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Crowdsourced Geospatial Data during Disasters: How it is Improving

Response & Recovery Today

Since the Crowdsourcing and Citizen Science Act of 2017, efforts by digital volunteers have increasingly become more organized, trusted, and integrated into official disaster response and recovery workflows. Digital volunteers are closing the gap on critical information needs in the earliest hours of a disaster and reducing costs and time lag for delivering an efficient and effective response. Freely available information-rich crowdsourced data is available to every jurisdiction, but they need to know it exists and build it into their processes during blue skies in order for this information to be trusted and used to inform decisions.

FEMA's crowdsourcing unit within the National Response Coordination Center coordinates and leverages efforts such as the Crowdsourced Disaster Photo Map. According to FEMA, 'Post-event social media images provide a first look at what is happening on the ground and the nature of damage. Combined with spatial analysis, crowdsourced photos help decision makers understand disaster impacts.' From 2017-2022, digital volunteers spent 3,529 hours mapping 8,285 photos across 28 incidents impacting the U.S. Beyond the numbers, the data has become indispensable to US&R Teams pre-deployment and integral to FEMA's geospatial damage assessment process, which during incidents like Hurricane Ian resulted in \$78.3 million in assistance to survivors without an in-person inspection.

Presentation Theme: The evolution of crowdsourced data into an integral part of emergency management workflows.

Collaborators, Advisor(s) and Department(s) that assisted with this research: GPN GISCorps Core Committee.