Natural disasters and scientific publication

Networking in science relies on scientific journals for communicating successful breakthroughs but also for facing unprecedented challenges in the development of research. In the case of the 2010 Chile earthquake, scientific publication has served both purposes well.

The MW 8.8 earthquake and tsunami that hit central Chile on February 27th 2010 not only took human lives and destroyed civil infrastructure (housing, hospitals and schools). It also severely damaged Chilean research (Kaiser & Regalado 2010), causing losses that could cost more than 200 million USD to overcome (Regalado 2010). This is the first time that several national research institutions are so dramatically affected by one single natural disaster. From the optics of science, this last point and the near-real time data that was obtained from the field clearly differentiate the 2010 quake from previous seismic events.

This catastrophe also revealed the value and visibility of Chilean research in disciplines as diverse as Oceanography, Chemistry and Biology. Indeed, the international scientific community quickly reacted and rallied to support Chilean colleagues in several ways. For doing so, they have, almost with no exception, used scientific journals and bulletins as vehicles for information. In some cases, effective technical support and rapid collaboration have helped understanding the scientific causes and immediate consequences of the earthquake (Farias *et al.* 2010, Madariaga *et al.* 2010, Moreno *et al.* 2010, Schiermeier 2010). In others, journals have published calls for awareness and coordination of financial and material support that could help repairing or even rebuilding research facilities in the most affected areas (ASLO 2010, Escribano & Poulet 2010, Harris 2010).

Other recent natural disasters have attracted worldwide attention and ink in scientific journals (only during this year Haiti and China were hit by devastating earthquakes) and significantly contributed to narrow the gap between science, policy and society (Dalton 2010, Lovett 2010, Sarewitz 2010). But to the knowledge of this editor, the 2010 Chile earthquake is an unprecedented example of science working actively for science using its own tools and language.

In this sense, the massive response of the international community reminds us that scientific publication is more than the peer reviewing of articles. The role of scientific journals, of their editors, and of their related scientific staff is also to respond to the intrinsic and permanent need of the scientific community for networking. Without such cooperation, overcoming catastrophic difficulties would be an impossible task.

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