

Poster Paper Presentation Abstract

Individual Voices in Big Data Legends: The 2015 Gorkha-Nepal Earthquake

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During the international response to the April 2015 Gorkha-Nepal Earthquake, we began to investigate how hazard and risk specialists collect, manage, analyze and communicate data. The goal is to provide an overview of how post-event information is transmitted, by whom and what might be the implications to affected women, men and children in the aftermath of a disaster.

Key themes investigated include: context, site specific natural hazard risk and disaster risk management information, preliminary analysis, earthquake event emergency response reporting, and exponential information production and collaboration transformation in Earthquake event emergency response reporting.

Analysis focuses on the innovative research and monitoring and new technological applications utilized during the international response to the 2015 Gorkha-Nepal Earthquake. This presentation will highlight some preliminary research results on search and rescue technology, humanitarian data exchange platforms, humanitarian mappers, drones, radar and satellites and crisis mapping, with the intent to provide guidance for further research in using data management platforms for disaster relief efforts.

Discussion will focus on: big data project collaboration, effective data management implementation for more users, and acknowledgement that collation and communication of hazard and risk information and knowledge remains flawed in its implementation to reduce disaster risk.

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Local and Global Responses to Super El Niño 2015/2016: Anticipating Food Insecurity in Pasifika Islands

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The Super El Niño 2015 has had an impact upon Pacific Island Nations: cyclones, torrential rains, flooding, landslides, windstorms and salinization of soils. All this has caused damage to water infrastructure and food crops, creating water and food shortages. Full analysis of the anticipated impact of the slow onset El Niño 2015/2016 drought and its longer consequences for local food security, regional ecosystems, the role of international humanitarian agencies has yet to be completed.

The El Niño 2015/2016 drought forecasts raise new questions about how Pasifika Island communities adapt water/food security strategies to climate chaos and potential humanitarian disasters. International agencies (UNICEF, UNDP & WHO and FAO) question how to best support Pacific Nations in times of rapid socio-economic change. They seek to change how they work in the Pacific.

Preliminary analysis details how Pacific Island Nations build local and global partnerships through their governments, civil society, NGOs, non state actors, and partnerships with FAO and other UN bodies to prepare Pasifika women, men and children for the anticipated impact of El Niño 2015/2016 droughts on local food security.

Those looking to understand how local Pasifika Island food insecurity, international institutions and disaster risk management initiatives are connected will find this paper useful.

Poster Paper Presentation Abstract

Untangling Africa's *Great War* from the Global Mineral Supply Chain: The Conflict Mineral Certification Process (2014-2020)

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Decades of research have determined that Democratic Republic of Congo (DRC) mineral resources are traded, processed and manufactured into a wide variety of consumer and industrial products such as cellphones, laptops and jewelry. Coarse empirical evidence reveals that raw mineral purchases often fuel human rights violations, including conflict. Africa's *Great War* has killed more than five million people - involving multiple foreign armies and conflict mineral investors from Zimbabwe, Rwanda, Libya and Sudan and others. Growing awareness of why 'conflict resources' enter global supply chains has led to an international and regional responsible conflict mineral trading strategy. New national laws and international standards state that companies sourcing Congolese minerals must acknowledge if the raw mineral are sourced from conflict affected and high risk areas.

This longitudinal project involves discovering how International and North American legislation support the global-local restructure of the Tantalum-Niobium (Ta/Nb) supply chain, and seeks to untangle mineral supply chains from violence, torture and war. Conflict mineral supply chain risk/reward researchers will find value in this study. Key topics investigated include: emerging tools, technological innovations (i.e. geochemical analytical tools) and best practices to establish global flows of Ta/Nb and standardize the Ta/Nb certification process. This work is completed to support the sustainable development of African Great Lakes Area Ta/Nb industry supply chain in the forthcoming decade.