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The report on GM crops sets the clock backwards for Indian agriculture

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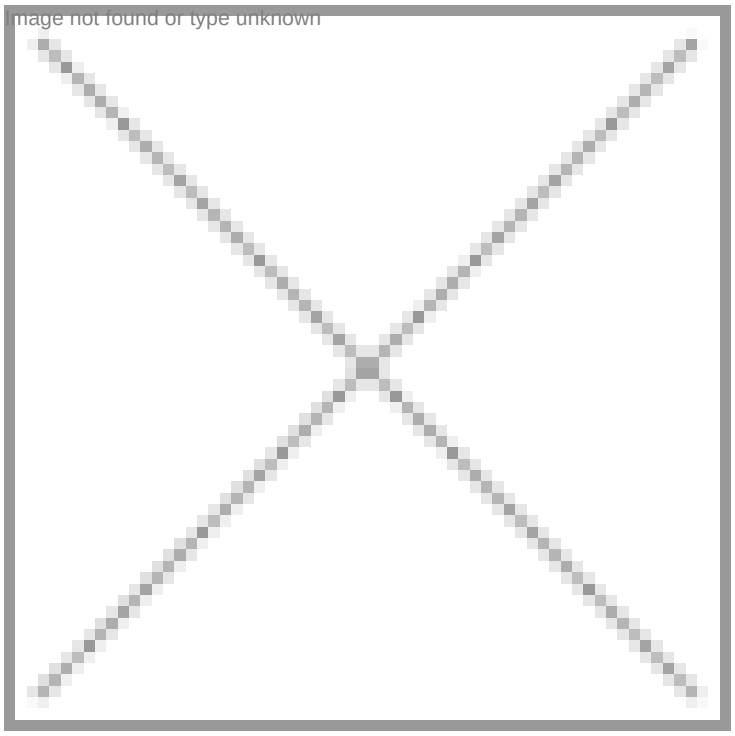

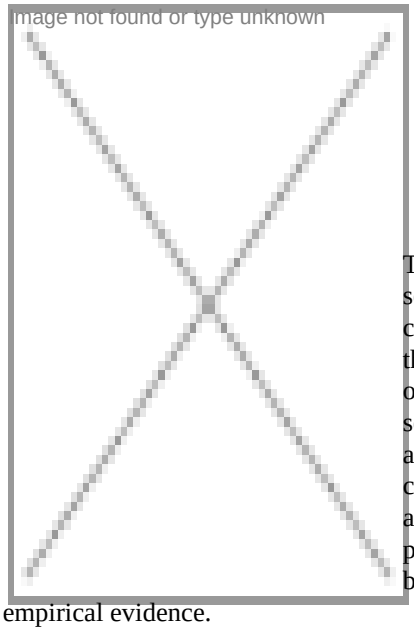

Writes

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The report of the parliamentary standing committee on agriculture severely indicts the enetically Modified (GM) crops technology, and calls for complete cessation of even field tests that are a crucial part of the research and development activities. Such a damning condemnation of one of the truly transformative technologies of our times without a sound scientific rationale is unprecedented in the annals of Indian agriculture. If accepted as a public policy of the country, it will set the clock backwards and will stifle a decade's growth of the country's agriculture. The report's criticism that GM technology only benefits its purveyors, and does not help India's poor farmers seems to have been borrowed from the anti-GM propaganda, that is not based on any empirical evidence.

The report claims to have received thousands of submissions from all stakeholders, but has given a short shrift to the knowledgeable expert voices of the scientific community, who are the most qualified to assess the technology's risks and benefits. In fact, social scientists of the Indian Council of Agricultural Research (ICAR), Centre for Economic and Social Sciences (CESS), Hyderabad, Andhra University, Gokhale Institute, Pune, Indian Institute of Management, Ahmedabad, International Food Policy Research Institute (IFPRI), Washington, and Cornell University have all demonstrated in their scholarly reviews and articles that GM technology and Bt cotton in particular are scale neutral and also have provided empirical evidence to suggest that, this technology, which is endowed in the seeds, benefits all sections of the farming community.

The report targets the highly successful Bt cotton as a disaster for Indian farmers, and blames it entirely on farmer suicides in the Vidharbha region, without a shred of evidence. On the contrary, the empirical field data published by the International Food Policy Research Institute (IFPRI), Washington and the Center for Economic and Social Sciences (CESS), Hyderabad and a recent research publication in the Proceedings of US National Academy of Sciences have all provided facts and figures to show that Bt cotton has helped all strata of Bt cotton farmers in India.

India today ranks second in cotton production; thanks to the Bt cotton technology. The fact that more than 95 percent of the cotton growing areas in the country is planted with Bt cotton by thousands of cotton farmers, resulting in a 40 percent usage reduction in the total chemical insecticides, that have not been taken cognizance of. The net result is protection of the environment, human exposure to the insecticides, and measurable socio-economic benefits. The above ground realities have been completely ignored by the committee, and it has wrongly recommended that Bt cotton cultivation should be banned in the country.

Lopsided Indian agri milieu

India's agriculture is considered to be one of the most laggards in the world, according to the UN-Food and Agricultural Organizations. To quote India's eminent agricultural scientist Dr MS Swaminathan, India's green revolution is fatigued, and yields have stagnated since the eighties. India's food security is already at stake, and severe food shortages will follow starkly reminding us of famines of the sixties. Modern biotechnology is one of the two technologies that have come to the rescue of agriculture, the first one being the green revolution, and to foreclose this transformational technological option based on false propaganda, by a committee of parliamentarians is nothing but a recipe for disaster for the nation.

The GM crops are not a â€œpanacea,â€? which is something everyone has been saying for decade, but can be an eminent part of the solution. With respect to Bt brinjal that is under an indefinite moratorium, it is foolhardy to believe that India has over 2200 varieties of brinjals that would take care of all future needs of the country. There may be accessions in the gene bank, but there are no more than 200 authentic brinjal varieties in the country, most of which have gone out of cultivation. The fact is that more than 70 percent of brinjals cultivated are hybrids, and Bt brinjal comes not only in hybrids, but also in open pollinated varieties; thanks to the efforts of the two agricultural universities of Karnataka and TamilNadu.

As much as it is valuable to have diversity in a crop variety, it is also equally important the method of their cultivation by minimizing the environmental impacts and reducing the carbon footprint. Farmers grow crops that will fetch them good remuneration in the market. If there are no takers for all sorts of varieties, why would anyone be foolish to grow them? For the past several years, Bt cotton has been sold in the range of 750-900 per acre, a price set by the state governments, and all hybrid cotton seed companies also make available non-Bt cotton seeds, if one is interested. Most cotton farmers have opted for Bt cotton for obvious benefits, and therefore there is no demand for non-Bt seeds in certain markets. However, the triumph of Bt cotton is undeniable. It is really mysterious how the committee finds that Bt cotton has been disaster to farmers!

Regulations are double-edged sword

The report castigates the regulatory system in the country without properly analyzing the scientific basis on which it functions. It recommends the Norwegian system at the behest of the anti-GM lobby. Norwegian system does not work in Norway itself, as that country has never allowed any GM crop cultivation. It is only some academics at the University of Tromso lead by Terje Traavik of GenOk, who have been propagating their own brand of regulatory reviews of GM crops that has not been accepted even by the European regulators. Indian anti-GM lobby likes that system because it does not clear any GM crop to be commercialized. This is a simple mechanism to kill GM technology in the name of biosafety and environmental risk assessment. Regulations are a double-edged sword; it can be used to promote safe deployment of technology or used to kill the technology development. The Bt brinjal decision by the two

regulatory bodies of the country, RCGM and GEAC were taken after two expert committee's reports where all scientific concerns had been addressed thoroughly. RCGM and GEAC have acquitted themselves ably, but not in the eyes of the anti-GM lobby who would like to see that India's regulatory system tie up products of biotechnology in regulatory testing from here to eternity.

GM technology is not a monopoly of one company as alleged by the chairman of the committee. Six biotech majors are marketing the technology products around the world, and more than forty Indian seed companies are marketing GM crops developed by three different technology providers. The proposed Biotechnology regulatory Authority of India (BRAI) bill has been drafted after several years of public consultations, and it will be a shame to dilute it due to pressure from the anti-GM lobby.

The path ahead

The chairman gives away his true political colors by saying that government's neo-liberal policies is responsible for India's agrarian crisis, and thinks that modern biotechnology developed by US based MNC will further drag down India's farmers. This is a fallacious political argument that is not based on any empirical data.

India is committed to marshaling the biotechnological tools to improve nation's agriculture, environment and public health. It has a dedicated Department of Biotechnology for the past twenty-five years with a multi-million dollar budget to promote developments in biotechnology, and the department has also a definite policy plan in place. All of that will be negated, if this report is accepted. It is a retrogressive report that the government will be wise to discard. Instead, the government should invite real scientific experts and social scientists to draw up a visionary blueprint for launching India's agriculture on a truly progressive trajectory in the 21st century and beyond.

About the author

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