

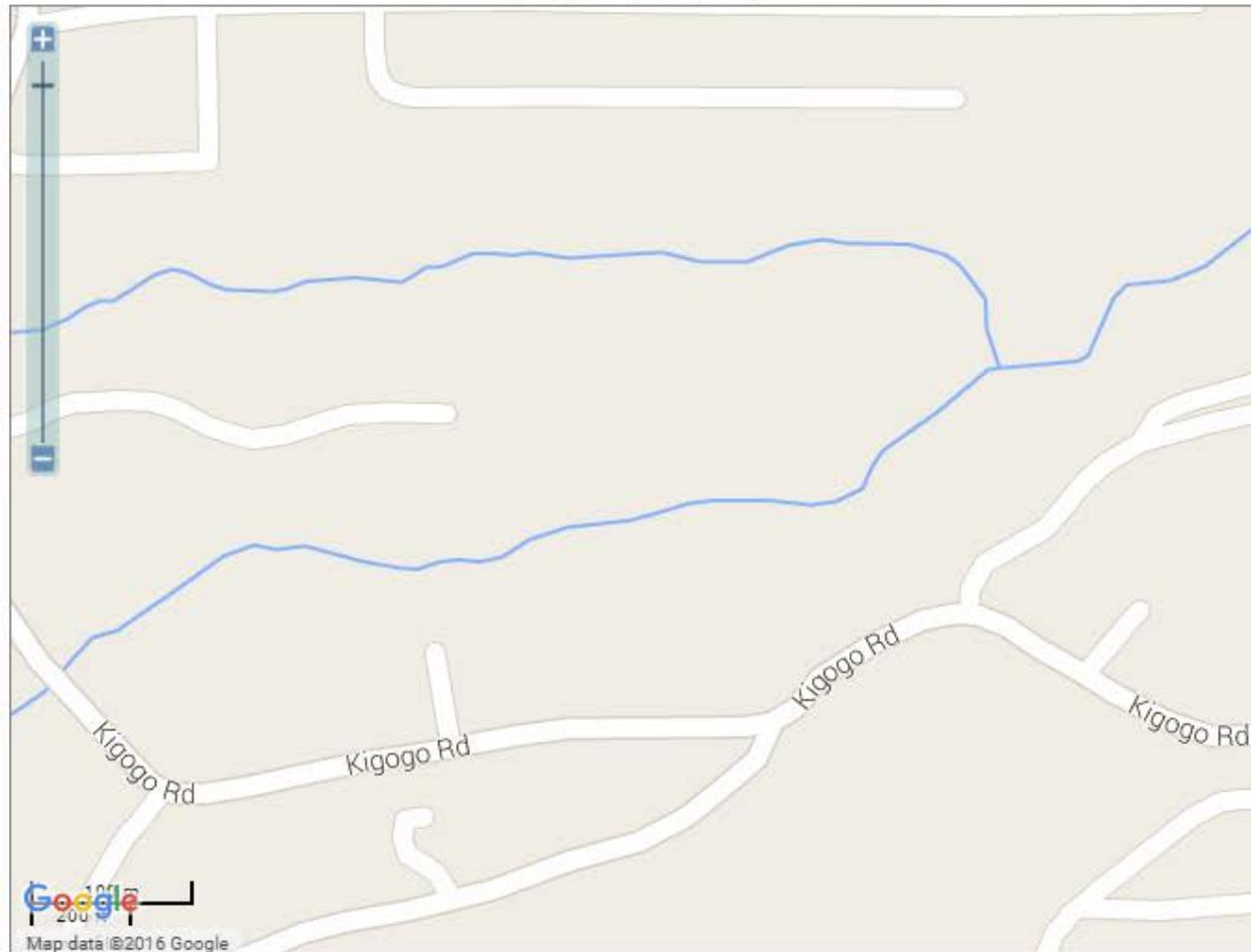
During Disasters:  
**Citizen-Government Collaboration for  
Rapid and Effective Response**

@TylerSRadford | 5 September 2016

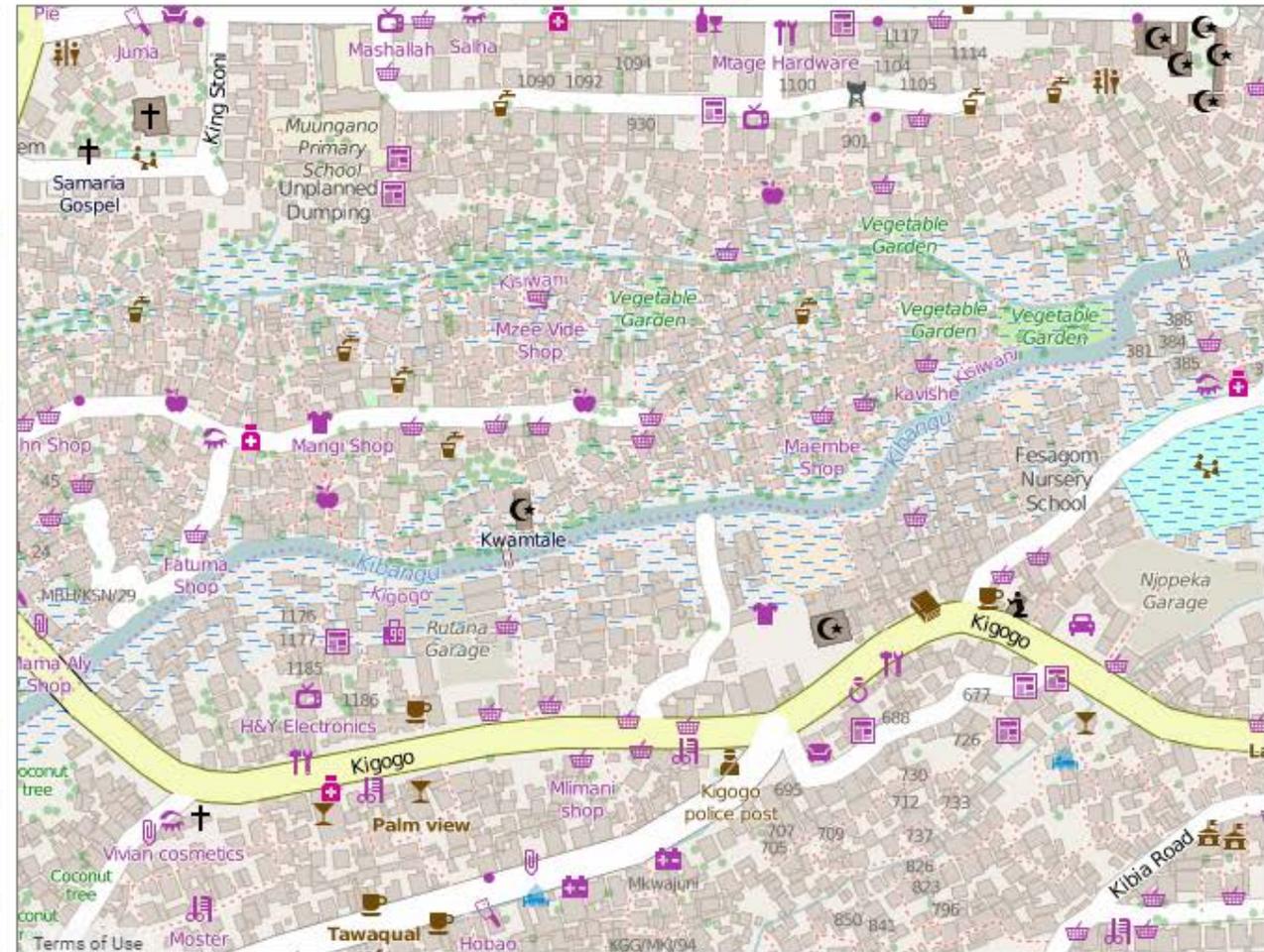


Humanitarian  
OpenStreetMap  
Team

Choose map type: Google Map



Choose map type: OSM Mapnik



39.24340, -6.81760 zoom=17 number of maps: 1 2 3 4 6 8

All maps except Bing/Google/HERE based on OSM data © OpenStreetMap (License: ODbL 1.0), OSM Tiles licensed CC-BY-SA 2.0 - help - contact - fullscreen

# CROWDSOURCED Open Geodata/VGI – Huge role in filling gaps for preparedness/DRR



**MISSING  
MAPS**



**American  
Red Cross**



**BritishRedCross**



**MEDECINS SANS FRONTIERES  
DOCTORS WITHOUT BORDERS**



**Humanitarian  
OpenStreetMap  
Team**



**cartong**



**CLINTON  
HEALTH ACCESS  
INITIATIVE**



**Rode  
Kruis**



**GIScience**

Largest collective project ever to fill the gaps:  
Free, open, micro-level data sets at a global scale

*“When a crisis occurs, each decision made, each additional minute spent on an issue, directly impacts the way affected populations will receive and benefit from much needed aid and relief, sometimes to the point of making a difference between life and death.”*

UN GGIM Disasters International Forum Concept Paper



Working together before disaster is best.  
But crowdsourcing can also fill data gaps in hours.



# Draft Strategic Framework on Geospatial Information and Services for Disasters

2016-2030

*“Recent large scale events...have demonstrated the gap between the state of geospatial information and informed decision-making”*

*“To encourage the Open Data Community to engage more actively with governments and government agencies to align the datasets produced by volunteers with the official registries and nomenclatures.”*

May 2016



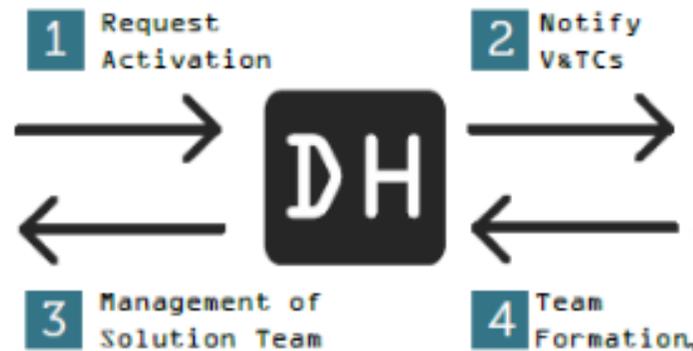
UN-GGIM

United Nations Committee of Experts on  
Global Geospatial Information Management

[ggim.un.org](http://ggim.un.org)

# Formal Humanitarian Responders

# Volunteer & Technical Communities (V&TCs)



Activation Facilitation Process

The Digital Humanitarians Network





**HOTOSM**  
 @hotsm · FOLLOWS YOU  
 We are the Humanitarian OpenStreetMap Team. Our focus: OSM for humanitarian response & economic development.  
 #mapthedifference #opendata #openstreetmap  
 Joined May 2010

 **HOTOSM** @hotsm Following

HOT is activating to support relief in Sri Lanka, if you have a few moments, please visit [tasks.hotosm.org](https://tasks.hotosm.org) [wiki.openstreetmap.org/wiki/2016\\_Sri\\_Lanka](https://wiki.openstreetmap.org/wiki/2016_Sri_Lanka)

RETWEETS 69 LIKES 29

2:41 PM - 18 May 2016

Reply to @hotsm

**Trends**

#RingsMovie Promoted by Rings Movie Leslie Jones #WednesdayWisdom  
 #NationalWaffleDay Guaranteed Rate Field Earth-like American University in Kabul Proxima Centauri #Proximab #AdobeChat #AdweekChat

 Humanitarian OpenStreetMap Team



**Activation Protocol**  
 Defining the HOT Disaster Mapping Program

HOT Disaster Activations: Massive rapid response mapping

# [HOT] 7.9 earthquake in Nepal - HOT Activation - OpenStreetMap response to Katmandu Earthquake

Nama Budhathoki [namabudhathoki at gmail.com](mailto:namabudhathoki@gmail.com)

*Sat Apr 25 13:31:30 UTC 2015*

- Previous message: [\[HOT\] 7.9 earthquake in Nepal - HOT Activation - OpenStreetMap response to Katmandu Earthquake](#)
- Next message: [\[HOT\] 7.9 earthquake in Nepal - HOT Activation - OpenStreetMap response to Katmandu Earthquake](#)
- Messages sorted by: [\[ date \]](#) [\[ thread \]](#) [\[ subject \]](#) [\[ author \]](#)

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The damage seems to be massive. Reports are coming every minute. The quake has damaged different parts of the country, not just Kathmandu.

I just got access to the internet; lots of congestion in communication. People from Kathmandu Living Labs including myself are safe. We are preparing to spend the night in open space. We will get back to you tomorrow.

Yes, I think we should make the activation.

Nama

# [HOT] 7.9 earthquake in Nepal - HOT Activation - OpenStreetMap response to Katmandu Earthquake

Pierre Béland [pierzenh at yahoo.fr](mailto:pierzenh@yahoo.fr)

*Sat Apr 25 10:35:12 UTC 2015*

- Previous message: [\[HOT\] 7.9 earthquake in Nepal](#)
- Next message: [\[HOT\] 7.9 earthquake in Nepal - HOT Activation - OpenStreetMap response to Katmandu Earthquake](#)
- Messages sorted by: [\[ date \]](#) [\[ thread \]](#) [\[ subject \]](#) [\[ author \]](#)

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Estimated number is rising. At this point, we should officially activate.

Katmandu lab have made preparatory work in the last few years with the World Bank support. Looking at areas that needs to be completed. We should trace all buildings.

Will come back with some Tasks.

Pierre



Neighbors are often your first responders



BY SA



Please donate!

# #1150 - Exposure Mapping Raung Volcano, East Java

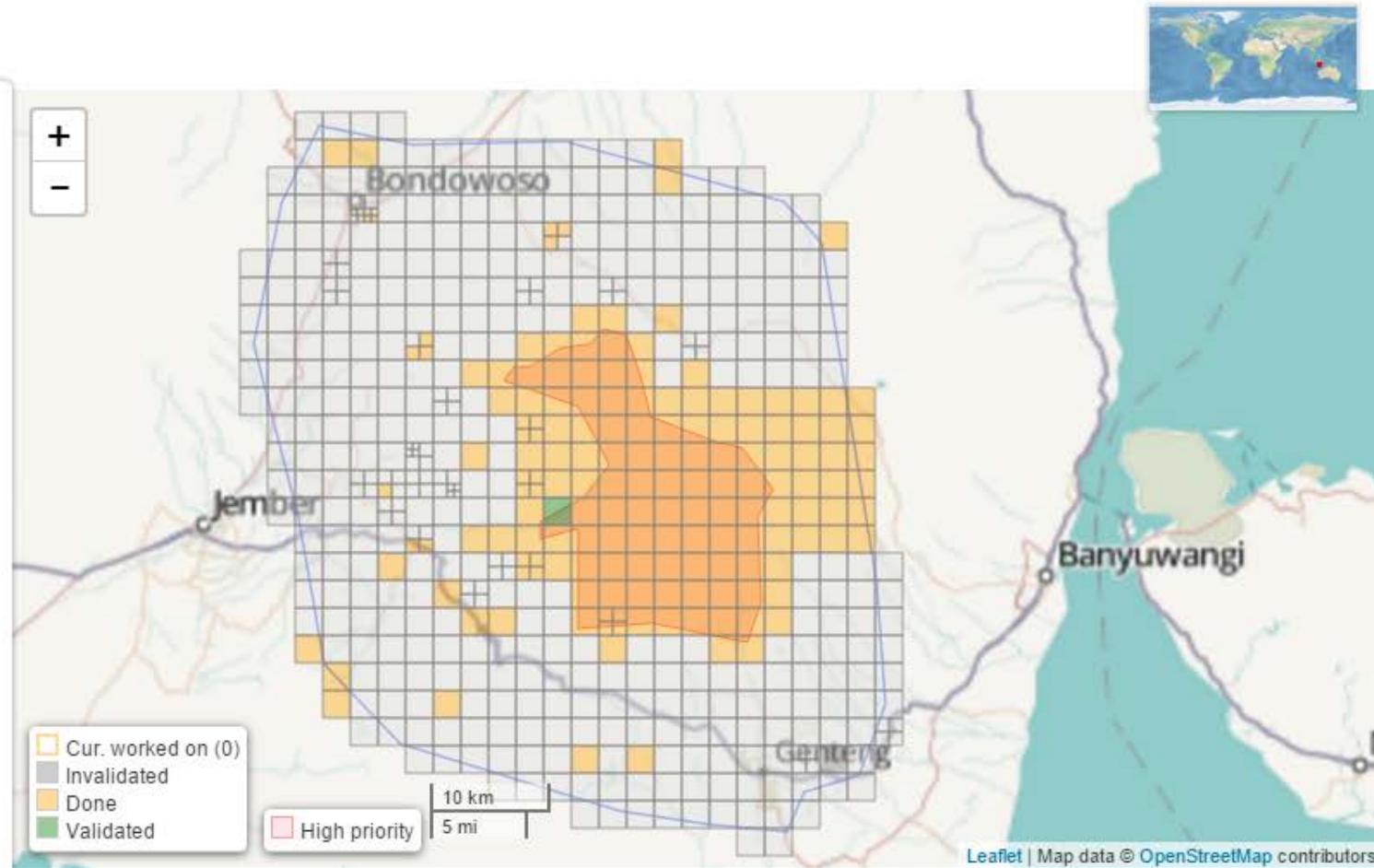
- Description
- Instructions
- Contribute
- Activity
- Stats

Exposure Data mapping in Raung Volcano, East Java is the first step to collecting spatial data in Raung Volcano which currently showing high activity.

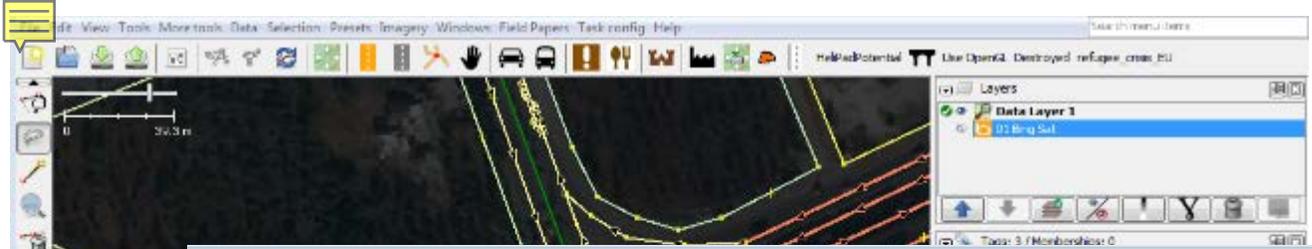
This activity collect all spatial data especially exposure data includes buildings and roads and will be used for further action such as disaster risk analysis or disaster management activities in the surrounding area by the National Disaster Management Agency (BNPB), Local Disaster Management Agency (BPBD) or local government and community.

This activity formed by HOT Indonesia with aim that OSM users, especially in Indonesia can help to collect exposure data and contribute to the preparation for disaster relief efforts in surrounding area of Raung Mountain.

[Instructions](#)



You can call on this community before, during, and after disaster, or use our free web-based tools



### ← Edit feature

Point Line Area Save 1

**Apartments** i

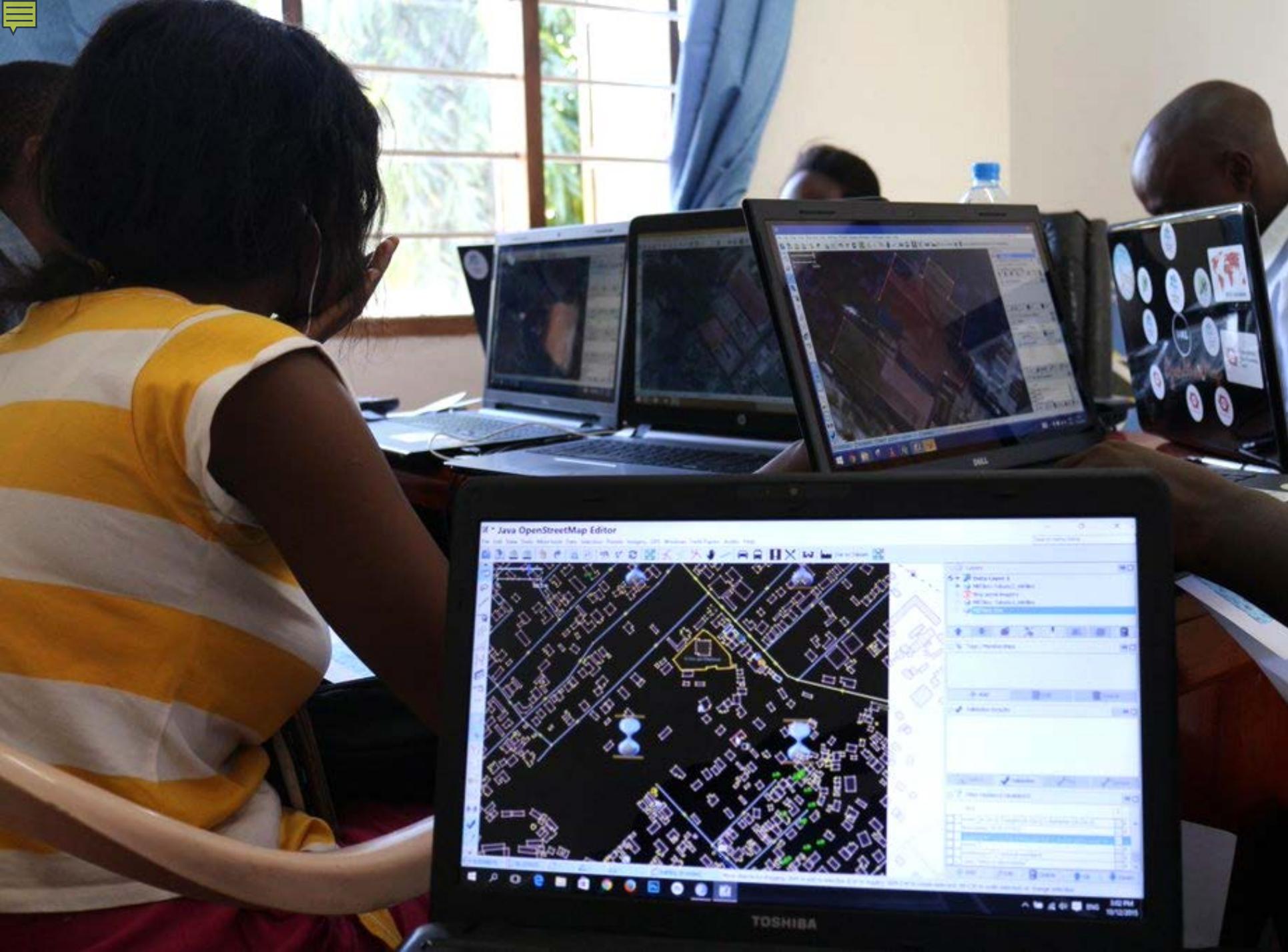
**Name** i  
Common name (if any) +

**Address** i  
123 Street  
City Postcode

**Levels** i  
2, 4, 6...

Add field: Elevation, Level, Note...





Your  
neighbor is  
mapping:  
from next  
door and  
around the  
globe

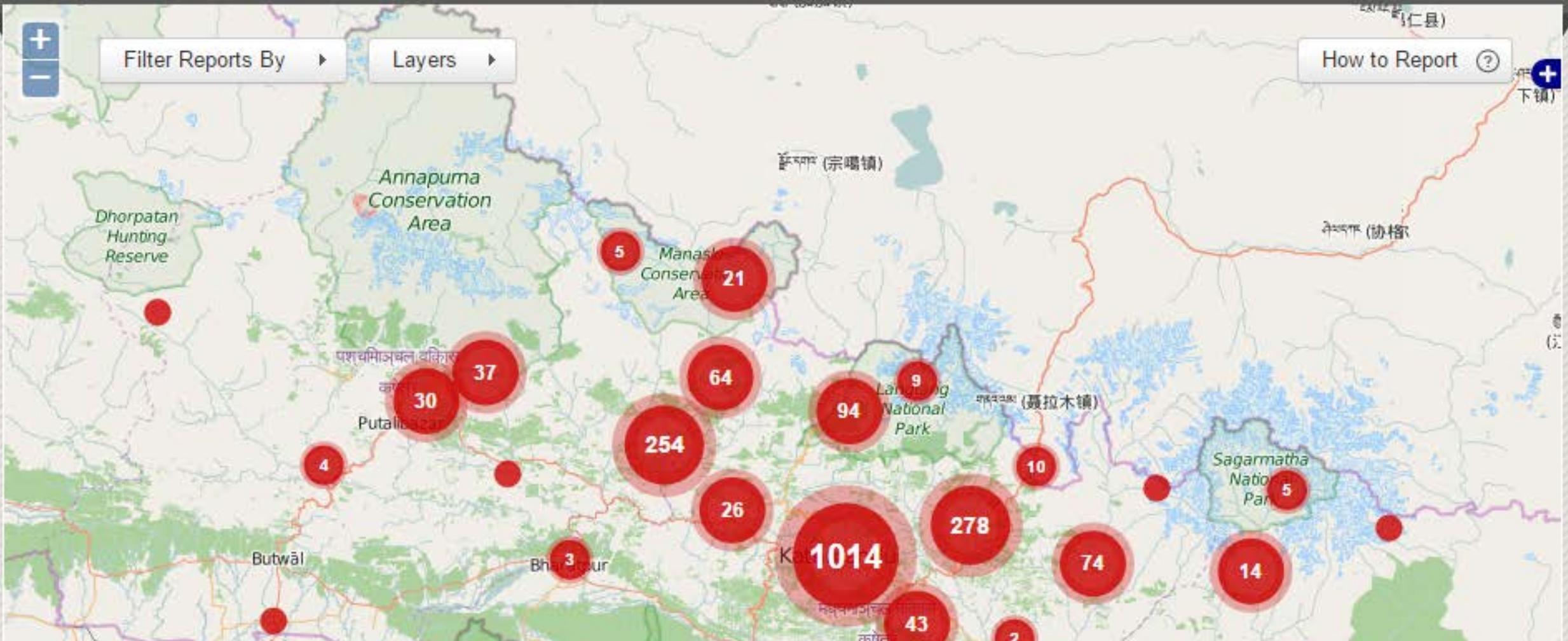


Nepal:

*Right  
people,  
right  
resources,  
right place  
right time*



USAID DART  
using OSM-  
based map,  
of Gorkha  
district Nepal



Quakemap.org: Used in relief ops by Nepal Army, others

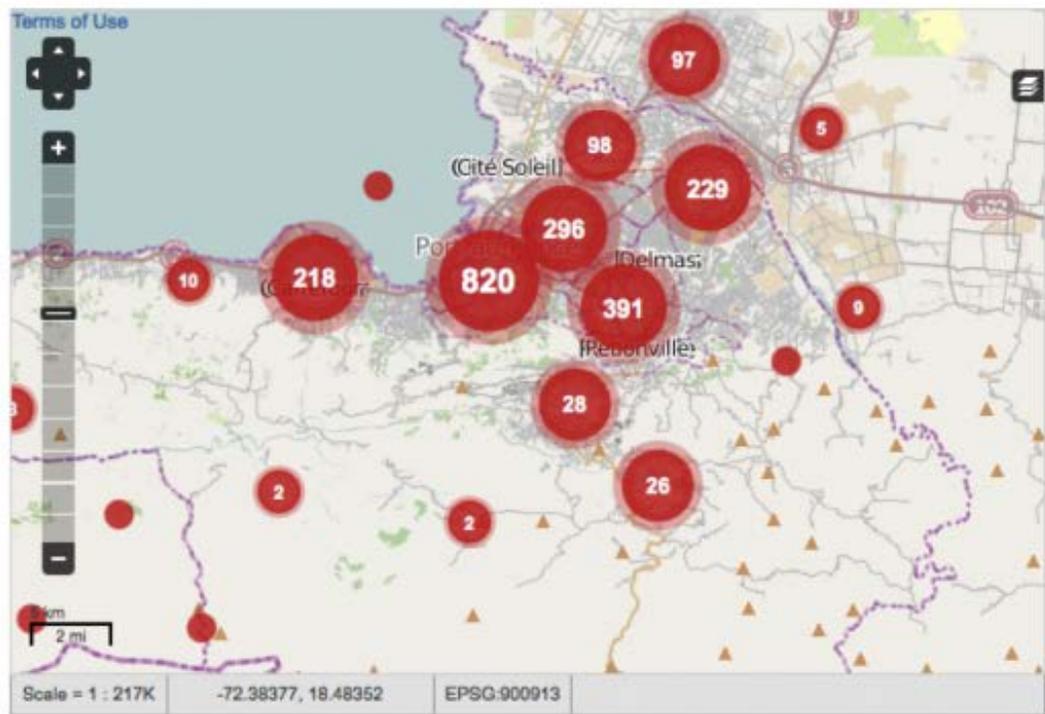
In Haiti? Text 4636 (International: +44 762.480.2524 ) on Digicel or Comcel with your location and need. Report emergencies and missing persons.

Haiti The 2010 Earthquake In Haiti Search Reports Here: DOWNLOAD REPORTS (3105) REPORTS RSS

Haitian Diaspora Community: We need your help! Help Us Help Haiti Announcement Peace Dividend Marketplace can link you with goods and services in PAP: call 29 41 10 01 SUBMIT INCIDENT

HOME REPORTS SUBMIT INCIDENT GET ALERTS CONTACT US HOW TO HELP ABOUT

FILTERS -> REPORTS NEWS PICTURES VIDEO TODO VIEWS -> CLUSTERS + CATEGORY FILTER



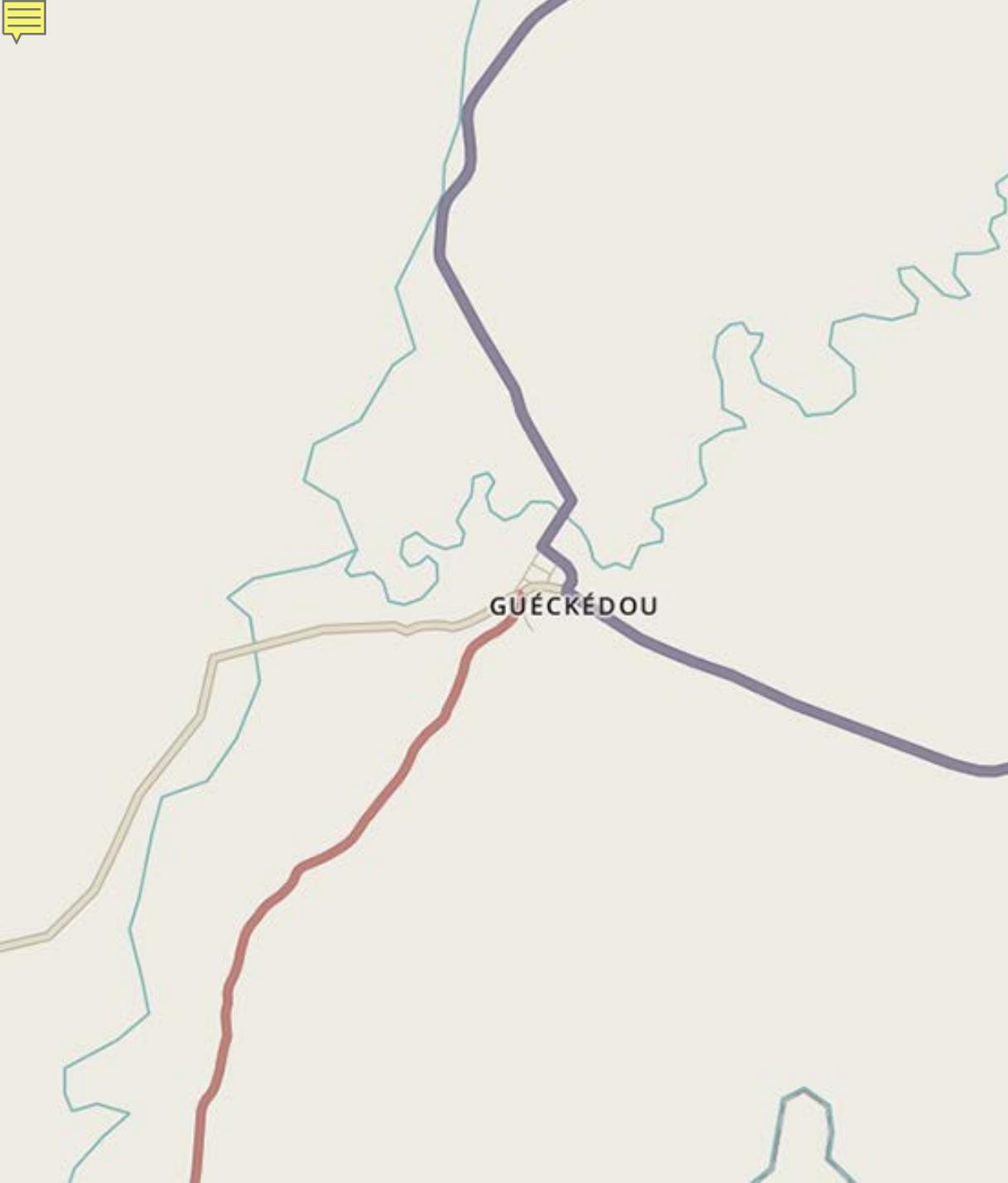
- ALL CATEGORIES 1. URGENCES | EMERGENCY 2. MENACES | THREATS 3. URGENCES LOGISTIQUES | VITAL LINES 4. SECOURS | RESPONSE 5. AUTRE | OTHER 6. NOUVELLES DE PERSONNES | PERSONS NEWS

*“I can not overemphasize to you what the work of the USHAHIDI/Haiti has provided. It is saving lives every day. I wish I had time to document to you every example, but there are too many and our operation is moving too fast. Here is one from the 22 MEU: ‘We had data on an area outside of Grand Goave needing help. Today, we sent an assessment team out there to validate their needs and everything checked out. While the team was out there, they found two old women and a young girl with serious injuries from the earthquake; one of the women had critical respiratory issues. They were evacuated.’*

***Your site saved these people’s lives. I say with confidence that there are 100s of these kind of stories. The Marine Corps is using your project every second of the day to get aid and assistance to the people that need it most.”***

Email received by Haiti Ushahidi team from USMC

Ebola

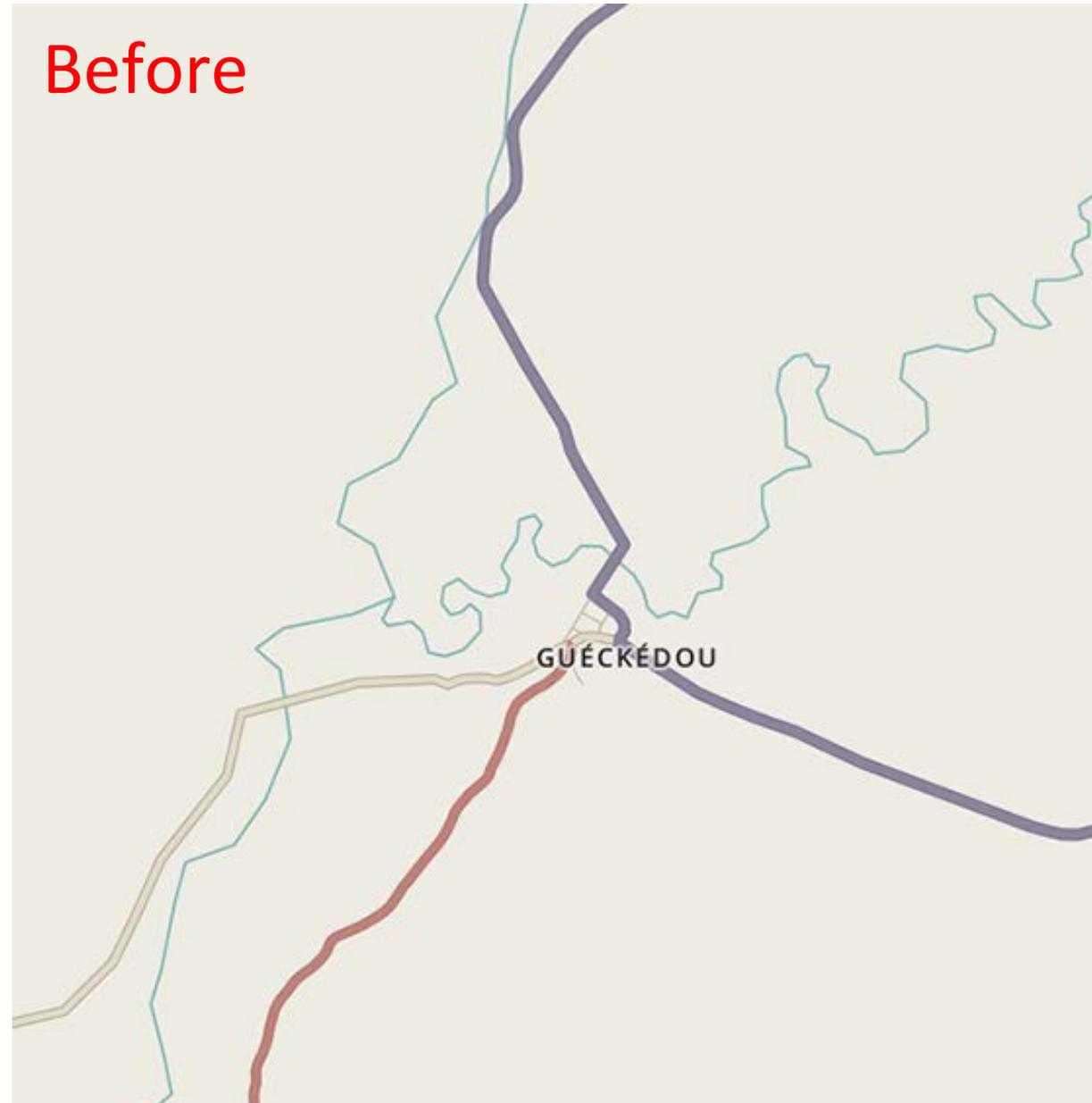


Gueckedou March 26,  
2014

(OpenStreetMap)



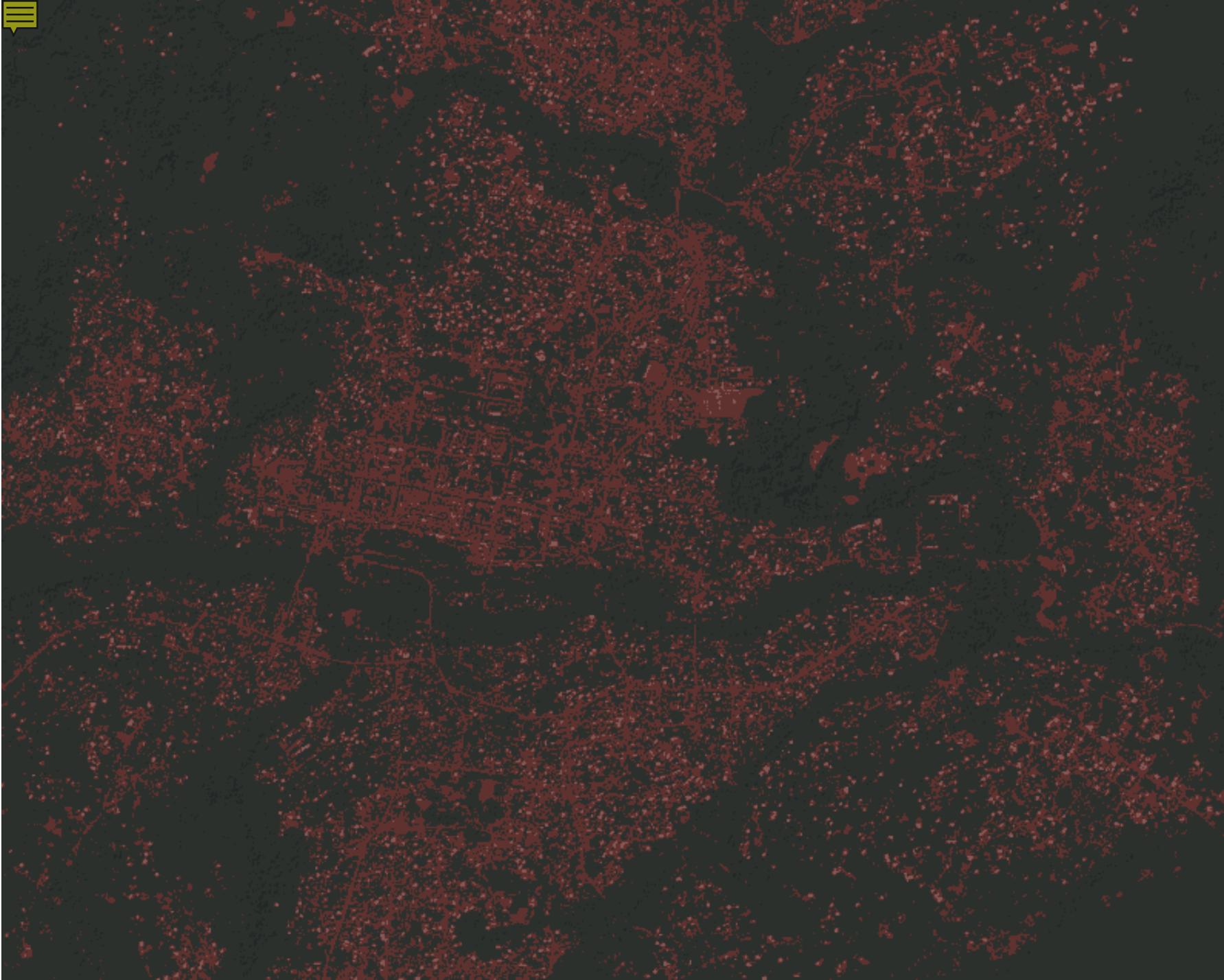
Before



After



Gueckedou: 5 days, 244 volunteers, 90,000+ buildings



Mamou, Guinea

29 hours

68 contributors

20,105 buildings

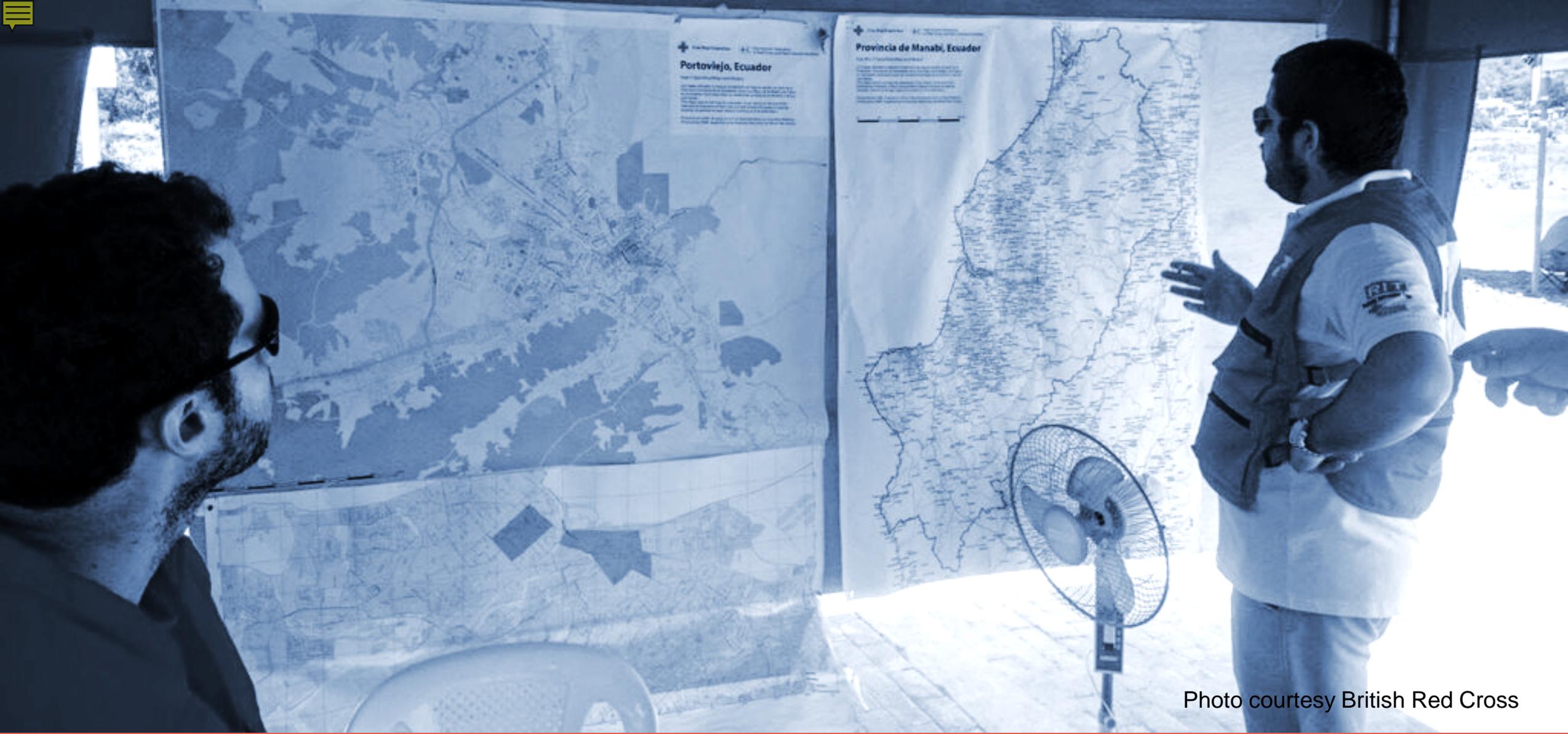
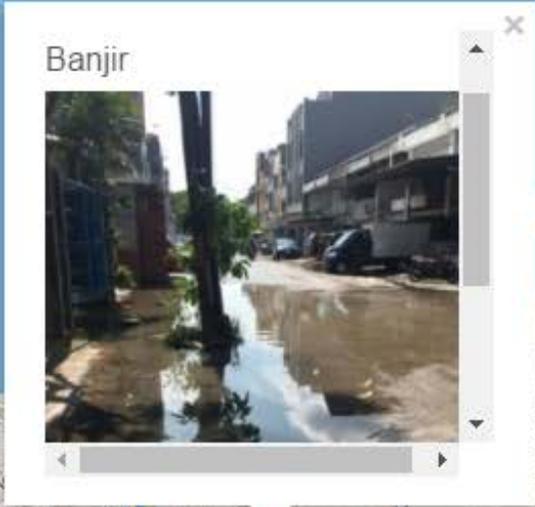
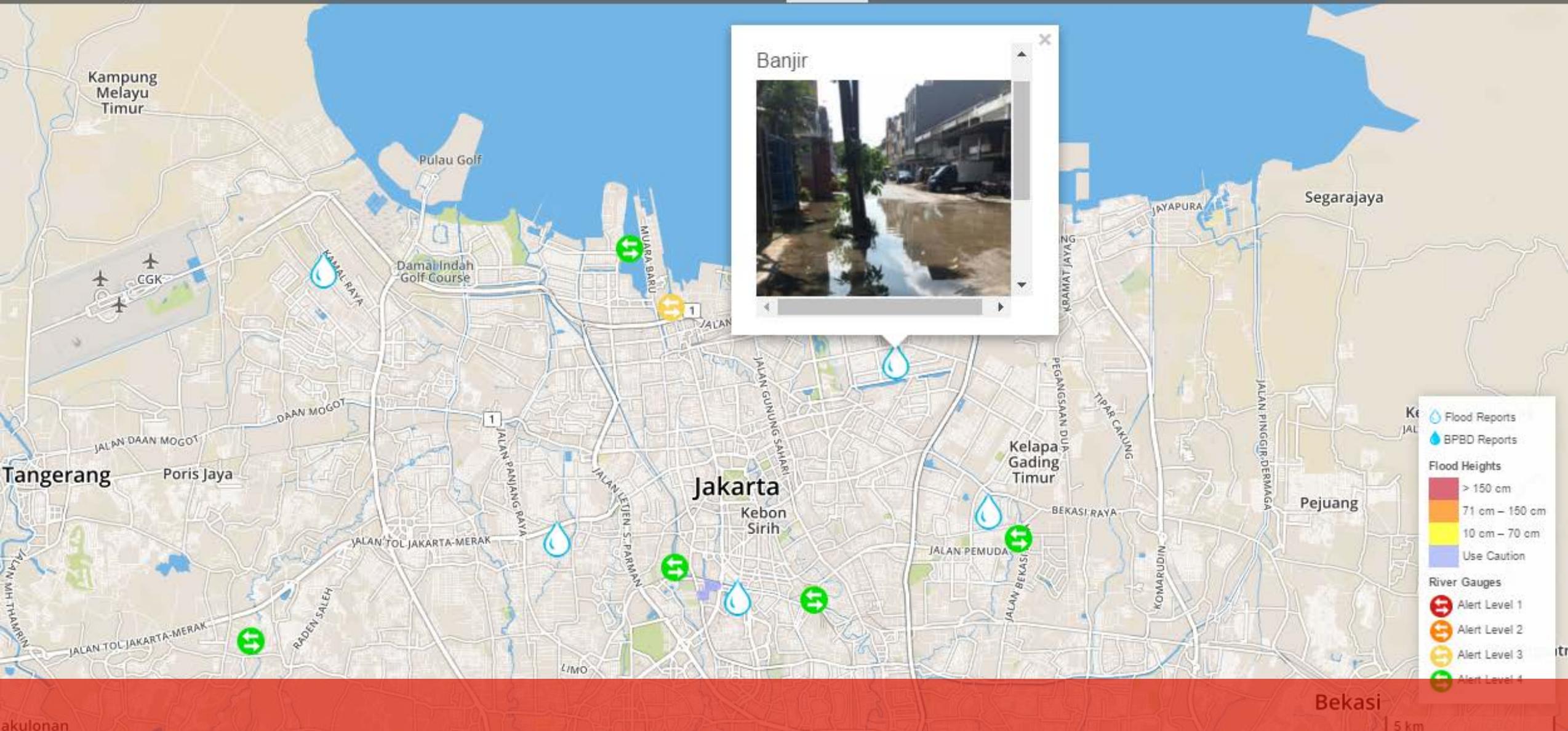


Photo courtesy British Red Cross

# OSM in action: Portoviejo, Ecuador



Peta Jakarta: Real-time flood info using social media



What is “authoritative”? Unofficial -> Official



**Individuals have incredible (geospatial) knowledge about the places they live.**

**Let's take advantage of this collective knowledge.**

**5 concrete steps**



1. Engage with universities & OSM communities before disaster

OPEN DATA FOR  
RESILIENCE INITIATIVE:  
PLANNING AN OPEN CITIES  
MAPPING PROJECT



# 2 of 5: Support young mappers & civic tech hubs



Photo: YouthMappers at Texas Tech University



## UGANDA BUREAU OF STATISTICS

Plot 9, Colville Street  
P.O.Box 7186  
Kampala - UGANDA



THE REPUBLIC OF UGANDA

Tel: +(256) 41 4706000  
Fax: +(256) 41 4237553  
Email: [ubos@ubos.org](mailto:ubos@ubos.org)  
Website: [www.ubos.org](http://www.ubos.org)

In any correspondence on  
this subject please quote No. **UBOS/40/53**

November 10, 2015

The Executive Director  
Humanitarian OpenStreetMap Team  
1110 Vermont Avenue NW, Suite 500  
Washington, DC 20005 USA

Dear Sir,

### **Release of Uganda GIS Health and Education Facility Information, Based on 2014 Population and Housing Census Mapping**

The Uganda Bureau of Statistics would like to share Uganda health and education facility information with the local and global community as part of the FSD Uganda OSM Crowdsourcing Pilot Project. The data, which we release now, is and should always be available under a free and open license. We hereby release this dataset for use in OpenStreetMap under the ODBL license, which was collected from 2010-2014, based on Arc1960 UTM 36S.

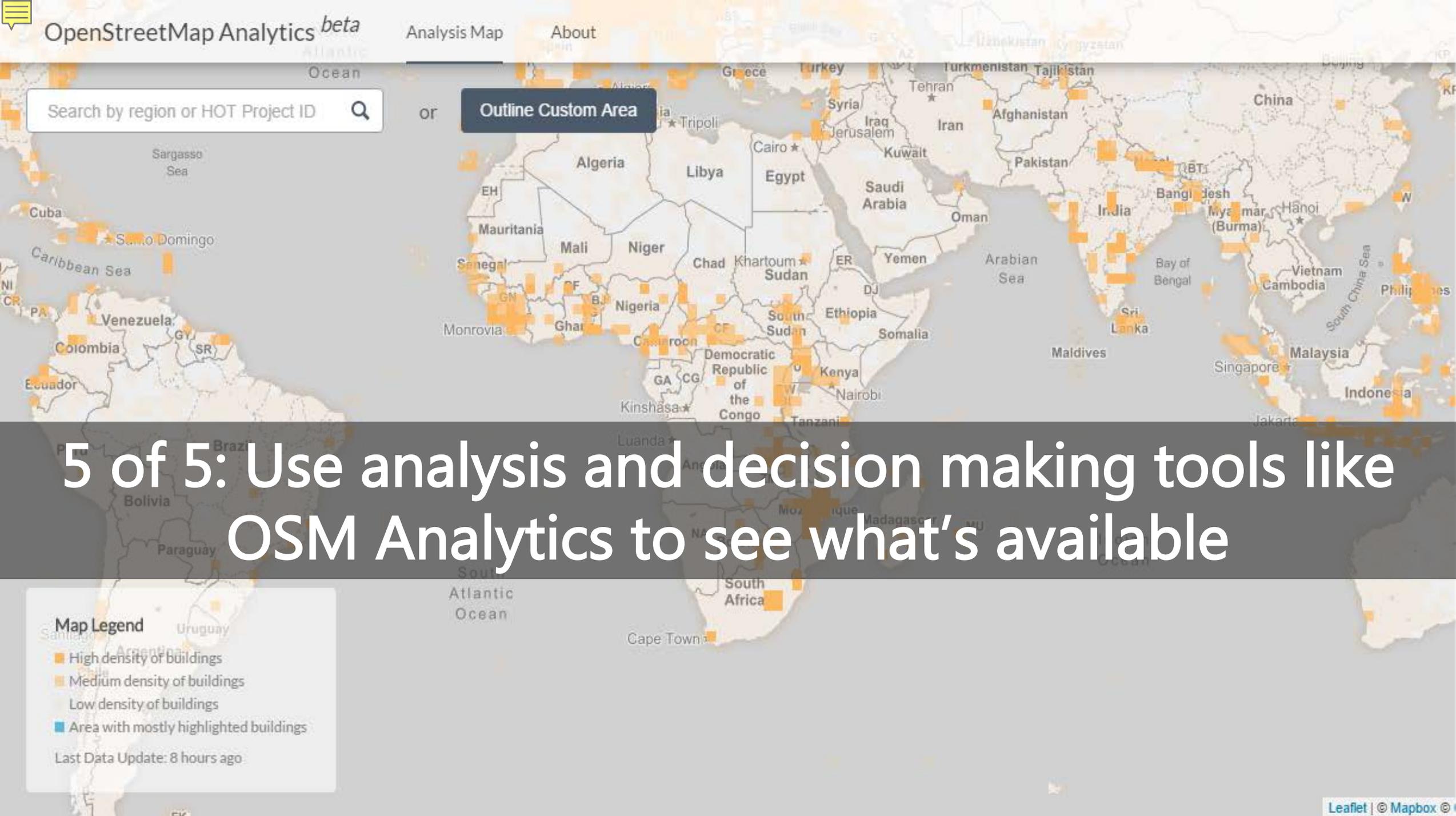
3 of 5. Work to release data sets publicly  
for collaborative editing in OSM. We can help.



4 of 5: Locate (and contribute) openly licensed imagery

Search by region or HOT Project ID

or **Outline Custom Area**



# 5 of 5: Use analysis and decision making tools like OSM Analytics to see what's available

**Map Legend**

- High density of buildings
- Medium density of buildings
- Low density of buildings
- Area with mostly highlighted buildings

Last Data Update: 8 hours ago

[info@hotosm.org](mailto:info@hotosm.org)  
**@hotosm**

6. Call on the HOT community globally: request activation