

Imagery to the Crowd

Confluence of Geography & ICT for Development



JOSHUA S CAMPBELL

GEOGRAPHER AND GIS ARCHITECT

HUMANITARIAN INFORMATION UNIT

OFFICE OF THE GEOGRAPHER AND GLOBAL ISSUES

U.S. DEPARTMENT OF STATE

HIU

HUMANITARIAN
INFORMATION
UNIT





OpenStreetMap

CC-by-SA www.itoworld.com

Map data www.openstreetmap.org 31 Jan 2010



ITO World

<http://www.flickr.com/photos/itoworld/4351891226/sizes/m/in/photostream/>

<http://www.flickr.com/photos/itoworld/4351891526/sizes/m/in/photostream/>

U.S. Department of State
Humanitarian Information Unit

Unclassified

Haiti Crisis Map - Telepresence

Map

Old UAV Map Layer List Contributors

Tools

Address

(Powered by OSM, can also enter MGRS)

Map Layers

- Base Layers
 - Satellite/Aerial Imagery
 - OpenStreetMap (Haiti)
- OSM Overlays
 - OpenStreetEmergencies
 - OpenStreetBugs
 - OSM Roads Overlay
 - Damage/Ref Camps
- Image Overlays
 - WFP Logistics (01-28)
 - 6K Delta State PDFs (Click for link)
- Ushahidi Overlays
 - Latest 100 Incidents
- Sahana Overlays
 - Offices
- Drone-style Overlays
- Topo Maps
- Hi Res Aerials Image
- Digital Globe
- GeoEye
- CNES/SpotImage
- Local Drawing Layers

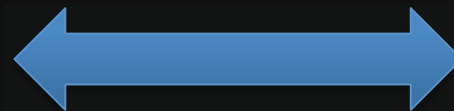
Map

Open StreetMap
Scale = 1:14K
Edit in OSM [Permalink](#)
72 33671, 18 54648 / MGRS: 18QYF81145272

Imagery Database

Internet

Volunteer Mappers



Terabytes
Ortho-rectified
Pan-sharpened
Natural color composite

Milliseconds
Web Map Service
Tiled Map Service

Easy
Fast



Bokolmanyo-Camp Roberts/RELIEF

Description **Workflow** Task Users Stats

What and Why?

Help us test a new imagery agreement and workflow for more information read the article on HOT's blog: <http://bit.ly/nextview>

This workflow allows the Humanitarian OpenStreetMap Team and OpenStreetMap access to commercial imagery through the U.S. government's NextView license. The primary use of the imagery to derive vectors must not be commercial. For this exercise the primary purpose is to provide better logistical information by tracing the roads and footpaths within various refugee camps in Ethiopia and Somalia.

NGOs

MapAction IMMAPP

GOVERNMENT

Australian AID

ABILITY TO REQUEST NEEDED INFORMATION

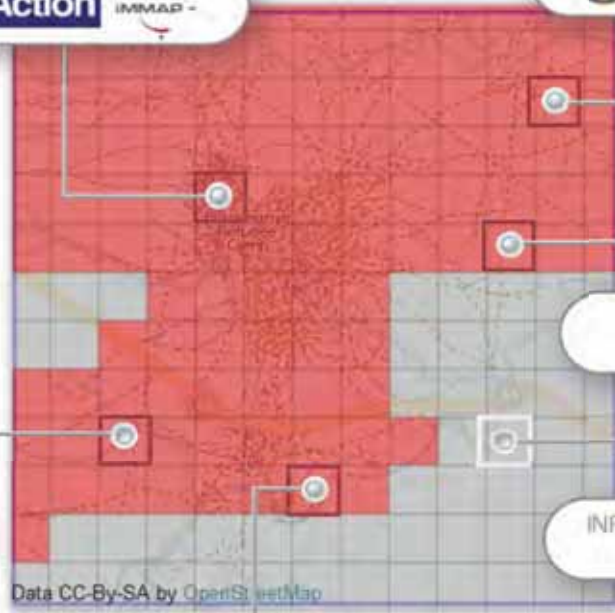
UGM Université Cheikh Anta Diop de Dakar

ACADEMIA

UNOSAT

IGOs

INFORMATION STILL NEEDS TO BE COLLECTED



Data CC-BY-SA by OpenStreetMap

Total (169) Done (115) Validated (0) Curr. worked on (0)

Designed and built for the Humanitarian OpenStreetMap Team with initial sponsorship from the Australia-Indonesia Facility for Disaster Reduction. See the about page for complete information.

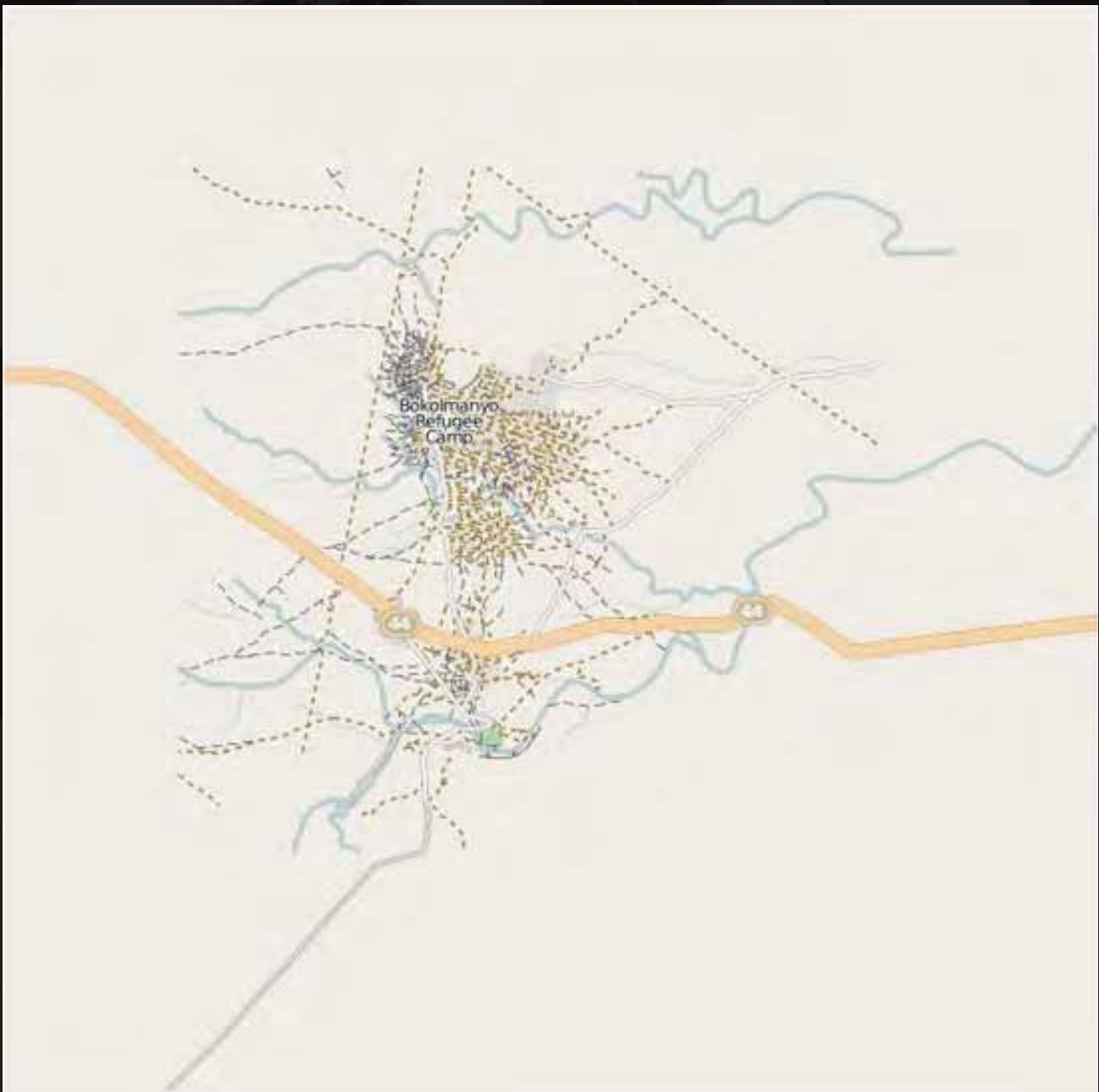
HOT Humanitarian OpenStreetMap Team

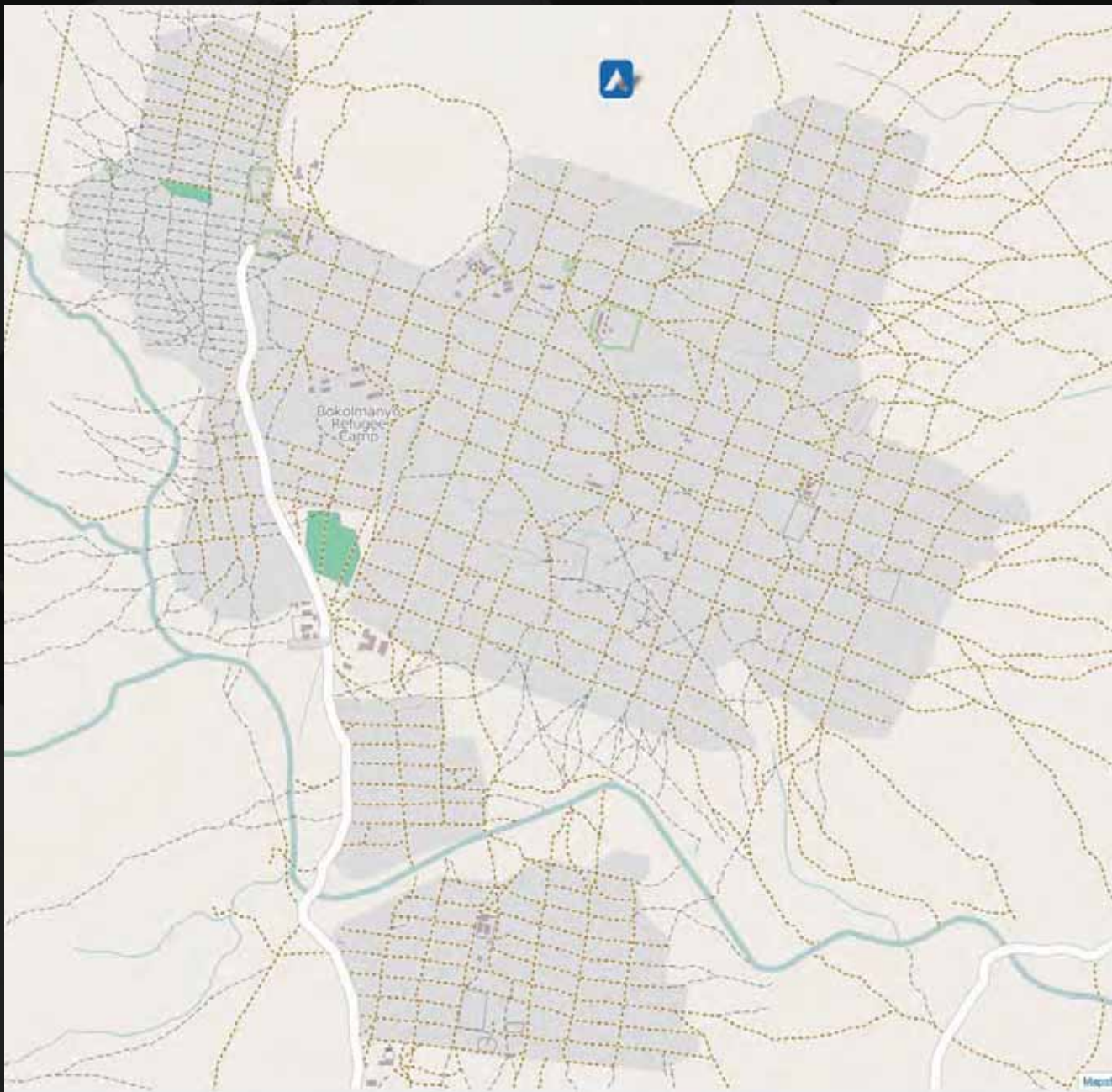
HOT VOLUNTEER

Fork the code on github.

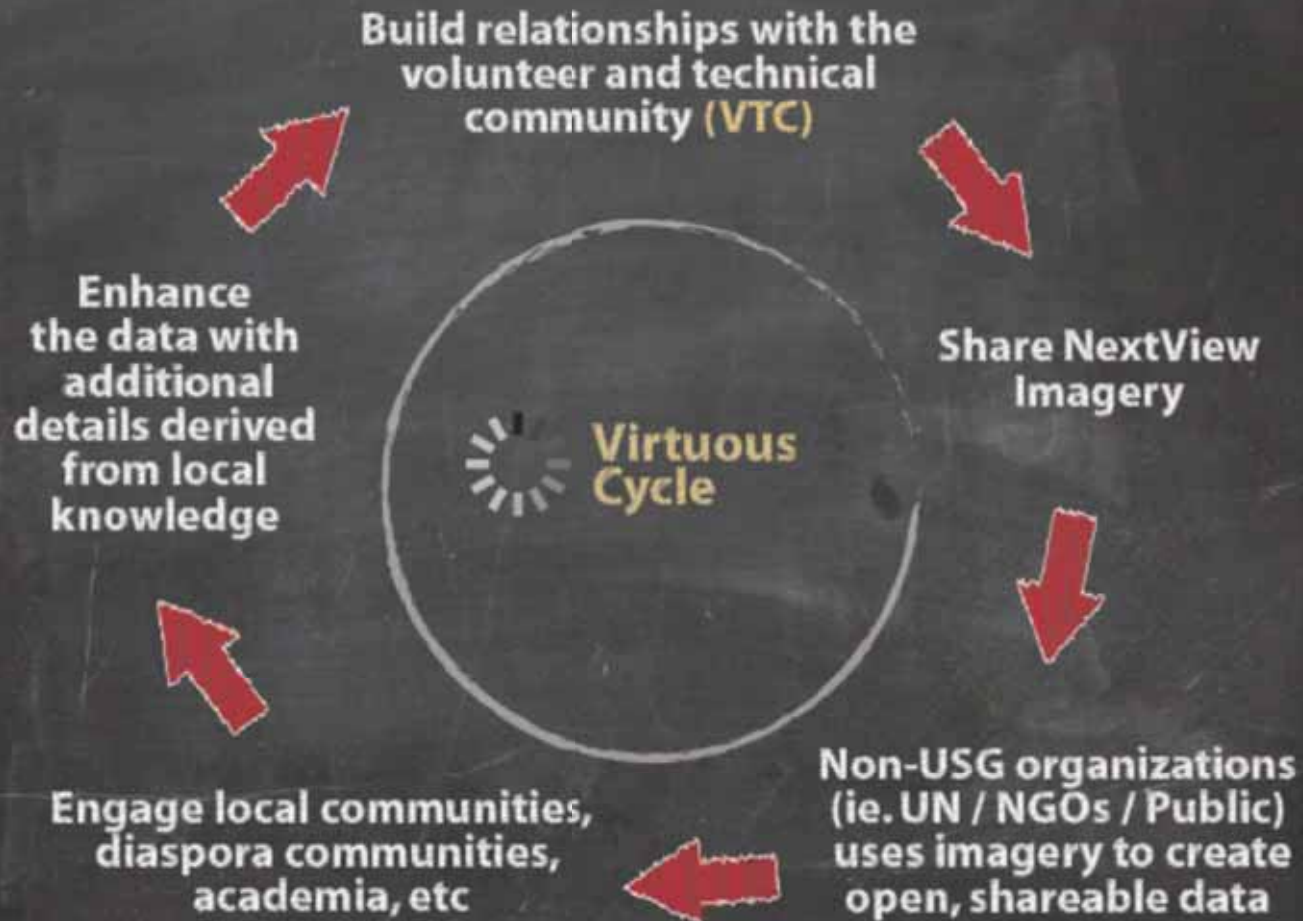
INFORMATION COMPLETED INFORMATION STILL NEEDED







Crowdsourcing Engagement



Home > News & Events > News > New Mapping Technologies for the Developing World

New Mapping Technologies for the Developing World



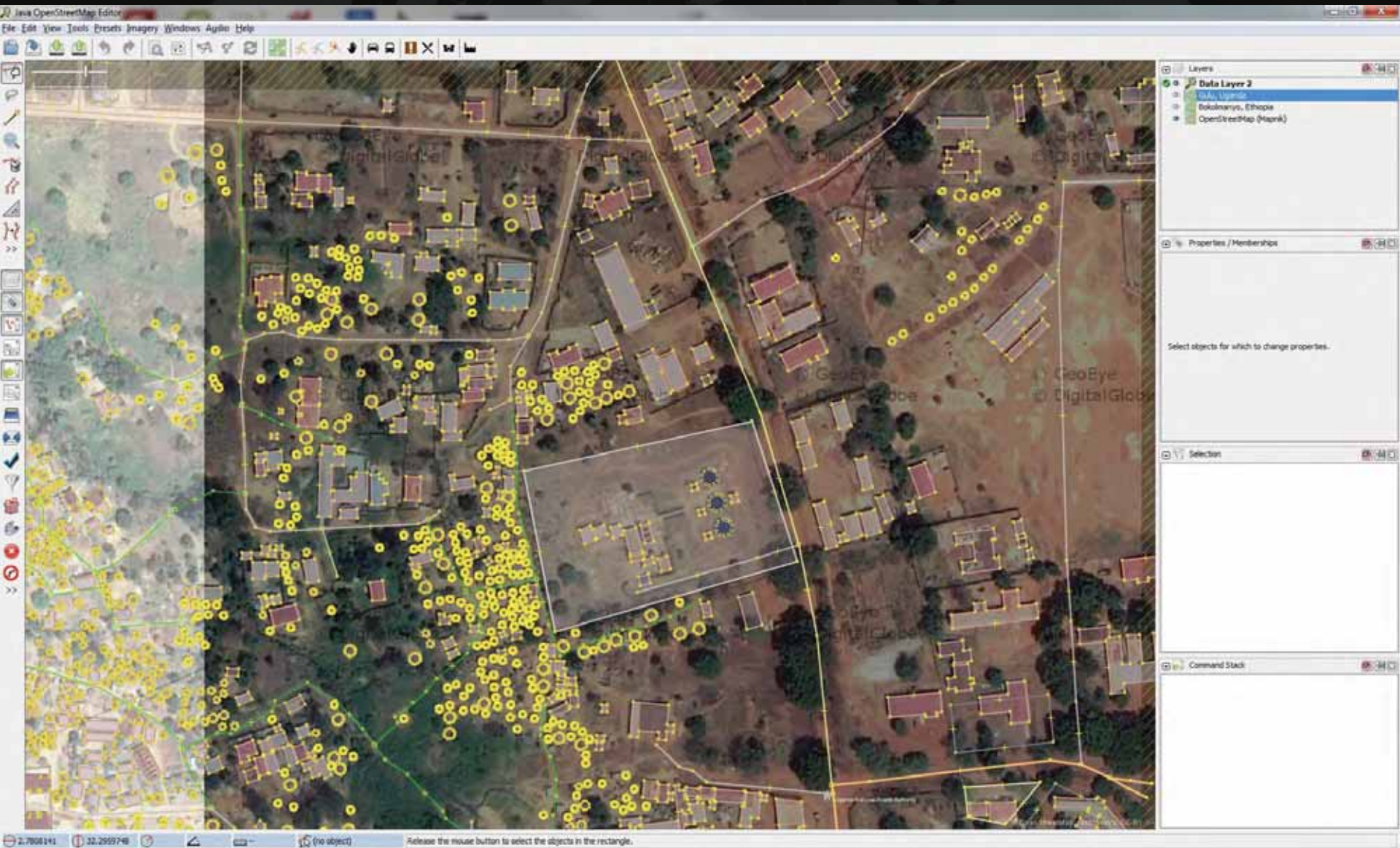
Responders need to know how streets are laid out so they can figure out how to get closest to a fire.

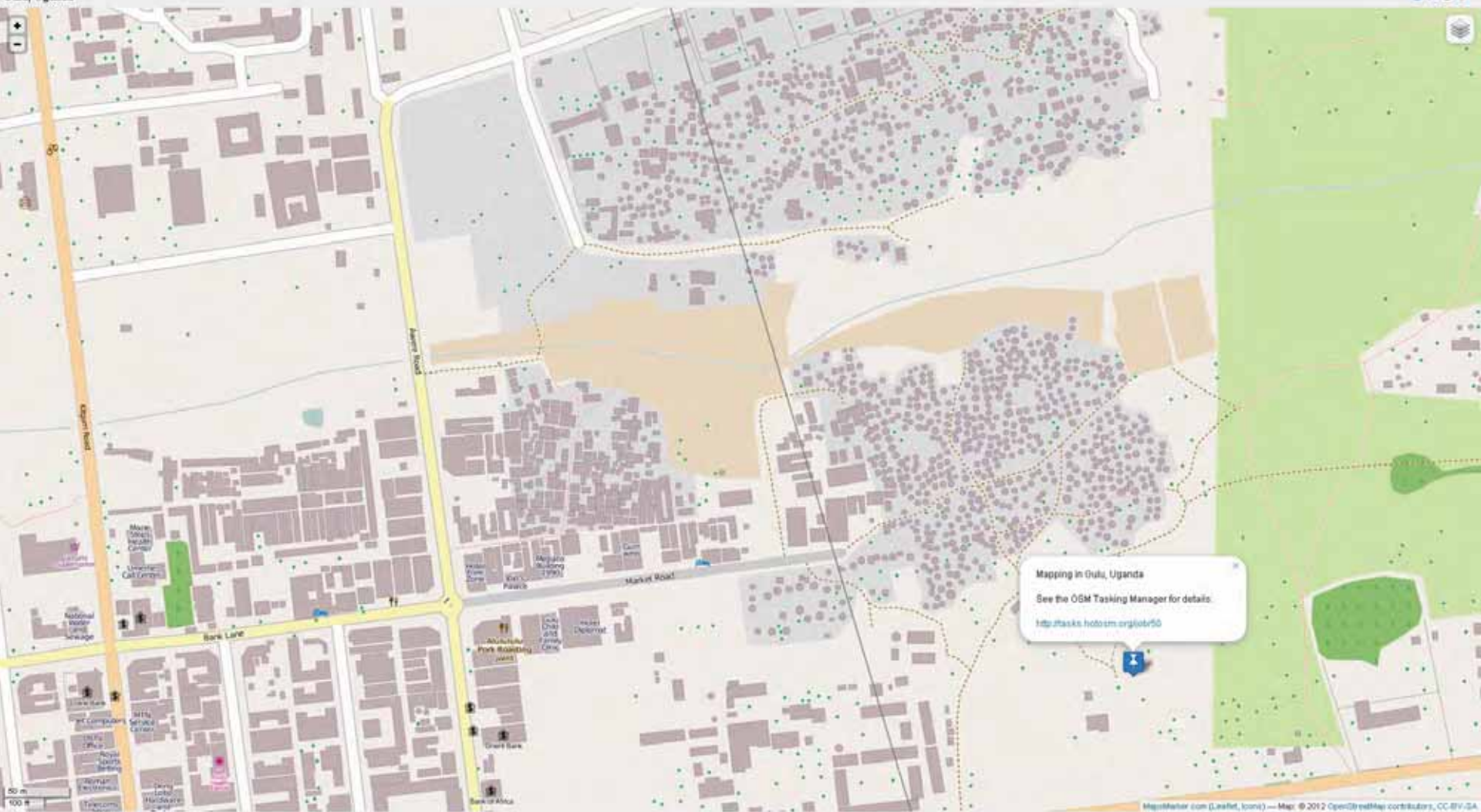
Posted September 04, 2012 , By Tamara Braunstein

The town of Lira in Northern Uganda does not have a fire department. Its buildings are built so closely together that a small fire can quickly escalate into a major disaster as commonly used construction materials like straw and wood fuel the flames.

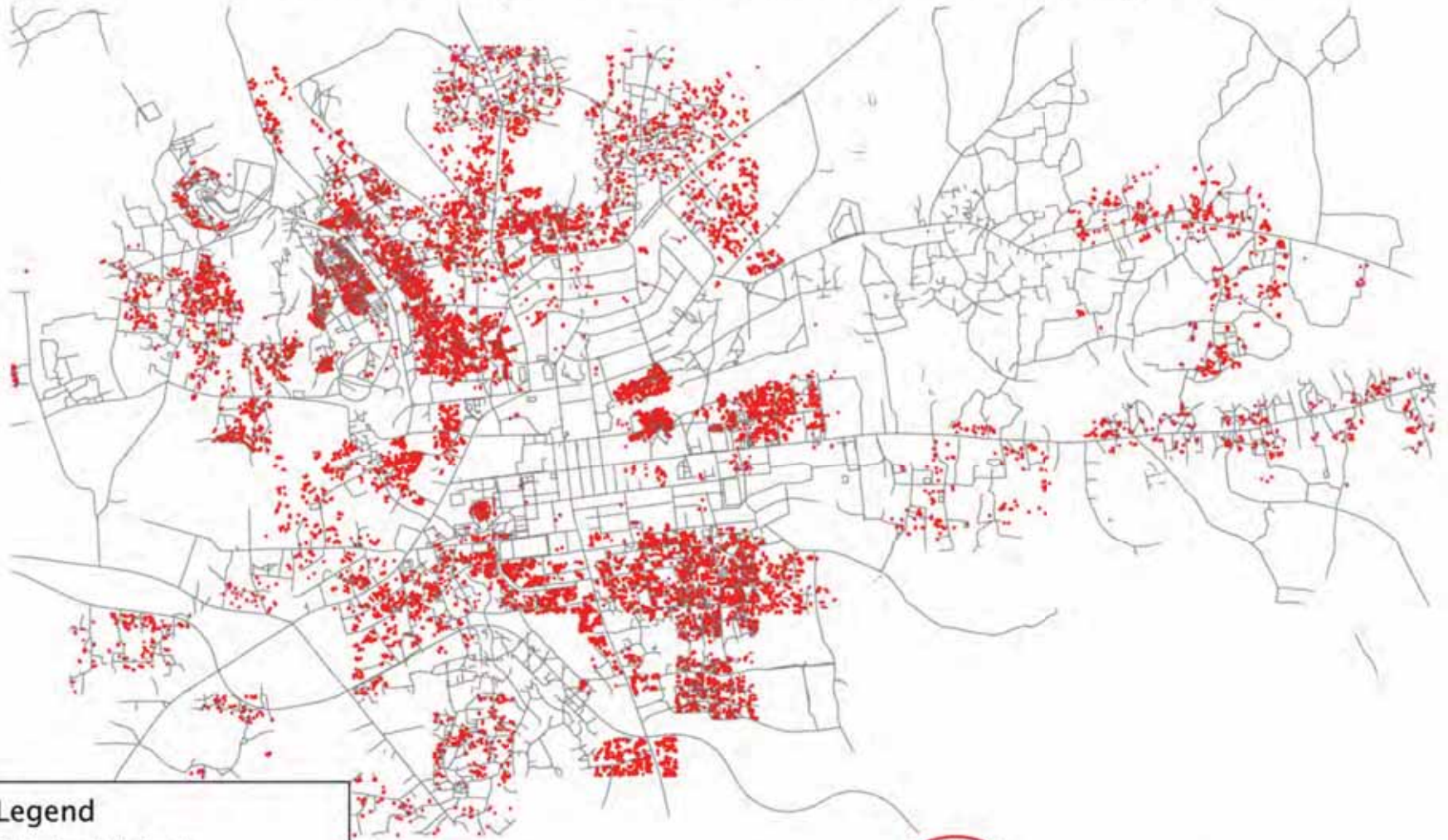
In neighboring Gulu, a town about 64 miles away, emergency responders face equally daunting circumstances. Response teams are often hindered by a lack of planning capacity because even the largest roads are not mapped out.

"Responders need to know how streets are laid out so they can figure out how to get closest to a fire," said Robert Banick, a geographic information systems (GIS) analyst for the American Red Cross.





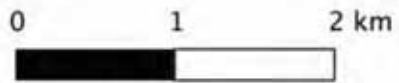
Areas of Increased Fire Risk in Gulu Municipality



Legend

Gulu Road Network

Traditional Grass Thatched Huts



Courtesy: Robert Banick

OPEN CITIES

About All Cities

Urban and Open

Making urban planning data better by making it more open

Public contributions improve OpenStreetMap's Global coverage daily

Map visualizes the density of OpenStreetMap contributions.

Select Case Studies

Discover innovative uses of open data to empower resilient communities

Dhaka, Bangladesh
Structure Survey Images

Siddeswarji Girls High School
Twinn Tower



OpenStreetMap
The Free World Map

Examples: "Admission", "Regent Street, Cambridge", "C10 LA2" or just offices near London more examples... Where are you?

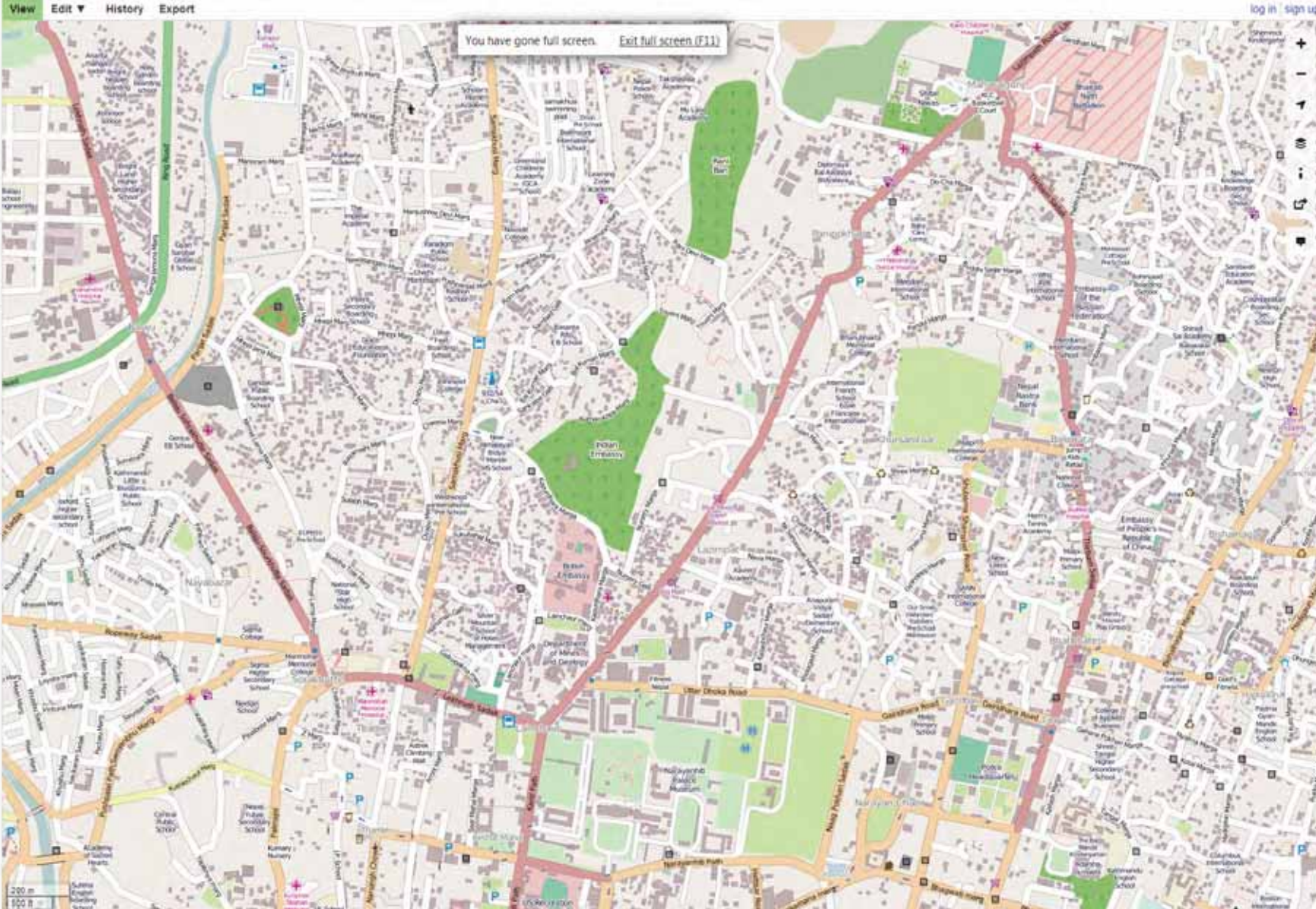
OpenStreetMap is a free worldwide map, created by people like you. The data is free to download and use under its open license. Create a user account to improve the map.

- Help
 - Help Centre
 - Documentation
 - Copyright & License
- Community
 - Community Blogs
 - Foundation
 - User Diaries
 - GPS Traces

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Make a Donation

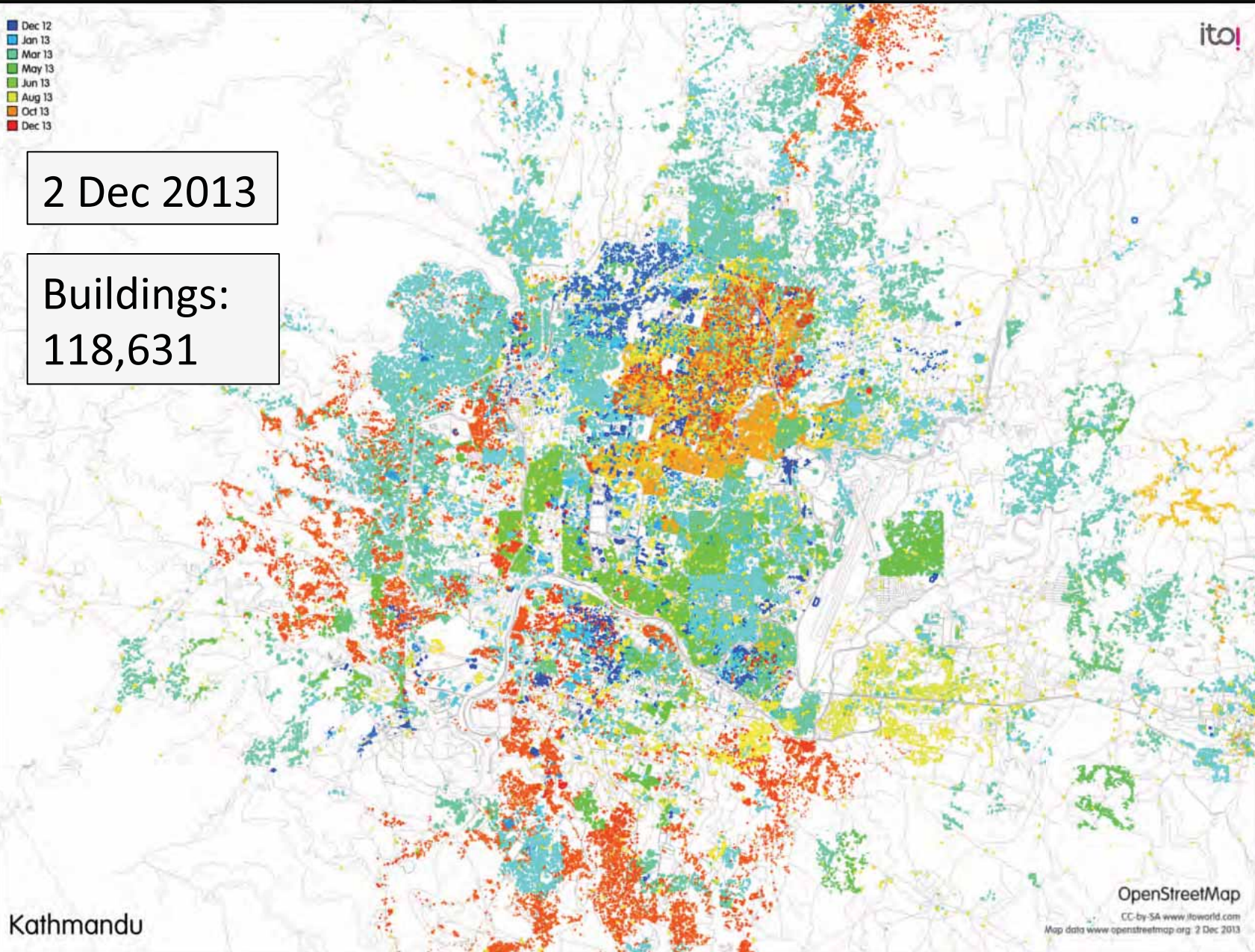
Hosting is supported by the UCL Yeh Centre, Imperial College London and Syberia's Hosting and other partners.



- Dec 12
- Jan 13
- Mar 13
- May 13
- Jun 13
- Aug 13
- Oct 13
- Dec 13

2 Dec 2013

Buildings:
118,631

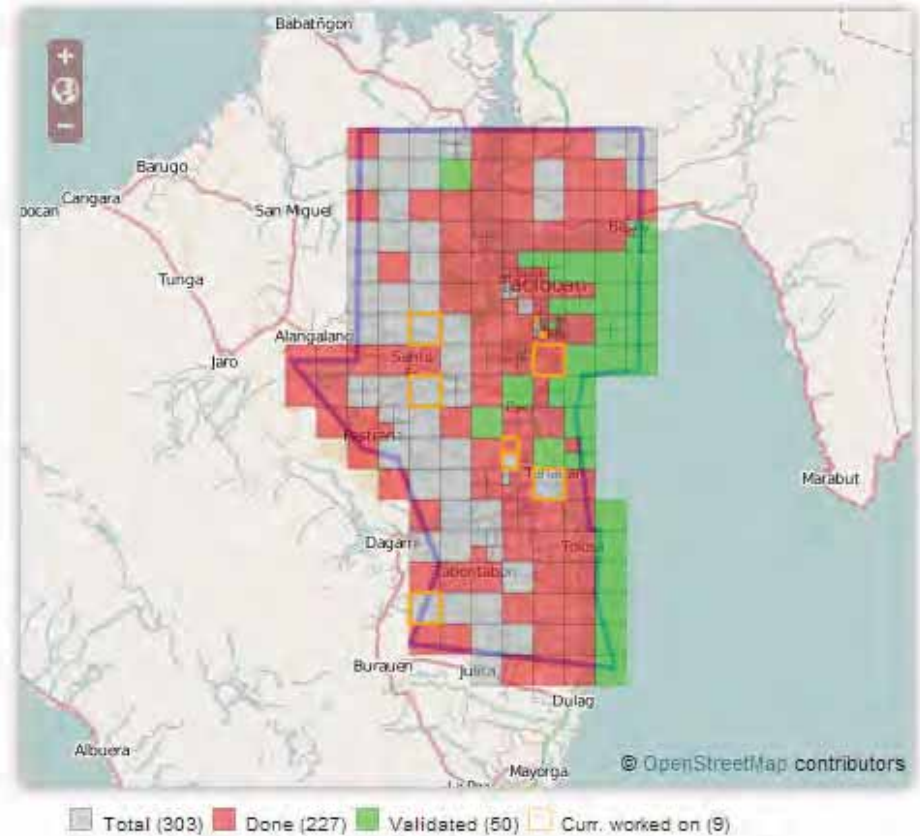
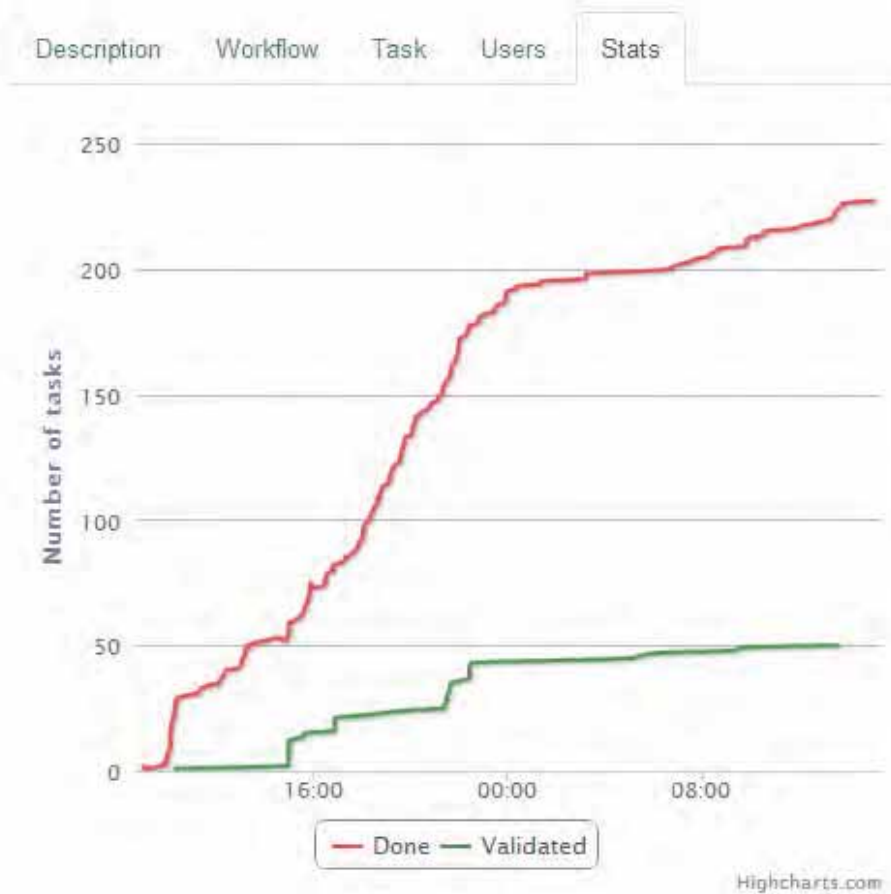


Kathmandu

OpenStreetMap

CC-by-SA www.iloworld.com
Map data www.openstreetmap.org 2 Dec 2013

Typhoon Haiyan - Tacloban Post-Disaster Imagery Mapping



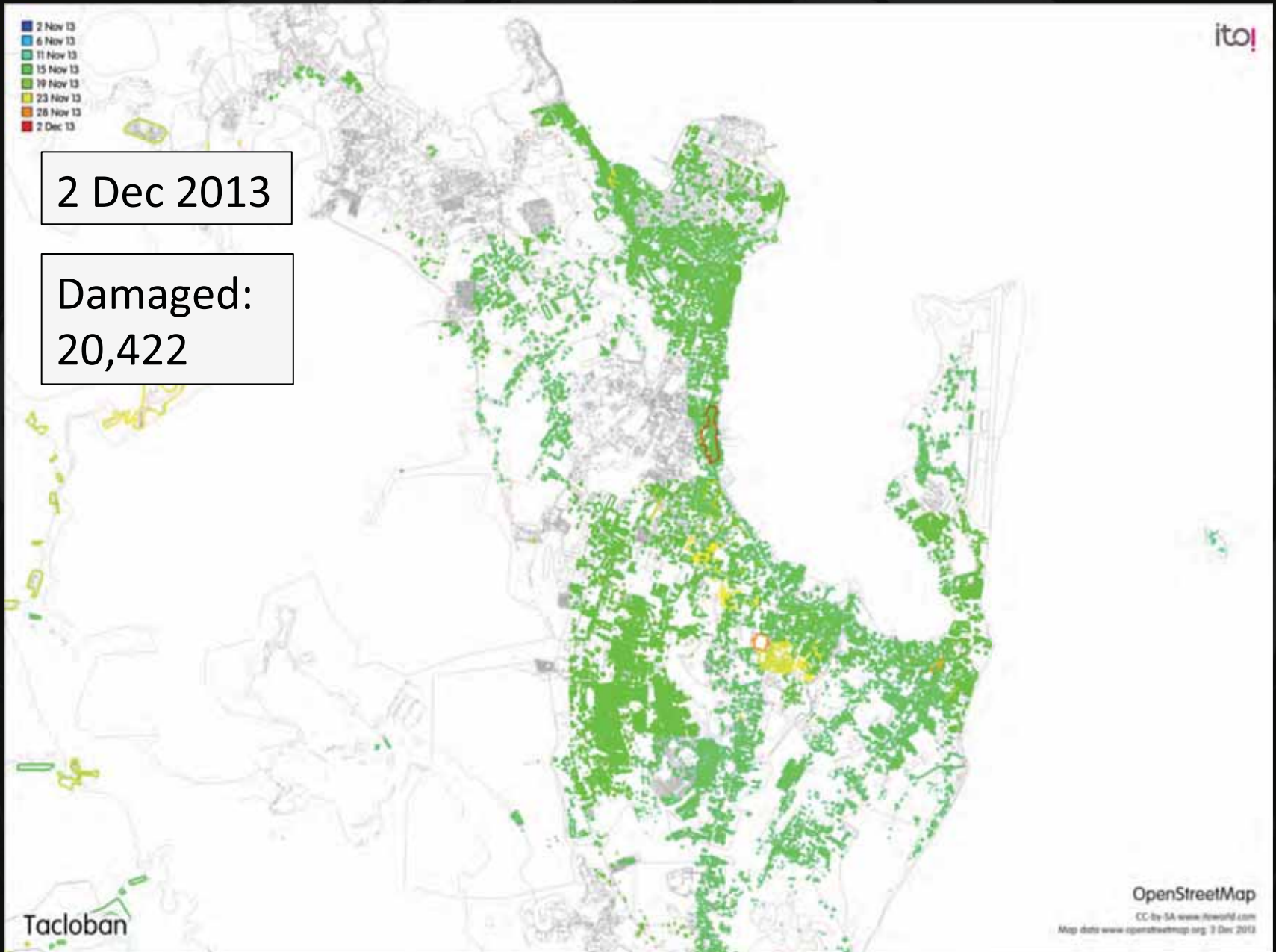
**Tacloban: 53 Contributors -- 238 Tiles Completed
Between 1am Nov 13 – 12pm Nov 14**

**Ormoc City: 55 Contributors – 274 Tiles Completed
Between 1am Nov 13 – 12pm Nov 14**

- 2 Nov 13
- 6 Nov 13
- 11 Nov 13
- 15 Nov 13
- 19 Nov 13
- 23 Nov 13
- 28 Nov 13
- 2 Dec 13

2 Dec 2013

Damaged:
20,422



Tacloban

OpenStreetMap

CC-BY-SA www.itoworld.com
Map data www.openstreetmap.org 3 Dec 2013



Horn of Africa

Overview Map

Description

Horn of Africa Refugee Camps

Date: May 24, 2012

Location: Horn of Africa

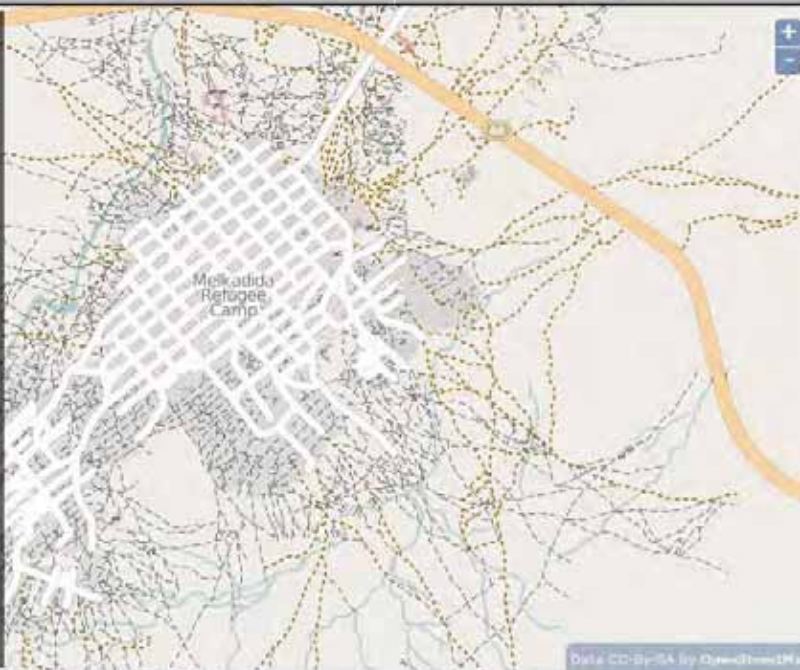
Region: Africa

As a proof of concept, the HIU posted imagery for the ten refugee camps that comprise the Dollo Ado (Ethiopia) and Dadaab (Kenya) complexes, making imagery available to the volunteer mapping community for a 48 hour period. The goal was to map the roads and footpaths in the ten camps that collectively house over 600,000 refugees.

[Download Summary \(.pdf\)](#)

[View in OpenStreetMap](#)

[View OSM Tasking Manager](#)



Data: CC-BY-SA by OpenStreetMap

All Projects

Current Projects

Archived Projects

- Kathmandu, Nepal
- Horn of Africa (Dollo Addo and Dadaab)
- Uganda (Gulu and Lira)
- Kenya (Lake Baringo and Molo Town)
- Ambon, Indonesia
- Bucaramanga, Colombia
- Sake, DRC

<http://hiu.state.gov/ittc>

SXSW Interactive 2014

Tags: crowdsourcing, mapping, diplomacy

Meta:

Event - Interactive

Category - Dual

Theme - Policy and Civic Engagement

Level - Intermediate

Share this idea

Show me another

Crowdsourcing Diplomacy

This panel will illustrate how the State Dept is leveraging its social media network to address humanitarian crises. With 30 million fans and followers and over 1,000 social media practitioners worldwide, the Department is engaging its networks for social good. Through the combined resources of the Bureau of International Information Programs (IIP) and the Humanitarian Information Unit (HIU) the Department can now crowdsource projects that can have major impact in the daily lives of millions of people. The Humanitarian Information Unit's initiative entitled "Imagery to the Crowd" takes satellite imagery purchased by the U.S. government and connects that imagery to the volunteer mapping community working on humanitarian emergencies, disaster response, and sustainable development. The partnership uses IIP's large social media network to recruit new volunteer mappers, and to map new areas which are at risk of a humanitarian emergency.



THE OPEN GLOBE PROJECT

CRISIS MAPPING BEFORE THE CRISIS

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[Start Mapping](#)

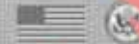
Not every place in the world is mapped like we believe.

Accurate and timely data can play a critical role in humanitarian missions. Be part of the solution and **start mapping**.



**START
TO MAP**

THE OPEN GLOBE PROJECT



[The Cause](#)

[About Open Mapping](#)

[Start mapping](#)

[Contact Us](#)

[Commonly Asked Questions](#)

[Instructions](#)

[Stories](#)

Our Mission

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean massa, Curabitur natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.