Health Initiatives in Southeast Asia

There are more people living inside this circle than outside of it.
Dhaka, Bangladesh:

On any given day 1/3 of the population is sick.

Grameen Shakti, 2010
Southeast Asia is a particular haven for zoonotic diseases.
In Haiti we re-learned that victims need water, medical care, food and shelter, but that they often need information first.

So do the emergency responders.

And it has to be collected in advance.
The Human Security Taxonomy

A local approach to collecting data before an event and transforming it to actionable information.

Supercell thunderstorm
Glasgow, Montana
28 July 2010
Photo: Sean Heavey
## The Human Security Taxonomy

### Base Map Layers

1. Boundaries
2. Place Names
3. Road Networks
4. Hydrography
5. Elevation data
6. Imagery
7. Climate and Weather
8. Geology
9. Geography (physical)
10. Land Use
11. Oceans and Coastlines
12. Conservation Areas
13. Hazard and Conflict Impact Maps
14. Health Risks

- **14** Base Map Layers
- **28** GIS layers
- **896** data elements
The Human Security Taxonomy

Foundation Layers (1)

1. Agricultural crops
2. Bridges
3. Communications (mass media)
4. Communications (personal and social)
5. Correctional Facilities and Law Enforcement
6. Crime
7. Dams
8. Economy and Banking
9. Educational facilities
10. Emergency Shelters and Services
12. Energy Production and Distribution (local, alternative)
13. Faith-centered facilities
14. Food Sourcing and Distribution
The Human Security Taxonomy

Foundation Layers (2)

15. Government Administrative Facilities
16. Health and Medical Infrastructure
17. Industrial and Chemical Manufacturing Sites
18. Logistics Hubs
19. Looting Risks
20. Military facilities
21. Population demographics
22. Radiation sources
23. Reconstruction resources
24. Tourism infrastructure
25. Transportation systems
26. Veterinary Issues: Pets and Livestock
27. Water source, treatment, and distribution
28. Waste treatment (human) / Sanitation
Total Data Elements 896
Data Source Identified 734
Data Source Unidentified 162

HST Data Availability Mexico

Data Source Identified 82%
Data Source Unidentified 18%
Current partners in Mexico

- Instituto Nacional de Ecología
- STAR-TIDES
- Comisión Federal de Telecomunicaciones
- CENTROGEO
- CICESE
- PROTEGO
- Casa de Bolsa
- SEGOB
- PEMEX
- INEGI
- SEP: Secretaría de Educación Pública
- SCT: Secretaría de Comunicaciones y Transportes
- México
- Presidencia de la República
- SAGARPA: Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación
- SEDESOL
- SEMARNAT: Secretaría de Medio Ambiente y Recursos Naturales
- Harvard Humanitarian Initiative
- CENAPRED
- CONAGUA
- CONACYT: Caminos y Puentes Federales
- SMN
- SALUD: Secretaría de Salud
- Evercore Partners
- National Academy of Sciences
- INSTITUTO NACIONAL DE ESTADÍSTICA GEOGRAFÍA E INFORMÁTICA
- SRE: Secretaría de Relaciones Exteriores
Anticipating Complexity

Exploring Responses

Cultivating Resilience

A Demonstration. Not an Exercise.
83 Issues to address
Katrina / Banda Aceh
So we designed this.

As well as a complicated event framework for the week...
Boeing Phantom Works mathematicians developed this 3-D Vensim diagram of Strong Angel.
This model might be useful in Myanmar.