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Contaminated crops

By TAN CHENG LI

THAT there is an international agreement on biosafety underscores one fact – that use of genetically modified organisms (GMOs) comes with risks. Over the years, these risks have manifested themselves in different ways, as potential threats to human and environmental health, as well as the social fabric of local communities.

For instance, in Mexico, genetically-modified (GM) maize has found its way into farms growing traditional varieties, despite the fact that since 1999, it is illegal to plant GM maize. The contamination threatens the diversity and genetic integrity of maize varieties in Mexico which is the crop's centre of origin.

In Europe and North America, unapproved engineered strains of maize and rapeseed have entered conventional seed stocks. In Brazil, smuggled GM soybean was grown illegally, creating problems for farmers and exporters who want to supply non-GM soybean products.

These cases illustrate the potential hazards posed by GMOs but more importantly, point to an urgent need for strict rules on liability and

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redress for damage resulting from transboundary movements of Living Modified Organisms (LMOs).

This issue is a major focus of the ongoing First Meeting of Parties to the recently-enforced Cartagena Protocol on Biosafety (MOP1).

The Protocol aims to protect biological diversity from potential risks posed by GMOs or LMOs, resulting from modern biotechnology.

During MOP1, parties have to initiate the process of developing an international regime on liability and redress, and complete it by 2008. Towards this end, MOP1 is expected to outline the scope of work for an expert group to elaborate on various options for the international regime.

This appears to be a simple enough task but with some parties against having a strict regime, the issue has generated heated debate. The main opposers to an international regime are producers and exporters of GMOs, according to Lim Li Lin, a researcher at Third World Network, a coalition of groups working on development issues.

“They argue that national product liability laws are sufficient for dealing with the hazards of GMOs. On the other hand, most developing countries say there can be no effective regulation of GMOs without a specific international regime which places the responsibility squarely on the shoulders of those who produced, released and exported the GMOs,” she says.

Juan Lopez of Friends of the Earth International says any biotech corporation or entity releasing GMOs into the environment should be liable for any damage to the environment, human health or livelihoods of citizens and farmers.

He says the Protocol should reflect the reality of what is happening today. “The threat of damage from GMOs is real and an international regime is urgently necessary because contamination knows no boundaries. Damage derived from the cultivation of GM crops is already occurring today. Farmers’ livelihoods are already affected due to contamination by GM crops.”

He argues that international rules are needed as existing legal systems for liability and redress are inadequate to tackle the problems which the introduction of GM crops has triggered.

The concern is that LMOs or GMOs are living organisms which when released into the environment, can multiply. They can spread their genes to traditional varieties of crops and wild relatives. And there is no way to clean up that contamination. Starlink, a variety of maize not approved for human consumption in the United States, contaminated food products and maize seeds three years ago. It is still found in 1% of maize samples tested by the US government.

Ironing out the details

Details of the liability and redress regime are now up for negotiations. Outstanding matters include who is to be made liable (the exporter or the state) and to whom is liability owed. There are also questions on the type of damage, the threshold of damage and who has the right to bring claims.

Groups are also pushing for absolute liability which will hold the exporter responsible for the full consequences of their action to trade GMOs internationally.

“Because we don’t know the extent of damage, following the precautionary principle, we should

follow strict liability," says Dr Philippe Cullet, programme director of the International Environmental Law Research Centre in Switzerland.

He says the proposed regime must also consider the issue of patent liability as most GMOs are protected by intellectual property rights, leading to possible liability on the part of farmers. This is seen in the 1998 case where a farmer was found guilty of planting Monsanto's patented GM canola without a licence. The farmer, however, had claimed that his crops were contaminated by transgenes. Cullet argues that discussions on liability and redress should not be examined only from an environmental viewpoint. He says the socio-economic element deserves attention too. For instance, organic farmers may lose crops and certification if their fields were contaminated by GM crops planted elsewhere.

In the United States, there are already releases of biopharmaceutical crops which are genetically engineered to produce pharmaceutical proteins and chemicals, with a risk of damaging human and environmental health. Two cases of crops contaminated with maize engineered to produce pig vaccine was announced by the US Department of Agriculture in December 2002. In one case, 500,000 bushels of soybeans worth US $2mil (RM7.6mil) had to be destroyed. In the other incident, 63ha of contaminated maize field had to be burned.

The liability implications of drug-producing crops are stark, which is why groups say an international regime on liability and redress is needed to deter risky technologies.

Right now, what constitutes "damage" is still being discussed but geneticist Dr Doreen Stabinsky says many parties seek a broad

definition as little is known about the potential problems which can result from escaped GMOs.

The science advisor at Greenpeace International says no insurance companies have said that they would provide cover for damage resulting from GMOs. Urging for comprehensive rules on liability and redress, she says these must cover all damage resulting from LMOs, including the cost of restoring damage to the environment, loss of or damage to property and loss of profit.

Citizens, non-governmental groups and indigenous and farming communities should have the right to file compensation claims for damage and the polluter ought to pay.

Since parties have four years to finalise the rules, Greenpeace suggests that an interim liability regime be established, including an interim compensation fund raised by exporters and importers. It says importing countries should refuse imports of LMOs until a comprehensive liability and redress regime is adopted.

Tied to the issue of liability and redress is compliance with provisions in the Protocol.

At MOP1, delegates have to finalise the procedures and mechanisms to promote compliance and to address cases of non-compliance. It is expected to elect a compliance committee to carry out these functions.

But not all countries want the compliance procedure to have teeth. They also disagree in the area of “differentiated responsibility”.

According to a Malaysian official, some parties, including Malaysia, want the compliance mechanism to differentiate between developed and developing countries since the latter lack

monetary and technical capacity which are common reasons for non-compliance. Delegates also cannot agree on the use of sanctions for non-compliance.

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