



Monthly Bulletin
on Genetic Engineering
February 2010

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Contents

GE National News

1. SAGE REJECTS BIOTECHNOLOGY REGULATORY AUTHORITY BILL
2. GOVT MOOTS JAIL FOR GM FOOD CRITICS
3. EXPERT DEBUNKS GM CLAIMS!
4. BT BRINJAL & THE POLITICS OF KNOWLEDGE
5. THIRD WAR OF INDEPENDENCE AVERTED!
6. MONSANTO 'FAKES' DATA!
7. THE GENE GUN AT YOUR HEAD!
8. GM FOOD DEBATE HOTS UP AGAIN

GE World

9. SCOTLAND HAILS INDIA
10. "HEAD OF THE UNDP GETS IT RIGHT ON AGRICULTURE"
11. BRAZILIAN FARMERS DECLARE WAR AGAINST MONSANTO

GE National News

1. SAGE REJECTS BIO TECHNOLOGY REGULATORY AUTHORITY BILL

Even while some of the most important legislations such as the Women's Reservation Bill and the Food Security Bill are crying for an early passage in the Parliament, the Government has shown a surprising hurry, almost bordering on obscenity, to introduce a new Bill called the Biotechnology Regulatory Authority of India in the current session of Parliament. It does not need a detective's skill to understand the reason for this urgency. The national debate around Bt Brinjal steered by the Environment Minister Shri Jairam Ramesh and the direction in which it moved the national consensus has put the cat among the genetically engineered pigeons. They are now ready to fight for their life; hence this coordinated aggression with their political agents.

The BRAI, still shrouded in secrecy, has a number of most disconcerting provisions that cause profound concerns among all of us who are demanding a democratic debate on the need to bring in genetic engineering technology into the arena of food and farming in India. The Bt Brinjal debate was the first of its kind and offered a glimmer of hope that we, as citizens of this country, can participate in making the decisions on what we grow and eat. But even before this glimmer can grow into a beacon, efforts are afoot to extinguish it by introducing the draconian BRAI Bill.

There is a need to look at the introduction of this Bill in the context of the developments that have taken place in the past week. The most significant is the letter shot off by the Agricultural Minister Mr Pawar, who has complained that "significant investment had already been made by private and public organisations in developing BT crops and all that would go waste if GM cultivation was banned." Similar is the argument of the Science and Technology Minister Shri Prithviraj Chauhan, who is reported to have argued that "the moratorium was sending out wrong signals and was stopping investments in Indian agro-technology."

The other important development is the intervention of the PM's economic advisory group led by one of our coldest economic thinkers, Dr Rangarajan. This Group has come up with the advice that "After the success of Bt cotton and the benefits it has brought to farmers in Gujarat and Maharashtra, it is imperative that the government must have a clear policy on genetically modified crops," The council has also urged the government to ".....bring the results into the public domain at the shortest possible time",

The insistence on shortest possible time is significant for the reason that it is symptomatic of a stock market approach and not that of a sound science. Sound science in food, medicine and agriculture always looks at long term impacts of any organism introduced into environment, food and health systems. Short cutting this process can only result in unprecedented harm our environment, health and food systems.

All the above are not isolated, stray remarks or developments. They are very coherent, organized, and orchestrated attempts to push the GE agricultural policy to mutate and morph as an economic argument with scant regard to the issues of citizens' health and what we grow and eat; nor has there been any concern shown for the natural environment of the country's farming landscape. The overriding and dominant concern, sadly, is for the economic investment, whatever the cost!

This is a dangerous argument by itself. But the fact that this is being obviously forced by the biotechnology industry and their masters in the USA is scary. The way the Bill is being fashioned is an indication to this distance learning of its framers.

How does BRAI want to treat the environmental citizens of this country who would like to voice their concerns against genetic engineering? Read the following clause in the Bill:

63. Whoever, without any evidence or scientific record misleads the public about the safety of the organisms and products

specified in Part I or Part II or Part III of the Schedule I, shall be punished with imprisonment for a term which shall not be less than six months but which may extend to one year and with fine, which may extend to two lakh rupees or with both.

Reading this, one doesn't believe that one is living in a democratic country! Are the pressure, clout and power of the multinational agrochemical corporations and their government in the USA so powerful that our government is turning this country into a banana republic? We knew and had heard that in the Latin American countries which were completely dependent upon the USA for their economic survival, such USA-compliant laws were enacted to enforce a complete ban on dissent. But imagine similar laws in India, an emerging Economic Tiger! Just Unbelievable!.

What is the purport of this clause? What kind of evidences are admissible before an environment activist like me or a media person like you are put behind bars for pointing to the dangers of GE foods? The very core of the BRAI mandates the Authority to make a science-based evidence to clear any biotechnology product. The term science based itself is contentious, especially in the context of "modern biotechnology" the cause of which the Bill espouses.

Increasingly, the world over, the problems and limitations of Genetic Engineering are being seen clearly by all reputed world bodies. In the International Assessment on Agricultural Science and Technology for Development [IAASTD], in which over 400 world class scientists participated under the banner of the World Bank, FAO, WHO, UNESCO etc., there was clearly a refusal to endorse genetic engineering as a solution to food security. Last week, the Head of UNDP Ms Helen Clark, who was formerly the Prime Minister of New Zealand, clearly said, "I don't think GE is the solution to the food security problem. Instead, I recommend more funding for agriculture that emphasizes solutions to the problems faced by poor farmers".

While this rethinking and soul searching is going on in the civilized sectors of the world, one of the hotheads of the GE industry who is on the payrolls of a major agrochemical company recently termed the revered scientist Dr P M Bhargava "senile" for opposing Bt Brinjal. Far more ominous is the fate encountered by the evidences brought by the Centre for Science and Environment [CSE] against the soft drinks Coca Cola and Pepsi. All the diligent research done by the CSE was demolished by the soft drink giants saying that India had no capacity to test their drinks. Similar arguments will be presented by the GE industry by creating a plethora of protocols and procedures if someone challenges them. For them science is what is defined by their market mechanisms. Science is not necessarily truth if it is opposed to them. This is the environment that will confront us tomorrow once the BRAI becomes an Act.

In the BRAI, the people who will decide what organisms can be permitted, imported and field-trialed will be a group of three who will all be composed of scientists in the area of biotechnology or medicine or industrial science. It has no place for environmentalists, farmers or food consumers. Thus, all our rights to decide for ourselves what we farm and what we eat will be snatched away from us. And we cannot go to normal courts to challenge them. The BRAI will set up its own Appellate Tribunal which will have the jurisdiction to hear arguments on the issues concerning biotechnology. If one wants to appeal against the decisions of this Tribunal, the only court we can go to is the Supreme Court of India. Who will have the time, money and energy to go into such lengthy and expensive legal processes? This is the surest way of disempowering citizen activists of the country.

The list of booby traps embedded in BRAI is long and dark. The only way it can be countered is to say a clear no to it. We don't want a BRAI for this country. As Minister Jairam Ramesh said, giving the power to determine what we should grow and eat to a body of three persons is anti democracy and anti human rights. Therefore South Against Genetic Engineering calls on the government to quash the Bill even before it is tabled in the Parliament and earn

the respect of its citizens while restoring faith that this government respects democracy and the well-being of its citizens.

A detailed reason for the Rejection of BRAI by the South Against Genetic Engineering is separately attached.

[p v satheesh]

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2. GOVT MOOTS JAIL FOR GM FOOD CRITICS

<http://epaper.mailtoday.in/epaperhome.aspx?issue=1922010>

Draconian clause in biotech regulatory Bill aims at muzzling debate on safety of GM products

IF THE ministry of science and technology has its way, criticising genetically-modified (GM) products could land you in jail.

An Indian citizen who questions the safety of any GM food or medicine could be put behind bars for a minimum period of six months under a new law proposed by the ministry.

3. EXPERT DEBUNKS GM CLAIMS!

Shiv Chopra, whose name has become synonymous with food safety toured India last month, and addressed multicity meetings in Hyderabad, Bhubaneswar, Mysore, Chennai, Bangalore, and Kochi. Following are the reports filed from these cities.

<http://www.thehindubusinessline.com/2010/02/16/stories/2010021652331600.htm>

Demands third party insurance mechanism for GM food.

Hyderabad: A well-known genetic scientist from Canada has demanded that the

Governments and corporates promoting genetically modified food should evolve a third party insurance mechanism to protect the long-term interests of the people.

Strongly opposing the entry of the GM foods into India, Dr Shiv S. Chopra said a mechanism should be put in place as no one knew the consequences of such foods when they entered the agricultural and biological systems.

“Genetically modified food is not a solution for the hunger. It is not natural. You can do hybrids but transferring genes from one species into another is unnatural and will prove to be dangerous,” Dr Chopra, who represents Health Canada, told reporters here on Monday. Dr Chopra is in the city in connection with a multicity “Democratisation of GE debate” organised by anti-GM non-governmental organisations. After Hyderabad, the debate would be held in Chennai, Kerala, Mysore, Bangalore and Bhubaneswar in the next few days.

Stating that GM foods could cause serious diseases such as cancers and reproductive disorders in the long run, he said that the permission given to such foods in the US and Canada was no excuse for launching them in India.

Dr Chopra, the author of *Corrupt to the Core: Memoirs of Health Canada Whistleblower*, said usage of chemical pesticides and fertilisers had a debilitating impact on the quality of water. “It is not correct to say that chemicals would dramatically increase the yields. The success of Green Revolution was not because the farmers used chemicals. It was because of availability of water and power from the big dams and implementation of land reforms,” he said.

“If the claim that chemicals did the magic, why is that Uttar Pradesh and Bihar remained poor and why is that most of the country could not reap the benefits of the Green Revolution,” he asked.

Compares Bt toxin to snake venom.

Bhubaneswar: Canada-based eminent microbiologist Shiv Chopra today compared Bt

toxins to snake venom. He said the soil bacterium *Bacillus thuringiensis* (Bt) spits out poison only when it feels threatened.

But when its toxin-producing gene is incorporated into crops like brinjal, it produces poison all the while.

Currently touring India to share his views on genetic engineering (GE) and its hazards, Chopra was here today and had discussions on GE issues and massive implications of biotechnology and pesticides in agriculture.

He himself is a crusader who refused to be silenced about GE hazards and also on the subject of the GE bovine growth hormone for cattle to yield more milk and meat. It was due to his efforts that the GE hormone for cattle was banned in Canada and the European Union.

On Punjab's green revolution, he said it was only possible due to the skills of local farmers and today due to extensive use of chemicals the fertile land of Punjab has become barren. The chemical pesticides played havoc and some districts like Bhatinda have become 'cancer districts' due to pesticide side-effects, he added.

Today's science is peculiar which does not bother about dangers associated with the GE processes. Above all it is a sin and we have no right to intervene in the biological process of a living organism, he added.

The Centre might create regulations whereby any person criticising GM foods and crops without scientific evidence can be jailed, so the only way to fight such moves is 'satyagraha', he said.

Exhorts civil societies to oppose GM

Chennai: Efforts are in full swing to destroy Indian agriculture through genetic engineering, says Dr. Shiv. S. Chopra, a Canadian scientist while speaking on the workshop on GE Politics organized by SAGE at Chennai. A false propaganda has been spread for many times that agriculture production in Punjab was

because of Green Revolution. It is untrue. The land reforms, establishment of proper irrigation systems, free electricity during the British period and the agriculture knowledge and hard work of Punjab farmers was the main reason for the increased production. He observed that if GR is responsible for increased production in Punjab, then how is that increased production is not achieved in other states like UP and Bihar. The green revolution, in fact, has not only reduced soil fertility, but is threatening to make the soil sterile and unproductive. The unfair market prices have led to suicides of many farmers. The introduction of Genetic Engineering technologies will cause even more dangerous impacts on farmers and environment. Efforts are in full swing to introduce Bt Brinjal for commercial cultivation. This is the first food crop in the world. Respecting the feeling and sentiments of people, Mr. Jairam Ramesh has done a good job, and because of that the approval to Bt brinjal has been halted temporarily. Countries like America are trying to control Indian agriculture through this kind of efforts. If they control Indian agriculture, it will be very easy for them to put other countries in their control. The response of Civil Society Movement in India must be to oppose these moves. The world still remembers the freedom struggle of India. The world is now listening to India and the decision of India on GM. People are united and we will definitely win the battle.

Dr. Nammalvar, the organic farming proponent, Mrs. Sheelu of women collective also participated in the meeting.

Get in harmony with Nature

Bangalore: Food crops must be grown naturally for attaining self-sufficiency and not primarily for exports, scientist Shiv S. Chopra said on Sunday.

He pointed out that both our culture and agriculture have long been destroyed owing to corrupt systems ever since Lord Macaulay's time, which continues to date.

Mr. Chopra, a specialist in animal health and genetic engineering and author of the book "Corrupt to the Core", was speaking here on the theme "Health impacts and politics of

Genetically Engineered foods”, organised by South Against Genetic Engineering (SAGE) and Organic Farming Association Of India (OFAI)-K.

“Rural development and removal of poverty are goals which have been part of governmental agenda but have never been achieved in India. The food producers are starving, and it’s obvious that there are flaws in the approach. Still the solutions proposed continue to be corporate-oriented ones and this is affecting the G8 countries,” Mr. Chopra said and added that multinational corporations are descending on India, seeking profits through production of genetically modified food products.

Apart from GM products, hormones, antibiotics, slaughter house wastes and pesticides are the other products in the post-industrial revolution era, which are being dumped without sufficient studies to back their safety, said Mr. Chopra. When Bt brinjal was sought to be commercialised in India without proper studies to prove its safety, several scientists and agricultural universities approved the technology and made political statements to confuse the public.

Catch them young!

Kochi: Two lectures, one in the morning at Nature’s Life Hospital and the other at Rajagiri College were organised by INFAC and SAGE. Dr.Chopra said that agriculture must be made a part of elementary and secondary education so that the younger generation does not get hoodwinked by the hype and hoopla of the corporate world.

4. BT BRINJAL & THE POLITICS OF KNOWLEDGE

<http://business.rediff.com/column/2010/feb/15/rajni-bakshi-column-bt-brinjal-and-the-politics-of-knowledge.htm>

A moratorium on Bt brinjal is good. But it can still turn toxic if any one technology is pushed at the cost of a multi-dimensional approach to securing our food future, says Rajni Bakshi.

Eight years ago Bob Watson, the senior scientific advisor of the World Bank, found himself standing between two bitter opponents.

On the one side were executives of major seed and pesticide companies with their demands for a World Bank strategy that would promote biotechnology. On the other side were civil society organisations asking for a comprehensive development strategy to ensure food security.

Watson responded to this tussle by joining hands with the United Nations Development Program, World Health Organization and other UN agencies to set up a uniquely democratic multi-stakeholder process to study what agricultural technologies will enable every person on earth to be well fed.

That investigation, completed in 2008, should have saved India’s [Images] Environment Minister Jairam Ramesh [Images] from being caught in the crossfire over Bt brinjal.

Instead, confusion and conflict over our food future has intensified over the last few years. Why?

5. THIRD WAR OF INDEPENDENCE AVERTED!

<http://www.deccanherald.com/content/52512/third-war-independence-averted.html>

Dr P M Bhargava, one of the most unrelenting opponents of the commercial cultivation of Bt brinjal in India, believes that last week’s decision of the Centre makes the third war of Independence by India unnecessary.

“The first war was in 1857 which we lost; the second one we won and got independence. We would have had to fight the third war of independence if Bt brinjal cultivation was given the go-ahead. We needn’t fight it now,” he said in an interview here.

6. MONSANTO 'FAKES' DATA!

<http://indiatoday.intoday.in/site/Story/83093/India/Monsanto+%27faked%27+data+for+approvals+claims+its+ex-chief.html>

New Delhi - The debate on genetically modified (GM) brinjal variety continues to generate heat. Former managing director of Monsanto India, Tiruvadi Jagadisan, is the latest to join the critics of Bt brinjal, perhaps the first industry insider to do so.

Jagadisan, who worked with Monsanto for nearly two decades, including eight years as the managing director of India operations, spoke against the new variety during the public consultation held in Bangalore on Saturday.

On Monday, he elaborated by saying the company "used to fake scientific data" submitted to government regulatory agencies to get commercial approvals for its products in India.

7. THE GENE GUN AT YOUR HEAD!

HOW CAN A LOWLY VEGETABLE BE AN ISSUE OF NATIONAL SECURITY? IS THERE A FOREIGN HAND IN YOUR BELLY? SHOMA CHAUDHURY LAYS BARE THE COMPLEX STORY OF Bt BRINJAL AND HOW IT AFFECTS YOU

http://tehelka.com/story_main44.asp?filename=Ne060310coverstory.asp&id=1

IMAGINE THE lowly brinjal you have always known turning into a sci-fi gizmo — with an uncharted potency for good and evil. Imagine

a food turned into a pesticide — and you will have a measure of the essential uncertainty around Bt brinjal.

8. GM FOOD DEBATE HOTS UP AGAIN

<http://www.downtoearth.org.in/fullprint.asp>

Intro: *Gilles-Eric Seralini, one of the first scientists to warn the world about the dangers of genetically modified food, counters pro-GM scientists in an interview with savvy soumya misra*

Some scientists are planning to write to the Indian government, saying you never carried out any independent study and had no access to Bt gene of maize or brinjal. What do you have to say?

I was a referee to review the raw data of Mahyco (promoter of Bt brinjal) on health risks of the food crop. This was used by the Supreme Court and the Indian government. I have done this work for the French government and the European Union before commercialization of other GMOs. I discovered that Mahyco was admitting in its experiments significant effects on blood analysis of mammals that had eaten GM brinjal for 90 days only. I reviewed that and interpreted the effects differently from Mahyco. To me, there were clear effects reaching liver and kidney that could have been the same as during the development of a chronic pathology. The experiments performed by Mahyco were stopped after 90 days; so, it was impossible to see more. I asked for longer experiments.

GE World

9. SCOTLAND HAILS INDIA

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<http://www.scotland.gov.uk/News/Releases/2010/02/09165625>

India's decision to reject the cultivation of GM aubergines [Bt brinjal] has been welcomed by the Scottish Government.

Environment Minister Roseanna Cunningham said the decision was further evidence of growing concern about the damage GM could inflict on the environment.

The Indian Government earlier today (Tuesday) deferred a decision on GM aubergines, until further scientific tests have been carried out.

Ms Cunningham said:

"We know very little, if anything, about the long-term effects of growing GM crops. To take risks with our natural environment is wholly indefensible and irresponsible. We simply cannot afford to take risks with untested technologies.

"We are ready to stand shoulder to shoulder with other nations who are opposed to GM and fight for what our people want. It is clear that concerns about GM exist in the developing, as well as the developed world, and I am pleased to see that the Indian Government has listened to public opinion."

Countries who have already joined with Scotland in declaring their opposition to GM include Austria, Hungary and Ireland as well as many regions across Europe.

10. "Head of the UNDP gets it right on agriculture"

Professor Professor Jack A. Heinemann, Director, Centre for Integrated Research in Bio-Safety (INBI) endorses UNDP Chief's stand on GM.

The Chief Administrator of the United Nations Development Programme said today that world food security depended upon getting "back to basics" with agriculture.

Former New Zealand Prime Minister Helen Clark, who now heads the UNDP, spoke on what she saw as the solution to future food security problems. Responding to questions today on Zealand's national radio show Nine to Noon, Ms. Clark said that "smarter farming and production has got to be part of the solution".

When asked directly if she agreed with US Secretary of State Hillary Clinton's science advisor Dr. Nina Federoff that without GE (genetic engineering) the world would suffer future food shortages, she said "I don't think GE is the solution to the food security problem." Instead, Clark argued for more funding for agriculture that emphasised solutions to the problems faced by poor farmers. Public funding for extension services and agricultural research that improves productivity and yield had to increase rather than relying upon genetically modified organisms.

"I don't see [GE] playing a key part of a food security strategy."

-Helen Clark, UNDP Chief

Ms. Clark could have been reading straight from the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), the internationally peer-reviewed World Bank and UN report published last year after winning endorsement from 58 governments. This report represents the work of the largest research effort to date on the history and future of modern agriculture. Consistent with Clark's statements, the IAASTD also endorsed a renewed emphasis

on technologies that have proven track records for improving yield, reducing external inputs into agroecosystems, preventing the conversion of more land for agriculture and helping agriculture to improve the lives of poor and subsistence farmers.

Those kinds of technologies include conventional crop breeding, agroecological methods for increasing soil moisture retention and decreasing erosion, and intensification using more diverse cropping strategies and cover crops rather than fossil fuel-intensive fertilizers and damaging monocultures.

The giant agrochemical and biotechnology companies, along with Federoff, have been advocating reduced regulation and broader uptake of GE in order to feed the world. Clark noted, however, that using crops for biofuel was competing with crops for food. She concluded that “I wouldn’t jump to the conclusion that modified crops were the answer.”

11. Brazilian farmers declare War against Monsanto

<http://www.diariodecuiaba.com.br>

- In Cuiaba, Aprosoja is preparing a court action against Monsanto, and in Sinop, steps are being taken to follow suit

Growers in [the Brazilian State of] Mato Grosso have declared war against Monsanto, the multinational corporate owner of the GMO soya technology known as RR (Roundup Ready). After exhausting all attempts to engage the company in dialogue, the growers are now considering legal action. In Cuiaba, Aprosoja (the Association of Soya and Corn Producers Association of the State of Mato Grosso) is preparing a lawsuit. In Sinop (500km North of Cuiaba) the growers are looking to sue the company as well.

This monthly bulletin is brought out by South Against Genetic Engineering (SAGE), a coalition of civil society activists, farmers, scientists, academicians, and consumer groups of four Southern States of India, viz., Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra. SAGE has been waging a concerted battle against genetic engineering through a series of activities that involve public protests, media actions, seminars, consultations and publication of a series of educational materials.