

# Bt is a global pest

KANCHI KOHLI

**M**ANY regions in Asia and Africa witnessed the 'official' inroad of genetically modified cotton aka Monsanto's Bt Cotton, into farmers' fields in the first few years of the new millennium. A decade later, countless stories are being recounted of crop failure, regulatory discontent and corporate unaccountability.

On 16 and 17 January an Afro-Asian Conclave held in Hyderabad brought together farmers, agricultural scientists, lawyers, NGOs and concerned citizens from West Africa, South Asia and Southeast Asia to collectively imagine a world free of genetically engineered (GE) crops. Organised by Southern Action on Genetic Engineering (SAGE) and Deccan Development Society (DDS), the theme of the conclave was, 'Bt Cotton and Beyond: Status and Implications of GE Crops and post GE Technologies for Small Farmers in Africa and Asia.'

The conclave was attended by participants from Benin, Burkina Faso and Cote d'Ivoire (all in West Africa), Canada, Burma, Bangladesh, Indonesia and the Philippines besides Indian participants from several states. At the end of the meeting, the participants called for renewed Asian-African Solidarity to prevent the spread of GE technology and ideology.

Solidarity emerged after a range of issues, concerns and thoughts were discussed and participants drew parallels and learnt from each others real life situations. Broadly, there were five themes which emerged as major trends and caused common concerns.

The first set concerned the politics of genetic modification. It was noted that GE crops and foods are introduced in a very strategic manner in different regions. In some countries this has happened clandestinely. In countries like Indonesia, for instance, GE has been thrust upon people. Open public-private-partnerships including those being pushed by inter-governmental processes are playing a major role in making this possible. The Indo-US Knowledge Agreement on Agriculture in India and the Alliance for a Green Revolution in West Africa were two important examples which were cited.

Interestingly, the GE industry is essentially targeting two kinds of crops – main food crops and commercial export crops. The main food crops are staples like rice, corn, wheat, cassava, brinjal, sorghum etc. The main commercial export crops are those on which the livelihoods of farmers and national revenues depend, like cotton, for instance. The intention, said many participants from Africa, is to control food production, consumption and distribution by controlling seeds and food markets.

GE is being hardsold to countries with the 'convincing' argument that it will lead to increased yields, ensure pest control, reduce pesticides and allow for nutritional supplements in food. The



Protest against Bt brinjal

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most 'clinging' and 'benevolent' of these iterations are those which claim GE is the solution to feed the large number of hungry people across the world. Ironically, this claim resonates with the Green Revolution assertions – except that this time it will lead to greater private control of food and farming.

There was also a debate around the '(Non) Science of GM.' It was emphatically stated that GM is not a science but a mere technological application. Moreover, it is against organic evolution, biodiversity, farmers, and food sovereignty. GM seeks to merge genes of species which would have never mated naturally. It is a fallacy of sci-

ence that the impact of Genetically Modified Organisms (GMOs) can be contained and they will not contaminate farms which are cultivating crops with traditional seeds. It is against basic biological logic since natural pollinators don't know regulatory boundaries or physical fences as is being proposed through 'biosafety' regulations in different countries.

A crucial part of experience sharing were discussions on the impacts and failures of various GM crops. Participants from Indonesia pointed out that in 2001, according to data presented by the Head of Plantation Office of South Sulawesi, about 74 percent of the area planted with transgenic cotton in South Sulawesi had a productivity of less than one tonne per hectare. Not surprisingly, the company blamed the farmers and claimed they could not take care of transgenic crops.

What is ironic is that impacts and failures are sought to be resolved through 'creation and extension regulation of GMOs.' Dr. P.M.Bhargava, eminent scientist and member of India's Genetic Engineering Appraisal Committee (GEAC) said that there are six elements of biosafety regulations which are essential but most of them are missing in older or newly proposed laws. These are – needs assessment, assessment of alternatives, biosafety tests, liability laws, labeling laws and ensuring that the vendors of GM technology or seeds do not become regulators themselves. Other

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# Born to die

KAVITA KUMARI

INDIA is now officially the world's most dangerous place for the girl child. This appalling news, substantiated with new data released by the U.N. Department of Economic and Social Affairs, immediately hit the headlines. But disappearing girls is not a new phenomenon. Over the years, India has attracted global attention for its preference for the male child. The country has not only retained the infamy but has gone on to become the world leader in this horrible trend.

The question is, despite several efforts invested by the Indian government at national and state level, why are we unable to arrest this trend? Why is the situation worsening despite laws to prevent female foeticide and numerous schemes to encourage families to have girl children? The answer reveals a truly dark picture of what goes on within the four walls of a home.

Female infanticide has existed long before sonography and abortion techniques arrived in India. Today, insensitive people of the same school of thought have devised new methods of putting a stop to the lives of young infants. And they are not dependant on doctors or machines.

On the freezing morning of 17 December, I witnessed a ghastly incident which so far I had read about only in newspapers or heard on TV. That day, the garbage dump in my neighbourhood became the graveyard for a newborn baby who was ferociously being wolfed down by canines, that too, in front of several "human beings". By the time I reached the site, the dogs had already ripped off the body of the baby. For a moment, everything around me came to a halt and later the inevitable feeling of vulnerability, agitation and melancholy overwhelmed me into frozen inaction. How could anyone do this to their own child?

I informed a local news channel in the hope that the police will follow them. But much to my surprise they came, shot the video and left saying "we have covered the news, thank you." No action was taken and that hapless newborn became simply another 'breaking news' item.

This is not an isolated case. Pick up any newspaper around you and there are numerous such cases reported – a mentally ill father drowning his girl child in a drain in Delhi and a two-month old

girl found abandoned in Haryana.

Each state in the country, it seems, has chillingly evolved its own unique ways of killing baby girls – drowning the infant in a bucket of milk, feeding her salt or burying her alive in an earthen pot are few of the "easier" methods used to get rid of the baby.



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While visiting areas where female infanticide is practiced in India, Gita Aravamudan, author of the book, *Disappearing Daughters*, observed that traditional methods of female infanticide can often be traced successfully, enabling investigations to be launched against the perpetrators.

According to Aravamudan: "[To avoid arrest]

families adopt more torturous methods of killing [infant girls]... inducing pneumonia was the modern method. The infant was wrapped in a wet towel or dipped in cold water as soon as it was born or when it came back home from the hospital. If, after a couple of hours, it was still alive, it was taken to a doctor who would diagnose pneumonia and prescribe medicines which the parents promptly threw away. When the child finally died, the parents had a medical certificate to prove pneumonia. Sometimes the infant was fed a drop of alcohol to create diarrhoea – another 'certifiable disease.'"

This is the level where human sensitivity has stooped today.

The PCPNDT (Preconception and Prenatal Diagnostic Techniques Act) Act 1994, was modified in 2003 to target the medical profession. What we have achieved or not achieved by our laws is reflected in current statistics. Much hard work has gone into researching the reasons behind such cruel acts. Social and economic factors were found to play a crucial role. During her research, Aravamudan found that there was a strong link between female foeticide and wealth, education, success of family planning and medical progress.

What makes the fight harder is the involvement of fairly educated people. No law can change the mindset of people which education has failed to alter. Does this situation indicate a hopeless future? If this trend of killing the girl child, inside or outside the womb continues the entire country will bear the consequences.

More than education, we need to create awareness on the issue in every state, in every region. Community efforts are required to bring about that change which no law or education has succeeded in bringing till now. Women themselves need to come forward and fight for the rights of their girl child. Men should participate equally in the cause. If not taken seriously, the day is not far off when no girl will be available – no daughter, wife, sister or friend. A boy from Haryana bringing a girl from Orissa to get married due to a scarcity of girls in his region is just the beginning. ■

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participants pointed out that public consultations and consent is completely missing from regulatory processes across the two continents.

The manner in which GM regulation is being encouraged is suspect. Francis M. Ngang from COPAGEN in West Africa warned participants that there seems to be a hidden agenda in putting biosafety regulations into place. The process is being supported by agencies like the World Bank and USAID which endorse GMOs. He said that establishing regulation is seen as a means of facilitating the entry of GM crops into regions. It tram-

ples on the sovereignty of local and national governments which can otherwise decide to reject GMOs altogether.

There are also new and emerging threats on the horizon – genetically modified animals, nanotechnology, synthetic biology and geo-engineering. Lucy Sharratt from CBAN, Canada, emphatically stated that 'Enviropig' and GM Atlantic Salmon are seriously being considered for introduction in Canada. Neth Dano from the ETC Group in the Philippines raised concerns about the invention of geo-engineered trees. GE too had been shrugged off as science fiction and it

became a reality, she warned. She noted that nanotechnology is already in our lives – take sunscreen, for instance.

Finally, the only hope in building these solidarities is growing resistance against GE and GMOs by farmers and citizens all over the world. There are efforts to declare GM Free Zones in the Philippines and in Indian cities such as Mysore in Karnataka. There are also consumer awareness campaigns. The movement against GM is intensifying. ■

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