



## Scientists' Communication on Disaster Sciences

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Suppose you started to have an earthquake swarm in your region. Suppose you are a seismologist and are required to give some comments on the swarm. It is not yet dissolved if a swarm precedes a large earthquake. What can a scientist do in this urgent situation?

For the previous 6 months from the L'Aquila earthquake which occurred on 6th April 2009, the seismicity in that region had been active to have a magnitude 4 earthquake a weak before. The government held Major Risks Committee which is tasked with forecasting possible risks and making preventative recommendations the next day. Contrary to experts common understanding, some from the committee reported that there is no danger to have a damaging earthquake. 6 days later, a magnitude 6.3 earthquake attacked L'Aquila and killed 308 people. On 3rd June next year, the prosecutors opened the investigation after complaints of the victims that far more people would have fled their homes that night if there had been no reassurances of the Major Risks Committee the previous week.

Lessons from this issue are of significant. Science communication is now in currency and more efforts are made to reach out to the public or policy makers. But when we deal with disaster sciences, it contains a much bigger proportion of risk communication. A similar incident had happened with the outbreak of the BSE back in the late 1980's. Many of the measures taken according to the Southwood Committee are laudable, but for one – science back then could not show whether or not it was contagious to humans, and is written in the committee minutes that "it is unlikely to infect humans". If read thoroughly, it does refer to the risk, but since it had not been stressed, the government started a campaign saying that "Cow in the UK is safe". Science in the UK fell into disrepute after infection to humans was confirmed in 1996, which became the motivation of the research on science communication.

In the presentation, we would like to review the affair based on some interviews to seismologist and journalists in Japan and Italy and also to the bereaved families in L'Aquila. There exist a large misunderstanding between them but can be filled in with communication. We suggest how scientists should behave when faced to give advice on the ongoing phenomena which we are not yet able to predicate scientifically.