

during the growth and development of plant species? To overcome serious environmental risks from transgenic insecticidal plants, more eco-friendly approaches of pest management should also be encouraged to combat both primary and secondary pests by allelopathic plant as intercropping tool, shift in the date of planting/sowing, spacing between rows and plant (solar management) to plant population, screening of superior resistant strains of plant species, change in the seasonal adaptation of the crop suitable to grow in different niches, avoidance of relay cropping and suitably mixed cropping patterns, development of new phyto-molecules as base

of new natural insecticides and use of potential insect natural enemies.

Nevertheless, ignoring public apprehensions, some agricultural funding agencies are laying emphasis on developing insecticide transgenic plants in different food, fibre and vegetable species at affordable cost to the government exchequer and have even developed national network system. Major drawback relates to planning and organization of safety data generation for genetically engineered plants that require inputs of multidisciplinary specialists for short- and long-term studies. In my opinion, a sound rational policy for safety data is urgently needed under the approved guide

lines of WHO, FAO, etc. to check unknown toxin pollution in man and environment.

1. Van, R. J., *Trends Biotechnol.*, 1991, **9**, 177.
2. Mcgaughey, W. H. and Whalon, M. E., *Science*, 1992, **258**, 1451–1455.
3. Hofte, H. and Whiteley, H. R., *Microbiol. Rev.*, 1989, **53**, 242.

DWIJENDRA SINGH

*Crop Protection Division,
Central Institute of Medicinal and
Aromatic Plants,
P.O. CIMAP,
Lucknow 226 015, India
e-mail: dsinghko@sify.com*

Post-disaster reflections

Parts of India have been devastated by an unexpected tsunami on 26 December 2004. This comes in the wake of the Bhuj earthquake and the supercyclone at Orissa. The smaller and oft forgotten incidents occurring on a day-to-day basis, such as landslides can be mentioned on the side. After every major calamity, we (public, politicians, administrators, scientists) wake up to a grim picture.

Among the four classes of people, except for the most affected group in the public, the rest quickly forget the event. Politicians make the right noises and promises that would be broken soon. Administrators strive their best to help out, unless they are fettered by some obscure rules. But alas! The scientific community who could do the most also wring their hands in despair. The public (including tax-paying ones) expect more in terms of timely signals, forecasts of coming events (even if these are at times conjectural), necessary precautions and other measures. In short, the scientific society is looked upon for advanced warnings of the things to come. But many times there is a failure, in detec-

tion and/or communication of a devastation. It is disheartening that after every major catastrophe, scientists behave like 'ambulance chasers' and a project is smelt where none may have existed before nor where anyone was bothered about it. High-level meetings, discussions and brain-stormings occur. Ironically, disaster management groups are formed, although some may already be in place. High-tech instruments are ordered, which may entail a number of trips abroad. Ideas are traded and flung right and left, modellers have a field day, workshops and symposia are held. *Current Science* would be flooded with 'I said so' scientific papers. Of course, the ubiquitous rush of proposals for new projects and big funding are deliberated and sanctioned post-haste. Much of these activities die a natural death. In the event a project is sanctioned and by the time the results are out, the whole incident and purpose of the work is forgotten.

It is time to gird up our loins and be more proactive. Our science need not always be fundamental (nor for self-promotion), but should also be relevant and of societal

value. This could be achieved in a simple outreach programme such as by educating school children, people in disaster-prone areas, through public lectures, small booklets and by other means. Unfortunately, in the scenario of publish–promote–perish, these aspirations still appear to be distant dreams. Probably, we are doomed to have a cocooned existence and shut our eyes to the unpleasant situations. This unfortunate behaviour on our part is not only applicable to India, but also worldwide. We have much soul searching to do. Although there are lessons to be learnt by looking back, we need to look into the future and become 'whistle-blowers', prior to onslaught of any major catastrophe, for benefit of the society. Let not the kingdom be lost for want of a horseshoe.

SRIDHAR D. IYER

*National Institute of Oceanography,
Dona Paula,
Goa 403 004, India
e-mail: iyer@darya.nio.org*