



**FREE & OPEN SOURCE SOFTWARE (FOSS)**

## How can IT help manage a “large” scale disaster?



IT helps manage the scale of a large disaster:

- Reduces **trauma** by finding missing people efficiently.
- Ensures every person/camp reported and is effectively **tracked**.
- **Manages** and tracks all the requests from the victims and camps.
- **Connects** donors, volunteers, NGOs, and government organizations, enabling them to operate as one.
- Tracks **coverage** and **balances** the distribution of aid and supplies.
- **Transparency** of relief effort.

## Project Trigger - Asian Tsunami



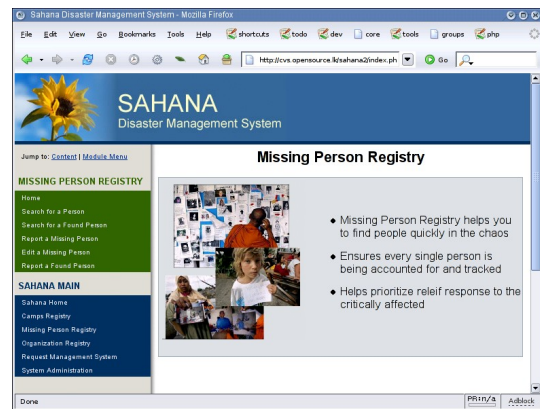
- At least **226,000** dead
- Up to **5 million** people lost homes, or access to food and water
- **1 million** people left without a means to make a living

## The Sahana Free & Open Source Disaster Management Project

Sahana is an integrated set of pluggable, web-based disaster management applications that provide solutions to large-scale humanitarian problems in the aftermath of a disaster.

**The trauma caused by waiting to be found or by trying to find the next of kin...**

- *“Please, please help me find my missing parents/child/relative”*



### Sahana Missing Person Registry

A centralized bulletin board of missing and found people with a special emphasis on accounting for children through the child protection module.

**Managing the multitude of requests from the affected regions and matching them effectively to pledges of assistance...**

- *“We need 600 tents, not clothes!”*
- *“We have antibiotics, how much do you need and where can we send them”*

### Sahana Request Management System

A system to coordinate the specific requests for assistance coming in from the disaster area and matching them up with available resources.



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### Coordinating all the aid groups and helping them to operate effectively as one...

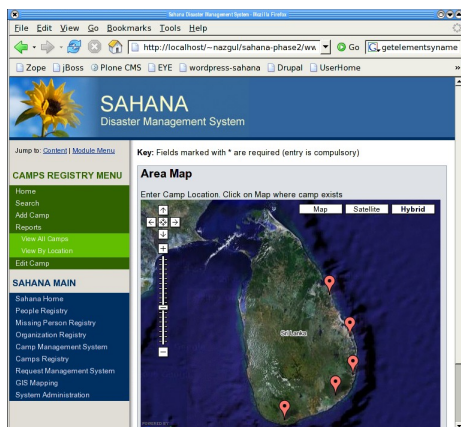
- "We are an NGO providing medical services. How can we help?"
- "As the authorized relief coordinator how do I utilize all these NGOs and volunteers?"

### Sahana Organization Registry

Keeps track of all organizations involved in the relief effort including their contact information, services provided, operational areas. Reports the coverage of relief services in the affected region.

### Tracking the location of all temporary shelters and camps...

- "No aid is being sent to this village, they have forgotten us as we are off the beaten path"
- "Where are all these temporary shelters and camps and shelters located? How do I contact them?"



### Camps Registry

A System that keeps track of the details of temporary shelters and camps to ensure all are being accounted for, and to assure a balanced distribution of aid.

### Other Sahana Modules in development

Volunteer coordination, Alerts (CAPS/SMS), Camp Management, Child Protection System, Logistics / Supply Chain, Data import, Mobile/PDA, Damage

### Because it is FOSS

- 1. Many countries cannot afford or do not invest.** Budgeting for a disaster that may or may not happen. Private sector investment is minimal since it is not a commercially lucrative product domain.
- 2. No restrictions or royalties to deploy and modify**
- 3. It is an open system - transparent and trustworthy.** Better acceptance than "foreign" or proprietary systems.
- 4. Rapid integration & localization needs require source code**
- 5. The global IT community has keen volunteers.** "Good will" opportunity to alleviate suffering using IT.

Sahana code is freely available under the LGPL license.

### Sahana In Action

- **Tsunami, Sri Lanka 2004:** Officially deployed
- **Asian Quake, Pakistan 2005:** Officially deployed
- **Mudslide, Philippines 2005:** Officially deployed
- **Saravodaya, Sri Lanka 2005:** Being deployed for the disaster unit of the largest local NGO
- A global, virtual development community of 70+ members on **Humanitarian-ICT** (from Australia, New Zealand, Sri Lanka, UK, US etc.), comprising humanitarian consultants, emergency and disaster management experts and software developers.
- Supported by the **IBM Crisis Response Team**
- **Redhat Award** and **ICTA Award**, Sri Lanka
- A Free Software Foundation (**FSF**) **Award** on Social Benefit inspired by Sahana

### Demo at

<http://www.sahana.lk/sahana2>

**Primary Sponsor:** SIDA with Lanka Software Foundation (LSF)

**For More Information:** <http://www.sahana.lk> or email [sahana@opensource.lk](mailto:sahana@opensource.lk)