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### **1. What is TRIPS about?**

The WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) was negotiated during the Uruguay Round, under strong pressure from major industrialised countries and their industry lobbies. This Agreement has little to do with trade, but is all about the protection of intellectual property rights (IPRs). Initial objections by a large number of countries to the inclusion of this topic during the Uruguay Round led to a compromise to only deal with "trade-related" aspects of IPRs. However, in the course of negotiating the entire package of agreements, all issues related to IPRs, including the standards of protection, were accepted.

The TRIPS Agreement imposes minimum standards for countries to adopt in almost all areas of IPRs. However, these standards are derived from the legislation of developed countries, thus the TRIPS Agreement imposes the form and level of protection of the industrial world to all WTO members, which are far tighter than existing legislation in most of the developing countries. This means that such countries will have to create or amend national laws to comply with the TRIPS obligations. It is also the first international instrument to require IPRs protection for life forms.

Developed countries had until January 1, 1996 to implement the TRIPS obligations. Developing countries have an additional period of 4 years for implementation (i.e., until January 1, 2000). Least developed countries will not be required to apply TRIPS provisions on intellectual property rights until 2006; i.e., 10 years from the date of application for developed countries. These time frames do not include obligations concerning national treatment and most-favoured-nation treatment, which became applicable in 1996.

### **2. What are intellectual property rights (IPRs)?**

Perhaps the best-known form of IPRs is the patent. Other IPRs covered by TRIPS are copyrights, trademarks, geographical indications, industrial designs, layout designs of integrated circuits and undisclosed information (e.g., trade secrets). Patents have been used to vest exclusive, monopoly ownership rights over the patented subject matter. This means the patent holder can exclude anyone else from using, making, and selling the patented subject matter, for a certain period of time. Under the TRIPS agreement, the minimum period of patent protection is 20 years.

### **3. What is the concern over intellectual property rights and TRIPS?**

The concept of IPRs and patents, in particular, must be seen in the context of the corporate concentration and consolidation of the multinational corporations (MNCs). In the 1990s, there has been a trend of "mega-mergers" of MNCs in the life sciences industry; that is, transnational enterprises involved in the commercial sale of seeds, pesticides, food and pharmaceuticals. As a result of these mergers, a small number of the MNCs dominate and control the life sciences industry. For example: UNDP's Human Development Report 1999 states that in 1998, the top ten corporations in the commercial seed industry controlled 32% of the US\$23 billion industry; in pharmaceuticals, 35% of the US\$297 billion industry; in veterinary medicine, 60% of the US\$17 billion industry; and in pesticides 85% of the US\$31 billion industry. Such monopoly means that the MNCs are able to control the supply of the products. By controlling the supply, they also have the means of controlling the prices of such products. To increase their profits, they can increase the prices. More than just a pricing issue, the control of essential resources such as seeds, drugs and food translates into the MNCs having control over fundamental rights of access to food, health and nutrition.

### **4. Where does TRIPS come in?**

The above scenario of corporate concentration is a key reason for the MNCs' role in the initiation and support of the TRIPS Agreement. For the MNCs, global outreach of their business requires global protection. The TRIPS Agreement imposes obligations on WTO member countries to make, in many cases, substantial changes to their national laws to afford protection for the inventions and technologies generated by the MNCs. There are also elaborate enforcement procedures in the Agreement, backed by a right for a "victim" country to apply cross-retaliations against a "non-complying" country. For example, failure to meet a TRIPS standard or requirement could result in a reduction of the export quota of the non-complying country. This means the effective protection of MNC interests, and the maintenance of MNC dominance in the international market.

### **5. Does TRIPS promote technology transfer?**

The TRIPS Agreement will have important implications for developing countries regarding the conditions for their access to and use of technology, and their economic and social development. The concern is that TRIPS will not facilitate technology transfer - the strengthening and expansion of IPRs are likely to have adverse effects on the conditions for technology transfer. The concept of patenting itself makes technology transfer difficult and certainly more costly. Strengthened IPRs may lead to increased royalty payments required by technology-holders. In fact, technology-holders may simply refuse to transfer the technology and block industrial initiatives by other parties. These factors will restrict the prospects for economic and industrial development in developing countries.

What is likely to happen is transfer of the production of some goods, the production of which employs the protected technologies. This is the situation where MNCs locate their production facilities within developing countries, in order to take advantage of the cheap labour or natural resources. In many such cases, the protected technology itself is not transferred, only the production facility. The developing countries do not acquire the protected technology. They would only be involved in the producing the goods using the patented technology.

## 6. What does TRIPS have to do with biodiversity?

The provision of TRIPS that relates to biodiversity is Article 27.3(b). It is one of the most controversial parts of the agreement, and has major implications for biodiversity and the ownership of life itself. This provision is so controversial that it was agreed during the Uruguay Round negotiations that a review of the provision would be built into the agreement. The review of Article 27.3(b) is discussed below.

## 7. What does Article 27.3(b) say?

Article 27.3(b) states that:

Members may also exclude from patentability ...

(b) plants and animals other than microorganisms, and essentially biological processes for the production of plants and animals other than non-biological and microbiological processes. However, members shall provide for the protection of plant varieties either by patents or an effective sui generis system or by any combination thereof. The provisions of this paragraph shall be reviewed four years after the date of entry into force of the WTO Agreement.

## 8. What does 'patenting of life' means?

There are two key aspects involved here: 1) the patenting of life forms; and 2) the protection of plant varieties.

The first relates to the process of "biopiracy"; that is, the theft of biological resources and traditional knowledge from the developing countries. Examples of biopiracy abound - the case of the US patent on the use of tumeric for healing wounds is a well-known one. The second aspect is the advent of biotechnology. The ability to identify, isolate and move genetic materials across species types has aroused great commercial interest and investment in biotechnology. Genetically engineered crops and foods are being produced with the global market as their target; thus the need to obtain IPR protection for such "new" products.

In relation to the patenting of life forms, Article 27.3(b) provides that countries may exclude from patenting: plants, animals and essentially biological processes, but countries must patent: microorganisms, microbiological and non-biological processes.

What is the rationale for the distinction made between the different types of life forms, and of natural processes? There is no scientific or legal rationale for the distinction. Such distinction goes against the basic principle of patent laws in many countries; i.e., that mere "discoveries" are not patentable. The artificial distinction, is drawn and motivated by the the need to protect corporate interests involved in biopiracy and biotechnology, so that these corporations are able to obtain protection for their products and processes.

## 9. What about plant variety protection?

The second aspect of Article 27.3(b) is the protection of plant varieties. Countries must protect plant varieties through the patent system, or through the establishment of an effective sui generis (i.e., unique or of its own kind) system or any combination of the two.

As with issue of patenting of life, there is no clear distinction, which can be drawn between plants and plant varieties from the scientific or legal perspectives. However, there is a history of protection for plant varieties, in order to protect the interests of commercial plant breeders - who sought protection for their crop varieties but found it difficult to meet the requirements of the patent system. The International Union for the Protection of New Varieties of Plants (UPOV), adopted its first convention in 1961 between European states to promote the protection of breeders' rights over new plant varieties (Plant Breeders' Rights). The original UPOV convention has gone through several revisions, the last of which took place in 1991. The successive revisions have strengthened the protection offered to plant breeders. In fact, the 1991 revision was intended to grant rights for plant breeders, almost akin to rights granted by the patent system. Under UPOV 1991, breeders who register rights over varieties can claim full commercial control over the seed or propagating material of their protected variety. This means that farmers are prohibited from selling the seeds they harvest from the crop, and indeed from saving and exchanging the seeds on a non-commercial basis, without first paying royalties to the breeder. Even when the farmer had saved the seed from his previous harvest - royalties have to be paid each time the seed is used. In this way, plant breeders obtain exclusive and private ownership rights over biodiversity. And also in this way, the rights of farmers to use, save and exchange seeds are negated.

The WTO, WIPO and UPOV have joined together to convince developing countries that the sui generis system required by Article 27.3(b) can only be provided by UPOV 1991. The three organisations have been organising "road shows" to developing countries to persuade them to sign on to UPOV 1991.

Another new development is the creation of the "Terminator Technology", where biotechnology is used as a means of exerting control and ownership rights over biodiversity. Terminator technology is a set of new genetic engineering techniques used to create sterile plants with infertile seeds that cannot be replanted. It is thus able to protect the interests of the corporation or plant breeder by killing the seed after one generation. This means farmers will be forced to purchase seed every growing season. In this scenario, patents are no longer needed to protect the MNC interests. The technology has in-built protection. However, patents are still being used - not against the farmers, but against the rival corporations to ensure corporate dominance in the market.

## 10. What is the review of Article 27.3(b)?

TRIPS provides that Article 27.3(b) shall be "reviewed four years after the date of entry into force of the WTO Agreement"; that is, 1999. Although the review process could be said to have begun in 1999, the process is still on-going, without a clear resolution in terms of the nature and scope of the review. Some developed countries in the WTO, particularly the US, had

argued that the review of Article 27.3(b) should only be of the implementation of the provisions, whilst developing countries say that the review must address the substance of the Article itself.

During the review process, WTO member countries also began preparations for the WTO's Third Ministerial Conference, which was held in Seattle on November 30-December 3, 1999. Developing countries tabled numerous proposals for the reform of the TRIPS Agreement for a decision by the Ministerial Conference. Of significance were the proposals which called for the prohibition on patenting of life. Some developing countries also highlighted the conflict between the commitments under the Convention on Biological Diversity (CBD) and TRIPS, as the CBD stipulates that IPRs must be supportive of the CBD objectives, while TRIPS there is no reference to either conservation and sustainable use of biodiversity, or to fair and equitable sharing of benefits.

However, the Seattle Ministerial Conference came to an inconclusive end, and there was no decision on status of the proposals, which have not been heard and considered.

Post-Seattle, the review of Article 27.3(b) remains on the agenda of the TRIPS Council, despite attempts by the US to take it off. Developing countries continue to push for a meaningful consideration of their proposals on the review.

In addition, the WTO General Council has initiated a process to consider the complaints of developing countries about the imbalances and inequities of the WTO system. In the preparatory exercise before the Seattle Ministerial Conference, developing countries had said that unless these problems, collectively referred to as "implementation issues", were addressed and rectified, they would be unable and unwilling to undertake more obligations in the WTO.

The problems faced by developing countries in implementing TRIPS, and the consequential adverse effects, are expected to be key areas of discussion in this implementation process. On the review of Article 27.3(b), the developing countries are of the view that it must be one of substance. In a substantive review, implementation issues such as the link between Article 27.3(b) and development, the patentability of life forms, the sui generis issue, conservation and sustainable use of genetic material and issues of traditional knowledge and farmers' rights, should be addressed. Until this was done, the period of implementation for Article 27.3(b) should be extended to five years from the date of completion of the review.

The last point on extending the period of implementation is important, because the deadline for implementation of the TRIPS Agreement obligations for most developing countries is up. As of January 1, 2000, developing countries are obliged to implement the TRIPS Agreement provisions.

#### **11. What should be done about Article 27.3(b)?**

It is therefore, very important for developing countries to stand firm with regard to their view and proposals on the reform of Article 27.3(b).

A key proposal in this respect is that of the African Group of WTO members, which was submitted for the Seattle WTO Ministerial Conference. On the review of Article 27.3(b), the proposal reiterates the view that it must be one of a substantive nature, not merely of implementation as has been suggested by the US.

Secondly, the African countries have also said that the implementation of Article 27.3(b) should be extended until 5 years after the completion of the substantive review of Article 27.3(b). This period is provided to allow developing countries to set up the necessary infrastructure entailed by the implementation.

The proposal of the African Group is significant because it questions the TRIPS Agreement's requirement for mandatory patenting of some life forms and some natural processes. It calls for a clarification that plants, animals and microorganisms should not be patentable, and that natural processes that produce plants, animals and other living organisms should also not be patentable.

The paper also puts forward the view that by stipulating compulsory patenting of micro-organisms (which are natural living things) and microbiological processes (which are natural processes), Article 27.3(b) contravenes the basic tenets of patent laws: that substances and processes that exist in nature are a discovery and not an invention and thus, are not patentable. It adds: "Moreover by giving Members the option whether or not to exclude patentability of plants and animals, Article 27.3(b) allows for life forms to be patented."

The paper calls for the review process to clarify why Article 27.3(b) does not allow Members to exclude microorganisms and microbiological processes from patentability. It says an artificial distinction was made between what can be excluded from patents (plants and animals; biological processes) and what must be patented (microorganisms and microbiological processes).

The above points made by the Africa Group are very significant and crucial, and correspond to the concerns raised by many citizen groups, farmers' organisations, environmental groups and development groups around the world. These groups have been campaigning against the patenting of life forms and biological materials because such patents would allow the private monopolisation of life and of biological resources, and would cause serious adverse effects on development, food security, the livelihoods of millions of farmers, on the environment. Such patents are also facing objections from the public on ethical, religious and moral grounds.

The Africa Group paper also gives a clear direction to the review of another part of Article 27.3(b), which specifies that Members shall provide for the protection of plant varieties either through patents or an effective sui generis system.

The paper says that the review must:

- clarify that developing countries can opt for a national sui generis law that protects innovations of indigenous and local farming communities (consistent with the Biodiversity Convention and the FAO's International Undertaking);
- allow the continuation of traditional farming practices, including the right to save and exchange seeds and sell their harvests; and

- pre-empt anti-competitive rights or practices that threaten food sovereignty of people in developing countries.

It adds that the review should harmonise Article 27.3(b) with the provisions of the CBD and the FAO's International Undertaking, which take into account the conservation and sustainable use of biological diversity, the protection of the rights and knowledge of indigenous and local communities, and the promotion of farmers rights.

These points made by the Africa Group are very important in recognising the rights of people in developing countries (as well as in developed countries) to protect the traditional knowledge and biological resources of indigenous, farming and local communities.

These points also correspond to the demands of civil society and farmers groups around the world, that patenting of plant varieties should not be allowed, and that there should be a proper system of protection of knowledge of indigenous peoples and local communities on the use of biological resources. This system should prevent biopiracy that is now prevalent as more and more multinational companies are being granted patents on plants and other biological resources as well as for their traditionally-known uses and functions.

Countries must have the option of a national system of plant varieties protection that protects the rights of indigenous, farming and local communities and their knowledge. The review process must clarify this so there is no mistake in interpretation on what constitutes an effective sui generis system. WTO Members must be allowed to introduce systems of their choice, including those that adhere to the principles of recognising the rights of these communities, in order to ensure food security, livelihoods and the development of sustainable agriculture.

The essential parts of the Africa Group position has been endorsed by the Like-Minded Group of developing countries that has been formed to consolidate common positions on a range of issues relating to the Seattle WTO Ministerial Conference. These countries are Cuba, Dominican Republic, Egypt, El Salvador, Honduras, India, Indonesia, Malaysia, Pakistan and Uganda.

Therefore, action can be taken in the following manner:

- NGOs and civil society groups should support and endorse the positions taken by the African Group on the review of Article 27.3(b) of TRIPS.
- They should call on other Members States of the WTO to support the positions of the African Group on the review of Article 27.3(b), major parts of which have been endorsed by the Like-Minded Group of developing countries.
- Actions and campaigns should lobby WTO Members to amend the TRIPS Agreement as soon as possible to remove its present ambiguities and objectionable provisions, and to ensure consistency with other international conventions such as the CBD and the FAO's International Undertaking for Plant Genetic Resources. TRIPS provisions now oblige Members to change their national laws to enable patenting of life forms, effectively promoting biopiracy or the private appropriation of traditional knowledge and community resources.
- It is also important to urge WTO Members to extend the deadline for implementing Article 27.3(b) of TRIPS from the present date of January 2000 to five years after the completion of the review of this Article (as has been proposed by the African Group and the Like-Minded Group).
- And finally, governments in the other international fora, such as the CBD and the FAO, should be urged to support the position of the African Group on the review of Article 27.3(b). Developing countries in these fora should call for the WTO to amend the TRIPS Agreement so as to ensure consistency with the objectives of the CBD and the FAO's International Undertaking on Plant Genetic Resources. For example, the African Group in the CBD have expressed their full support for positions of their counterparts in the WTO, and further calling on them to continue their work in having TRIPS amended so as to prohibit the patenting of life forms.

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