

Community Disaster Preparedness: An Index Designed to Measure the Disaster Preparedness of Rural Communities

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In early 2010, the Mississippi State University Center for Urban Rural Interface Studies (CURIS) began an investigation into the development of a tool to measure how well prepared coastal communities were with regard to their ability to handle any type of natural hazard in the region. The goal of this project was to measure and compare the level of disaster preparedness of coastal communities along the CURIS region, which was defined as twenty counties and parishes in Louisiana, Mississippi, Alabama and Florida. Collection of disaster preparedness data was accomplished through the use of a mailed 52 question survey. Survey responses from sources which included emergency management, law enforcement, fire department and county/parish extension personnel will be used to create a Community Disaster Preparedness Index (CDPI).

The CDPI measures disaster preparedness based on nine variables: disaster preparedness plan, information, communication, security, transportation, sheltering, volunteer collaboration, utilities and critical infrastructure. Based on responses in each community, these variables will be scored with a numeric value and form a basis for the CDPI representing the current level of disaster preparedness of the county/parish. Surveys were mailed to 83 targeted participants with completion instructions and included a postage paid envelope to return the completed survey. Over the course of several weeks, two complete CDPI survey mailings were performed with a total response of 29 surveys, yielding a response rate of 34.9%. The data from these completed surveys are being analyzed and results will be shared with participating communities in the hope that it will offer a positive impact to future disaster preparedness planning activities.

CDPI Variables

Disaster Preparedness Plan: This variable determines whether the county/parish has a disaster plan, the plan's coverage and the extent to which it is current and disseminated throughout the community.

Information: This variable determines the forecasting resources that are currently being incorporated into the disaster preparedness plan.

Utilities: This variable addresses a community's critical utilities in terms of identification, location and back-up plans.

Security: This variable measures the role of security both within the preparedness plan as well as general measures of protecting critical items during a disaster.

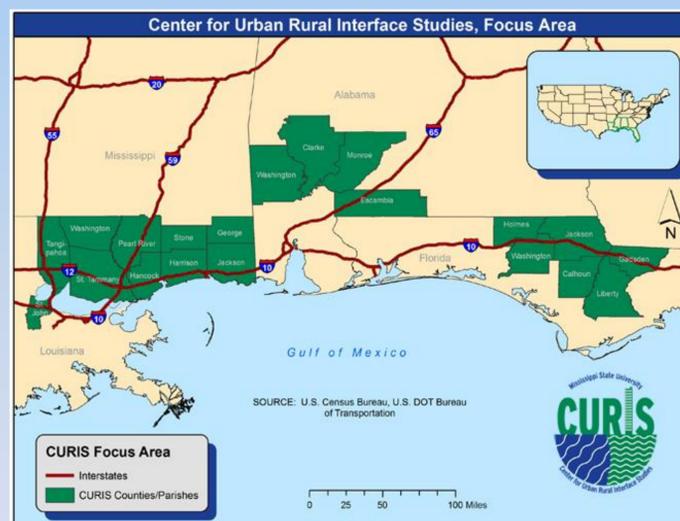
Volunteer Collaboration: This variable measures the relationship and level of cooperation between communities and among volunteer agencies.

Transportation: This variable is used to measure the use of transportation in the disaster preparedness plan/evacuation plans. It considers fuel availability, re-entry and back-up evacuation routes.

Sheltering: This variable looks into the sheltering capacities. Shelter need, location, regional cooperation and shelter management issues are considered.

Communication: This variable determines the methods and effectiveness of communication and sharing of information before, during and after a disaster.

Critical Infrastructure: This variable determines the level of preparedness related to critical infrastructure location and procedures for back-up service.



<http://curis.msstate.edu/disasterpreparedness.html>



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