

Researcher examines role of nonprofits in community recovery from Deepwater Horizon oil spill

January 4 2017



Platform supply vessels battle the blazing remnants of the off shore oil rig Deepwater Horizon in this April 20, 2010,. Credit: U.S. Coast Guard.

For 87 days starting April 20, 2010, oil flowed freely into the Gulf of Mexico after a deadly explosion rocked the Deepwater Horizon oil

drilling rig operating in the Gulf of Mexico. The disaster spoiled the environment in large parts of the Gulf Coast of the U.S., imperiling communities that rely on Gulf waters for trade and tourism.

Now, a \$590,000 grant from the National Academies' Gulf Research Program will enable a researcher at the University of Kansas to study community cohesion and recovery after the spill.

So-Min Cheong, associate professor of geography, has previously earned an NSF CAREER grant to investigate changing environmental disasters and community adaptation in coastal Louisiana. Much of her scholarship focuses on [disaster management](#), community adaptation and climate change.

Her new work with colleagues Larry Crowder and Jacob Model of Stanford University and Kristy Lewis of St. Mary's College will focus on sociological and ecological influence on communities' response to the Deepwater Horizon spill and the role of nonprofit organizations in boosting "community cohesion" after the spill.

"Community cohesion is a community's capacity to self-organize and mobilize," Cheong said. "The project hypothesizes density of nonprofits and their networks to be crucial in community recovery. For example, one hypothesis is that nonprofits play a crucial role in advancing collective efficacy—neighborhoods practicing volunteerism and altruism to achieve common good—interpreted as a strong indicator of community cohesion."

She hopes to reveal the social-ecological drivers of response and current extent of recovery in approximately 92 communities, using data and methods from disciplines including geography, marine ecology and management, and investigating sectors such as oil, fisheries and tourism.

Cheong and her collaborators will parse 38 types of data for each community and synthesize the information to make it more useful.

"We'll analyze data using multidimensional scaling plot, canonical analysis of principal coordinates and geovisualization in Phase 1," she said. "Our goal is to generate multiple predictive models that capture varying community responses. Phase 2 selects important variables from a large set of predictors on low and high levels of community responses from Phase 1, and tests hypotheses on the role of nonprofits in mobilizing community response and enhancing community cohesion."

Cheong said there was a gap in knowledge about the influence of nonprofits on community cohesion following a disaster like Deepwater Horizon. She hopes work performed under the new grant will shed light on how nonprofits play a role in how communities shape themselves following disaster and how important that role could be.

The results of the research will be made public on a website and shared in scholarly articles in prominent peer-reviewed journals. Most importantly, lessons learned will be shared with leaders in communities still recovering on the Gulf Coast.

"We plan on community outreach so decision-makers within communities and local nonprofit organizations benefit most," Cheong said. "Major recommendations may be to encourage local nonprofits to develop ties to translocal nonprofits and local and state governments; promote more increased funding for nonprofits engaged in interlocking networks; and change funding objectives to tailor to the particular needs of a disaster, disruption or crisis. In addition, community skills in coordination and mobilization can be used for a variety of purposes and prove valuable in the face of unexpected disasters and changes with high uncertainty."

Guiding the recovery and sharing best practices are the ultimate objective of the grant, according to the National Academies' Gulf Research Program.

"We're pleased to support innovative scientific syntheses that can help us better understand the interdisciplinary challenges coastal communities face," said Evonne Tang, GRP's director of external funding opportunities. "The new tools and products that the project teams develop would make existing data usable for stakeholders and decision makers."

Cheong said her work in the Gulf would inform her participation within the Intergovernmental Panel on Climate Change, the UN-based organization that publishes global climate assessments.

Following a rigorous selection process, Cheong was among the scientists picked to contribute to past IPCC reports on climate extremes and its fifth assessment, and recently called upon to help outline an upcoming special report on oceans and cryosphere. The IPCC is beginning a new cycle in preparation for the sixth assessment report, and this special report is part of this new cycle.

"So far, I attended a scoping meeting in Monaco that outlines chapters for the forthcoming special report on oceans and cryosphere," she said. "There is no direct relation in terms of topics; however, disaster management and community adaptation that I employ in my oil spill studies are useful for a chapter on extremes and abrupt changes in this report."

Provided by University of Kansas

Citation: Researcher examines role of nonprofits in community recovery from Deepwater

Horizon oil spill (2017, January 4) retrieved 8 May 2024 from
<https://phys.org/news/2017-01-role-nonprofits-recovery-deepwater-horizon.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.