



*Earthquakes in Italy are an age-old problem. While considerable resources are spent on relief and reconstruction for earthquakes and other disasters, relatively few resources have been committed for forecasting and prevention.*

*Left 1976 earthquake, Gemona del Friuli, Italy*

two groups enriches the organizational "culture" of each group. Researchers gain a better awareness as to effective practical needs, while service personnel are regularly updated with the latest scientific and technological advances.

The benefits of such an exchange are that technical service providers avoid becoming directly involved in research, while researchers see their work being applied, and receive quite a substantial inflow of data for further research efforts

### ■ Private sector support for technical services

The political world in Italy has been overly responsive to the lobbies of private companies, which sought contracts to conduct particular services and sell certain technologies. In the decision-making process, technical services were always bypassed. As a result, the political decision to subcontract activities to the private sector or acquire technology was not accompanied by controls over the real usefulness and effectiveness of these services or products during the phases of design, production or even job performance. For any country which has similar prevention needs, this negative Italian experience should provide people with food for thought.

National technical services need staff with sound design expertise, so they can assume initiatives and take part in constructive dialogue with people from the research world and the private sector. Design expertise within the technical services has a distinct advantage for private companies. Technical service staff, stimulated and supported by researchers, become involved in ongoing technological development. Technical services would then avail themselves of private companies for the supply of increasingly sophisticated instrumentation and for the execution of specific operations.

In this context, clear and swift procedures are needed for the awarding of contracts to ensure competition among numerous companies. And no bribes.

### ■ Working with NGOs

NGOs in Italy have mostly dedicated their efforts either to emergency relief in the wake of disasters, or, as in the case of environmental associations, to anti-pollution activities or the creation of natural parks. But there are ways for NGOs to be active in prevention and preparedness related to hydrology or seismology.

In Italy, we have started working with environmental NGOs

to collect data and take simple measurements, using large numbers of volunteers. One side benefit is that the volunteer training process increases prevention-oriented awareness and know-how among the general public.

I would also like to underline the role of environmental organizations as an instrument of political pressure to stimulate governments, which are inclined to pay little attention to the problems of prevention.

The limited amount of time available during the conference has allowed me only to briefly sketch several issues on the theme of cooperation between various sectors of society to establish sustainable disaster prevention programmes. Nonetheless, I hope that it has been useful to flag a series of problems between sectors, which, once clarified, can easily be resolved with the cooperation and commitment of all sectors concerned. ■

## Recommendation / Public Sector

### Technical Coordination

- ▶ **1-** The public sector should be the centre of disaster management partnerships. Design, coordination, monitoring and evaluation of technical services is the task of the government. The technical services department should set standards and initiate partnerships with other sectors.
- ▶ **2-** Research should be conducted by external institutes and universities. Their attention should not be drawn from research to implement piecemeal technical service projects on behalf of the government.
- ▶ **3-** Private firms should be subcontracted to supply specific technology, instruments and to execute specific projects. The initiative for this process must come from the public sector, because it is the public sector which should have the overall view of what is most needed.
- ▶ **4-** NGOs can be mobilized to provide volunteers to undertake simple monitoring tasks. NGOs are also valuable as advocates for disaster prevention: they can stimulate governments to pay greater attention to prevention.

