

# #Sahana4Greece

A crowd-sourced “virtual” EOC for  
supporting the rescue & relief operations  
in Greece for the refugees



# Consortium / Actors

Hellenic Informatics Union (HIU)

Scientific & professional union, Greece

ICT4dascgr (group)

ICT for development, aid, support, collaboration

Sahana Foundation

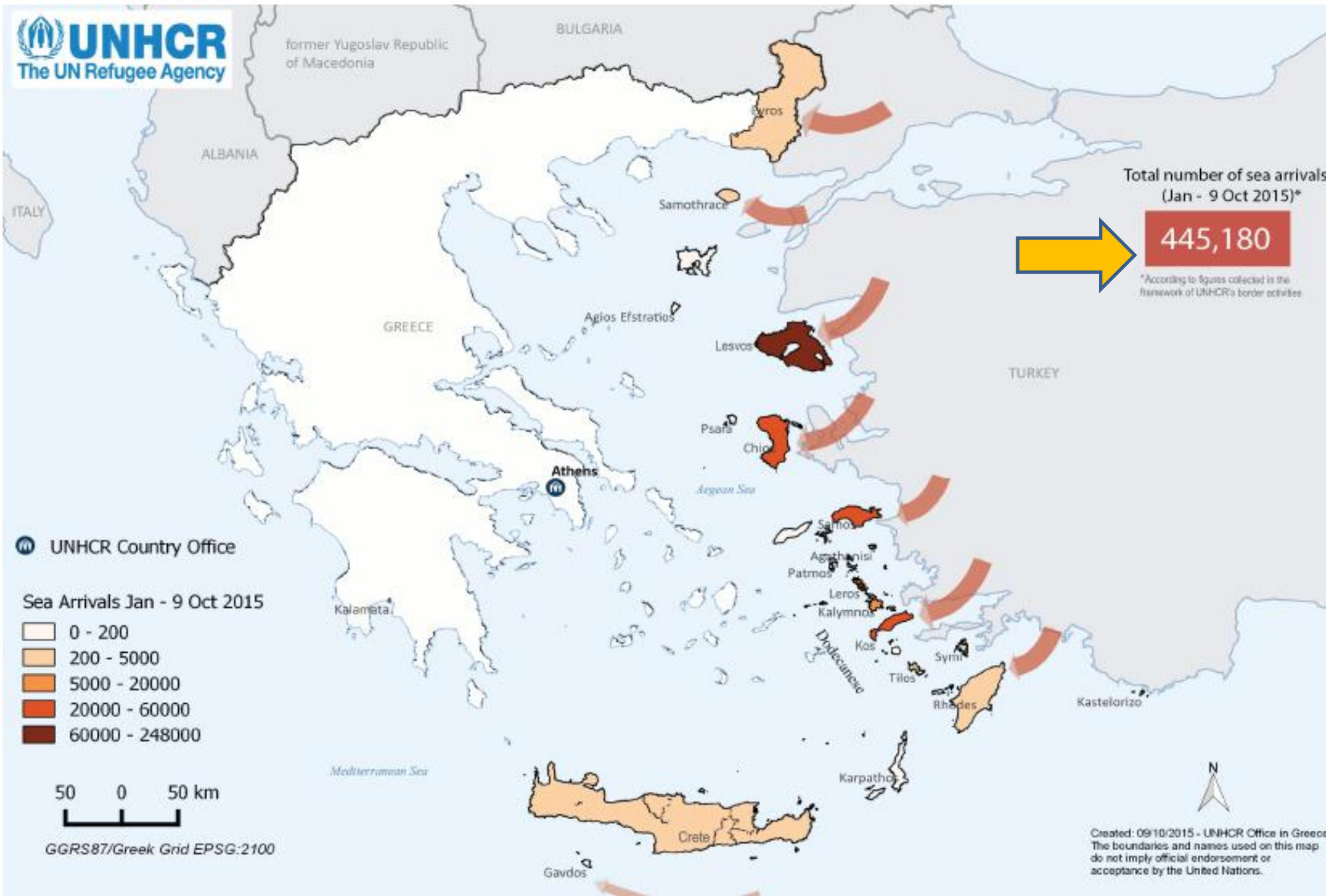
The main developer/provider of the platform

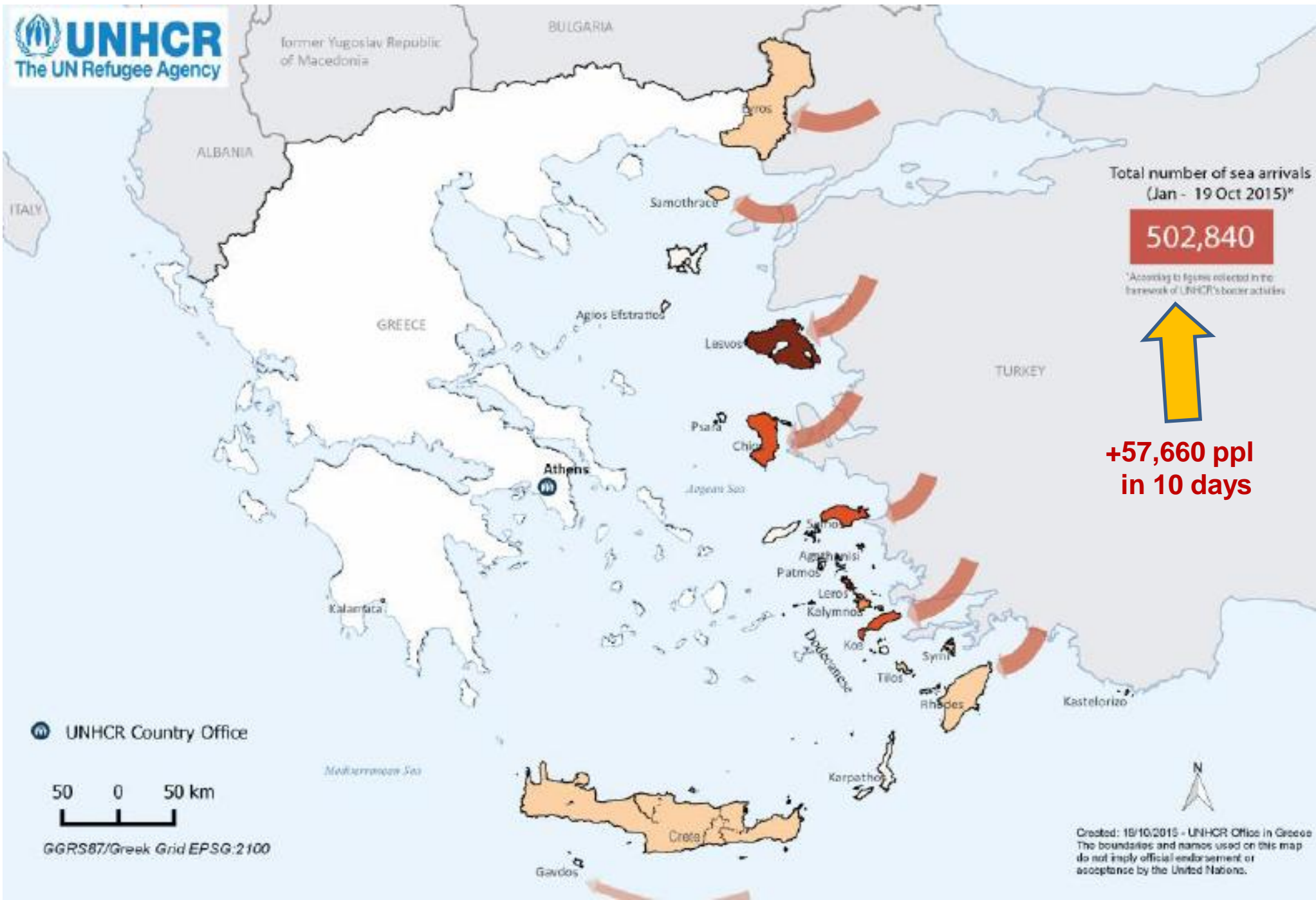


# The Situation

**Greece: The refugee crisis in numbers**








Total number of sea arrivals  
(Jan - 19 Oct 2015)\*

**502,840**

\*According to figures collected in the framework of UNHCR's border activities

**+57,660 ppl  
in 10 days**

 UNHCR Country Office

50 0 50 km

GGRS87/Greek Grid EPSG:2100

Created: 18/10/2015 - UNHCR Office in Greece  
The boundaries and names used on this map do not imply official endorsement or acceptance by the United Nations.

# Refugees/Migrants Emergency Response - Mediterranean

© Last updated 5 Nov 2015

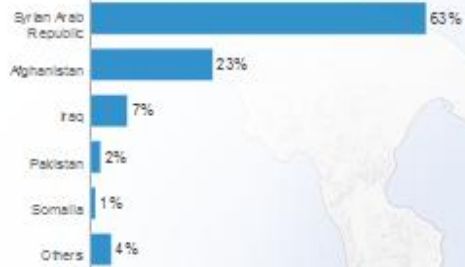
Increasing numbers of refugees and migrants take their chances aboard unseaworthy boats and dinghies in a desperate bid to reach Europe. The vast majority of those attempting this dangerous crossing are in need of international protection, fleeing violence and persecution in their country of origin. Every year these movements continue to exact a devastating toll on human life.

**626,436** arrivals by sea in 2015

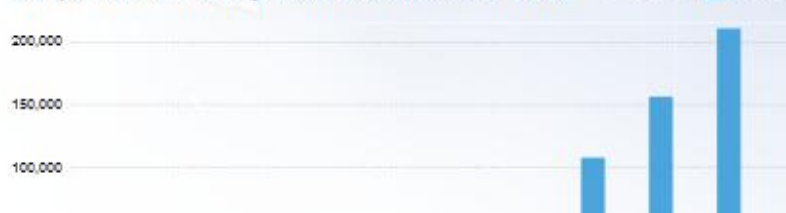
**93%** of arrivals come from the world's top 10 refugee-producing countries

## Top-10 nationalities of Mediterranean sea arrivals

Top-10 nationalities represent 100% of the sea arrivals



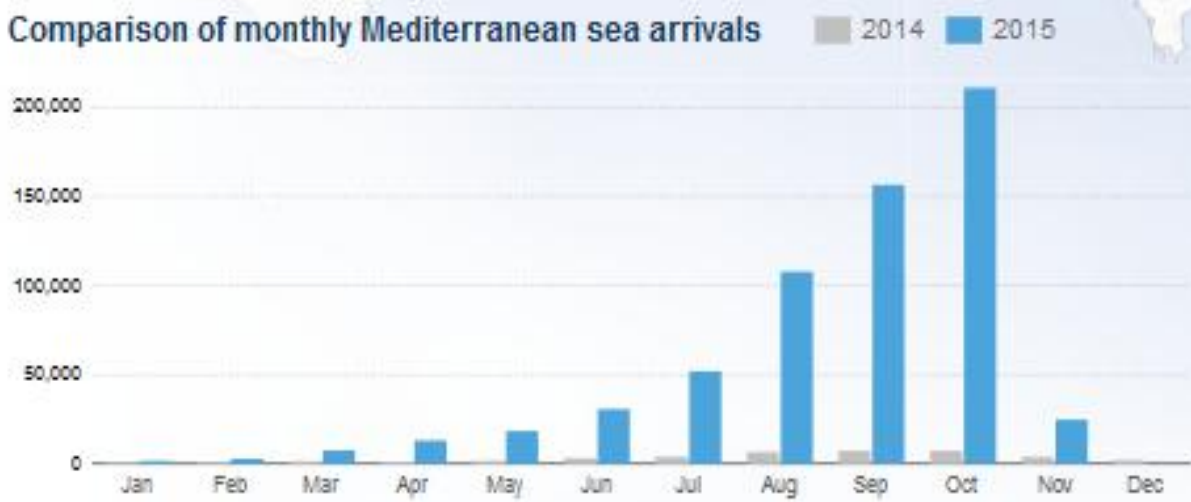
## Comparison of monthly Mediterranean sea arrivals



## Demographics



**ended up in the sea: 13,000+ (2.1%)**  
**official casualties: 3,100+ (24.3%)**



**exponential incr. rate: +54%...+74% per month**



**Projection:**  
 Nov 2015 (est) = +265.000  
 Dec 2015 (est) = +318.000



**SAHANA**  
SOFTWARE FOUNDATION

# Introduction to Sahana

*“No innovation matters more  
than that which saves lives”*

Avelino J. Cruz, Jr., Secretary of National Defense of the Philippines  
on the use of Sahana following disastrous mudslides in 2005





# Introduction

## Sahana Open Source Disaster Management Platform

Helps organizations and communities prepare for and respond to disasters

Originated in Sri Lanka for the 2004 Indian Ocean Tsunami

Deployed in over 25 countries

Used by many different organizations including Red Cross, UN, national and local governments

Open-source, Open-access, Crowdsourced DBs



# The Historic Trigger: 2004 Indian Ocean Tsunami

At least 226,000 dead  
Up to 5 million people lost  
their homes, or access to  
food and water  
1 million people left without  
a means to make a living  
At least \$7.5 billion in the  
cost of damages





## CNO Data Center

Click [here](#) for the CNO Homepage.

# SAHANA

Welcome to Sahana, a web application that hosts a number of services for the needy and for those who want to assist in easing the burden of those affected by the recent tsunami.

If you are not a registered organization/user please **register** to start using the facilities provided by Sahana.

» **Sahana Organization Registry**

» **Sahana Request Management System**

» **Sahana People Registry**

» **Sahana Camp Registry**

» **Sahana Assistance Database**

©2005 All rights reserved.

Software Developed Collaboratively by the Sri Lankan ICT In  
 Finder2000, hSenid, IFS, JKCS, LKLUG, LSF, UCSC, Univ. of

Server donated by IBM and

**SAHANA**  
 Disaster Management System

Go back to [Missing Person Registry Home](#) > [Organization Registry Home](#) >

**Map of Shelters by Population / Capacity percentage**

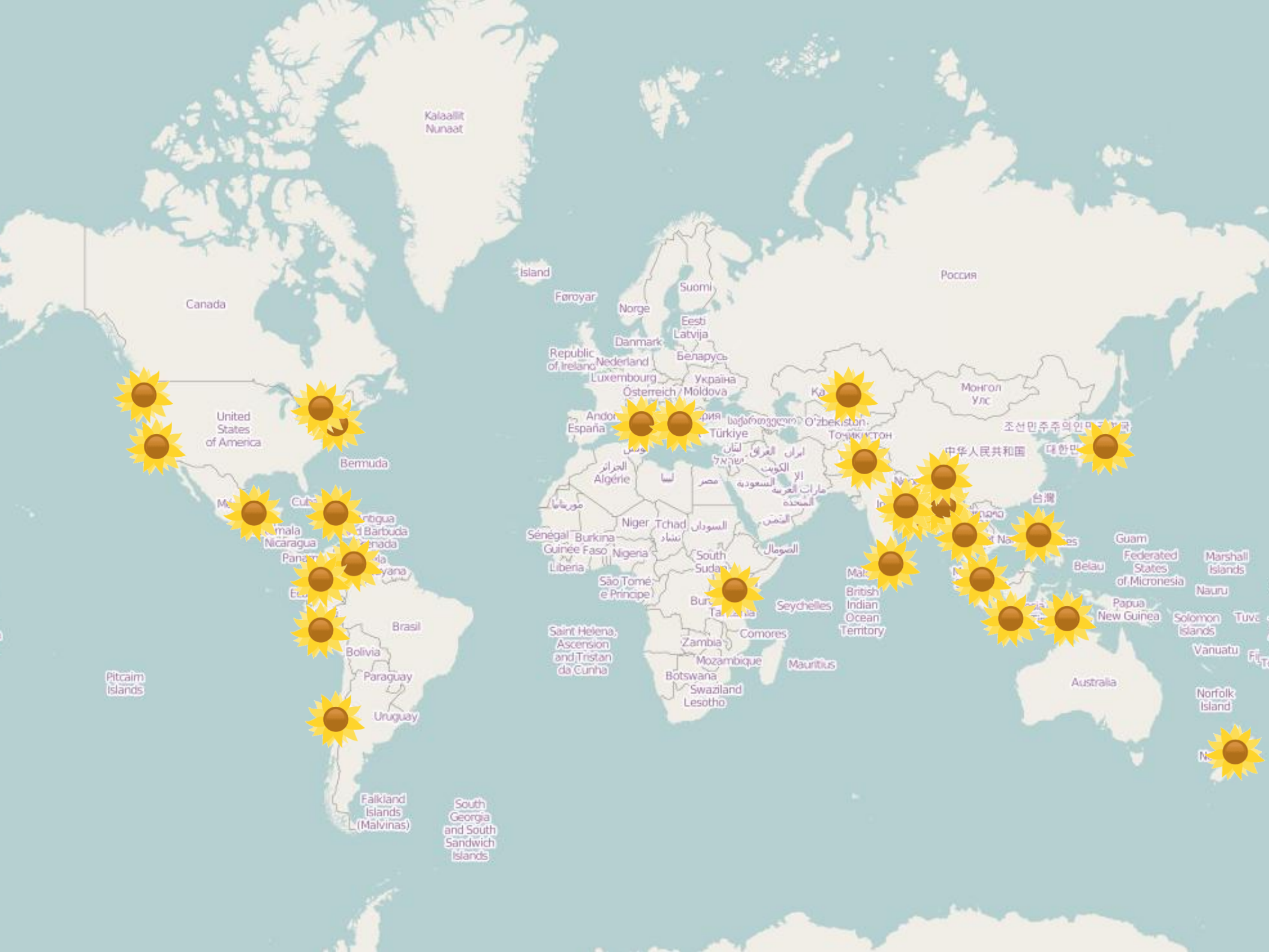
Map | Satellite | Hybrid

**SHELTER REGISTRY**

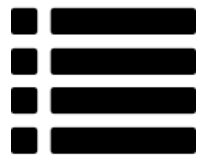
- Home
- Search
- Add Camp
- Edit Camp
- Reports

**SAHANA MAIN**

- Sahana Home
- Missing Person Registry
- Disaster Victim Registry
- Organization Registry
- Skeleton Module
- Inventory Management
- Messaging Module
- Reporting System
- Request/Aid Management
- Shelter Registry
- Volunteer Coordination
- Volunteer Management
- Volunteer Registry and Portal
- Catalogue System
- Situation Mapping



# How Does Sahana Help?



**Directory** of organizations, offices and people to support communication and coordination



**Incident management** sharing real-time information



**Who's Doing What Where (3W)** information to identify where there are gaps and overlaps



Records what **resources** are available and where to support disaster



Brings all information together in a single platform to provide **situational awareness**.

# Sahana's Modules

The following modules can be deployed as needed:

Ⓞ Organizations

Ⓞ Human Resources

Ⓞ Projects

Ⓞ Demographic Data

Ⓞ Assessments

Ⓞ Risks

Ⓞ Messaging

Ⓞ Incidents

Ⓞ Warehouses

Ⓞ Shelters

Ⓞ Assets

Ⓞ Requests

Ⓞ Donations

Ⓞ Missing Persons



# Sahana's Features

**Mapping:** All geographic data can be displayed on a map

**Authorization:** All data is controlled by configurable permissions which allow for granular access by user, organization or office.

**Reporting:** All data can be filtered and represented on matrix reports, pivot tables and charts

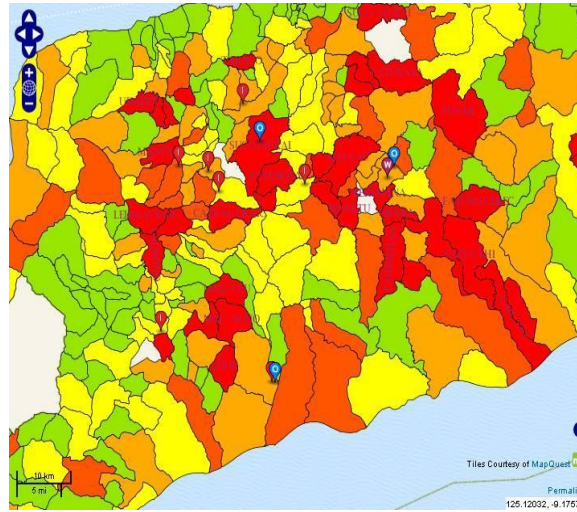
**Data Integration:** Web Services via RESTful API. Data import/export to CSV, XLS, XML or JSON.

**Synchronization:** DB import/export can be used for transparent sync with 'local' (offline) mini-deployments.



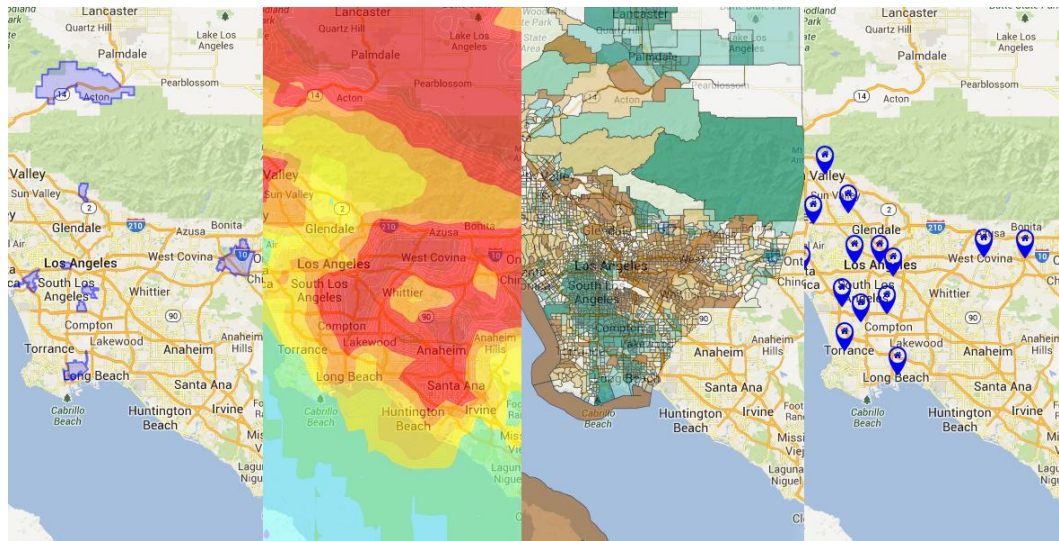
# Mapping

District	Population						Households			
	Total	Male	Female	Sex	Area in	Density	Private	Male Headed	Female Headed	Other
<b>TIMOR LESTE</b>	<b>1,066,409</b>	<b>544,198</b>	<b>522,211</b>	<b>104.21</b>	<b>14,954</b>	<b>71.31</b>	<b>184,652</b>	<b>155,118</b>	<b>29,534</b>	<b>1,342</b>
<b>AINARO</b>	<b>59,175</b>	<b>30,183</b>	<b>28,992</b>	<b>104.11</b>	<b>870</b>	<b>68.03</b>	<b>9,664</b>	<b>8,155</b>	<b>1,509</b>	<b>128</b>
<b>AINARO</b>	<b>15,558</b>	<b>8,083</b>	<b>7,475</b>	<b>108.13</b>	<b>236</b>	<b>65.94</b>	<b>2,292</b>	<b>1,949</b>	<b>343</b>	<b>108</b>
Ainaro	6,937	3,640	3,297	110.40	31	225.61	871	702	169	105
Suro-Craic	1,088	580	508	114.17	28	39.03	182	166	16	1
Soro	1,861	931	930	100.11	28	65.34	299	247	52	2
Manutasi	1,704	902	802	112.47	18	95.50	265	227	38	0
Cassa	2,495	1,267	1,228	103.18	70	35.65	414	368	46	0
Mau-Ulu	470	246	224	109.82	27	17.20	89	80	9	0
Mau-Nuno	1,003	517	486	106.38	34	29.78	172	159	13	0
<b>HATU-BULICO</b>	<b>11,950</b>	<b>5,978</b>	<b>5,972</b>	<b>100.10</b>	<b>130</b>	<b>92.01</b>	<b>2,058</b>	<b>1,723</b>	<b>335</b>	<b>5</b>
Mulo	6,274	3,123	3,151	99.11	45	138.34	1,112	910	202	5
Nuno-Mogoe	3,394	1,701	1,693	100.47	33	101.38	542	470	72	0
Mau-Chiga	2,282	1,154	1,128	102.30	51	44.70	404	343	61	0
<b>MAUBISSE</b>	<b>22,022</b>	<b>11,188</b>	<b>10,834</b>	<b>103.27</b>	<b>261</b>	<b>84.39</b>	<b>3,604</b>	<b>3,018</b>	<b>586</b>	<b>10</b>
Maubisse	6,184	3,186	2,998	106.27	22	283.82	974	803	171	8
Manelobas	1,148	575	573	100.35	8	139.70	186	156	30	0
Manetu	2,413	1,213	1,200	101.08	20	120.17	362	323	39	1
Aitutu	4,539	2,301	2,238	102.82	47	96.76	767	635	132	0

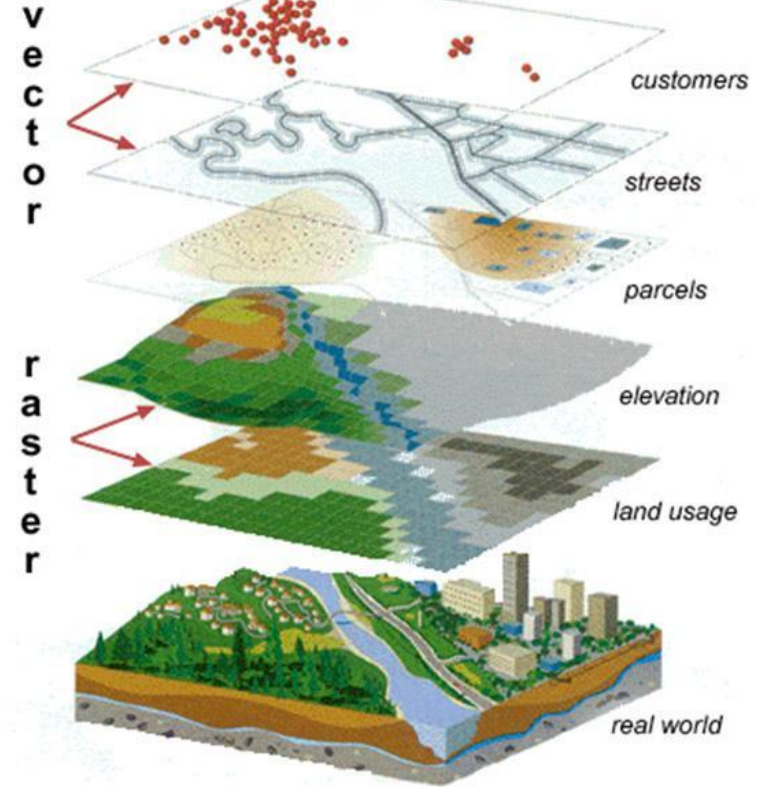


raw data

data maps



multi-layered visualizations





# Identifying where the greatest needs are

Location: Halalmeta, East Timor

**Layers**

- Base Layers
  - OpenStreetMap (MapQuest)
- Overlays
  - Offices
  - Volunteers
  - Assets
  - Events
  - Staff
  - Project Communities
  - Warehouses
- Population
  - Population Density 2010 (Pers
- Weather
  - Rainfall - last 1 day (mm)
  - Rainfall - last 10 days accum
- TL
  - Sucos unsafe water sources

**Web Map Service**

**Search Geonames**

**Legend**

- Offices
  -
- Events
  -
- Warehouses
  -

Short Description Halalmeta - Rising River  
Message The river has been steadily rising and the...  
Category High Water  
Date/Time of Alert 2012-01-17 00:00:33  
Expiry Date/Time 2012-01-19 00:00:33  
Location Halalmeta - Rising River (8.71894 S, 125.48949 E)

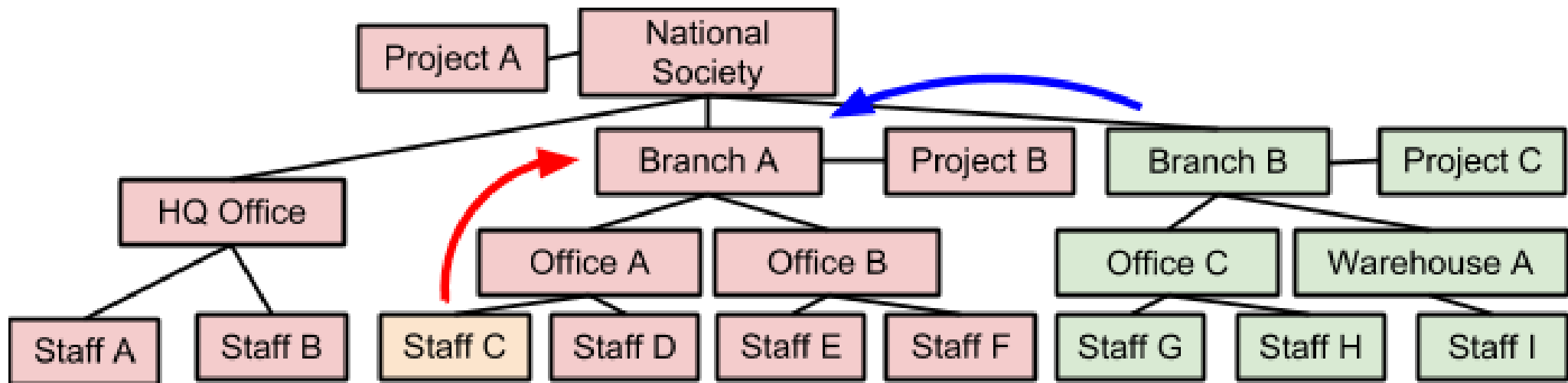
50 km  
20 mi

Tiles Courtesy of MapQuest

Permalink  
126.13849, -7.55199

# Multi-Stakeholder Authorization

Control access (if requested):  
across multiple organizations  
within organizational hierarchy





### NEWS

RMS Community Call 18 Jan 4 a.m. UTC - contact Eero Pykalainen for details.

# Multiple Languages

frank@lacity.org | Sign Out | Administration

English Español Tagalog 中文 日本語 한국어 Tiếng Việt

“Donate. Volunteer. Please 'Give2LA' and do your part. LA is ready for Mayor Antonio”

**GIVE2LA**

HOME DONATIONS VOLUNTEERS MASTER DATA

## Support the City of Los Angeles

**Give2LA** is the official website for the City of Los Angeles that provides information on volunteer and donation opportunities to support emergency preparedness, response and recovery. Tax deductible contributions for Cash and Corporate in-kind items can be made through one or more of the non-profit organizations listed.



The spirit of philanthropy is an integral part of Los Angeles culture. **Give2LA** is a great way for individuals, groups and organizations interested in volunteering to help worthy causes and efforts before, during and after an emergency. Please register to receive notifications of future Requests for Volunteers and to apply for requests online.

**STAFF & VOLUNTEERS**  
Add new and manage existing human resources.



**WAREHOUSES**  
Stocks and relief items.



**ASSETS**  
Manage office inventories and assets.



### » DONATE

**You**  
You can support our preparedness, response and recovery activities by making a monetary donation or by donating goods and services. **CLICK HERE TO VIEW DONATION OPPORTUNITIES.**

#### Corporations & Organizations

Corporations and Organizations can donate to support the City of Los Angeles, and also receive Situation Awareness Reports. **CLICK HERE TO REGISTER.**

### » VOLUNTEER

**You**  
You can donate your time by becoming a volunteer to aid survivors of disasters or local emergencies. **CLICK HERE TO VIEW REQUEST FOR VOLUNTEERS.**

#### Organizations & Groups

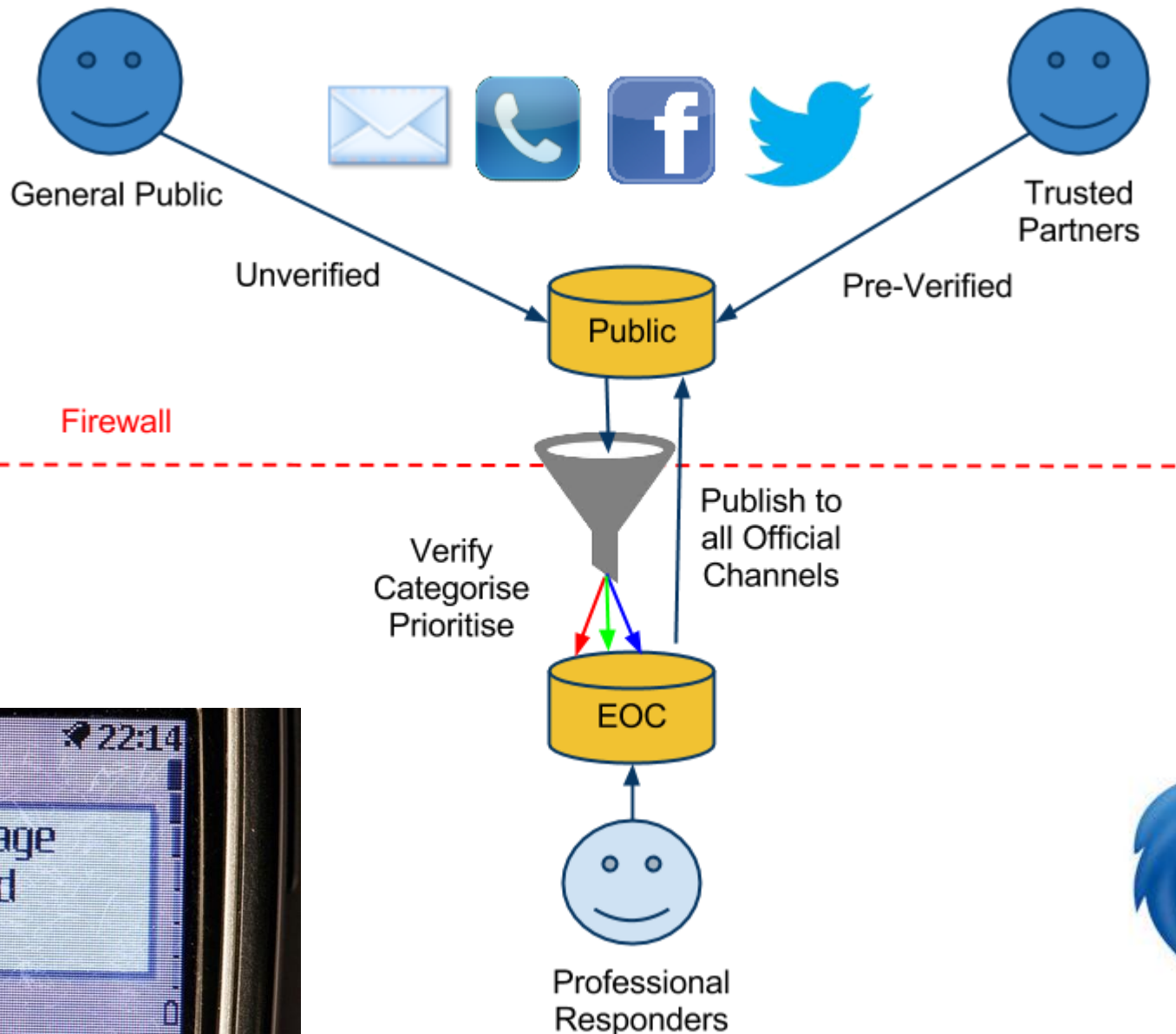
Organizations and Groups can volunteer to support the City of Los Angeles, and also receive Situation Awareness Reports. **CLICK HERE TO REGISTER.**



# Themes



# Communications & Social Media



# Sahana Software Foundation

- ©In 2009 a US 501(c)(3) non-profit organization was established to promote Sahana internationally
- ©Supports the Sahana Community
  - ©40 members from 12 countries
  - ©15 Organizational Partners
  - ©Mailing List: <http://groups.google.com/group/sahana-eden>
- ©Provides customization, deployment and support services
- ©Runs programs:
  - ©SahanaCamps, Training prog., Internship prog.
  - ©Participation in Google Summer of Code & “Code In”



# Standard Sahana Services

Configured deployment of Sahana software

Sahana deployment annual hosting and third tier support

Technical Capacity Development program:

Sahana Virtual Technical Training

5 day “Code Sprint” facilitated by 2 Sahana team members

12 months technical support

User Training

Software Development / Consultation



# Using Sahana

Licensed under the open source  
MIT License

Anyone is permitted to download,  
install and customize Sahana

You are encouraged to engage  
with the community and share  
your contributions



Resources & Community Support

Wiki: <http://eden.sahanafoundation.org>

Mailing List: <http://groups.google.com/group/sahana-eden>

# Sahana's Technical Architecture

Current version: Sahana “Eden”

Web Application

Built on Web2Py in Python

“RAD” Framework

RESTFul API

Data Integration XML / JSON / XLS / CSV

Custom Templates & Themes

<http://eden.sahanafoundation.org/wiki/Develop>





# Sahana's Strategic Plan

Developed through a community planning process

*One Year Goal:*

*Provide a standard Sahana software solution that organizations and communities need and can quickly use to easily enhance their disaster management activities.*

Identified 9 strategies to achieve this goal

Currently fundraising for US\$300,000 needed to achieved all of these strategies.

For more details see the Strategic Plan:

<http://bit.ly/sahana-strategic-plan-2014-2015>



## Accessibility

## Community

## Funding

### Critical Success Factors

Sahana Software needs to be accessible to Organisations and Communities

Sahana should be valued by a diverse international community

Donors are needed to enable Sahana to have a wider and more sustainable impact

### Strategic Pillars

Make Sahana More Accessible

Strengthen the Sahana Community

Develop Partnerships with Donors

### Strategies

Release Sahana Eden 1.0

Establish Local Sahana Branches around the World

Engage Potential Donors

Establish Baseline Data Repository

Deploy Sahana Response Support Teams

Establish Sustainable Funding Streams

Maintain Sahana Eden Open Source Code

Grow the Network of Sahana Service Providers

Implement Sahana Sunflower Community Support Tool



## Sahana #RefugeesWelcome

This is a coordination system for organizations and facilities providing support for refugees in Europe.

Fill in the form below for more information:

Your name: \*

Your e-mail address: \*

Subject: \*

Message: \*

 News	 Current Needs	 Organizations
---	--	--





News

Current Needs

Facilities

Organizations

Map

Login

Language

Contact

About

### View Fullscreen Map

#### Layers

##### Base Layers

- OpenStreetMap (Humanitarian)
- OpenStreetMap (MapQuest)

##### Overlays

- Current Needs

##### Hazards

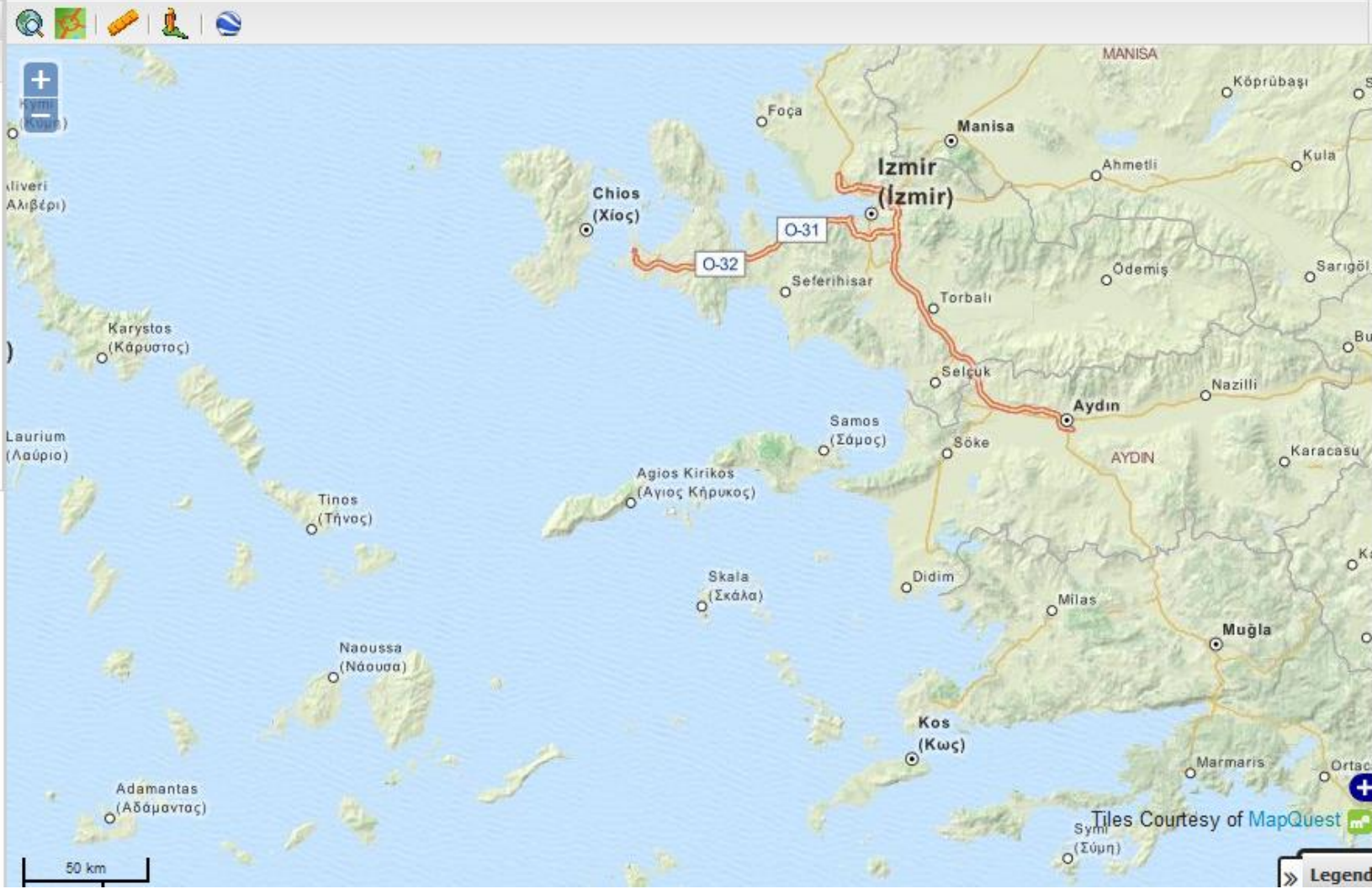
- Sea Level: Rise of 2m

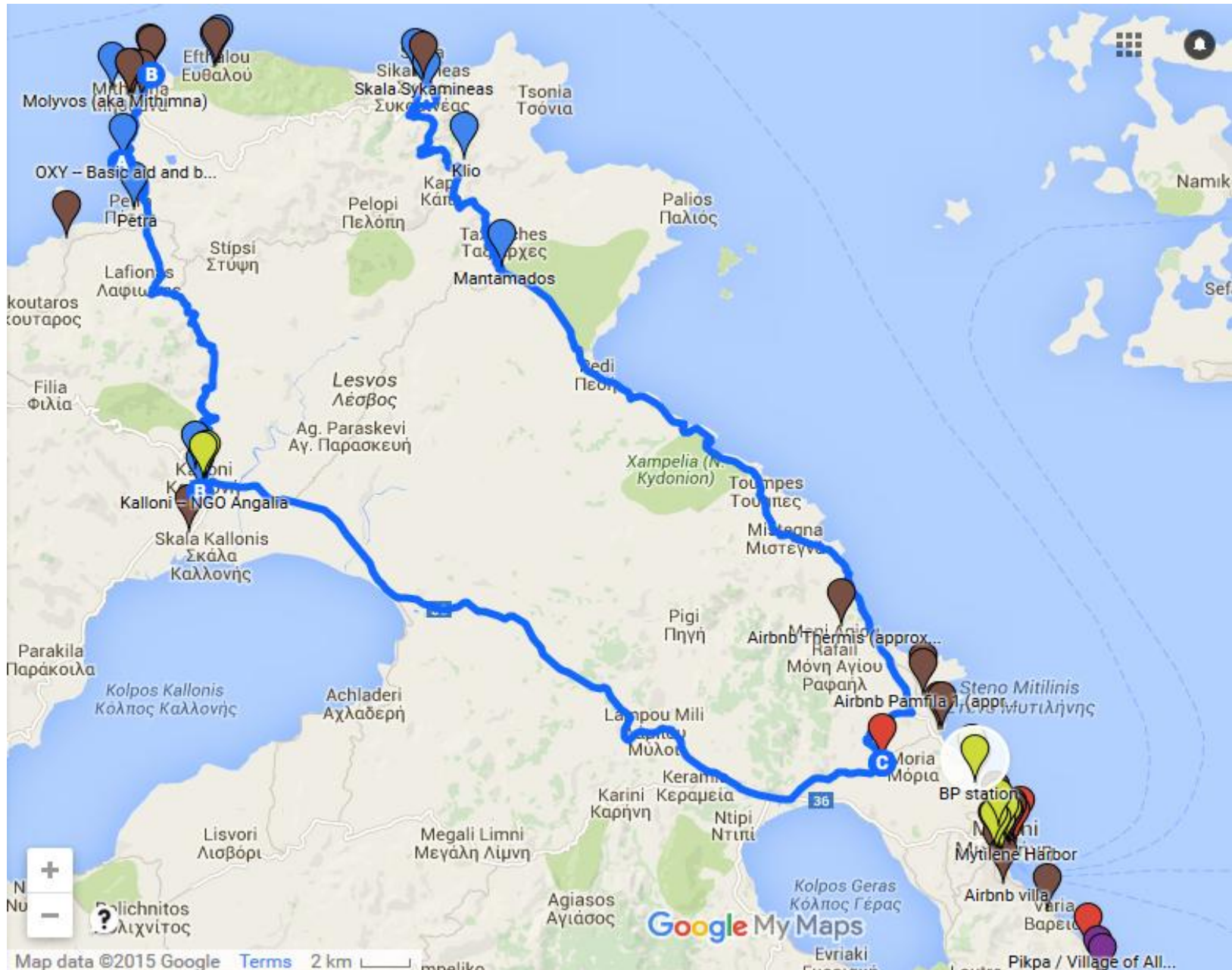
##### Incidents

- Earthquakes: Recent Events

##### Weather

- Current Weather
- Weather Stations
- Cloud forecast
- Precipitation forecast





# Affiliates

Aid & relief NGOs/NPOs:

MSF, MDM, IRC, UNCHR, ...

Rescue elements:

HRT (local dept.), Proactiva Open Arms, ...

Local Authorities:

Lesvos, ...

Technical groups:

SatNOGS, ...



# What we need - How can you help

## Phase-1: “establish”

- finalize modules / features
- populate core DB

## Phase-2: “roll-out”

- update DB / update SitRep
- train non-specialized personnel



# Contacts

<mailto:sahana@ict4dascgr.eu>  
<http://www.ict4dascgr.eu>

<mailto:info@epe.org.gr>  
<http://www.epe.org.gr>

<http://sahanafoundation.org>

