

EXPERT VIEW

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BT BRINJAL BAN A COSTLY MISTAKE

Five years ago, on 10 February, India's then minister of environment Jairam Ramesh announced a so-called temporary moratorium on the commercial release of Bt Brinjal (a genetically modified or GM crop), which was approved by two Expert Committees (EC I and II), a special committee of 17 experts suggested by then prime minister Manmohan Singh, and finally by a statutory body called the Genetic Engineering Approval Committee (GEAC).

His interventions have not been challenged in a court of law, even to this day, but Ramesh is responsible for setting India's agricultural development agenda back by decades. His fateful decision five years ago was based on nothing but political conditions created by the anti-GM lobby, and had no scientific reasoning. The anti-GM lobby has been politicizing GM crops technology for years, and not just in India. Interestingly, Ramesh himself has at least once, in a column he used to write for *India Today* magazine before he became a minister, spoken of the benefits of genetically modified versions of rice. But in 2010, he was not willing to listen to prime minister Singh, who chaired a meeting of agricultural scientists to sort out the Bt brinjal issue. Chavali Kameswara Rao of the Foundation of Biotechnology Awareness and Education has written about the Bt brinjal case in his paper *Moratorium on Bt Brinjal - A Review of the Order of the Minister of Environment and Forests, Government of India* (<http://mintne.ws/1wVvQBv>).

The environment ministry's temporary but open-ended moratorium had no basis in global scientific consensus. It drew from the playbook of the anti-GM non-governmental organisations (NGOs) that have created a parallel world of science of their own. It ignored India's Inter Academies' report on GM crops because it did not support the case for a ban. It cherry-picked only supportive comments from among more than 60 comments received on Bt brinjal. And it leveraged to its advantage the fact that India's best-known agricultural scientist, M.S. Swaminathan, did not come out unequivocally in favour of Bt Brinjal.

The ban also ignored the tests. These were carried out according to best international standards by not only the seed company, but also by Indian Council of Agricultural Research (ICAR) laboratories over eight years.

COLUMN One reason proffered for the ban was that a multinational companies would have a monopoly over the seeds—a generic complaint against all GM crops and one that is fallacious. Another was that brinjal is especially important to India's biodiversity. Swaminathan mistakenly suggested that brinjal originated from India. In fact, brinjal's origin is in Africa, according to the latest molecular evidence of its origins.

Ramesh's articulated stance that the Bt brinjal moratorium should not be misconstrued as a hindrance to biotech research and development (R&D) is a joke. More than ₹12,000 crore of investments in biotech R&D have dried up since the moratorium. The scientific community is completely demoralized, as are students.

If Ramesh's desire was to have in place a strong biotech regulator, he should have created one, after piloting legislation through Parliament.

The idea that green revolution was achieved by the public sector and therefore, private sector should not be allowed to dominate the modern agri-biotech sector is the age-old war cry of leftist and socialist NGOs. For decades since independence, there was no private sector in India worthy of really contributing to the nation's growth and development. Therefore, the government had to step in and kickstart many industries. That is not the case in the 2000s. India's seed industry is vibrant and has sustained the country's agricultural growth thus far. Modern science and technology is being increasingly developed by the private sector with significant investments in R&D. Besides, the complexities of developing an advanced technology product is simply beyond the ability of the public sector. Leading biotech MNCs spend billions of dollars on R&D whereas the total spending of India's government on biotech R&D is lower than that of even one company's. India's public sector can be good at basic research, and commercialization is best left to the private sector. The bogey that the public sector must dominate agri-biotech sector is a fallacy designed to prevent India from achieving its potential in agriculture.

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