

Before Disasters: Can we develop common data sets for the entire world?

@TylerSRadford | 4 September 2016



Humanitarian
OpenStreetMap
Team



**MISSING
MAPS**



Geo-
spatial
data:
critical
in
disaster

Photo courtesy American Red Cross

Draft Strategic Framework on Geospatial Information and Services for Disasters

2016-2030

“Geospatial information...widely recognized as an important aspect of DRRM”

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

“Mechanisms...generally not in place [before a crisis happens]”

May 2016



UN-GGIM

United Nations Committee of Experts on
Global Geospatial Information Management

ggim.un.org



Believe it or not, not everything is mapped

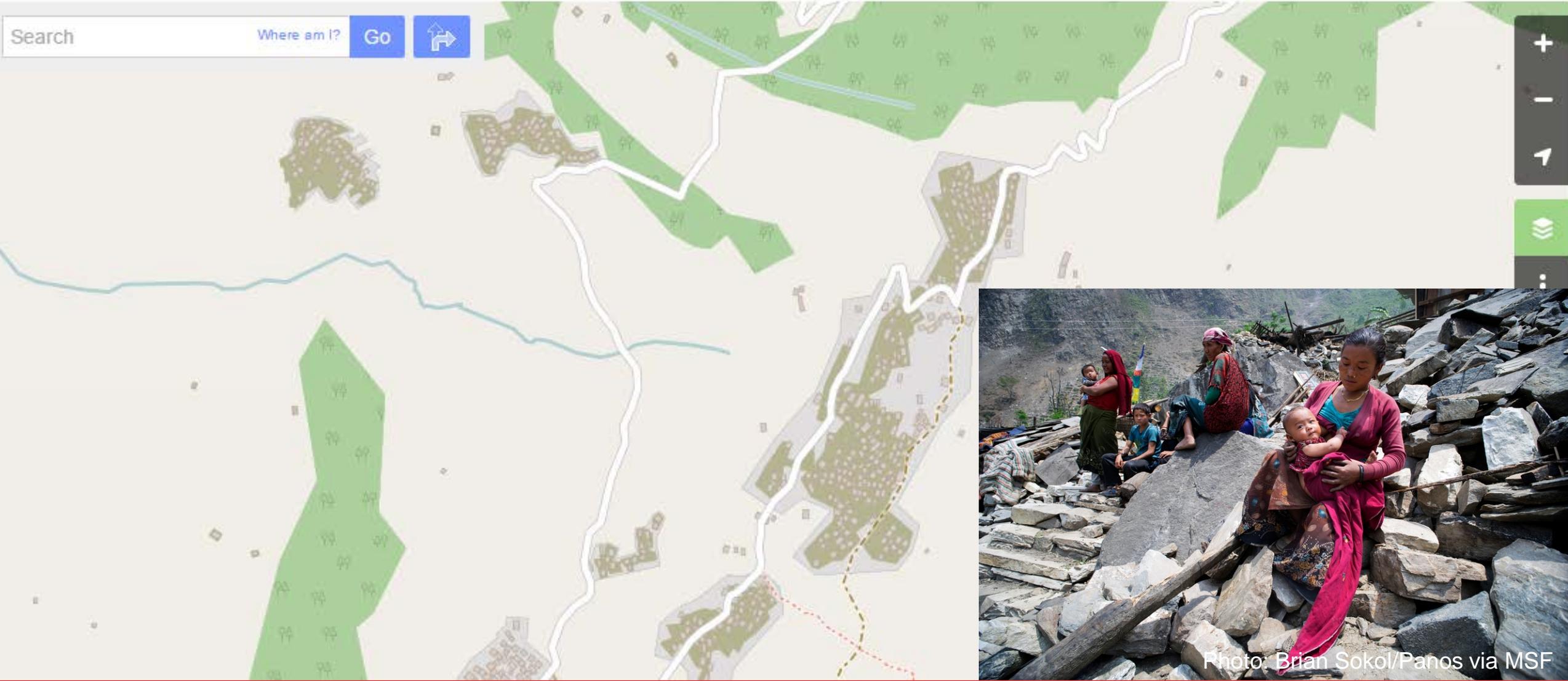


Photo: Brian Sokol/Panos via MSF

Same location - different map



**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



It takes a community...or rather, many of them



Missing Maps
members
make this
happen:

training &
mobilizing
volunteers



Who map from their home, school, or office



Please donate!

#1150 - Exposure Mapping Raung Volcano, East Java

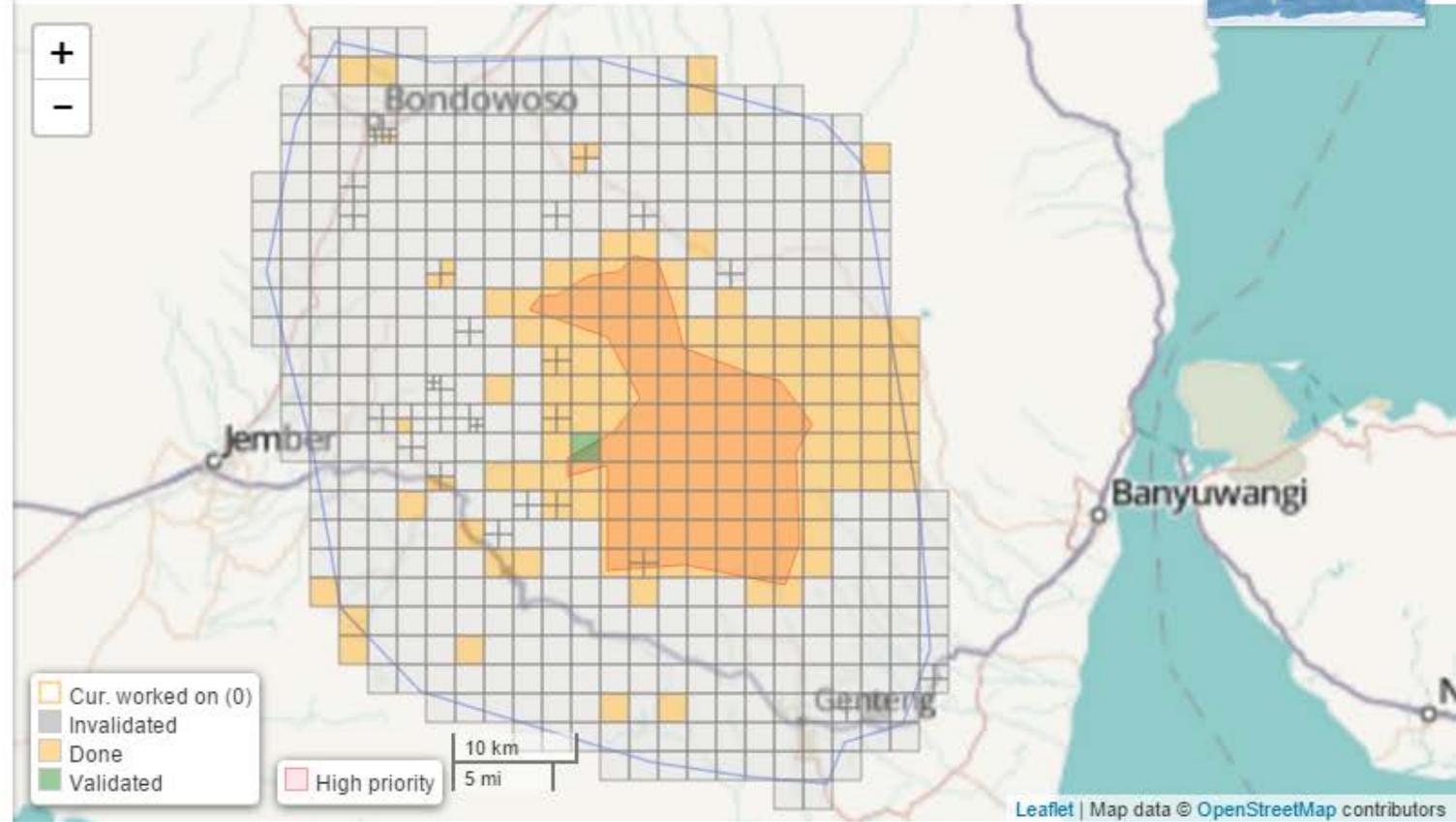
- Description
- Instructions
- Contribute
- Activity
- Stats

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](#)



We use freely available web-based tools

Search location

OpenAerialMap BETA



OpenAerialMap

Nepal

Kathmandu

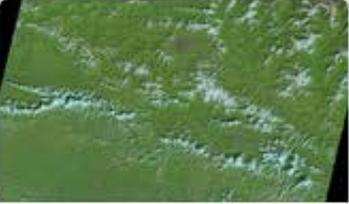
Uttar Pradesh

Patna

Bihar

Available Imagery

103 results

	
TYPE Image DATE 2015-04-29 RES 50 cm	TYPE Image DATE 2015-04-29 RES 50 cm
	
TYPE Image DATE 2015-04-29 RES 50 cm	TYPE Image + Map Layer DATE 2014-10-04 RES 34 m
	
TYPE Image + Map Layer	TYPE Image + Map Layer

OpenAerialMap and Open Imagery Network

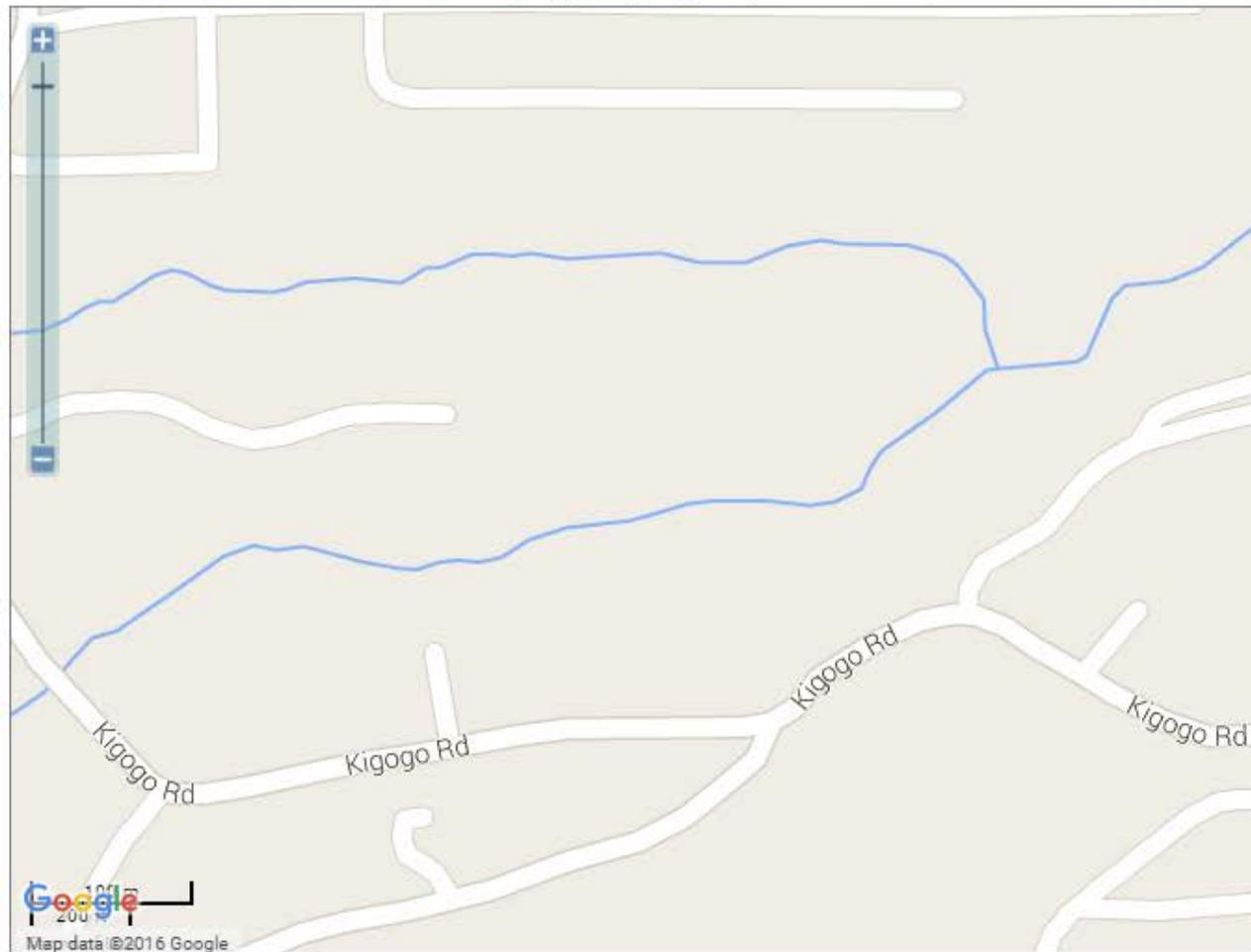


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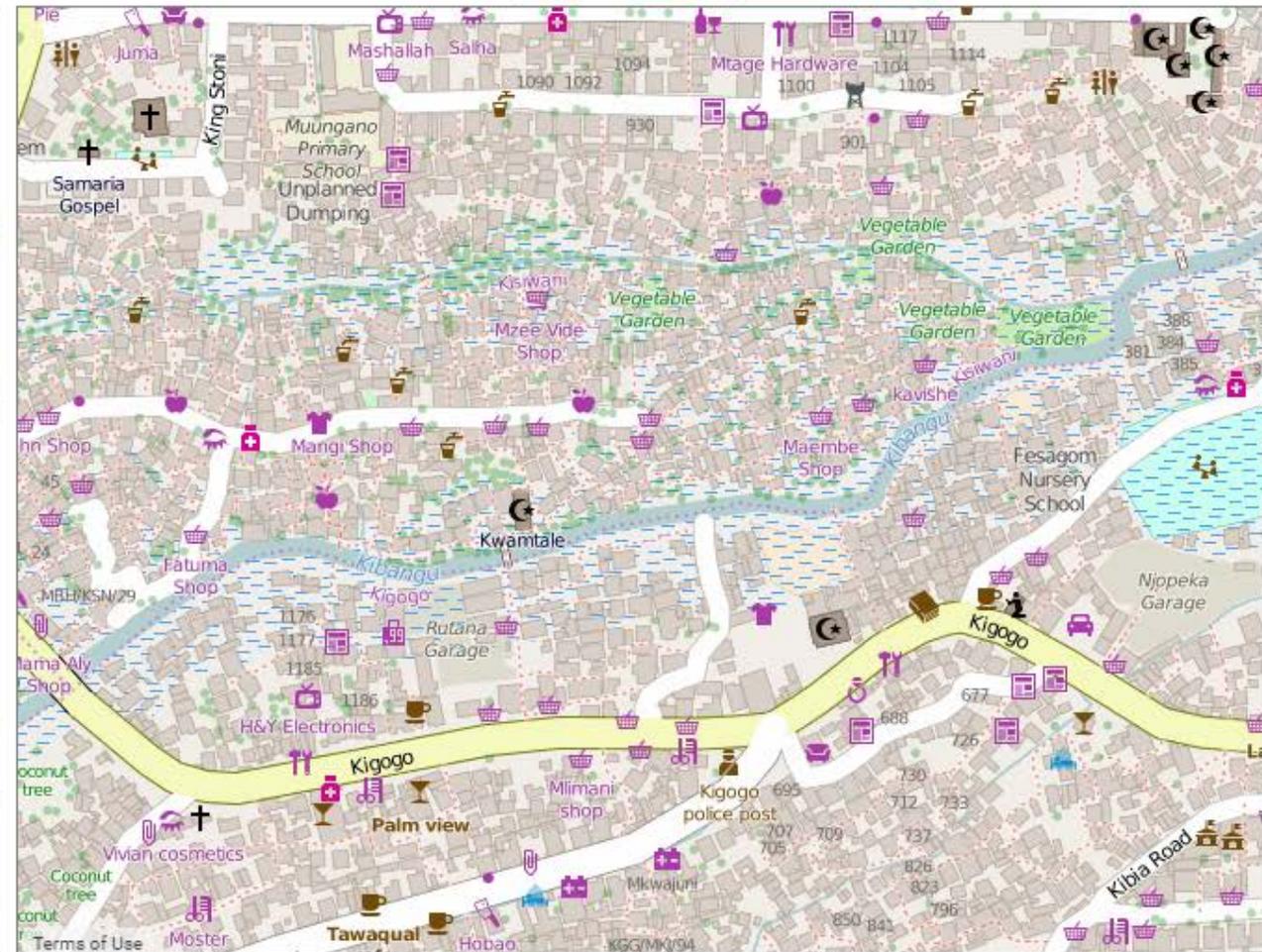


Mapping
Dar es
Salaam,
Tanzania:
(flood
prone)
megacity
in the
making

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

One neighborhood in Dar es Salaam: before/after



QGIS 2.8.1-Wien - jakarta

Layers

- Estimated buildings affected
 - Dry (<= 0 m)
 - Wet (0 m - 1.0 m)

InaSAFE 3.1.0c0

Show question form

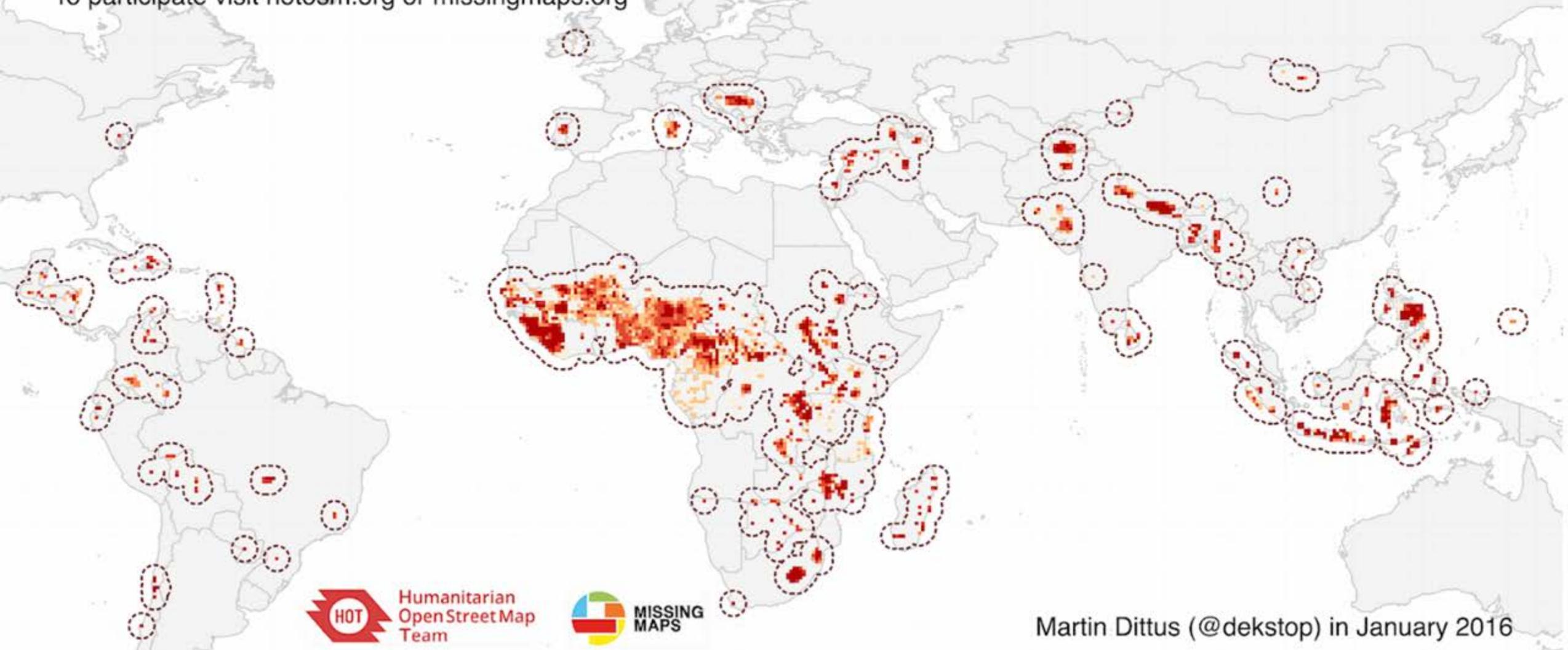
Building type	Number Inundated	Number of Wet Buildings	Number of Dry Buildings	Total
Clinic/doctor	14	14	109	137
Commercial	54	5	310	369
Government	55	30	329	414
Hospital	3	5	43	51
Industrial	1	2	25	28
Other	5	2	46	53
Place of worship - islam	72	121	583	776
Residential	2,189	3,758	16,716	22,663
School	60	49	483	592
Sports facility	4	1	22	27
University/college	10	1	27	38

Australian Aid GFDRR

InaSAFE: OSM exposure data for contingency plans

Humanitarian mapping on OpenStreetMap: all contributed edits

This visualises the density of all map edits contributed through HOT or Missing Maps before January 2016.
To participate visit hotosm.org or missingmaps.org



Martin Dittus (@dekstop) in January 2016

120mm map edits | 20000 contributors | 1000 projects



Brussels | 22 September 2016

<http://summit.hotosm.org>