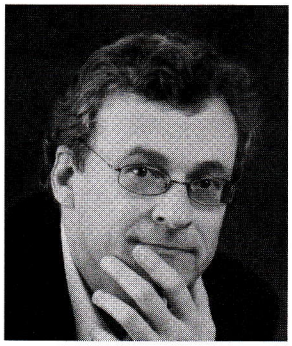
Celebrating 10th anniversary

Congratulatory Message



Pierre Y. Julien
Professor of Civil and Environmental Engineering, Engineering Research Center, Colorado State University, USA

Disasters impact the lives and property of millions of people around the globe. Every month, and sometimes every week, newspapers describe the latest disaster on our planet. We all remember the 2004 Banda Aceh tsunami (~185,000 deaths), the 2005 Hurricane Katrina (the costliest disaster in US history at $108 billions USD), and the magnitude 9.0 Tohoku Earthquake leading to the 2011 Fukushima Daiichi nuclear disaster. On an international scale, the economic losses due to disasters are comparable to the annual budget of all countries except perhaps the 30 richest nations. There still is too little scientific knowledge available on disaster prevention and management.

The *Journal of Disaster Research* should be praised for offering an international platform for the dissemination of scientific knowledge and technological expertise on natural disasters at the global scale. The journal welcomes articles on geological, meteorological, hydrological and viral disasters. The journal publishes papers, reviews, survey reports, letters, notes, news, discussions materials and tutorials, and is devoid of political and religious opinions.

Many people nurture the attitude that nothing can be done when confronted with an "act of God." I do not share this view and the scientific and engineering communities have already made tremendous progress towards the mitigation of natural disasters.

For instance, Tropical Storm Sandy hit the US Atlantic Coast in 2012 and left $68 billions in damage. This caused tremendous hardship to resilient communities in New York and New Jersey. But clearly, the damages would have been so much worse without the technology to track and predict the hurricane path far ahead of time. Timely warnings and advanced preparation work significantly reduced casualties and damages.

Major scientific questions remain unanswered and without any doubt, we still have a long way to go. It is almost impossible to think that major disasters will ever be completely contained. Earthly forces are so large that engineers have to design structures understanding that there will always be a risk of failure. Living communities have to become resilient to the fact that hardship will be expected once in a while. However, the standards of engineering practice improved tremendously since the Stone Age. It is through adaptation to a non-stationary climatic environment that better engineering design secures lower risks of failure. For instance, better understanding of the new concepts like paleo-hydrology and recent advances in the analysis of probable maximum floods can lead to reduced hazards through adaptive engineering design.

A lot more research and developments await us, but our joint efforts and ability to share our experience is the prescribed path to a better future. The international scientific and engineering community can only be better prepared to mitigate the devastating consequences of natural disasters by sharing information in scientific journals like the *Journal of Disaster Research.*

Pierre Y. Julien