GATT, TRIPS, WTO and CBD – Relevance to Agriculture

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From the current perspective on ‘IPR and Agriculture’, there has to be a major discussion on global developments, negotiations and agreements on the role of intellectual property protection on the future of the agricultural sector, a vital segment for ensuring food security for the world population, particularly for developing countries where assuring food security is essential for their survival. Modern day intellectual property protection systems have their genesis in the General Agreement on Tariffs and Trade (GATT) which was initiated in 1946. Currently, the provisions under several agreements are being implemented by the Members of the World Trade Organization (WTO), the sole administrative body responsible for all aspects of implementation, monitoring and resolution of disputes between the member countries. Apart from the separate Agreement on Agriculture (AOA) which formed part of GATT, other agreements particularly Trade-Related Aspects of Intellectual Property Rights (TRIPS) also impinge heavily on the future of agriculture across the world. It is therefore prudent to evaluate the role that GATT, TRIPS, WTO, CBD and climate change play in the sustenance and development of agriculture pursuits, primarily in the developing and least developed economies.

Keywords: GATT, TRIPS, WTO, CBD, climate change

Importance of Agriculture

For around 75 per cent of the world’s population, the mainstay of livelihood is agriculture, particularly in the developing countries. And yet both qualitative and quantitative improvements in this sector have been marginal almost in all the countries during the last several decades. According to FAO’s 2009 report, the state of food insecurity and undernourishment continues to be a serious problem for the whole world. In Asia and the Pacific alone, an estimated 642 million suffer from chronic hunger, 265 million of those in Sub-Saharan Africa. To remedy this, countries need to improve farm outputs, make food crops more affordable and have better distribution channels and systems.

The example of India is revealing. India ranks 2nd in farm output among all the countries of the world and around 60 per cent of India’s population depend on this sector for rural employment. Agriculture accounted for 14.6 per cent of India’s GDP and 10.6 per cent of country’s exports in the first half of 2009-2010. However, apart from paddy, Indian production of food grains and share in the global markets is marginal. Current agricultural practices in India are neither economically viable nor environmentally sustainable; the reasons being overregulation of agriculture, small holdings, lack of irrigation and dependency on nature (monsoon), technological gaps, Government policies, agricultural subsidies, credit problems, etc.

These are also the reasons for low productivity and non-viable operations in the agricultural sector in India. Agricultural yields in India are broadly 30-50 per cent of world averages in productivity. In India, the annual income of the farmers is around US$ 175 against national average of US$ 480. If the GDP of the country is to grow to two digit levels annually and food security at affordable levels is to be assured, it is imperative to increase agricultural output and productivity.

The GATT signed in 1994 with primary emphasis on world trade and economic growth, has several agreements affecting the agricultural sector. The objective of these agreements is to increase global trade and market access and remove or at least reduce restrictive barriers including tariffs. To bring in more parity between the member countries, it was also considered necessary to reduce subsidies for domestic producers and ensure a level playing field for all global players in the market place. The four agreements impacting trade in agriculture are the Agreement on Agriculture (AOA), TRIPS, Technical

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Barriers to Trade (TBT) and Sanitary and Phyto-Sanitary measures (SPS). Of these, the AOA which defines the contours of future of agriculture among the WTO members covers three important areas, namely, market access, domestic support and export subsidies. Outside GATT, the Convention on Biodiversity (CBD) also has a bearing on agriculture and related issues of food security, since it deals with preservation of germplasm and varieties of plant species for foods and non-foods. Other intellectual property instruments including trademarks, copyrights, trade secrets (undisclosed information) also have peripheral impact on matters related to agriculture.

Origin of WTO and TRIPS

Post-Second World War, while several international agreements were negotiated and signed in areas of finance, justice, health, etc. and world bodies formed; there was little agreement on trade related matters. To bridge this gap, the GATT was initiated in 1946. The initial objectives were to promote peace through an interdependent world by removing unnecessary barriers to trade and reduction of tariffs across borders.

World Trade Organization (WTO)

After several rounds of negotiations, the Uruguay round led to the signing of GATT agreement at Marrakesh in Monaco in April 1994, one of the key elements being the establishment of the WTO in January 1995 in Geneva. The WTO’s scope extended beyond matters of merchandise trade, to agriculture, textiles and clothing, investments, innovation, competition policies, safeguard measures, trade in services, anti-dumping, sanitary and phyto-sanitary measures etc. All the member states, currently numbering 153, have tacitly agreed to all the provisions of the new world order subject to their national legislations endorsing the provisions within the overall ambit of WTO’s mandate. The WTO itself is responsible for: Implementing and administering all the multilateral and plurilateral agreements; acting as a forum for multilateral trade negotiations; resolving trade disputes; overseeing national trade policies; co-operating with other international bodies, institutions and agencies involved in economic policy making.

Outside the UN, the WTO is the largest single body to develop and implement a world trade order which will benefit all members through universally accepted rules. As such, it is imperative that it succeeds. From the WTO perspective, one of the major issues confronting the members in 2009 was the closing of a fresh round of negotiations to finalize the Doha Development Round. While much was expected during 2010, there has been very little progress. This was hardly surprising considering the wide gaps in perceptions and practices between the developing and developed countries. Introduction of issues related to labour and environment further widened the gaps in perceptions. The momentum of resistance by both developed and developing countries, NGOs, farmers’ organizations, workers’ unions, etc., to WTO’s handling of global trade which started since its establishment in 1995 has not abated. Developing countries feel that any discussion on increasing market access to their markets should match various developmental issues affecting them. The erstwhile deadline of end 2009 for finalizing the Doha Development Round was shifted to 2010. In a WTO statement released on 10 June 2010, it was stated that while members were keen to bring the Round to a conclusion, a successful outcome cannot be achieved without a balanced package of benefits to all the members. The moot point is, how, when that will be achieved. If the stalemate largely prompted by protectionist tendencies by the members continues, it is uncertain whether the Doha Development Round will be finalized even in 2011.

Even after almost a decade and a half, there continues to be a debate on whether functioning of the WTO in matters related to a whole lot of contentious issues have been satisfactory to the member countries. The requirement of a consensual approach in all decision making has also impeded effective functioning of this world body. The performance of the Dispute Settlement Board of the WTO, given the complexity of the organization and practices has nevertheless been commendable during the decade and a half, since the establishment of WTO.

The establishment and functioning of WTO and all its attendant departments were expected to improve international trade by uniformly applying harmonized systems in global trade, for both the developed and developing countries in equitable measures. There have already been concerns whether these objectives are likely to be realized even in the mid to long term. This concern is particularly relevant to two vital areas, namely, health and food security. To what extent such concerns are justified in the light of several legislations in different countries on matters related to agriculture.
a uniform intellectual property rights protection system as defined under TRIPS is a question, which begs a satisfactory answer.

**Trade Related Intellectual Property Rights (TRIPS)**

The most important component of GATT as far as knowledge and innovation based industrial segments are concerned is the TRIPS Agreement. It was already recognized during the trade negotiations that countries of the world not only differ widely in their economic and developmental status but also in their capability to develop or even utilize modern technology. That was the reason for providing transitional periods (Article 65) in the TRIPS Agreement whereby developing countries had up to a ten year period (2005) and the least developed countries 21 till 2016 (original 16 years extended to 21 at the Doha Summit in 2001) for implementation. Thus, while the timeframe for implementation was different for different countries based on their socio-economic background and development as far as the terms and provisions are concerned, there is only one homogenous and uniform standard. Considering the inequities inherent in applying the same standards across all members regardless of their developmental needs, special provisions for developing countries were brought in, particularly those with healthcare needs including access to drugs. Even though the Doha Declaration was expected to bring in a paradigm shift in overcoming issues related to affordability and accessibility of patented drugs through compulsory licenses, in reality its practice has been made very complex by the TRIPS Council and consequently has remained effective. However, an equally important issue is the impact of TRIPS on food security through removal of restrictions imposed by TRIPS on patented agricultural products including germplasm, plant varieties, seeds, processed foods etc. This issue was not addressed at Doha because matters related to agriculture are dealt with under the AOA and is one of the key elements of discussion in the Doha Development Agenda.

Nevertheless, a proper interpretation of several relevant articles in TRIPS and commensurate national legislations can considerably assist developing countries to overcome the problems which IP regimes may bring in the areas of agriculture and food security. Some of them are: Article 1 (Members free to determine the appropriate method of implementing the provisions of the TRIPS Agreement within their own legal system and practice); Article 7 (protection and enforcement of IPR should contribute to the promotion of technological innovation and transfer and dissemination of information); Article 8 (appropriate measures, consistent with the provisions of this Agreement, to prevent IPR practices which unreasonably restrain trade or adversely affect transfer of technology); Article 27.2 (option to exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health); Article 27.3 (members may exclude from patentability plants and animals other than microorganisms, however new plant varieties are to be protected via patents or through an appropriate *sui generis* system of protection or a combination of the two).

**Patenting in Agriculture Segment**

Patenting of innovations in the agriculture segment has been practiced all through the history of the patent system. In India, the Indian Patents Act, 1970 did not provide for protection of agricultural products; however processes used could be patented even if for a very short period, of a maximum of seven years from the date of filing of the patent application or five years from the date of sealing, whichever was shorter. According to TRIPS Agreement which came into force in India from 2005, inventions in all areas of technology including agriculture are to be protected as long as they satisfy the basic requirements for patenting. Patents are now being filed for agro products, food processing, agrochemicals including fertilizers, and biocides. Such efforts will continue and could have an impact on research in agriculture and food technology areas.

The Indian Patents Act, 2005 stipulates mandatory disclosure of source of the traditional knowledge or bioresource used in the invention. Presumably this requirement is connected with possible future demands of obtaining prior informed consent (PIC) for their commercial use and agreement on benefit sharing (ABS). While there have been objections from US on this, several other developing countries have followed the Indian model in their national legislations.

**Sui generis System of Protection for Plant Varieties**

Most of the new innovations in agriculture are related to generation of new varieties of plants and seeds. According to TRIPS, these can be protected...
under the patent system which in general requires that they meet the standards of novelty, inventiveness (non-obviousness) and utility as in the case of all inventions. Alternatively, they can be protected under a special form of protection (sui generis) appropriately legislated. India has opted for the latter and brought in legislation in 2001 under the Protection of Plant Varieties and Farmers Rights (PPV &FR) Act, 2001. The Act is meant to protect the germplasm of any new plant variety if the novelty, distinctiveness, uniformity and stability (NDUS) criteria are satisfied. An important feature of the Indian Act is that it allows farmers to save, sow and sell seeds even if of a protected (by third party) variety. The associated Registry started receiving applications only in 2007 and to date the system has not proved very effective in spite of the fact that a few varieties of food crops including cereals and pulse crops have been registered. The PVP registry has provisions for storing referral samples of the registered specimens. So far the PPV & FR Act has had little impact on agriculture in the country and clearly the provisions and their implementation modalities need to be revisited, reviewed and amended if necessary.

Protection of Biotechnology Inventions

One of the most controversial issues in recent times has been the evolution and emergence of genetically modified organisms (GMOs), in the agriculture and food segments. The desirability of patenting life forms and genetic engineering based processes and products, has by itself been questioned. TRIPS makes it mandatory to provide protection of microorganisms (without defining the term), one of the essential components of biotechnology based inventions. Such processes have the potential to improve productivity of food products apart from the ability to produce more specific and better quality foods. The best known example of a patented technology and product is Monsanto’s golden rice which produces beta carotene helpful in the alleviation of blindness. Apart from the health benefits that such foods provide, the technology has the potential to improve the productivity in the agricultural sector. However, in the wake of wide spread criticism about GM crops, there has been a considerable slowdown in R&D and commercialization activities in this area. This is notwithstanding the fact that the world supply of soybean, corn etc., is based on GM technology. As of now, a major problem is the high costs of such value added products and possible future hazards of use of GMOs to human and animal health and environment. There are also concerns about the labeling requirements addressed under the Cartagena biosafety protocol. There is a direct correlation between the Cartagena protocol and international trade in living modified organisms intended for development of agriculture. Under this Protocol, an exporting country dealing with living modified organisms (LMOs), e.g., genetically modified seeds for agriculture should get the importing countries’ PIC before trade is effected.

Sanitary and Phyto-Sanitary (SPS) Measures

Matters related to food safety and the impact of release of genetically modified materials on the environment could fall under yet another safeguard instrument, the SPS measures stipulated as a major trade issue by WTO. These measures were meant to minimize the negative effects of poor quality drugs and foods circulating in international trade and restricting access to them in national markets. Similarly, technical barriers to trade (TBT) in agricultural products are often measures designed to protect human and animal health from contaminants, diseases and pests. Examples of barriers to trade based on plant, animal and human health include the banning of beef products by the European Union due to their growth hormone content and restrictions imposed by the US on trade in tuna caught in nets which kill dolphins. Some members feel that many of these stipulations could be abused and may constitute protection systems to assist local products and producers by denying market access on grounds of SPS considerarations. For example, there are criticisms that countries particularly, developed ones, artificially reduce toxic limits standards to levels even lower than those specified in Codex Alimentarius. Cases of sulphur dioxide contents in dried fruits, azo dyes in textiles and others illustrate such protective measures. To be fair, SPS measures should be non-discriminatory, follow international standards, ensure transparency and have fair inspection procedures.

Geographical Indications Act

In principle, the TRIPS Agreement mandates a minimum standard for protection of Geographical Indications (GIs) under Article 22.2 to be used in cases where there was prima facie evidence of malpractice including misleading the customer to the
geographical origin of the product. However, the Agreement specifically mentions under Article 23, that GIs related to wines and spirits have to be protected, whether or not they mislead the customer. This distinction or in fact discrimination has been pointed out by many members, after the Agreement came in force, as being discretionary and needs amendments. Many countries who have been beneficiaries of the present Act including US and Europe are against all such moves. Of course, member countries are entitled to bring under their national legislations, protection of other items as long as they qualify for designation as a GI.

The inadequacy of the law, its interpretation and implementation became very obvious to India when the case of Basmati patents came up against Ricetec of US who claimed that Basmati had already become in a broader sense, a generic product and therefore was not entitled to any special protection. Subsequently, a large number of agricultural and food products have been registered under the Indian Geographical Indications Act, 1999. To what extent these are useful for protecting new agricultural products remains to be seen. In any case they have no legitimate protection outside India, since there has been no general agreement on setting up of international registries of GIs or acceptance of national registries by other members. The situation in the case of wines and spirits is totally different. There is consensus for establishing a register of wines and spirits falling under GIs which the WTO members will consult and take action for registration and protection of trademarks and GIs in accordance with their domestic laws and procedures. The issue of extending this to other products by appropriate amendment to Article 23 has been under the consideration of TRIPS Council and WTO, but nothing tangible has emerged so far.

**Convention on Biodiversity, Climate Change and Agriculture**

The very first legal framework to provide for balancing the need for conservation and sustainable utilization of plant genetic resources as well as a procedure for ABS was initiated by the FAO in 2001 under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). Prior to this, a UN inter-governmental forum to deal with matters related to the conservation and utilization of genetic resources for food and agriculture under the Commission on Genetic Resources for Food and Agriculture (CGRFA) was set up, which also monitored the implementation of International Undertaking on Plant Genetic Resources (IUPGR), 1983. The IUPGR was the first non-legally binding agreement to deal with international matters related to plant genetic resources. In 1997, CGRFA established working groups on plant genetic resources covering technical and policy issues that facilitated the inter-governmental negotiations for the revision of IUPGR in harmony with the provisions of the Convention on Biological Diversity (CBD).

The CBD was signed at the earth summit in 1992 in Rio de Janeiro by the majority of members of WTO. According to CBD, in the agriculture field, facilitated access to genetic resources will be provided through a multilateral system, and benefit sharing from commercial use of these resources or their products will be ensured as per the PIC and on mutually agreed terms. The establishment of ITPGRFA could resolve the two outstanding issues of the Nairobi Final Act, 1992 which also consisted of the final text of CBD. These two issues were- (i) the realization of farmers’ rights envisaged under the IUPGR (revised agreed interpretation as per the FAO Council Resolution 5/89), and (ii) ex situ collections held in the international gene banks.

Much debate has centred on whether CBD and TRIPS are inconsistent with each other. Most experts are of the view that there is no conflict between the two agreements and CBD has indeed complemented TRIPS by bringing in provisions for protecting a member country’s sovereign rights and assets even if they are of natural origin. However, the record of ensuring that the basic tenets embodied in this Agreement are honoured has been tardy. One of prime purposes of CBD was to ensure preservation of biodiversity to protect the environment on which the future of human and animal life is dependent. For example, in 2002 at Hague, members agreed on a target date of 2010 for considerably slowing down loss of biodiversity across the globe. In actual practice, it is estimated that even today over 13 million hectares of world’s forests are lost every year due to deforestation, added to that are threats from climate change. The relationship between biodiversity and climate change has been computed (although empirically) to estimate that 10 per cent of species assessed so far, have an increasingly high risk of extinction for every 1°C rise in global mean surface
temperature. Climate change thus, plays a major role in areas of agriculture and food supply. Considering that over 75 per cent of food crop varieties which were available and grown by man, have disappeared during the last 100 years and that 90 per cent of human food needs are met by a mere 30 crops, the enormity of the problem will be apparent. Same is the situation in case of livestock. 21 per cent of the 7000 livestock breeds are at risk, so too are marine bio-resources. Such massive degradation of biodiversity resources are bound to have a major impact on agriculture and food security in the coming decades and centuries. To what extent biodiversity protection legislations can prevent major disasters still remains to be seen.

Protection of Traditional Knowledge in Agriculture

Most of the agricultural practices, particularly in developing countries stem from indigenous and traditional knowledge systems, seldom documented. They are extremely valuable for the sustenance of those practices and ensuring food security for large populations. The IP protection systems currently in vogue and stipulated under the TRIPS agreement are unsuitable for protecting such traditional knowledge and practices. Realizing the importance of such knowledge and the need to protect them to afford economic advantage to those in possession of such knowledge assets, several international agencies including World Intellectual Property Organization (WIPO), WHO, Food and Agricultural Organization (FAO); various national governments and national and international non-governmental organizations have been working on developing a fair and equitable system to protect traditional knowledge, indigenous medicinal plants, food crops etc., which will be acceptable to all members of WTO and the global community. A special *sui generis* form of legislation which will meet the requirements is being proposed by WIPO, some of the members of WTO and others, but nothing of substance has emerged so far.

Trade Secrets

TRIPS provides for protection of trade secrets or undisclosed information under Article 39. Trade secrets are protected for unlimited time. However, to qualify for protection, it is to be ensured that information to be protected is actually a secret, has indeed commercial value and every effort has been made to maintain its secrecy. Theoretically, if a farmer wants to keep the undisclosed technology or process used by him in his operations secret, it can be protected under this provision, but in actual practice it is hard to implement these provisions since most, if not all, activities in the agricultural sector are in the public domain with a multitude of stake holders, practitioners and participants.

Conclusion

Developing countries have a lot at stake to ensure that agriculture, their mainstay for survival and growth are given their rightful place in the international fora dealing with global agreements professing to improve their technological capabilities, production costs and market access in the field of agriculture. The WTO responsible for bringing a new world trade order benefiting all the stake holders consists of a number of multilateral agreements most of which have a bearing on agriculture. There have been very little efforts to consolidate these agreements, analyse their relative contributions and develop strategies which shall result in economic gains to countries whose primary livelihood rests on agriculture. While there are enough provisions to ensure that equity is assured when dealing with issues related to agriculture based on the plethora of international agreements, what is needed is their proper interpretation and effective implementation. Since national laws are still paramount even after accession to international agreements, member states have to ponder and legislate equitable laws within the overall ambit of their international obligations and commitments. The stalemate in the finalization of the Doha Development Agenda has largely resulted from the intransigence on the part of certain members of WTO due to increased emphasis on protectionism particularly in the field of agriculture to favour domestic producers at the cost of international communities. As long as there is no attitudinal change on these matters early resolution of these issues are unlikely to be realized.

References and Suggested Readings

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