

Reconciling the Bio Safety Protocol and the WTO Regime: Problems, Perspectives and Possibilities

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Abstract: Problem statement: The issue of regulation of international trade in Genetically Modified Organisms (GMOs) evokes a very unique, passionate and emotional debate between environmentalists and businesses. At the conceptual level itself, like most other multilateral environmental agreements, the Cartagena Protocol appears to be incompatible with the WTO Rules. **Approach:** Further, since there is precious little scientific certainty on the actual and potential impact of GMOs on environment and human health, and because the debate spans cultural and philosophical contours, domestic regulation of GMOs vary substantially. The most vocal among such divergences has been the transatlantic rift between the US and the European Community regarding the application and interpretation of the precautionary principle. All these negatively hamper international trade and fragment international market, thereby decreasing economies of scale, which in turn is a huge setback to the massive research and development costs involved in the production of GMOs. It is a particularly challenging scenario for developing countries, as it directly affects their exports, even of organic products. **Results:** The authors strongly believe that the benefits of bio-technology shall not be wholly abandoned without proper scientific evidence; because the evolution of an environmentally safe and risk-free GM product has the potential to become the panacea for global food shortage and inequity. **Conclusion/Recommendations:** The study will first examine the apparent conflict and tension between the Cartagena Protocol and the WTO regime. Secondly, the language of the savings clause in the Cartagena Protocol would be analyzed, to emphasize that the Protocol was envisaged to be in force with equal primacy to the WTO regime and that WTO rules can be harmoniously interpreted with the Protocol, in a manner that is beneficial to both. Next, it would be elaborated on how the Cartagena Protocol in effect supports and strengthens the existing WTO regime by better defining the precautionary principle. Therefore, through this study, we seek to suggest a possible way forward to sustainable development-by arguing that the Cartagena Protocol and WTO regime are capable of a mutually beneficial existence. In the years to come, such a harmonious interpretation would definitely become crucial for stabilizing and strengthening the international regime governing trade in GMOs.

Key words: Cartagena protocol, WTO, genetically modified organisms, GMO, precautionary principle

INTRODUCTION

Although the transfer of genetic material through selective breeding and other techniques has long been in practice in improving cultivated crops and livestock, the power unleashed by modern biotechnology is revolutionary. It enables the scientists to isolate specific traits in genes and to transfer those required traits into another living organism, which may be from a completely unrelated species, genera or family (For example, genes from a fish known to survive in frigid waters have been transferred to tomatoes to make them resistant to frost; genes from a natural soil bacterium, *Bacillus thuringiensis* have been transferred to potatoes and corn to make them resistant to certain insects) to make Genetically Modified Organisms (GMOs).

The Cartagena Protocol on Bio safety to the Convention on Biological Diversity^[1] deals with the bio safety standards to be complied in the case of international trade in Living Modified Organisms (LMOs) (Article 2 of the Protocol defines LMO as any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology). LMOs are basically GMOs that have not been processed and that could live if introduced into the environment, such as seeds. It should be borne in mind that the scope of the Cartagena Protocol remains limited to the case of living organisms and excludes inanimate products derived from LMOs, such as ketchup from genetically modified tomatoes.

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The number of countries electing to grow biotech crops has increased steadily from 6 in 1996, the first year of commercialization, to 18 in 2003 and 25 in 2008. Notably in 2008, accumulatively the second billionth acre (800 millionth hectares) of a biotech crop was planted-only 3 years after the first one-billionth acre of a biotech crop was planted in 2005. In 2008, developing countries out-numbered industrial countries by 15-10 and this trend is expected to continue in the future with 40 countries, or more, expected to adopt biotech crops by 2015, the final year of the second decade of commercialization. By coincidence, 2015 also happens to be the Millennium Development Goals year, when global society has pledged to cut poverty and hunger in half-a vital humanitarian goal that biotech crops can contribute to, in an appropriate and significant way^[2]. As the global production and use of GMOs and its derivatives was growing at an exponential rate, so was the debate on its desirability and suitability to human health and environment. On the one side, biotechnology advocates hail biotechnology as having immense potential to lessen world hunger along with a plethora of other benefits. On the flipside, introduction of GMOs have been alleged to cause grave health and environmental risks. It is a particularly challenging scenario for developing countries, as it is feared that their exports, even of organic products could be adversely affected. Developing countries, which export conventional agricultural products, fear that losing GM-free status may have negative repercussions on their export opportunities for all agricultural products, because of the particularly strong perception among consumers, especially in Europe, towards products that could be linked even remotely to genetic modification^[3].

Much ink has already flown on the pros and cons of GMOs and this study does not intend to make a revisit of the same. It suffices to say that the concerns about genetic modification range from ethical considerations to potential risks to human health and the environment and also encompass a number of cultural, religious and socio-economic issues. These concerns are heightened, given the relatively small amount of experience with the application of the technology till date and the fact that any adverse effects may only be manifested over the long term. Owing to all these factors, domestic regulation of GMOs varies substantially and the most vocal among such divergences has been the transatlantic rift between the United States and the European Union. It has been opined by an author^[4] that where there is a transatlantic consensus between the EU and the US, on the Multilateral Environment Agreements (MEAs), the

chances of friction between WTO and MEAs are minimal. The author cites the example of Convention on the International Trade in Endangered Species 1973; the Montreal Protocol on Substances that Deplete the Ozone Layer 1987; and the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal 1989. All three agreements, despite being very trade distortive in nature, has co-existed peacefully.

All these differences negatively hamper international trade and fragment international market, thereby decreasing economies of scale, which in turn is a huge setback to the massive research and development costs involved in the production of GMOs^[3]. Moreover, the rate of technological advance in biotechnology is likely to be very rapid, making the commercial life of any new GMO comparatively shorter. This means that easy and quick access to foreign markets is a critical determinant for profitability^[4].

The debate on GMOs typifies a classical case of environment versus trade dilemma and the quest for finding that ever-elusive road towards sustainable development. This apparent incompatibility between trade and environment in the case of GMOs is frequently projected as the wrestle between the Cartagena Protocol and WTO Agreements, for superiority and predominance. On a closer analysis, the incompatibility between WTO agreements and the Protocol could be seen as problem of perspectives, which is fully capable of a mutually supportive and beneficial reconciliation.

This study argues that the Cartagena Protocol and WTO regime are capable of a mutually beneficial existence. The study will first examine the apparent conflict and tension between the Cartagena Protocol and the WTO regime. Secondly, the language of the savings clause in the Cartagena Protocol would be analyzed, to emphasize that the Protocol was envisaged to be in force with equal primacy to the WTO regime and that WTO rules can be harmoniously interpreted with the Protocol, in a manner that is beneficial to both. Next, it would be elaborated on how the Cartagena Protocol in effect supports and strengthens the existing WTO regime by better defining the precautionary principle.

Precautionary principle: The perceived conflict: The Cartagena Protocol is one Multilateral Environment Agreement (MEA) that has been alleged to be at loggerheads with the WTO regime-mainly the General Agreement on Tariffs and Trade, as amended extensively in 1994 as part of the Uruguay Round,

(GATT) the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement)-conceptually, theoretically and practically. This has been subject to much academic discourse and analyses, though any sort of consensus has hardly come by. The most controversial issue has been with regard to the interpretation and application of precautionary principle. There are other areas of potential conflict between the two regimes; (Some other issues that have come up are regarding the differences in documentation requirements, cost bearing in the case of risk assessment, inclusion of socio-economic factors in decision making process) however, this study will be confined to the incompatibility over the precautionary principle.

The Cartagena Protocol contains a relatively stronger version of the precautionary principle. The Preamble and Article 1 reaffirm the commitment of the Parties to pursue the objective of the Protocol in accordance with the precautionary approach as contained in Principle 15 of the Rio Declaration on Environment and Development, 1992. Articles 10 and 11 explicitly articulate the principle by providing that 'a lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of LMOs, shall not prevent that Party from taking a decision, as appropriate, with regard to the import of the LMO, in order to avoid or minimize such potential adverse effects'.

Importing countries can thus ban imports because of a lack of scientific certainty; which bans may last until the importing country decides that it has assimilated the required degree of scientific certainty regarding the effects of the LMOs on biodiversity and/or human health. Moreover, the importing country is not obliged to seek the information necessary to reach scientific certainty. Therefore, a trade-restrictive measure may be in force without time limits.

In contrast, Article 5.7 of the Sanitary and Phytosanitary Measures Agreement^[5] allows countries to adopt sanitary or phytosanitary measures provisionally when relevant scientific evidence is insufficient, as opposed to scientific uncertainty. Also Article 2.2 of the SPS Agreement requires the members to ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health and is based on scientific principles and is not maintained without sufficient scientific evidence. Further, there is an obligation on the party adopting such measure to seek the additional information necessary for a more objective assessment

of risk and to review the SPS measure within a reasonable period of time.

The SPS Agreement regulates measures taken by member states to protect human and animal health (sanitary measures) and those taken to protect plant life or health (phytosanitary measures). It was added pursuant to the Uruguay Trade Round of 1994 and is likely to be the most relevant to the trade in living modified organisms that present environmental risk. The restrictions on the import of LMOs, including bans on such imports, quarantine or testing requirements and labeling requirements, taken by nations to protect plant, animal, or human health would fall under this Agreement^[6].

In the 2003 Apples case,^[7] the United States' complaint against Japan arose from the maintenance by Japan of quarantine restrictions on apples imported from the US into Japan, as a protective measure against fire blight. Japan disqualified any orchard from exporting, should fire blight be detected within a 500 meter buffer zone surrounding such orchard. The WTO Appellate Body stated that relevant scientific evidence will be insufficient within the meaning of Article 5.7, if the body of available scientific evidence does not allow, in quantitative or qualitative terms, the performance of an adequate assessment of risks. The Appellate Body clarified that the application of Article 5.7 is triggered not by the existence of scientific uncertainty, but rather by the insufficiency of scientific evidence (emphasis supplied) and that the concepts of 'insufficiency of relevant scientific evidence' and 'scientific uncertainty' are not interchangeable (Id. at pp. 179-184).

Thus the WTO-SPS Agreement clearly requires that measures, including any decisions, to prohibit or restrict the import of LMOs so as to protect the life or health of animals, plants, or humans be strictly based on science. It must be noted that some countries, especially in the EU, had banned or restricted the import of LMOs on the basis of political opposition and ostensibly without scientific justification, even before the coming into force of the Cartagena Protocol. Beginning in March 1998, the European Union (EU) suspended all future approvals of GM crops, essentially barring the import of such organisms. As a result, U.S. corn exports to the EU plummeted by more than 90 percent in 1998 alone. This ban even applied to GM corn seed that EU scientists had determined posed no threat to the environment or to human health^[8]. In other words, under the SPS Agreement, the present inconclusiveness of scientific evidence related to the actual or potential impact of GMOs on human and animal health and on the environment cannot be regarded as a reason for taking precautionary measures.

As compared to this, under the Cartagena Protocol, the insufficiency of scientific evidence would lead to scientific uncertainty, which, in turn, would justify a precautionary approach. Thus the Cartagena Protocol in effect gives the members much wider latitude in imposing trade restrictions.

A case for interpretation: Cartagena or WTO: The precise relationship between the Protocol and other international agreements, particularly WTO Agreements, was a controversial issue right from the negotiation stage of the Protocol (the issue, also known as the 'savings clause issue' surrounded the inclusion and content of the savings clause. It was one of the last issues resolved and one of the few that, by itself, could have prevented the successful completion of the Protocol. Negotiations on the Protocol were scheduled to conclude in February of 1999 in Cartagena, Colombia. These negotiations collapsed owing to irreconcilable differences between nations, primarily on the savings clause issue. The Protocol was ultimately concluded and adopted nearly a year later in Montreal, Canada). The primary issue was whether the Protocol would prevail in case of conflict with the requirements of the WTO Agreements. Though the question was technically resolved during the negotiations, this question lies at the heart of the perceived conflict between international trade and environmental protection.

Under the Vienna Convention on the Law of Treaties, 1969, in the event of an incompatibility between two successive agreements relating to the same subject matter, the requirements of the later agreement prevail (but where the later treaty includes only some of the parties to the earlier treaty, the later treaty prevails only with respect to those who are party to both agreements. The United States, which is a party to the WTO Agreements, cannot become a party to the Bio safety Protocol unless it becomes a party to the Convention on Biological Diversity, its parent convention. Until such time as the United States joins the Bio safety Protocol, treaty relations between the United States and any other nation are governed by only those treaties to which both the United States and that nation are parties, such as the WTO Agreements, regardless of any savings clause^[9]. This can be overcome if the later agreement includes a savings clause, which indicates that such agreement is not to be considered as incompatible with an earlier agreement. There was intense debate on the issue regarding the inclusion or non-inclusion of a savings clause in the Cartagena Protocol, dividing the negotiators into three camps claiming three different solutions (The US and

others constituting the Miami Group strongly advocated in favor of a savings clause. The EU took the position that the Protocol should remain silent on the issue and that the Protocol is to prevail in case of conflict. The rest of the countries, mainly the Like Minded Group, supported a middle path, under which, in the event of a conflict between the Protocol and an earlier agreement, the earlier agreement would prevail, except where the exercise of those earlier rights and obligations would cause a serious damage or threat to the environment.

After much negotiations, the savings clause, as it appears today in the Preamble part was inserted. According to the Preamble, the parties to the protocol have agreed on it, recognizing that trade and environment agreements should be mutually supportive with a view to achieving sustainable development; emphasizing that the Protocol shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreement; and understanding that the above recital is not intended to subordinate the Protocol to other international agreements.

The insertion of these statements in the Preamble has only made the conflict between the Protocol and WTO Agreements appear more circular and ambiguous. It has merely restated that in the case of conflict, trade agreements and the Protocol are to be counterpoised with equal primacy. But, more importantly, looking at it from a different perspective, the three statements also emphasize that the two regimes are not to be viewed as conflicting, but as a mutual 'check-and-balance mechanism' towards achieving sustainable growth. Such a shift of perception would be instrumental in bringing about a much required paradigm shift in this area.

Trade and environment: Conflicting or concerting: Over the last two decades, environmental provisions have permeated into and have been mainstreamed into the multilateral trading system, through the incorporation of environmental provisions under new WTO agreements and a wider interpretation of the GATT Article XX exceptions in the post-WTO regime through trade-environment disputes^[10]. All these point towards the fact that WTO and MEAs cover much the same ground and can be interpreted constructively.

Free trade and a safe environment are not entirely incongruent concepts, but rather they are analogous concepts capable of a symbiotic relation. They can reinforce and strengthen each other, if understood and applied in a pragmatic and realistic mode. Moreover, avoiding a contradictory interpretation is in the best interest of both environment and trade, because an

irreconcilable impasse would be a no-win situation, with unacceptable casualties on both the trade and environmental sides.

Further, international law recognizes a presumption against conflict and the concept of relating to the same subject matter in Article 30 of the Vienna Convention must be construed strictly^[11]. A conflict in the strict sense of direct incompatibility arises only where a party to the two treaties cannot simultaneously comply with its obligations under both treaties^[12]. This means that instances of irreconcilable conflicts will not often take place. Thus, even without a savings clause, a WTO tribunal would be reluctant to find incompatibility between the Bio safety Protocol or other MEAs and the WTO agreements^[13].

Further, on the basis of the good faith principle, States are presumed to have negotiated all their treaties in good faith, taking into account all their international law obligations. The WTO legal system is linked to the rest of the international legal order and does not operate in isolation from existing rules of international law. The International Law Commission, for example, recently emphasized the systemic nature of international law, in which fragmented norms are resolvable through treaty interpretation and other rules^[14]. Therefore, States' obligations can only be read together and be considered cumulative. As a consequence, in the case of any disagreement arising before the WTO dispute settlement body, all international obligations and rights of WTO Members must be taken into account, including obligations under the Cartagena Protocol and such other MEAs.

In fact, the rights and obligations under such MEAs would be a useful tool for interpreting WTO Members' obligations, for instance their right to resort to GATT Article XX Exceptions. It could be safely presumed that the requirements of the Protocol would be accorded significant respect, at least with respect to parties to both WTO and Cartagena Protocol^[15].

Even otherwise, the legitimacy or otherwise of trade-regulating measures taken under the Protocol can be interpreted in the light of existing vast WTO jurisprudence on the interpretation of Article XX of GATT.^[16-19] Which has laid down several criteria like (a) effectiveness or environmental worth of the trade restricting measure, (b) necessity of the trade measure in achieving the environmental objective of the MEA, (c) proportionality of the measure to the need for trade restriction to achieve the environmental objective, (d) degree of scientific evidence, (e) least-trade restrictiveness. These criteria would amply equip the decision making body to evolve a flexible approach which will adequately preserve the interests of both

regimes and would also enable both regimes to work towards greater coordination in the achievement of their respective objectives.

Hence, a context-oriented, mutually-supportive interpretation within the existing international framework is not only possible, but would also appease any chances of possible friction between the two regimes. Especially since GM products promise to hold the key toward global food security and since no direct conflict between a multilateral environmental agreement and trade rules has yet found its way before a WTO dispute settlement panel, it would be in the best interest of the international community to wait and see the course it would take in the coming years, when more information and evidence would be available.

Cartagena protocol as strengthening the precautionary principle: So far, this study has argued how there could be lesser chances of conflict between the Cartagena Protocol and the WTO than predicted. On deeper analysis, it could be seen that the Cartagena Protocol in fact, goes beyond this point of no-conflict and begins to positively reinforce the SPS Agreement by making enhancing the Parties' ability to exercise the precautionary principle by making a strong elaboration of precautionary principle and by filling in some of the gaps left by the SPS Agreement.

For instance, whereas the SPS does not spell out exactly what a risk assessment entails, the Protocol does so in detail in Annex III. Likewise, the SPS envisages only risk assessment and does not refer to the concept of risk management at all. In contrast, the Protocol, through Articles 15 and 16, makes it clear that both exercises are necessary. Risk assessment involves the gathering of the data; and risk management as given under Article 16 requires the parties to establish and maintain appropriate mechanisms, measures and strategies to regulate, manage and control risks identified in the risk assessment. Thus, risk management broadly refers to the building of a regulatory regime based on the data collected through risk assessment. It further sets out some guidance in creating that regime; for example, asking Parties to try to ensure that any LMO should undergo an appropriate period of observation commensurate with its life-cycle or generation time before it is put to its intended use. The Protocol also explicitly allows Parties to take into account socio-economic considerations in making their decisions, whereas the SPS says nothing on the subject^[20].

Thus it can be seen that the provisions in the Cartagena Protocol in fact enrich the SPS Agreement by adding details that help operationalize the

precautionary principle in the context of LMOs, giving real meaning to the preamble recognition that trade and environment agreements should be mutually supportive.

CONCLUSION

Genetic modification and GM products have already numerous scientific and some commercial applications and is likely to be further developed due to high expectations of its potential in healthcare, agriculture, industrial production and environmental protection. If everything turns out well, public health could benefit enormously from the potential of biotechnology, for example, from an increase in the nutrient content of foods, decreased allergenicity and more efficient food production.

It is equally important not to overlook the potential negative effects the GM goods may have on human health and environment. But the scientific community finds itself short of adequate evidence and information, so as to conduct a systematic, coordinated and all-inclusive evaluation of the effects of GM products. Further, it is not prudent to permit the uncertainties to put in cold storage a much awaited solution to the growing food scarcity.

Therefore, the present need is to evolve a holistic evaluation of GM products, which would take into account, not only human health and environment, but also food security, social and ethical aspects, access and capacity building. Also, quantitative studies are needed to assess the effects of international regulations on developing countries, given their delicate position in the whole scenario.

Taking a mutually supportive interpretation of the Cartagena Protocol and the WTO Agreements would go a long way in ensuring the same. As has been argued so far, the two regimes, despite their apparent incompatibility, can effectively act as a check and balance mechanism that would prevent ad hoc solutions and promote sustainable development.

All said and done, it is as pertinent to ensure that the participating states also retain their authority to exercise some kind of sovereign control over trade in GM crops, because the issue bears important health, environmental and ethical implications and because the economic interests involved are huge. When very sensitive issues are at stake, the use of judicial dispute settlement may be neither constructive nor likely to promote a country's goals^[21]. In all conditions it should be ascertained that these safeguards are not utilized in a manner which will hamper the spirit of free trade and

run contrary to the very purpose for which they were enacted.

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