

Project Description/Goals

Networks In Transition from Response to Recovery following the Haiti Earthquake, 1/12/2010

- ❖ Characterize the initial conditions prior to the earthquake in Haiti and document the transition from response to recovery, noting critical points of decision in transition from response to recovery.
- ❖ Identify the interdependencies among international, national, provincial, and local organizations that facilitate, or inhibit coordinated action in recovery
- ❖ Produce a documented set of network analyses to show patterns of interaction among the system of international, regional, national, and local organizations that emerged following the January 12, 2010 earthquake
- ❖ Offer insights into the processes of recovery and sustainable development for communities exposed to recurring hazards and risk



Initial Findings



- ❖ Mismatch between design, expectations of UN cluster system and technical capacity, experience of Haitian organizations
- ❖ No building codes or coordinated mechanisms to ensure safe construction, water, sanitation
- ❖ Insecurity in IDP camps with women and children most at risk.
- ❖ Lack of basic health care, diagnosis, monitoring, access to vaccines for children, adults
- ❖ Centrality of building the 'rule of law' to enable government functions
- ❖ Lack of trained teachers, curriculum design, monitoring, evaluation of educational performance
- ❖ Need to build knowledge/information infrastructure to support interdisciplinary learning.

Assessing Community-Scale Disruption and Restoration of Basic Needs in Post- Earthquake Haiti



Aim: to understand community-level disruption through integration of multiple data sources – field interviews (communities, NGOs, local government), field reconnaissance & remote sensing.

Field deployment: 6-16 May (8 people)



1) Disruption

[Response card used in Haiti]

AVAILABILITY OF BASIC NEEDS		Time Period Relative to 1/12/10 Earthquake			
Constructed disruption scale		Prior to	Immediately following	1 month after	May 2010
<p>1 = No availability <i>Not available at even the lowest quality</i></p> <p>2 = Minimal availability <i>Very unreliable, very poor quality, very insufficient, or inaccessible to most</i></p> <p>3 = Poor availability</p> <p>4 = Moderate availability <i>Available to some people who need it, though it may be inconsistent or of moderate quality</i></p> <p>5 = Good availability</p> <p>6 = Almost full availability</p> <p>7 = Full availability <i>Available at consistent, high quality to everyone who needs it</i></p>		<p>4 time periods</p> <p>SURVEY RESPONSES</p>			
		<p>11 sectors</p>			
		Drinking water			
		Food – stuffs and prep. equip.			
		Shelter			
		Sanitation			
		Debris removal			
		Fuel/energy/utilities			
		Health care			
		Education/schools			
		Safety			
		Livelihood			
		Social networks			
		Other			

2) Damage (remote sensing):

- Damage dataset from GEO-CAN post-disaster damage assessment was used.
- Damaged buildings were individually assessed in early recovery imagery captured to coincide with field visit.
- Constructed recovery scale was used to describe physical changes that had taken place since January.





Initial Findings



Results: Disruption

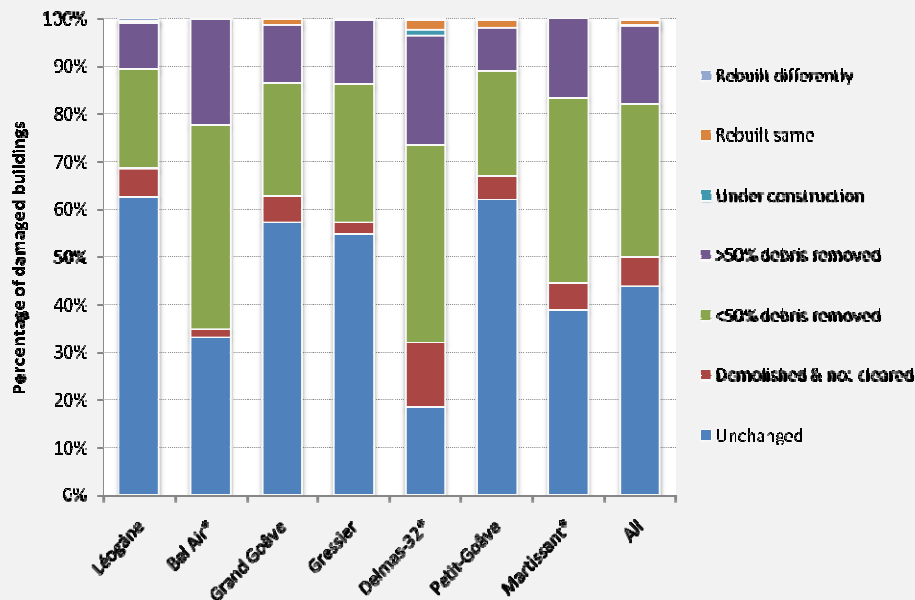
a. Pre- to Post-earthquake trend

b. Post earthquake to May 2010 trend

Community	Drinking water	Energy	Sanitation	Education	Healthcare	Shelter	Food	Livelihood	Safety	Social networks
Léogâne	▼1	▼1	▼1	▼3	▼2	▼4	▼3	▼3	□0	□0
Bel Air	▼0.5	▼3	▼2	▼3	▼1.5	▼5	▼3	▼1.5	▲0.75	▲2.5
Grand Goève	▼2	▼5	▼2	▼4	▼1	▼2	▼2	▼2	▼3	▲1
Gressier	▼2	▼1	▼1	▼3	▼3	▼3	▼1	▼3	□0	□0
Delmas32	▼2	▼1	▼3	▼3	▼2	▼3	▼1	▼1	▼1	▲2
Petit Goève	▼3	▼3	▼3	▼2	▼2	▼2	▲1	▼1	▼2	▼2
Martissant	▼3	▼3	□0	▼3	▲2	▼3	▼2	□0	▲2.5	▲1
Average	-1.9	-2.4	-1.7	-3.0	-1.4	-3.1	-1.6	-1.6	-0.4	0.6

Community	Drinking water	Energy	Sanitation	Education	Healthcare	Shelter	Food	Livelihood	Safety	Social networks	Debris
Léogâne	□0	▲1	□0	▲2	▲3	□0	▲1	□0	□0	▲1	□0
Bel Air	▲1.5	▲2	▲3	▲2	▲4.5	▲3	▲1	▲0.75	▼1.5	▼4	▲2
Grand Goève	▲1	▲3	▲1	▲2	▲2	□0	□0	▲2	▲3	▼1	▲2
Gressier	▲3	□0	□0	▲1	▲3	□0	▲1	□0	▼1	□0	▲3
Delmas32	□0	▲0.5	▲1	▲1	▼1	□0	▲3	□0	▼2	▼1	□0
Petit Goève	▲2	▲1	▼1	▲1	▲3	□0	▼1	□0	▲2	□0	□0
Martissant	▲2	▲2	□0	▲1	□0	□0	▲1	□0	▼3	▼4	□0
Average	1.4	1.4	0.6	1.4	2.1	0.4	0.9	0.4	-0.4	-1.3	1.0

Results: Early recovery of damaged structures



General Insights:

- Only moderate levels of basic services in pre-event Haiti.
- Earthquake was not a discrete event. Set against backdrop of political, environmental & meteorological insecurity.
- “Disruption” does not adequately capture adaptation. A society of coping exists in Haiti.
- Consequences from the earthquake may be deferred (e.g., immediate food provision may lead to less long-term food security).
- No initial relationships between damage and disruption. This requires further investigation.



Project Description/Goals

Cross Cultural Analysis of the Disposition of Unidentified Bodies

- This research aims to improve understanding of disaster behavior and operations
- It seeks to produce new knowledge about the disposition of unidentified bodies in catastrophes
- The study will compare cultural and practical responses to mass fatality events
- The research will generate important recommendations for mass fatality management



Initial Findings

- Many of the deceased are located in damaged buildings to this day
- Others have been recovered and removed by family members, contractors or the government
- Bodies were taken to morgues, hospitals, mortuaries or piled in the street, in parking lots or in open spaces
- Citizens doused bodies in gasoline and set them on fire due to the unbearable smell and slow governmental response
- Although there were exceptions, most of the bodies were buried in mass graves
- The government collected corpses and dumped them in trenches in Titanyen
- Little or no effort was given to identification and forensic analysis
- Common rituals and prayer occurred at the time of disposition by family members or one month later at Titanyen
- More studies are needed, but access to information is carefully guarded
- Planning for mass fatalities is imperative



Project Description/Goals

RAPID Project: Investigation on the Comparative Performance of Alternative Humanitarian Logistic Structures

Principal Investigators: José Holguín-Veras (Rensselaer) and Tricia Wachtendorf (University of Delaware)

Key Collaborators: Lucia Velotti and Jennifer Santos-Hernandez (University of Delaware), Miguel Jaller (Rensselaer), Natacha Thomas (University of Rhode Island)

Key Goal: To Study the Performance of Alternative Logistic Structures

Key Objectives: (1) Identify typology and basic features of the alternative humanitarian logistic structures that emerged; and (2) Gather insight into effectiveness, positives/negatives, manpower provided, coverage/extent of operations

Based on: Eight trips to Haiti/Dominican Republic/Florida; formal and informal interviews with individuals directly involved in the

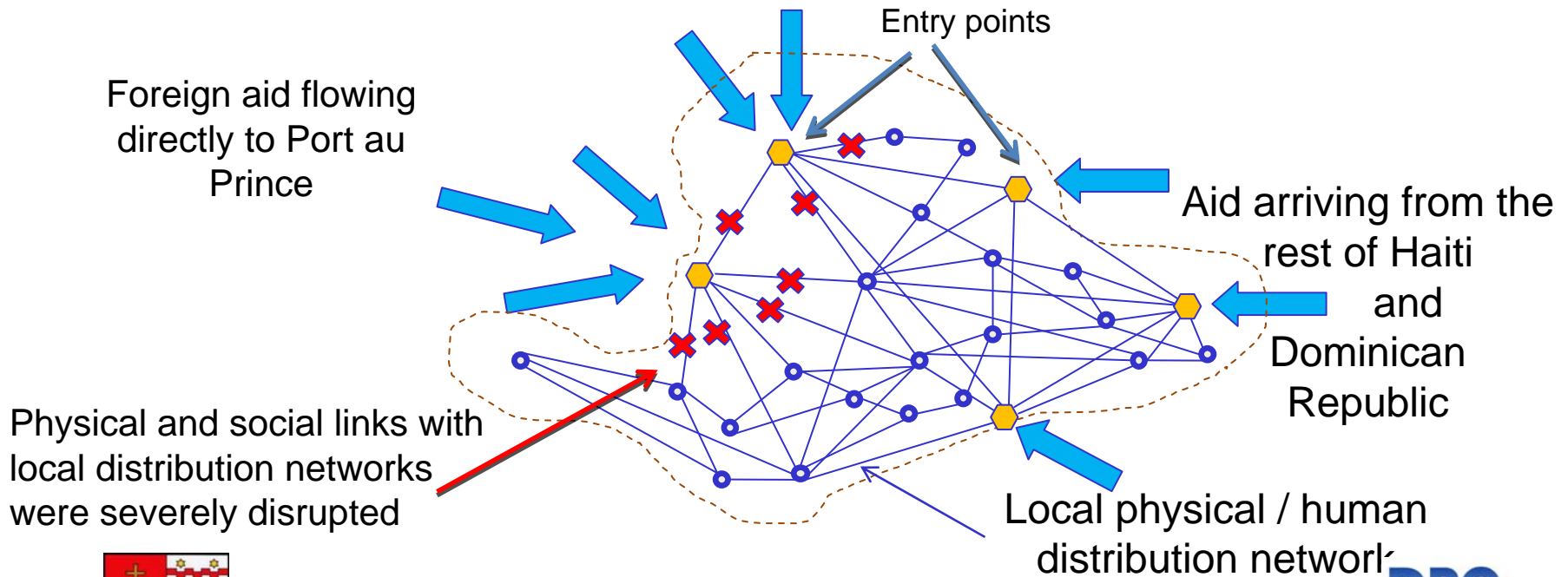
logistical response

Haiti RAPID and Research Needs Workshop
Arlington, VA Sept 30/Oct 1, 2010



Initial Findings: Immediate Impacts

- The earthquake severely disrupted the centers of power (Government, United Nations, Catholic Church) and in doing so posed a huge obstacle to aid efforts that did not have alternative paths to distribute critical supplies
- Two structures emerged: Agency centric efforts, Collaborative multi-agent



Initial Findings

Agency centric efforts

Efforts of large foreign aid agencies were hampered by:

- ❖ Lack of suitable interlocutors: the earthquake impacted the centers of power, thus removing their natural partners
- ❖ Difficulties in articulating efforts with locals
 - ❖ Could not find enough manpower and trucks (list of truckers was created two weeks after the disaster)
 - ❖ Lacked local knowledge needed for wide spread effort
 - ❖ Faced numerous security problems
- ❖ Very few points of distribution (PODs) in place
 - ❖ Trying to deliver aid to tens of thousands
→ instability at some PODs, helicopter drops
 - ❖ Some had to walk miles to get aid
 - ❖ Structural inertia made it difficult to adjust
 - ❖ Earthquake survivors forced to choose between maintaining social ties by staying near their destroyed homes or moving to camps to better position themselves to receive aid

Collaborative multi-agent

Created for another purpose, extended to humanitarian aid:

- ❖ Highly decentralized and redundant networks, with thousands of individuals in Haiti/DR (the networks survived the earthquake)
- ❖ They are locals, knew and trusted the others
- ❖ Found all the trucks, drivers, and helpers needed; and had manpower to man points of distribution (PODs)
- ❖ Geographically distributed and with local knowledge
- ❖ No security problems (protected by locals)
- ❖ Enjoyed the trust of the population
- ❖ Their coverage enabled them to organize the population, engage their support in aid distribution, and deliver to small groups of people in coordination with local community leaders



Initial Findings

- American *national* messaging efforts to discourage material donations (particularly in the form of clothing) were immediately clear, specific, and provided alternatives. Meanwhile, very *local (U.S.) emergent efforts* still frequently undermined national messaging by requesting clothing donations.
- Although a wide range of donation efforts emerged in Florida, many eventually funneled good to a small number of organizations ultimately responsible for foreign transport, some emergent with strong representation from the Diaspora, while others had long-standing and trusted experience with Haiti development or disaster relief.
- Emergent organizations consisting primarily of members of the Haitian Diaspora directed aid not only to areas heavily impacted by the earthquake, but also to non-damaged communities beginning to see an influx of post-disaster evacuees.



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HELP FOR HAITI

Cash donations are the most effective way to help the relief effort in Haiti.

Cash allows established organizations to purchase the exact type and quantity of items needed to help those affected by the earthquake without having to pay the high costs associated with transporting physical donations to Haiti. Financial contributions can be transferred quickly and reduce the challenges posed by limited staff, equipment and space. Cash donations support Haiti's local economy and ensure that culturally and environmentally appropriate assistance is rendered.

[To donate cash to help support recovery efforts in Haiti](#)

[To offer non-cash donations](#)

Commercial Inquiries Regarding the Haitian Relief and Reconstruction Effort

The best way to locate opportunities to sell or provide goods or services related to USAID's relief and reconstruction efforts in Haiti is to link to one or more of the following websites:



Tropic Supply, Inc.

Tropic Supply Haiti Relief

How You Can Help!

Tropic Supply is currently accepting the following items for relief efforts:

- Canned, non-perishable food items
- Bottled Water
- Hygiene Items
- Clean, gently worn clothing & shoes
- Blankets

→ We can all make a difference in this time of need!

Our hearts and prayers go out to the victims of the earthquake and their families.

Please drop off your items by Thursday, January 21st
at your nearest Tropic Supply location.

Thank you so much for your cooperation!

RAPID: Collaborative Research: Identification of Key Dynamics for Optimal Distribution and Sustainable Partnership in Haitian Disaster Recovery

Objectives

- Identification of significant trends in inter-agency partnerships
- Development of framework for resource flow
- Development of metrics for comparison of response efficacy

Methods

- Survey and network development with Texas Task Force 1
- Research trip in Haiti (June 21st- July 17th) working in Port-au-Prince at New Life Orphanage to:
 - Establish credibility
 - Expand Network
- Interviews with 18 agencies

Field Resource Flow in Disaster Operations



Research Team

- Mr. John Coles, Graduate Student (Traveler), Texas A&M University
- Dr. Justin Yates, Assistant Professor, Texas A&M University
- Dr. Jun Zhuang, Assistant Professor, University at Buffalo

Award #1034730 and #1034740

Initial Findings

- Partnerships between local actors and international actors are viewed differently by the two agencies
 - Stability
 - Necessity
 - Utility
- Agencies performing response and recovery operations tend to rely on
 - Active partnerships
 - New contacts
- Commodity pricing
 - Heavily influenced by partnerships
 - Provides an unbiased technique to analyze partnership efficacy
- An agency's involvement prior to the earthquake heavily influenced the level of involvement after the earthquake

