



Why Use Information Technology for Disaster Management?

Think about the purpose of IT.

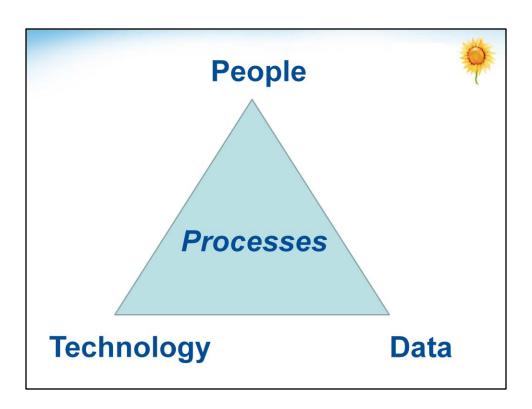


How Can IT Help?

- Live Situational Awareness
- Scalable
- Automatic Collation, Processing and Analysis
- · Efficient Distribution

Technology can address many of the data management challenges and requirements by providing solutions that are scalable, efficient, automatic and by providing live data and situational awareness to both emergency managers and the community.

All of these support better, quicker decisions



Quite often we lack the data



Communication Equipment

- Radios
- Satellite Telephones
- Satellite Internet









Mobile Phones

- Voice
- Internet
- SMS
- Cell Broadcasting



- Mobile Applications
 - GeoChat
 - RapidSMS
 - FrontlineSMS





GIS

Geographical Information System:

"a computer system capable of storing, manipulating, and displaying geographically referenced information... Practitioners also regard the total GIS as including operating personnel and the data that go into the system."

- U.S. Geological Survey

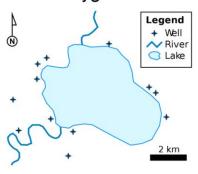


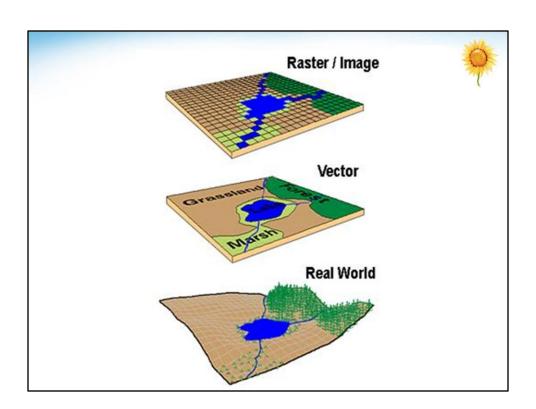


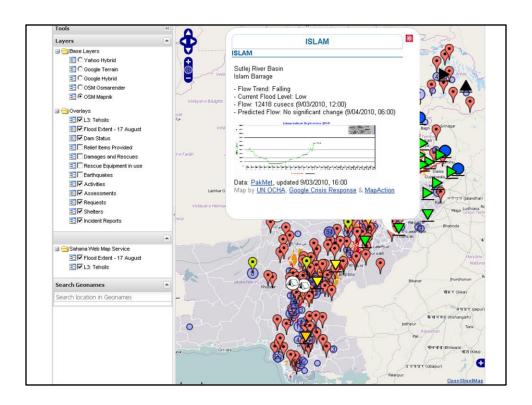
- Raster
 - Imagery
 - Maps
 - Data



- Vectors
 - Points
 - Lines
 - Polygons







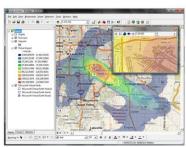
A demonstration of GIS layers:

http://pakistan.sahanafoundation.org/eden/gis/index



GIS & Mapping Tools

- GIS
 - ArcGIS (ESRI)
 - -QGIS
- Mapping
 - Google Earth / Maps
 - OpenStreetMap
- GPS









Social Networking

- Blogs
- Facebook
- Twitter

"Now that we are using the Internet, the services are free of charge, and we send messages at no cost to us. It's also more reliable and faster because nearly everyone's on social networking sites."

Alexander Rosete, Philippines National Red Cross



Other Tools

- Email
- Google
 - Groups (Mailing Lists)
 - Docs









Infrastructure

- Stand Alone
- Server
 - Physical
 - Virtual / Hosted
- Cloud Computing



What are the dangers of having your information online



Your Experience with DMIS

- · Where?
- What decisions did it support?
- What was something you liked about it?
- What was something you didn't like about it?

Ask participants to think about their own experiences. They will have a chance to present after lunch.





- Sahana
- OneResponse
- WebEOC: Emergency Operations Center
- HELIOS: Supply Chain Management
- Ushahidi



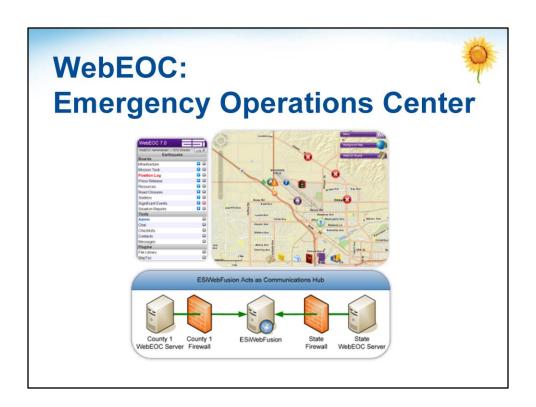
http://dmc.sahanafoundation.org http://eden.sahanafoundation.org



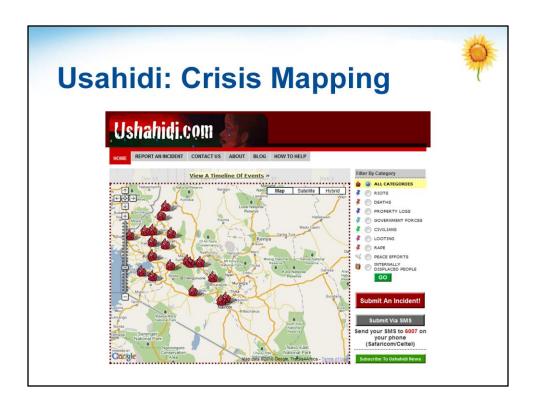
http://oneresponse.info



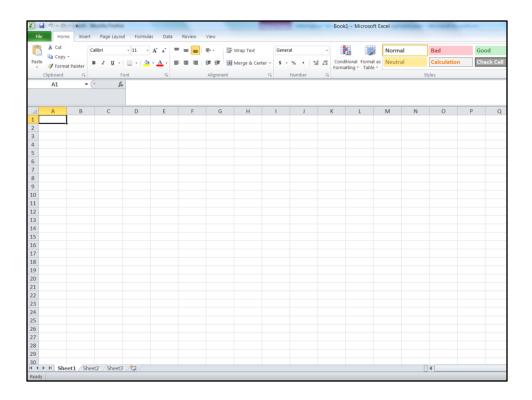
http://www.fritzinstitute.org/prgTech-HELIOS_Overview.htm



http://www.esi911.com



http://www.ushahidi.com/



More technology doesn't always equal better. A good DMIS can be made from Excel – or pen and paper.



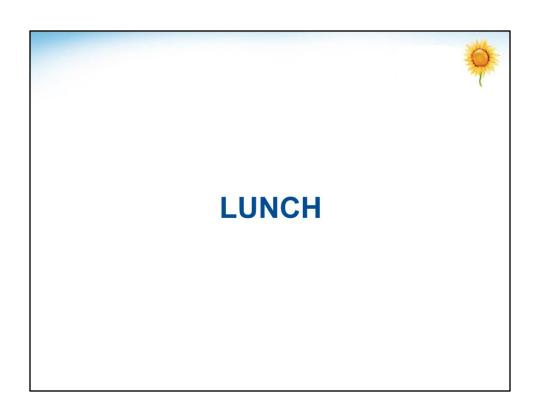
People Use Technology They Know



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Introduction to Sahana

Open Source Disaster Management Platform with applications for:

- Organisation List
- Inventory/Warehouse Management
- Incident Reporting
- Request Management
- Assessments
- Project Tracking



History of Sahana

- 2005 Developed in Sri Lanka (Tsunami)
 - Pakistan (Earthquake)
- 2007 New York City (Preparedness)
 - Philippines (Typhoons/Landslides)
- 2008 Sichuan (Earthquake)
- **2010** Haiti (Earthquake)
 - Pakistan (Earthquake)
 - Disaster Risk Reduction Project Portal



Sahana's Community

- Sahana Software Foundation
- IBM
- Google
- AidIQ
- Asian Disaster
 Preparedness Center
 (ADPC)
- Sahana Taiwan

- · Trinity College
- North Carolina State University (NCSU)
- Rennselaer
 Polytechnic Institute
 (RPI)
- University of Wisconsin
- CrisisCommons



Sahana Decision Making Exercise

http://dmc.sahanafoundation.org

Contains Assessment Information relating to Flooding in Vietnam.

Using the:

Gap Report and Gap Map

Identify what additional Activities need to be planned by which Organisations to fill the gaps identified by the Assessments.