



University of South Carolina, USA



**Summary of Activities
January-June 2015**

Formally established: August 2013

ICoE purpose: to develop models, methods, and metrics on vulnerability and resilience to provide the empirically-based support for disaster risk reduction policies and practices; provide leadership in improving subnational disaster loss databases; and build capacity through training the next generation of disaster scientists.

External Advisory Committee: Kathleen Tierney (University of Colorado, Director, Natural Hazards Center, and Chair, IRDR USA National Committee), Walter Peacock (Texas A&M University, Director, Hazard Reduction and Recovery Center, USA), David Johnston (Massey University, Director, Joint Centre for Disaster Research, and Director IRDR ICoE in Community Resilience, New Zealand), Omar Darío Cardona (Universidad Nacional de Colombia, Director IRDR ICoE in Understanding Risk & Safety), Jörn Birkmann (University of Stuttgart, Director Institute for Spatial Planning and Regional Development)

ACTIVITIES

1. DATA working group support:

- a. Measuring Losses from Disasters: Guidelines on Human and Economic Impact Indicators published (March 2015, version 1.0)
Integrated Research on Disaster Risk, 2015. *Measuring Losses from Disasters: Guidelines on Human and Economic Impact Indicators* (IRDR DATA Publication No. 2), Beijing: Integrated Research on Disaster Risk.
- b. Implementing peril classification in SHELDUS® (release date July 2015)
- c. established an ftp site for document exchanges among DATA members (http://arcgis.geog.sc.edu/hvri_irdr)

2. AIRDR support:

- a. Worked with ICSU-ISSC Ad Hoc Group on Disaster Risk Assessment in producing a synthesis paper published by ICSU.
- b. see publications below.

3. Provide expert feedback/consultation for:

- a. US Department of Housing and Urban Development and Rockefeller Foundation: Made five

- presentations at Rockefeller Foundation Resilience Academies (Atlanta, Kansas City, Boston, Chicago, Seattle) on social vulnerability metrics, (January-February 2015) as part of the National Disaster Resilience Competition.
- b. Rockefeller Foundation 100 Resilient Cities through ARUP. Review of city resilience/sustainability index, New York City, February 24-25, 2015.
 - c. NIST-ASCE-ASME Workshop on the Economics of Community Disaster Resilience, Reston, VA, April 29-30, 2015.
 - d. U.S. National Weather Service, Living with Extreme Weather Workshop, Norman, OK, May 18-20, 2015.
 - e. Sendai Jury Member for MunichRe Foundation Risk Award 2015, Sendai, March 2015
 - f. Peer reviews for Natural Hazard Research Platform Contestable Round, New Zealand (February-April 2015)
 - g. Provided input on SHELDUS to white paper under preparation by the Linked Open Data for Global Disaster Risk Research (LODGD) of a CODATA task force

4. **Presentations:**

- a. S.L. Cutter, "Interdisciplinary perspectives on disaster risk management: linking science to policy and practice," Tokyo Conference on International Study for Disaster Risk Reduction and Resilience, Tokyo, Japan, January 14-16, 2015.
- b. M. Gall, "Spatial Hazard Events and Losses Database for the United States (SHELDUS)," U.S. Army Corps of Engineers, webinar, January 21, 2015.
- c. S.L. Cutter and D. Ehrlich, "The natural hazard loss datascape," World Congress on Disaster Risk Reduction, Side Event session, Integrated Research on Disaster Risk: The Role of Science in Disaster Risk Reduction, Sendai, Japan, March 15, 2015.
- d. D. Guha-Sapir, R. Davis, M. Gall, P. Wallemacq, and S.L. Cutter, "Exploring the potential of geocoding the impact of disasters: The experience of global and national databases," European Geosciences Union General Assembly, Vienna, Austria, April 14, 2015.
- e. S. L. Cutter, "Geographical reflections on hazards, vulnerability, and environmental hazards," *Doctor Honoris Causa* Lecture, Norwegian University of Science and Technology, Trondheim, Norway, March 19, 2015.
- f. S.L. Cutter, "Resilience metrics and tools: a quick overview," Building Blocks for a National Resilience Scorecard Workshop, Washington DC, April 14-15, 2015.

5. **Publications:**

Gall, K. H. Nguyen, and S. L. Cutter, 2015. Integrated research on disaster risk: Is it really integrated? *International Journal of Disaster Risk Reduction* 12: 255-267.

Gall, M., C. T. Emrich and S. L. Cutter, 2015. Who Needs Loss Data? Background Paper for the Global Assessment Report on Disaster Risk Reduction 2015 (GAR15). Geneva, Switzerland: UNISDR. Available <http://www.preventionweb.net/english/hyogo/gar/2015/en/bgdocs/University%20of%20South%20Carolina,%202014.pdf> Excerpts included in GFDRR, 2014. Understanding Risk in an Evolving World: Emerging Best Practices in Natural Disaster Risk Assessment. Washington, D.C.: The World Bank, 224 p. Available at https://www.gfdr.org/sites/gfdr/files/publication/Understanding_Risk-Web_Version-rev_1.8.0.pdf

Guha-Sapir, D., R. Davis, M. Gall, P. Wallemacq, and S. Cutter 2015. Exploring the potential of geocoding the impact of disasters: The experience of global and national databases. *Geophysical Research Abstracts* 17, EGU-2015-15109.

A. Ismail-Zadeh and S. Cutter (editors), 2015. Disaster Risks Research and Assessment to Promote Risk Reduction and Management. Authors: Irasema Alcántara-Ayala, Orhan Altan, Daniel Baker, Sálvano Briceño, Susan Cutter, Harsh Gupta, Ailsa Holloway, Alik Ismail-Zadeh, Virginia Jiménez Díaz, David Johnston, Gordon McBean, Yujiro Ogawa, Douglas Paton, Emma Porio, Rainer Silbereisen, Kuniyoshi Takeuchi, Giovanni Valsecchi, Coleen Vogel, Guoxiong Wu, and Panmao Zhai. ICSU-ISSC Ad Hoc Group on Disaster Risk Assessment, Paris: ICSU, March 12, 2015. http://www.icsu.org/science-for-policy/disaster-risk/documents/DRRsynthesisPaper_2015.pdf

S. L. Cutter, A. Ismail-Zadeh, I. Alcántara-Ayala, O. Altan, D.N.Baker, S. Briceño, H. Gupta, A. Holloway, V. Jiménez Díaz, D. Johnston, G. McBean, Y. Ogawa, D. Paton, E. Porio, R.K. Silbereisen, K.Takeuchi, G.B. Valsecchi, C. Vogel, and G.Wu, Scientific assessment mechanism for disaster risk policy, *Nature*, forthcoming June 2015.

S. L. Cutter and M. Gall, The Sendai targets for disaster risk reduction: what and how to measure, *Nature Climate Change*, under review.

UPCOMING ACTIVITIES/SYNERGIES

1. Continued support of IRDR DATA project activities (ongoing)
2. Will host meeting of external advisory committee (January-March 2016 timeframe).
3. Conduct sensitivity analyses of the Rockefeller/ARUP City Resilience Index (July-October 2015)