

# Problems with the Cartagena Protocol

The Cartagena Protocol on Biosafety is doomed to fail. Even worse, Cartagena will help perpetuate the very biodiversity damage it purports to protect.

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## Introduction

The Cartagena Protocol was negotiated under the 1992 Convention on Biological Diversity (CBD) and came into force on September 11, 2003. It covers transborder movement of Living Modified Organisms (LMOs). LMOs are viable GMO products of biotechnology or genetic engineering. LMOs, for the most part, are commodity grains like soybeans, maize and canola. Processed GMOs, pharmaceuticals or other products of genetic technologies are exempted if they are unable to reproduce. To date, 132 countries have ratified the Protocol, which obligates countries to establish extensive bureaucracies to, among other things, identify, monitor, document and track the transborder movement of LMOs. Why have so many countries signed on to the Protocol with its intrusive and expensive obligations?

The Cartagena Protocol's objective is "... to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology." (<http://www.biodiv.org/biosafety/background2.aspx>).

World popular opinion supports preserving and protecting biodiversity, even at considerable cost. Due to the environmental degradation, intense climate changes, along with the diminishing of biodiversity worldwide, it is not surprising that there is popular support for Cartagena, a measure intended to protect global biodiversity.

In spite of the near global moral and political support for Cartagena (apart from major exporters including USA, Canada, Australia and Argentina), and vast amounts of money and human resources spent in advancing the Cartagena cause, the Protocol is fundamentally flawed. An unlimited amount of money, political goodwill or international concordance will not enable Cartagena to succeed. Why? The underlying premise is wrong and the implementation is impracticable.

## The Premise is Fundamentally Flawed

The underlying assumption, the singular premise of the Cartagena Protocol, is that all LMOs and only LMOs pose a threat to biodiversity. If this premise turns out untrue, all the money, efforts, energy and time spent on Cartagena is wasted, and valuable products are delayed or denied to those who need them most. However, similar to the situation in the fairy tale “the Emperor’s New Suit”, no one dares to challenge the assumption. As it happens, there is plenty of objective scientific data related to the impact of GMOs/LMOs on the environment, including effects on environment and biodiversity. There is a great range of origins and perspectives among the scientific studies, from the European Commission sponsored research on the safety of genetically modified organisms (2001) to the US National Academy of Sciences 2002 study titled “Environmental impacts of transgenic plants” and many other professional scientific societies. Regardless of which fields of studies, such as geography or politics, they all came to the same conclusion— that GMO/LMO/ transgenic plants pose no new threats or no greater threats than conventional technologies do. Indeed, the conclusions from these various studies are being borne out in reality. Genetically engineered crops have gained an increase in sales since 1994 and are still enjoying a dramatic growth. A recent report from ISAAA shows that farmers in 21 countries worldwide are planting GM crops in almost 100 million hectares ([www.isaaa.org](http://www.isaaa.org)).

There is no documented connection – positive or negative – between LMOs and biodiversity. Of all of the diminution in biodiversity worldwide (while the extent of loss is argued among academics, the fact is that there is a substantial loss), none of the harms to biodiversity is due to LMOs. However, Cartagena only regulates the LMOs in international trade. Since LMOs have been in commerce for only ten years, how could they be responsible for the damage to biodiversity that has been building for many years? And, although the rate of adoption of genetically engineered crops by farmers has been increasing dramatically, LMOs still remain in a relatively small fraction of world trade in the market.

In spite of the rapid growth and distribution, there is still not a single documented case of LMOs causing any diminution of biodiversity. With the results of the scientific studies concluding that GMOs/LMOs pose no greater risk to biodiversity than conventional agriculture and the reality that GMO crops have not yet caused any discernable problem, why does the international political system insist on expanding so many scarce financial, regulatory and emotional resources on a false threat? The whole foundation of Cartagena is not only shaky, but is also misleading.

The Cartagena protocol is disingenuous on two counts—firstly, it assumes a scientific foundation when there is none. Secondly, it misleads world citizens to believe “something is being done to

protect biodiversity”, when in fact Cartagena does nothing to address the real and known causes of damage to biodiversity.

In spite of the overwhelming international support for the Protocol (as indicated by the rapid ratification of so many countries), we have never raised the questions that should have been asked during or before negotiations. How much will implementation and enforcement cost? Why are there no major agricultural exporting nations interested in it? Most importantly, how does the Protocol actually protect biodiversity?

### **Practical Issues**

Apart from this fundamental flaw, the protocol also suffers severe practical problems. The implementation involves reducing the legislative policy to regulatory action. While the policy to preserve biodiversity sounds nice in theory, reducing it to regulatory practice is causing problems, even in those nations championing the Protocol in the first place. Evidently, the text is written by lawyers and politicians, and is based on the subjective process-oriented (biotechnology) origin of products. But it demands analysis of objective products. Unfortunately, one cannot apply objective science-based criteria to solve subjective process-based problems. Senior regulators in several countries have admitted this problem and have started the job to implement Cartagena, which is frustrating to them because it is an inherently unscientific process. The authors of Cartagena have been trying to force scientific credibility using a scientific regulatory system. But it cannot succeed because Cartagena is inherently not amenable to science. It is as if the politicians decided that it would be a good thing to have a square sphere, and demand their scientific regulators create one. Both sides become angry and frustrated when the desired object fails to materialize.

### **Cost of Compliance**

In the January 18, 2006 issue of BusinessWorld, Raul Montemayor, a consultant for the International Food and Agricultural Trade Policy Council, is quoted as saying “The cost of doing these system changes (i.e. implementation of Cartagena) will be borne by the importers and will eventually be passed on to consumers...”.

In a subsequent study of the costs of Cartagena implementation to a major food importer (China) and a major exporter (Brazil), the International Food and Agricultural Trade Policy Council concluded that meeting the obligations “could prove costly and disruptive”. China would bear extreme costs of testing and monitoring incoming grain commodity shipments at her borders, while Brazil would have to establish a reliable identity preservation bureaucracy for export shipments, again at great cost of up to 9% of a shipment’s value.

Common sense dictates that in each case, ultimately consumers will have to pay the added costs. Consumers may be willing to pay extra money for food if it can be shown that the additional costs actually do result in documented evidence of biosafety. Even though such evidence is presented, consumers are asked to pay more money but, in fact, receive no value for it. It is particularly disturbing that consumers in poorer countries will bear the burden of unnecessarily higher food costs.

## Conclusion

There are indeed real threats to biodiversity, and real things which have caused environmental degradation, but LMOs are not among them. By focusing all or most resources on products of biotechnology, the real threats are left to wreak havoc and continue to degrade the environment and pose risks to health.

In short, even the worldwide implementation of Cartagena will do nothing to slow or reverse the degradation of biodiversity, because LMOs have not caused any of the current damage to biodiversity and have not been shown to be a threat to biodiversity. Cartagena is supposed to preserve biodiversity. However, it is doomed to fail because it ignores the true causes of damage to biodiversity, and instead focuses on a group of products of no known threat to biodiversity.

In the final analysis, Cartagena involves a high price. Governments have to spend limited time and regulatory resources to serve it. Food handlers need to spend time, money and resources in paperwork, documentation and compliance measures such as segregation, costly sample testing. Consumers, who face higher prices for all the foods, not just LMO containing foods, as part of the overall requirement to assure the provenance of the imported foods. Perhaps taxpayers and consumers would be willing to pay such a high price to truly protect biodiversity. But the scientific research and reality shows Cartagena does nothing to protect biodiversity from the real threats.

Popular support for Cartagena will collapse as soon as people see the damaging assaults on biodiversity continue to be unabated in spite of the massive cost and effort charged by the global implementation of Cartagena.

However, the greatest damage borne by Cartagena will come later. Subsequent initiatives that seek to contain the actual threats to biodiversity will fail to garner popular support. A lot of people say, "I gave my support to Cartagena. I've done my bit for biodiversity.", without considering what an effective program should be. If the new and potentially effective biodiversity preservation programs are denied due to a lack of popular support, biodiversity and the environment will continue to suffer degradation in the future. In this respect, it may be stated that the biggest threat to global biodiversity today is the Cartagena Protocol itself. 🌱

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