



Ann-Marie Anderson-Mayes

At 3:32 am on 6 April 2009, an earthquake of magnitude 6.3 struck the city of L'Aquila, located approximately 100 km east-north-east of Rome. Three hundred and nine people died in the quake with a further 1500 people injured, and 65 000 people were temporarily displaced. It is probable that this event has been displaced in our minds by more recent, larger earthquake events in New Zealand and Japan. However, the L'Aquila quake is back in the news because in late September of this year, the trial of six leading Italian scientists and one government official commenced, with the prosecution bringing charges of manslaughter due to negligence for the earthquake-related deaths. News of the trial has prompted a number of *Preview* readers to write to me expressing concern regarding the implication of this case for all geophysicists.

There has been widespread condemnation for these indictments in the global scientific community, including statements from the American Geophysical Union and the American Association for the Advancement of Science. An open letter originating from Italy's National Institute

of Geophysics and Volcanology (INGV) was signed by over 5000 scientists. These documents all point to the fact that science is not yet able to pinpoint the time, location and strength of a future earthquake. The INGV letter states 'The scientific community involved in earthquake science urges the Italian government, local authorities and decision makers in general, to be proactive in establishing and carrying out local and national programs to support earthquake preparedness and risk mitigation rather than prosecuting scientists for failing to do something they cannot do yet – predict earthquakes'.

The quote above is really the key to this case. An excellent article in *Nature* (Volume 477, pp. 264–269) by Stephen S. Hall states, 'Irrespective of the verdict, the episode has been a painful tutorial about the importance of clear public communication when potential disasters loom'. In L'Aquila, the conversation in the local media became a discussion of whether a significant earthquake *would or would not* take place, instead of focussing on earthquake preparedness and risk mitigation given that a significant earthquake *could* happen.

So, where does this leave Australian geophysicists? Being very careful about what they say I suspect. Levity aside, this is one of the sobering outcomes of this case. Enzo Boschi was President of the INGV in Rome at the time of the quake and is one of the Italian scientists now on trial. He is quoted in Hall's *Nature* article as saying, 'When people, when journalists, asked my opinion about things, I used to tell them, but no more.

Scientists have to shut up'. And this at a time when we are all being urged to be better science communicators. For example, in Cribb and Sari's book *Open Science* (see review in *Preview*, Issue 146, p. 41) we are told, 'For science and technology to deliver full value to society, they must be accessible to as many people as possible and their messages must be easily understood'.

And perhaps therein lies the problem – making our science 'easily understood'. Sometimes, in meeting the requirements for a quick sound bite or an easily digestible article in the mainstream press, the true complexity of a scientific story is lost. In Italy, residents of L'Aquila felt reassured by a press conference only days before the 6 April earthquake that there was nothing to worry about. All the scientists now standing trial are clear that they never stated that a major earthquake would not occur, but that there was nothing to suggest that the hazard level was any higher than normal (remembering that this is a high-risk area anyway). And so perhaps this case is a reminder that in a highly litigious world, we do need to be careful about the way we communicate our scientific findings. But rather than choosing to say nothing at all, perhaps it is better to work on making our message as clear as possible. And this is especially important when our findings have implications for managing risks and hazards.

If you have a view on this very important topic, please send me an email (preview@mayes.com.au) and we will publish your comments in the next issue of *Preview*.

GEM

G E O P H Y S I C S

FOCUS

- Latest technology
- Exceptional data quality
- Experienced personnel
- Environment and Safety
- Personal client service

TECHNOLOGY

Surface EM Surveys

- SMARTem 24 low noise receiver
- Samson Total Field Surveys
- Moving Loop and Fixed Loop Surveys

Down Hole EM Surveys

- DigiAtlantis

Phone: +61 8 9739 2011 • Fax: +61 8 9739 2012

Email: gem@gemgeophysics.com.au

Web: www.gemgeophysics.com.au