

# Genetic engineering not a priority for agriculture, International Assessment concludes



The first comprehensive global assessment of agricultural development ever conducted recently concluded that business-as-usual is not an option for the future of agriculture. The 400 scientists who participated in the review concluded that GE (genetically-engineered) crops are not a priority for feeding the world in 2050.

To ensure a healthy, habitable world in coming decades, the assessment preferred a systems-oriented approach adapted to local conditions and cultures. This, it concluded, was more responsive to agricultural needs in the coming decades than focusing on new technologies exclusively aimed at market productivity:

*"Historically the path of global agricultural development has been narrowly focused on increased productivity rather than on a more holistic integration of natural resources management (NRM) with food and nutritional security. A holistic, or systems-oriented approach, is preferable because it can address the difficult issues associated with the complexity of food and other production systems in different ecologies, locations, and cultures."*

IAASTD, 2009.

The International Assessment of Agricultural Knowledge, Science, and Technology (IAASTD) was established in 2002. The Assessment was organised and included the participation of international agencies such as the Food and Agriculture Organisation, the World Health Organisation and the UN Development Programme, among others. Also participating were national governments, and non-governmental and scientific organisations from across the world.

After a series of regional and global meetings, the IAASTD presented its findings in South Africa in 2008 in a lengthy report titled *Agriculture at a Crossroads*. The report reflects the fact that participants held divergent views of the potential of genetically-engineered crops. The approach the IAASTD took to this and other issues was to first define mutually agreed agricultural problems and then to seek to identify the best ways of solving them. In doing so, a decision was made to focus on the evidence at hand, rather than the futures imagined by the varied group of participants or *a priori* assumptions about the best technological approaches.

In the end, to the disappointment of private sector genetic engineers (who walked out of the process), the IAASTD proved far less enthusiastic about the future use of genetic engineering than the technology's promoters hoped. Among GE problems that were noted by the IAASTD are those of both farmers and scientists being stymied by the legal barriers imposed by biotechnology patents, ecological concern about gene-flow from GE crops, market disruptions caused by political and ethical objections, and the lack of long-term environment and health monitoring in the few countries that currently grow GE crops on a large scale.

The IAASTD found other approaches more promising for agriculture's future:

*"Given the new challenges we confront today, there is increasing recognition within formal [science and technology] organisations that the current [agricultural knowledge, science, and technology] model requires adaptation and revision. Business as usual is not an option. One area of potential adaptation is to move from an exclusive focus on public and private research as the site for R&D toward the democratisation of knowledge production.*

*Once [agricultural knowledge, science, and technology] is directed simultaneously towards production, profitability, ecosystem services and food systems that are site-specific and evolving, then formal, traditional and local knowledge need to be integrated. Traditional and local knowledge constitutes an extensive realm of accumulated practical knowledge and knowledge-generating capacity that is needed if sustainability and development goals are to be reached."*

An international priority now is to move forward with the changes to national and international agriculture policies in line with the conclusions of the IAASTD. These include measures related to promoting the role and knowledge of small farmers and increased public investment in agricultural research. GE crops, however, are not a promising option to address the challenges confronting agriculture.

#### Sources

This article is a summary of a recent Greenpeace Report entitled *Agriculture at a Crossroads: Food for Survival*, released in October 2009 and available at: <http://www.greenpeace.org/international/agriculture-at-a-crossroads>

IAASTD (2009). *International Assessment of Agricultural Knowledge, Science and Technology for Development - Executive Summary of the Synthesis Report*. Island Press. p. 3, 9 and 10.

