The Cartagena Protocol and the future of agbiotech

Willy De Greef

Vitamin A enriched 'Golden Rice' is one of several biotech products stalled in development because of a hostile regulatory environment exemplified by the Cartagena Protocol.

Current developments in the regulation of biotech, particularly in the Cartagena Protocol, represent a serious threat to the efforts of public research to create sustainable solutions for the food security and health problems of the developing world. They already severely limit the capability of its practitioners to translate the promise of transgenic technologies into improved quality of life for the poor. In parts of the industrialized world, they lead to a brain drain. They do not acknowledge that most innovative research in agricultural biotechnology is done in public research institutions working towards public goods outputs.

It has to be stated upfront that the biotech community needs an international agreement to harmonize regulatory supervision of biotech. Therefore, it is not an option to wish the Cartagena Protocol to fade away; we would have to negotiate another agreement on the same subject if it were not there. However, the current content and direction of its governance are damaging the prospects of biotech to the point where the Protocol is essentially a substitute for an attempted ban on agbiotech that does not want to declare its name.

The public research community has so far not acted as a major stakeholder in the international regulatory decision-making platforms that shape the future of their work. At the first Meeting of the Parties (MOP1) of the Cartagena Protocol, there was no representation of the scientific community as a stakeholder, against more than 100 representatives of the nongovernment organization (NGO) community with a rabidly antiscience and antitechnology agenda. The 'scientific information' sessions of the meeting were dominated by fringe figures who have been widely discredited in the scientific community, but who, in the absence of a reputable voice for science, are seen as the providers of scientific information to this process. In total, over 20 'information sessions' about biotech were organized around the MOP1, most of them presenting lurid tales about 'the existing and proven dangers of biotech.' Not a single presentation was made about the promises and the benefits of genetically modified (GM) crops.

This campaign is producing a regulatory environment for biotech where its most significant contributions are stalled. For example, the vitamin A enriched 'Golden Rice' project, seen a few years ago as one of the most significant single contributions of biotech to public health improvement in the developing world, has been stalled for half a decade, and in the current regulatory environment does not have much hope of reaching third world farmers. Current research on abiotic stress resistance in crops is delivering technical breakthroughs that, in a rational regulatory environment, could reach the farmer by 2010. Instead, they struggle to even make it into field trials.

Part of the problem is that the policy environment for biotechnology is effectively set in the Cartagena Protocol, which is a Multilateral Environment Agreement (MEA) dealing with essentially agricultural and health issues. It is a poorly informed platform, almost devoid of serious inputs from the field of reputable biotech and biosafety research (and agriculture for that matter). In the absence of the scientific community as a stakeholder, fringe science and political ideology has taken the place of an informed process.

The Cartagena Protocol is a poorly informed platform, almost devoid of serious inputs from the field of reputable biotech and biosafety research.

The scientific community cannot turn its back on this process if it wants the results of its innovation drive in the life sciences to reach those who need it most. The consensus view of the participants in the Cartagena Protocol seems to be that biosafety regulation is a matter of controlling the actions of a small number of multinational technology companies. Nowhere in the policy discussions is it recognized that most of the genetic engineering of crops relevant to the developing world is done in the public sector. Once that research moves out of the laboratory and into the field, it is subject to the same oppressive regulatory constraints as anything produced by Monsanto (St. Louis, MO, USA),

Willy De Greef is at the The Plant Biotechnology Institute for Developing Countries (IPBO), Department of Molecular Genetics, Ghent University, K.L. Ledeganckstraat 35, B-9000 Ghent, Belgium.
e-mail: willy.degreef@ibrs.be

Syngenta (Basel), Dupont/Pioneer (Wilmington, DE, USA) or Bayer CropScience (Monheim am Rhein, Germany). The current situation presents an immediate threat to the future of public research of GM crops in two major areas:

Exchange of research material has become much more difficult. The provisions of the Advanced Informed Agreement (AIA) for import of GM organisms intended for release in the environment make no distinction between an experimental release and a commercial scale release. Consequently, data requirements have become much heavier than before. This is particularly true for GM plants produced in European Union member states.

The negotiations for a Liability & Redress regime in the Protocol entirely ignore the scenario in which the technology developer is, say, a Consultative Group on International Agriculture Research (CGIAR) center or a national university or a government agency from a developing country. The negotiations are likely to use scenarios about the seed sector and the food chain familiar to the private sector for crops such as hybrid corn, and from there to extrapolate towards a general requirement of containment and segregation of GM and non-GM crops that is simply not achievable for most subsistence crops, and out of the question for crops in centers of genetic diversity.

To change the situation, it is urgent to create a platform of public sector research institutions, to give a voice to the concerns and the needs of the scientific community in the Cartagena Protocol implementation process, to create a credible source of scientific information for the Cartagena Protocol, to ensure representation at the meetings of the Cartagena Protocol, to defend positions for the public goods research sector and to provide information on the impact of regulatory options debated. An important early requirement is to create a much improved understanding of:

- The impact of the emerging regulatory framework on the delivery of the public goods research and development agenda;
- The consequence of the regulations on the total cost of research projects, and the need to rethink research project definition and funding criteria accordingly;
- The consequences of the commitments of parties to their own public research strategies;
- The consequences of the proposed framework for Liability and Redress on public R&D in biotechnology.

Timing is tight; the second Meeting of the Parties (MOP2) of the Protocol is scheduled for June 2005. It is vital for the research community to be present there and to bring an informed view on biotechnology to the process. Several scientists have agreed to start up a network aimed at giving a voice to public goods research in the upcoming negotiations on implementation of the Cartagena Protocol. The startup phase is facilitated with help from the European Federation of Biotechnology (EFB). This network is open to all public sector scientists with an interest in the policy environment for biotech. This article is an invitation to all interested parties to join this effort.