banks of North, which preserve the 90 percent of known agriculture seeds. Therefore, the accesses to the genetic resources becomes a one-way traffic transaction.

CBD recognizes the role of technology especially biotechnology for the biodiversity conservation and obligates contracting parties to ensure access and transfer of technology. This general obligation applies only to three types of technology viz.

I Technology relevant to the conservation of biological diversity,
II. Technology relevant to the sustainable use of its components,
III. The technology made uses of scientific resources.

Furthermore, the general obligation is the subject of two more credentials. Firstly, there is an option either to provide or facilitate access for a transfer of technology. Secondly, technology must not cause significant damage to the environment.

Para (2) of Article-16 sets the terms for access to and transfer of technology to developing countries under fair and most favourable terms including on concessional and preferential terms. But access and transfer should be on mutually agreed terms and subject to patent and other intellectual property rights. Moreover, Article 16 recognizes biotechnology as an essential element for the attainment of the objective of the convention. Thus, CBD accepts biotechnology, as necessary for the conservation and sustainable use of

biological diversity. But in reality biotechnology consumes diversity as raw materials and substituted natural biodiversity. Hence, biotechnology would operate against the objectives of the CBD. Even though the convention admits the hazardous impact of biotechnology but with this provision the convention undermines all those cautions in support of sustainable uses. Apart from this, the convention also recognizes life patent, at least in an implicit way.

But even after 5 years the CBD has not made much progress in sorting out major issues related to conservation of biodiversity in the developing countries. The issues that need urgent attention are, creation of biodiversity fund, making the private sector and TNCs to share the responsibility of biodiversity conservation, bio-safety protocol, intellectual property, access to genetic resources and recognition of the contribution of local communities. The CBD not only recognizes the sovereign rights of state over its natural resources but also the role and participation of indigenous and local communities to achieve the objective of the convention. Further, the CBD obliges the contracting parties to promote and encourage the effective uses of traditional knowledge for the conservation and sustainable use of biological diversity. States are also committed not to commercialize (wider application) the traditional knowledge, innovation, practice without the consent of the holders' community and equitable sharing of the benefits arising from the utilization of such knowledge. The present practice of TNCs is a blatant violation of this provision. Furthermore, the recognition of patent by the CBD is not absolute but with some cautions. According to Para (5) of Article-166, states that, 'subject to national legislation and international law in order to ensure that such rights are supportive of and do not counter to its objectives. However, according to the general and customary principles of international law, it is not the duty and obligation of the states that legislate law to come out with conclusive scientific proof and clarification about their steps.

Therefore, using the close mandate of CBD, developing countries should develop parallel rights, which protect the rights of the indigenous people, traditional medical practitioners and farmers to continue their traditional

practice even in the presence of a patent regime. Another option is giving a joint patent to the community and the so-called inventor. Here it must be noted that, joint patent right for the employer and employee is a well-established norms of IPR jurisprudence.

The TRIPs Agreement

The TRIPs Agreement under the Article-27.3 (b) imposes on all member states the introduction of plant variety protection either through patents or an alternative system of "*suigeneris*" system. However, there has been a constant pressure on developing countries to choose plant breeder's rights as an alternative to patents. Both patents and plant breeder's rights are the monopoly rights, which seem to allow the private sector to enter seed business. Though, the scope of Article-27.3 (b) is under review of WTO, the Third World is working hard to exclude the naturally occurring materials, and genes from patentability. The concept of plant variety protection was first time recognized by the European countries in 1961 with the specific aim of enhancing the private sectors interests in the seed business. Presently, the right is protected under the "International Convention for the Protection of New Varieties of Plants- 1991". It made compulsory exception to breeder's rights in favour of farmers. It also strengthened the preview of plant breeder's rights by introducing a registration system, and by recognizing complete monopoly right of the breeder on plant variety.

Intellectual Property Rights (IPRs) under TRIPs Agreement is perceived as a private right. Moreover, TRIPs does not recognize the community intellectual rights or the collective intellectual rights. The doctrine of collective and community intellectual right is essentially a Southern concept. The Northern industrialized societies are opposed to this concept. Therefore, the TRIPs represents the Northern view of IPRs. Moreover, the patent regime under the TRIPs failed to respond to the shift in the innovative activity, which shifted from tangible things to intangible things like DNA and micro-organisms. TRIPs applies the old patent jurisprudence to all type of innovations, which makes it possible to get patent for plants and microorganism without having the real innovative element. And it

resulted in taking envoy of genetic materials from South to North without being compensated for either innovation or maintenance of those materials in their native place. This rush for commercialization of traditional knowledge not only affects the livelihood but also may result in the deprivation of certain rights enjoyed by the indigenous people, practitioners of indigenous medicine and farmers. The major effect of this TRIPs sponsored commercialization is the depletion of biodiversity. Therefore, the moot question is how could the biodiversity and traditional knowledge be protected under the CBD from the onslaught of bio-piracy.

The Food and Agriculture Organisation Policies

In order to protect the farmers' right on plant variety a revision on the "International Undertaking on Plant Genetic Resource" is being negotiated under the FAO Commission on Genetic Resources. The proposed revision recognizes the protection of traditional knowledge, the right to participate in sharing the benefit, arises from the use of plant variety and right to participate in decision making about their management. The revision also recognizes that, no limit should be put on the farmers' rights to sale, use and exchange of seeds including every rights over what they have produced. On the issue of protection of bio-assets, the FAO undertakes to protect the farmer's right in contrary to Article-15 of CBD, which recognizes the sovereign right of the state on biodiversity.

Challenges before the South Asia

The South Asian region is one of the largest gene-rich region of the world and equally rich in traditional and indigenous knowledge. The rich socio-cultural heritage of the South Asian countries is evident that the plant variety always remains free accessible to all since time immemorial. The thrust on ensuring food security by the free sharing of traditional knowledge and information on agro-transaction both within the inter and intra farming communities are the reason for which the South Asian countries never recognized the intellectual property right on the plant variety. In this backdrop, all the member countries are members of the WTO, FAO and

parties to the 1992 Convention on biodiversity. Under the international obligations, countries are in the verge of legislating appropriate law regarding protection of biological diversity and plant variety. In this connection the region is inheriting the compelling challenges from population explosion and food security. Though the commercialization of agriculture and bio-resources has been initiated since early nineties but pre-condition of food security has been a dominated factor before the policy makers. As the debate and discussion about the implementation of the CBD, TRIPs and FAO agreement is on, as it is a first step towards the law making process on the subject, the policy makers should take due notice of the peculiar and unique socio-cultural traditions and emotions of the local people on the issue. In this connection this paper highlights some of the issues need to be featured in the proposed legislation and legal reforms by each South Asian countries.

The forthcoming legislations should take due consideration of the following objectives:

- to regulate access to the biological resources of the country with the purpose of securing equitable share in benefits arising out of the use of biological; and associated knowledge relating to biological resources;
- to conserve and sustainable use of biological diversity;
- to respect and protect knowledge of local communities related to biodiversity;
- to secure sharing of benefits with local people as conservers of biological resources and holders of traditional knowledge and information;
- conservation and development of areas from stand point of rich bio-resources;
- protection and rehabilitation of endangered fauna and flora;
- to ensure active participation of private sector, NGOs and local people in the broad sense of schemes for policy implementation.

The proposed legal reforms on the subject should address the issues concerning access to genetic resources associated with knowledge by foreign individuals, institutions and TNCs and equitable sharing of benefits

arising out of these resources and knowledge to the host countries and local people. In this connection the following exemptions on the legal control to the accessibility of the bio-resources would no doubt provide safeguard to the interests of the local people.

- Free access to biological resources for intra-country uses by own nationals other then commercial uses.
- Free use of biological resources by Ayurvedic medical practitioners.
- Free access to own citizen to use bio-resources within the country for research purposes.

To ensure the food security and protection of the farmers' right the following issues should be duly considered:

- The farmers right to save, use, exchange, share or sell the farm produce of a protected variety of crop without any limitations should be ensured.
- Recognization of the contribution of farming community for the development of a new crop variety under the bio-genetics and reimbursement of financial compensation to the total chain of contributors for the commercial use of the new variety.
- Total ban on 'terminator technologies' those are injurious to the life and health of human being, animals and plants.

In this background it would be worth noting that aforesaid suggestions could be implemented if both the CBD and TRIPs allow developing countries to implement the international obligation in their own way without undermining the basic objectives of the multilateral agreements.

Conclusion

As it is evident by now, there are two schools of thought regarding the protection of biodiversity and traditional knowledge. According to the first school, which recognizes the TRlPs paradigm and does not recognize the informal innovation of the community. According to them communities are entitled only for compensation and no right to share the results. This approach

would speed up the depletion of biodiversity from the control of indigenous and local communities and therefore would work against the objectives of the convention. Notably, the existing benefit sharing mechanism shares a problem. Only the present generation receives the benefit in the mode of compensation in exchange of traditional knowledge. Where as the same is an evolutionary product of the past generations and the future generation also have an equitable right over the same.

The second school of thought rejects the domains role of IPRs and recognizes the role of community as an innovator. According to this school, Community as a whole plays the role of conservation as well as innovation, therefore the innovation of community should be recognized and placed over the individual oriented IPRs paradigm of TRIPs. Community rights has been recognized by the customary international law and it is included in many legal instruments. Most important among them is International Covenant on Economic Social and Cultural Rights (ICESCR), which recognizes the cultural rights. Traditional knowledge is a part of the culture when we perceive culture as a body of knowledge. FAO also recognizes the farmers rights as well as farmers as a breeder. Apart from the anthropocentric approach to the CBD, its western bias is real than apparent. This western bias of the CBD assures the western countries, the unhindered flow of raw materials for their biotechnology industry. So, the following facts can be drawn from the theme:-

1. The CBD recognizes biotechnology a necessary element for biodiversity conservation while totally ignoring dangers of biotechnology to the biodiversity conservation.
2. CBD provisions on access and transfer of technology apply only to the future transactions and it is inadvertently silent on the access of genetic resources in the gene banks of Northern countries.
3. The provisions that contain the pro-South approach are subject to wide ranging qualifications including patent and other instruments in the IPRs regime.
4. CBD by recognizing Patents, in fact, recognizes TRIPs paradigm of patents rights, which is detrimental to the biodiversity conservation. This regime also denies the equitable sharing of the benefits.

The developing countries can check the adverse implications by using certain provisions like Articles 6, 8 and 10 etc., which give a mandate to chalk out strategies to protect their biodiversity. The reason is simple because third world interest cannot be protected through the Western notion of conservation. Any attempt of conservation and sustainable use of biodiversity would not succeed without changing the development model. The existing production pattern encourages monoculture, homogeneity, over production and over exploitation of nature. Therefore, the success of biodiversity conservation with the present development model is bound to be a futile exercise.

According to the bio-rich developing countries, the desirable scenario should be one in which their bio-assets are not exported without rewards by third parties. To achieve this objective there are some possible strategies and modalities to be followed by the enactment of an appropriate biodiversity protection legislation including the concept of benefit sharing, consistent with Article 15 of CBD. To achieve this end in the developing countries', domestic conditions and traditional practices, peculiar to each country, should be carefully considered before adopting any biological diverse or plant variety protection law under the international obligations. If so, then the economy passages from the North in exchange of bio-resources would be a dominating factor for the economic development and anti-poverty programmes of South Asian countries.

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