

University of Southern California

USC

National Center for
Risk and Economic Analysis of Terrorism Events

New Research in Game Theory and Disaster Recovery Published

Date: September 20, 2011

"Decisions in Disaster Recovery Operations: A Game Theoretic Perspective on Organization Cooperation," authored by CREATE investigator [Jun Zhuang](#), and his Ph.D. student John Coles, has been published in the Journal of Homeland Security and Emergency Management.

[Download Report from the Journal](#)

Abstract

Throughout history, disasters have had a defining impact on individuals, governments, and society as a whole. The terrorist attacks on September 11th, 2001 and several catastrophic hurricanes in the gulf region have brought disaster response and emergency management to a new level of visibility and importance in the United States. The increased media coverage of international disasters, such as the Indian Ocean Tsunami in 2004 and the Earthquake in Haiti in 2010, have resulted in international disaster response and recovery efforts becoming a larger part of foreign policy for developed countries. The changing scene of disaster response and recovery has also resulted in a rapid increase in the number of private organizations emerging to assist in the wake of such catastrophes. There are significant cross-cultural dynamics and interoperability issues that become apparent when new actors (governments, businesses, organizations, etc.) enter an unfamiliar disaster environment which could reduce the operational efficacy of both local and foreign actors.

In this project we propose an approach to support and guide decision makers in emergency environments on how to select and develop relationships to improve resource utilization and project outcomes in the wake of a disaster. Using game theory, we provide an initial approach for the development of a decision support framework for emergency managers entering a disaster environment.

CREATE Homeland Security Center at the University of Southern California

University of Southern California
3710 McClintock Avenue, RTH 314
Los Angeles, California 90089-2902

(213) 740-3863
(213) 821-3926

[USC ITS Web Services](#)