

the archival data on past events in conjunction with on-line data. The recent trends in data dissemination are useful in planning emergency services. For example, the latest advances in seismic sensor technology, data acquisition systems, digital communication and computer hardware and software facilitate developing real-time earthquake information systems. In fact, real-time data dissemination should become a norm in all the fields. Free sharing of data is the backbone of any knowledge-based society. This may be a tall order for a country in which mere accessing of any data is difficult (including a simple topographic

map), and where releasing of data requires endorsements from various authorities.

In order to strengthen our disaster management capabilities, it is important that we have a pool of trained scientists and technologists. This gets complicated mainly because our university departments are water-tight compartments. It is high time that we allowed students to choose their optional topics even while majoring in one subject, and strengthened our training courses by updating the syllabus, allowing us to introduce newer topics. Interaction between research organizations, relevant university depart-

ments, non-governmental organizations and interested public/private companies must be encouraged for transfer of knowledge and expertise. All these cannot be accomplished overnight, but our leadership must first realize that scientific studies, proper engineering and public awareness are the fundamental pillars of an effective hazard mitigation strategy.

C. P. RAJENDRAN

*Centre for Earth Sciences,
Indian Institute of Science,
Bangalore 560 012, India
e-mail: cp.rajendran@yahoo.com*

Future of nuclear power in India

Considering the increasing roadblocks in the expansion of the nuclear power programme in the country, it is most appropriate to initiate a healthy dialogue amongst all stakeholders.

Per capita consumption of electricity of about 650 units in India is about one-fourth of the world average, 10% of European Union and 5% of USA. It is a clear indicator of the mammoth efforts needed to turn India from a developing nation to a developed one. We need to exploit all sources of power generation and preferably those which have lower emission of greenhouse gases. Nuclear energy, which is one of the cleanest sources, has eluded India for a long time due to reasons beyond the control of the Department of Atomic Energy (DAE). About 4% share of nuclear power of the total electricity produced in our country is dismal and is incidentally one-fourth of the world average (16%) and way behind developed countries like France (75%), South Korea (40%) and Japan (35%). Strong will displayed by the government to proceed with the Indo-US nuclear deal (in spite of numerous hurdles) and its resolve to settle the liability issue amicably have given a ray of hope that India may leap forward and increase the share of nuclear power to a respectful figure of the world average in the next few decades. However, the opposition of the so-called citizen groups, ambivalent stand of a few political parties and

gloomy global economy can thwart this dream. The government has already announced its intention to make the Atomic Energy Regulatory Board (AERB) independent of the DAE. Periodic audit of the safety features of our reactors (particularly those built in the sixties and seventies) by experts chosen by an independent AERB should go a long way to allay fears in the minds of the countrymen about the safety of our nuclear power programme. However, poor and gullible persons will continue to be exploited by theatric outbursts, half truths and misinformation spread by self-seeking leaders of civil rights groups in the name of protection of the environment. It is the collective responsibility of media (both electronic and print), scientific bodies like the Indian Nuclear Society, AERB and DAE to meet this challenge head on and counter the propaganda of some vested interests to block the industrial/agricultural growth of the nation. Awareness must be created among all sections of society (including teachers, doctors, lawyers, managers, elected representatives, students, etc.), preferably in regional languages, about the need for energy security by exploiting all clean sources of energy, including nuclear and renewable. It needs to be explained that the loss of human lives due to nuclear accidents has been much lower than those in coal-mine accidents per unit production of electricity. Spin-

offs of nuclear energy in societal benefit programmes in agriculture, medical and industrial sectors are numerous and indispensable for any developing society. Stalling the criticality of the Kudankalam power station at this stage when thousands of crores of public exchequer money has gone into the project, is to say the least just anti-national. One needs to ask where were these anti-nuclear groups when the project was announced and the work was in progress for more than a decade. It is unfortunate that the opposition to nuclear energy is more in India than in Japan, Russia and USA, where major nuclear accidents have occurred in the history of nuclear power. China, though started much later, has announced major nuclear projects and may overtake India in the near future if these groups are allowed to stall the projects at Jaitapur and Kudankalam. It will give a wrong signal and jeopardize the energy security of the nation for which future generations will hold us responsible.

VIJAY MANCHANDA

*P2/83, Zarina Park, Mankhurd,
Opp. Anushaktinagar Main Gate,
Mumbai 400 088, India
Present address: Department of Energy
Science,
Sungkyunkwan University, Suwon,
440-746, South Korea
e-mail: vkm25749@gmail.com*