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The final report of the Supreme Court-appointed Technical Expert Committee (TEC) on field trials of genetically modified crops is packed with revelations on what is wrong with institutional governance and regulation in India when it comes to GMOs (genetically-modified organisms). The report's release late last month came days before biotech giant Monsanto decided not to submit any further applications for GMOs to the European Union; a decision forced by non-acceptance on scientific grounds and rejection by civil society.

Remarkable consensus

The TEC Final Report (FR) is the fourth official report which exposes the lack of integrity, independence and scientific expertise in assessing GMO risk. It is the third official report barring GM crops or their field trials singularly or collectively. This consensus is remarkable, given the regulatory oversight and fraud that otherwise dog our agri-institutions. The pervasive conflict of interest embedded in those bodies makes sound and rigorous regulation of GMOs all but impossible.

The four reports are: The 'Jairam Ramesh Report' of February 2010, imposing an indefinite moratorium on Bt Brinjal, overturning the apex Regulator's approval to commercialise it; the Sopory Committee Report (August 2012); the Parliamentary Standing Committee (PSC) Report on GM crops (August 2012) and now the TEC Final Report (June-July 2013). The TEC recommends that in general, there should be an indefinite stoppage of all open field trials (environmental release) of GM crops, conditional on systemic corrections, including comprehensive and rigorous risk assessment protocols. The report includes a specific focus on Bt food crops.

It also calls for a ban on the environmental release of any GMO where India is the centre of origin or diversity. It also says herbicide tolerant (HT) crops, targeted for introduction by the regulator, should not be open field-tested. The TEC "finds them completely unsuitable in the Indian context as HT crops are likely to exert a highly adverse impact over time on sustainable agriculture, rural livelihoods, and environment."

The PSC report which preceded that of the TEC was no less scathing: it was "[...] convinced that these developments are not merely slippages due to oversight or human error but indicative of collusion of a worst kind [...] field trials under any garb should be discontinued forthwith".

Sound science and factual data form the basis of the TEC decisions. There is practical and ethical sense too. The TEC insists that the government bring in independence, scientific expertise, transparency, rigour and participative democracy into GMO regulation and policy. The accent is on bio-safety.

Assessment and performance

GMOs produce "unintended effects" that are not immediately apparent and may take years to detect. This is a laboratory-based, potent technology, described by WHO as "unnatural." The risk assessment (RA) protocols for GMOs are an evolving process to be performed by qualified and experienced experts who must be responsive to the latest scientific knowledge. The fact is

that GMOs involve us in a big experiment in the idea that human agencies can perform adequate risk assessment, which, it is expected, will deliver safety at every level/dimension of their impact on us — the environment, farming systems, preservation of biodiversity, human and animal safety.

After 20 years since the first GM crop was commercialised in the U.S., there is increasing evidence, not less, of the health and environment risks from these crops. Furthermore, we now have 20 years of crop statistics from the U.S., of two kinds of crops that currently make up over 95 per cent of all GM crops cultivated globally, (like Bt cotton) Bt and HT crops. The statistics demonstrate declining yields. GM yields are significantly lower than yields from non-GM crops. Pesticide use, the great “industry” claim on these GM crops, instead of coming down, has gone up exponentially. In India, notwithstanding the hype of the industry, the regulators and the Ministry of Agriculture (MoA), Bt cotton yield is levelling off to levels barely higher than they were before the introduction of Bt.

It takes roughly \$150 million to produce a GMO against \$1 million through conventional breeding techniques. So where is the advantage and why are we experimenting given all the attendant risks? We have hard evidence from every U.N. study and particularly the World Bank-funded International Assessment of Agricultural Knowledge and Science for Development Report, which India signed in 2008. The IAASTD was the work of over 400 scientists and took four years to complete. It was twice peer reviewed. The report states we must look to small-holder, traditional farming to deliver food security in third world countries through agri-ecological systems which are sustainable. Governments must invest in these systems. This is the clear evidence.

Conflict of interest

The response to the TEC Final Report came immediately, with the Ministry of Agriculture strongly opposing the report. The MoA is a vendor of GM crops and has no mandate for regulating GMOs. The same Ministry had lobbied and fought to include an additional member on the TEC after its interim report had been submitted. That ‘new’ member came in with several conflicts of interest, his links to the GM crops lobby being widely known. His entry was in fact a breach of the Supreme Court’s mandate for an independent TEC and provoked me to file an affidavit in the court, drawing attention to this. Oddly enough, he did not sign the final report, or even put up a note of dissent. This allowed the final report, then, to be unanimous; as indeed was the TEC’s Interim Report submitted by the original five members.

The Indian Council of Agriculture Research (ICAR) promotes PPPs (Public-Private-Partnerships) with the biotechnology industry. It does this with the active backing of the Ministry of Science and Technology. The MoA has handed Monsanto and the industry access to our agri-research public institutions placing them in a position to seriously influence agri-policy in India. You cannot have a conflict of interest larger or more alarming than this one. Today, Monsanto decides which Bt cotton hybrids are planted — and where. Monsanto owns over 90 per cent of planted cotton seed, all of it Bt cotton.

All the other staggering scams rocking the nation do have the possibility of recovery and reversal. The GM scam will be of a scale hitherto unknown. It will also not be reversible because environmental contamination over time will be indelible. We have had the National Academies of Science give a clean chit of biosafety to GM crops — doing that by using paragraphs lifted wholesale from the industry’s own literature! Likewise, Ministers in the PMO who know nothing about the risks of GMOs have similarly sung the virtues of Bt Brinjal and its safety to an erstwhile Minister of Health. They have used, literally, “cut & paste” evidence from the biotech lobby’s “puff” material. Are these officials then, “un-caged corporate parrots?”

Along with the GM-vendor Ministries of Agriculture and Science & Technology, these are the expert inputs that the Prime Minister relies on when he pleads for “structured debate, analysis and enlightenment.” The worrying truth is that these values are absent in what emanates from either the PMO or the President.

Ministries, least of all “promoting” Ministries, should not have the authority to allow the novel technology of GMOs into Indian agriculture bypassing authentic democratic processes. Those processes require the widest possible — and transparent — consultation across India. With GMOs we must proceed carefully, always anchored in the principle of bio-safety. Science and technology may be mere informants into this process. After all, it is every woman, man and child, and our animals, an entire nation that will quite literally have to eat the outcome of a GM policy that delivers up our agriculture to it: if a GMO is unsafe, it will remain irreversibly unsafe. And it will remain in the environment and that is another dimension of impact.

(The author is the lead petitioner in the Supreme Court for a moratorium on GMOs and in which case the TEC was formed. She can be reached at: arunarod@gmail.com)

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