

OpenStreetMap

RS&GIS User Conference Workshop



Mhairi O'Hara
2nd December 2016



Workshop Outline

START 9.00 am

Welcome and Introductions

15 mins

OpenStreetMap + HOT

Background and Concepts

Remote Mapping in OSM

Mapping with iD and JOSM

Mapping with Tasking Manager

Field Mapping in OSM

Collect Data with Field Papers

Collect Data with OpenMapKit

30 mins

BREAK 11.00 am

30 mins

CONTINUE 12.00 pm

Outdoor Exercise

80 mins

Install ODK and OMK

Collect Data in Field

Verify and Add Data to OSM

Extract OSM Data

20 mins

Download Data with Export Tool

Download Data with Overpass API

Model Hazard Impacts

20 mins

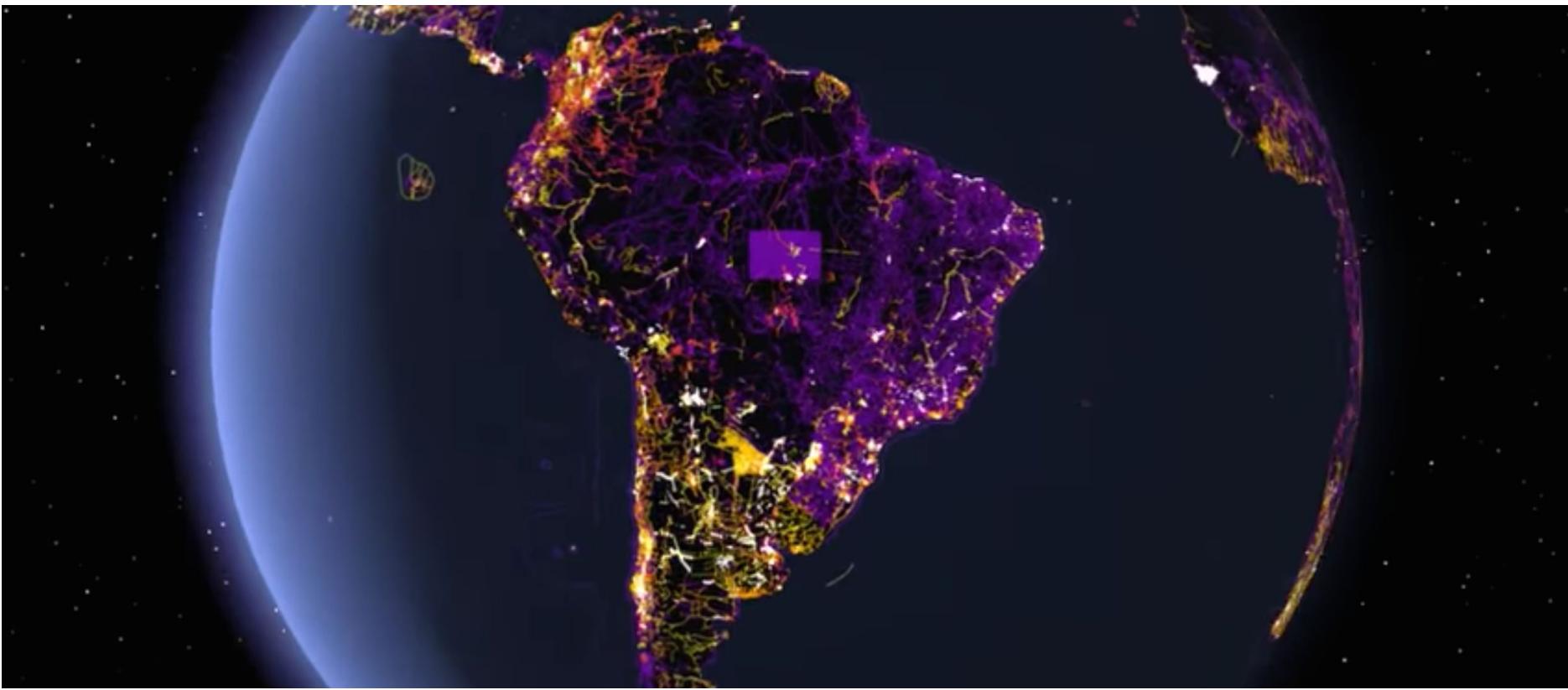
Desktop QGIS

InaSAFE Plugin Tool

END 2.00 pm

Total

~ 4.5 hours



OpenStreetMap

Free Geospatial Data



Edit History Export

GPS Traces User Diaries Copyright Help About

Log In Sign Up

Welcome to OpenStreetMap!

OpenStreetMap is a map of the world, created by people like you and free to use under an open license.

Learn More Start Mapping

Eastgate
Saint John's
Magdalene
St. Giles's Hill
Baring Road
Palm Hall Close
(Milesdown Place)
Northbrook Avenue
Stratton Road
Quarry Road
Peters
Barfield Close
Chest Street
Colebrook Street
Colebrook Street
Itchen
The Weirs
Learn More Start Mapping

Open Database License (ODbL)

<http://www.openstreetmap.org>

OpenStreetMap

Multiple Uses



Mapbox

Products

Developers

Showcas

Pricing

Help & Guide

Log in

DESIGN

MAPS

FOURSQUARE



Instacart

Pinterest

GitHub

Roadtrippers

Etsy

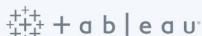
Deloitte

CNN

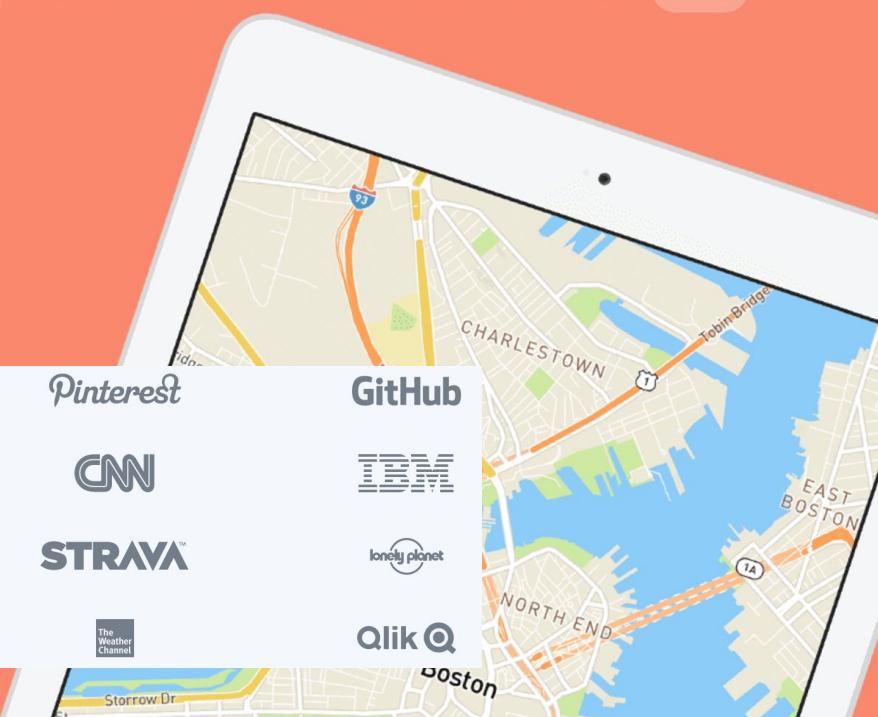
NATIONAL
GEOGRAPHIC



 mapquest[®]

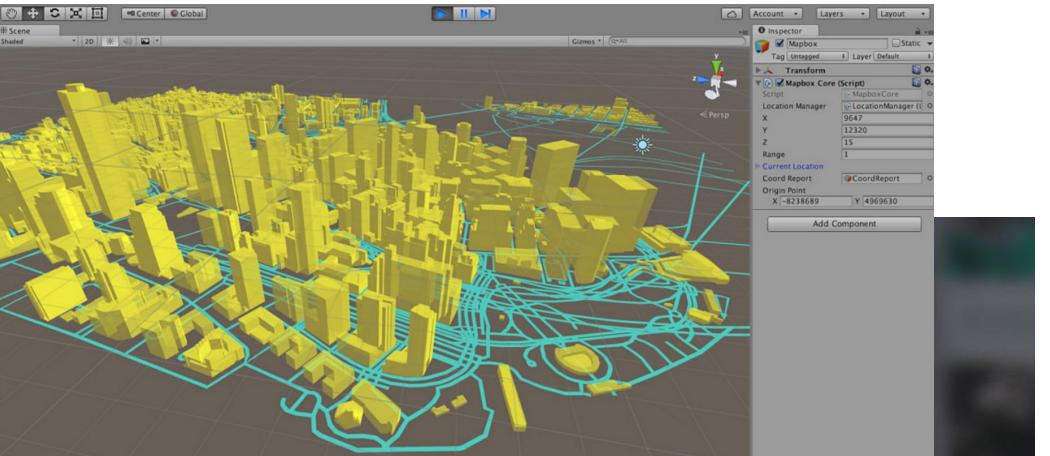


DigitalGlobe™



Gaming

Real-life Data



ANNOUNCING THE MAPBOX UNITY SDK



Disaster Management

Exposure Data



InAWARE

Didukung oleh DisasterAware v5.3.3 GA



InaSAFE



PacSAFE

What is the Humanitarian OpenStreetMap Team?

HOT applies the principles of open source and open data sharing for disaster response and economic development

Humanitarian OpenStreetMap Team

Free, up-to-date maps are a critical resource when relief organizations are responding to disasters, public health emergencies, and political crises. The [Humanitarian OpenStreetMap Team \(HOT\)](#) is a global NGO that creates and provides those maps.

Reaching those in need through maps

When major disaster strikes anywhere in the world, HOT rallies a global network of thousands of volunteers to create online and offline maps that enable responders to reach those in need. These mappers and GIS professionals can work remotely or be deployed for field missions at the request of humanitarian partners such as the American Red Cross, Médecins Sans Frontières (Doctors Without Borders), and UN OCHA.

Putting the world's vulnerable people and places on the map

Many of the poorest and most vulnerable places in the world do not exist on any map. HOT works to put these places onto the map before disasters occur. NGOs and local communities use the maps and data to plan disaster risk reduction and response activities that save lives and bolster resilience. To date over 3,500 Missing Maps volunteers have collectively made 12 million edits to OpenStreetMap and put 7.5 million people on the map.

Creating better maps with communities

HOT supports community mapping projects around the world and assists people in creating their own maps for socio-economic development and disaster preparedness. HOT also partners with donors, academic institutions, and government agencies to plan and execute mapping projects focused on education, financial services, health, infrastructure, transportation, water and sanitation, and other sectors.

hotosm.org | info@hotosm.org | facebook.com/hotosm

MISSING MAPS

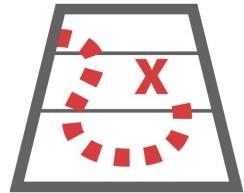
OCHA

HIF

<https://hotosm.org/>

Humanitarian OpenStreetMap Team

Maps that Save Lives



Disaster Mapping



Technical Projects

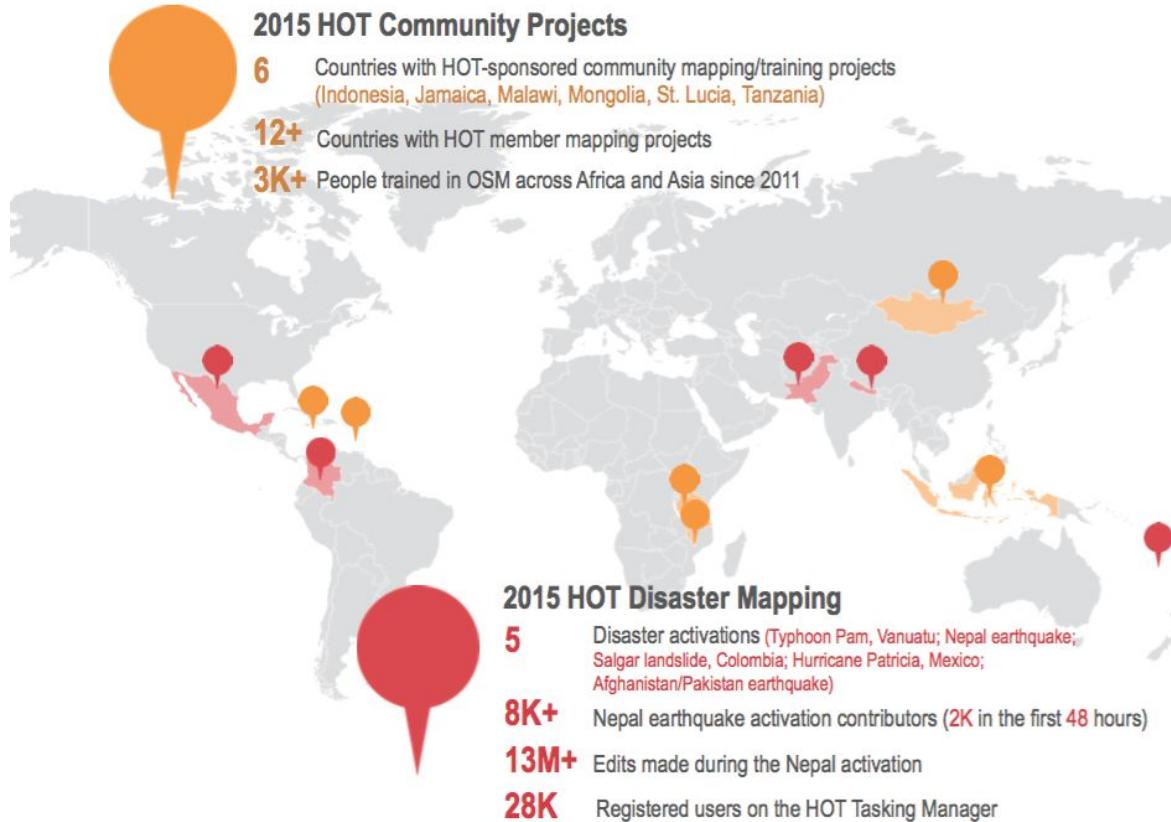


Community
Development



Humanitarian OpenStreetMap Team

Projects Across the Globe



Humanitarian OpenStreetMap Team

Indonesia InAware Project



InAware
Didukung oleh DisasterAware v5.3.3 GA

UTC
13:07
SEP 1, 2016

Layers

- A BASIC MAP OF THE GLOBE
- DEMOGRAPHICS
- INFRASTRUCTURE
- LIMITATION
- IMAGERY AND ELEVATION
 - BING MAPS
 - ESRI ARCGIS ONLINE
 - GOOGLE MAPS
- Land Cover
- MODIS Aqua True Color
- Topography/Bathymetry

User Layers

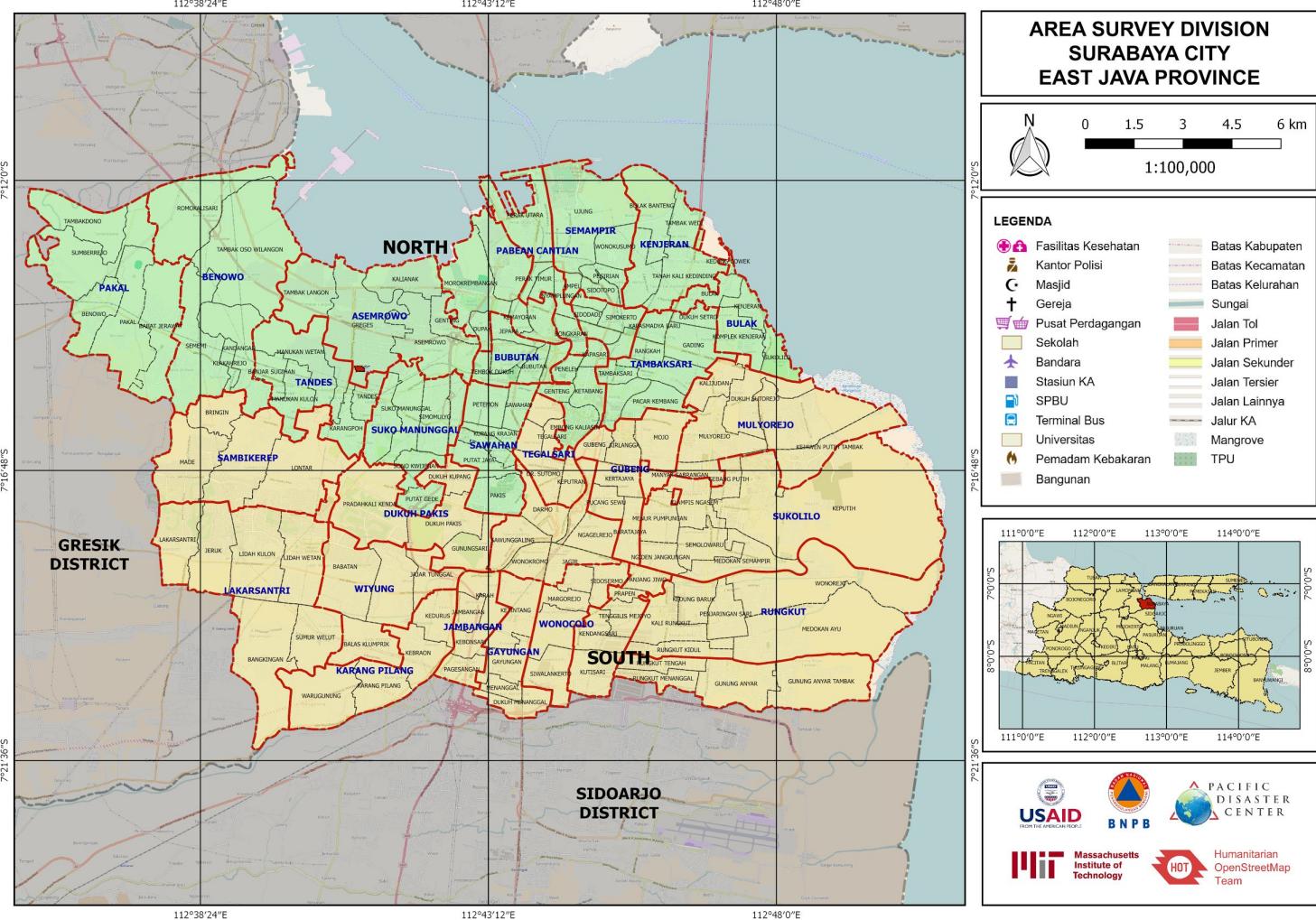
KML & External Layers

MGRS: 54LTP17979693
Lat: -9.969 Lon: 138.428



10-12-2016-14:32





LifeLine Infrastructure

Map Features

Finance

- Banks

Communications

- Communication Towers

Transportation

- Airports
- Ferry Terminals
- Train Stations
- Bus Stations
- Roads
- Railways

Water Supply Systems

- Fire Hydrants
- Water Towers
- Pumping Station*
- Waterways*
- Reservoirs*
- Water Gates*

Electrical Power Systems

- Generators
- Towers
- Substation
- Power Plant

Fuel Storage

- Gas Stations

Public Institutions

- Kindergarten
- Schools
- College
- Universities
- Places of Worship
- Supermarkets
- Traditional Marketplace

Health Facilities

- Clinics/Hospitals

Emergency Services

- Police Stations
- Fire Stations

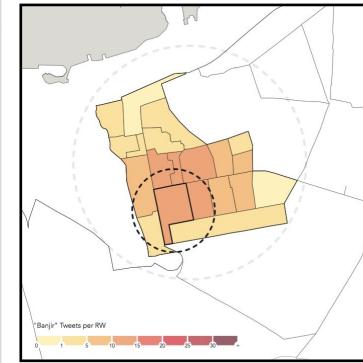
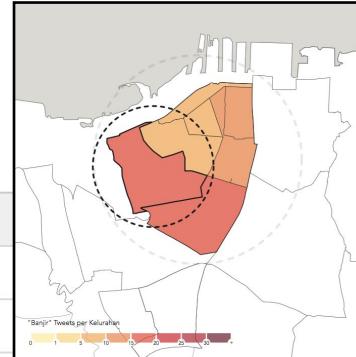
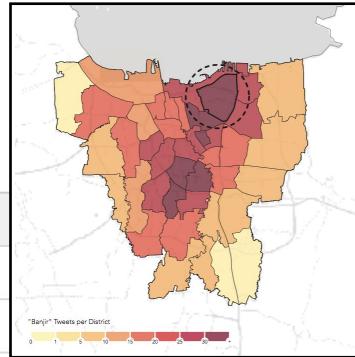
Government Establishments

- Offices
 - Governor Office (Kantor Gubernur)
 - Townhall (Kantor Bupati/Walikota)
 - Subdistrict Office (Kantor Kecamatan)
 - Village Office (Kantor Desa/Kelurahan)
 - Community Group Office (Kantor RW)
 - Ministry (Kementerian/Instansi Pemerintah)
- Embassies
- Administrative Boundaries*
 - City/Regency (Kotamadya/Kabupaten)
 - Sub-district (Kecamatan)
 - Village (Kelurahan/Desa)
 - Sub-village (Dusun)
 - Community Group (RW*)

PetaBencana

Administrative Boundaries

key	possible values
type	boundary
boundary	administrative
name	<name>
admin_level	4 (Provinsi), 5 (Kabupaten / Kota), 6 (Kecamatan), 7 (Kelurahan / Desa), 8 (Dusun), 9 (RW), 10 (RT)
PROV_name	<province name>
KAB_name	<city/district name>
KEC_name	<subdistrict name>
KEL_name	<village name>
RW_name	<RW name>



PetaBencana

Pumping Station

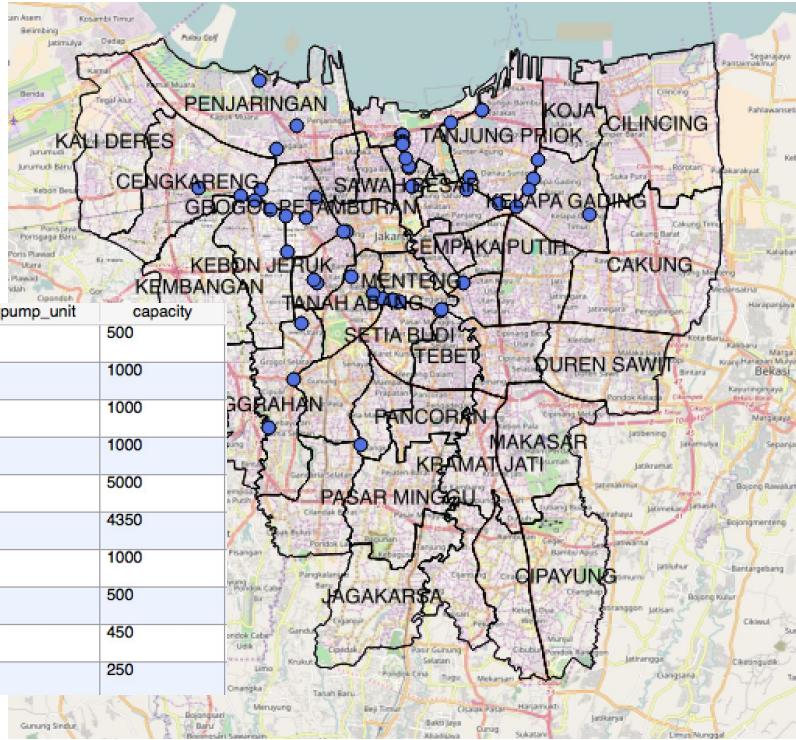
key	possible values
man_made	pumping_station
building	pumping_station
name	<i><name></i>
addr:full	<i><address></i>
operator	<i><operator name></i>
pump:unit	<i><number of total pumps></i>
elevation	<i><elevation in metres above sea level></i>
capacity:pump	<i><the capacity of a filled pipe (l/s)></i>
building:levels	1, 2, 3, 4-7, >7
building:structure	reinforced_masonry (Tembok dengan penguat beton bertulang), unreinforced_masonry (Tembok tanpa penguat beton bertulang),



PetaBencana

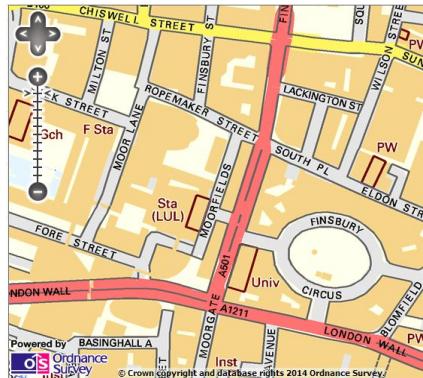
Pumping Station

	name	building	pump_house	address	elevation	pump_unit	capacity
0	wijaya kusuma	yes	yes	Jl. Tubagus ...	21	4	500
1	gate kapuk p...	yes	yes	Jl. Petermaka...	30	3	1000
2	kapuk 2	yes	yes	Jl. Kapuk Mu...	30	3	1000
3	Teluk Gong	yes	yes	Jl. Lindung	24	3	1000
4	waduk pluit ti...	yes	yes	Jl. Muara Ba...	21	3	5000
5	waduk pluit t...	yes	yes	Jl. Muara Ba...	24	4	4350
6	pantai indah ...	yes	yes	Jl. Pantai ind...	18	3	1000
7	kamal muara	yes	yes	Jl. Kamal Mu...	13	2	500
8	Pompa Pond...	yes	yes	Jl. Bango 4 ...	48.1401	1	450
9	Pompa Pond...	yes	yes	Jl. Bango 4 ...	46.6691	2	250



Mapping

3 Stages



1. Import existing
open datasets



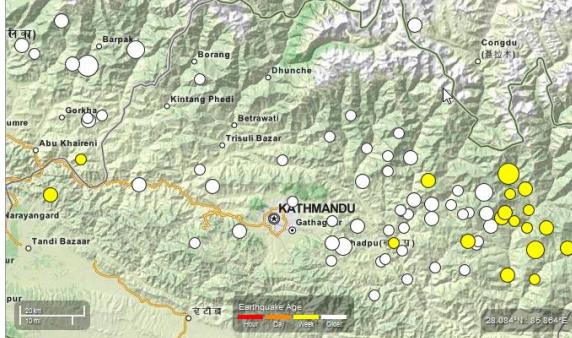
2. Remote mapping through
digitizing aerial imagery



3. Detailed attribute
information collection on the
ground

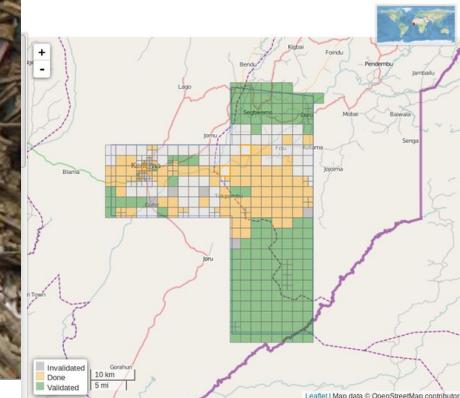
Humanitarian OpenStreetMap Team

Nepal Earthquake 2015



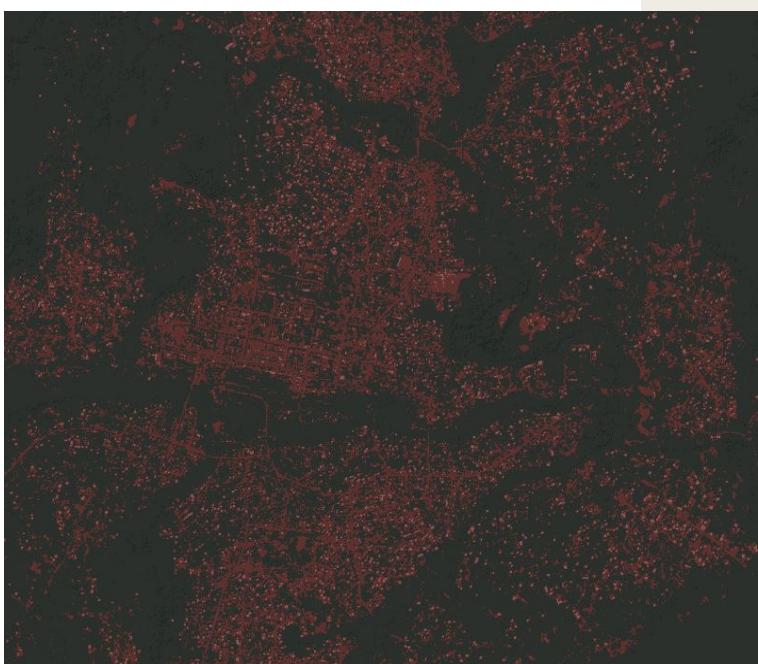
Nepal Earthquake

Kathmandu



Humanitarian OpenStreetMap Team

Ebola Epidemic Response

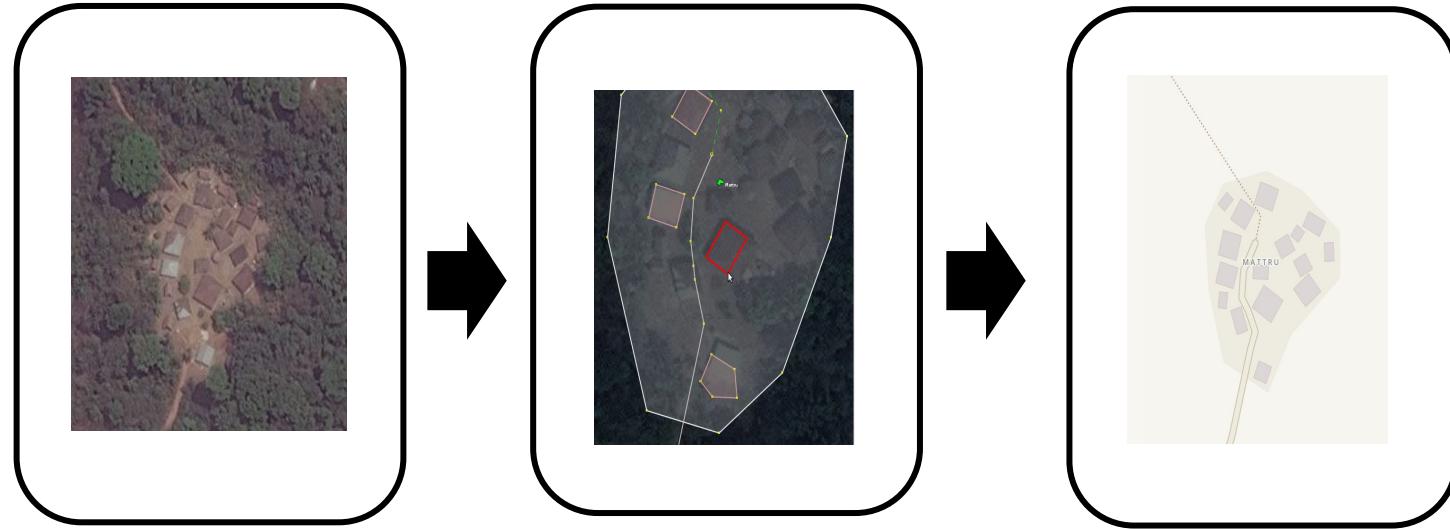






OSM Remote Mapping

Tracing Satellite Imagery



Obtain up-to-date
satellite imagery
for the area

Digitise roads, tracks,
paths, building, open
areas, waterways, etc

Upload the
data and see
the changes

Digitising Tools

ID Editor vs. JOSM



OpenStreetMap

Edit History Export

GPS Traces User Diaries Copyright Help About Log In Sign Up

Search Where am I? Go

Welcome to OpenStreetMap!

OpenStreetMap is a map of the world, created by people like you and free to use under an open license.

Learn More Start Mapping

Open Database License (ODbL)

<http://www.openstreetmap.org>

OpenStreetMap

www.openstreetmap.org/edit?editor=id#map=18/-6.18127/106.82787

OpenStreetMap View Edit History

Edit feature

Building 1

Name
Common name (if any)

Building
yes

Levels
2, 4, 6, ...

Address
Housename
123 Street
City
Postal code

All tags (1)

Point Line Area Save 2

Pramuka Basury Koridor 2 Median Main Median Merdeka Selatan

bing © 2009 DigitalGlobe, © 2011

File Edit View Tools Presets WMS User Audio Help

GPX

Layers unnamed GPX Downloaded GPX Data GPX 2009-03-30-19-43-16.gpx GPX wgps-2009-03-30-19-43-16.gpx Markers from wgps-2009-03-30-19-43-16.gpx

Properties/Memberships

Key	Value
created_by	Potlatch 0.7a
highway	tertiary
name	Putnam Blvd
tiger:fcfc	A41
tiger:county	Hartford, CT
tiger:name_base	Putnam
tiger:name_type	Blvd

Add Edit Delete

Measured values

Path Length	0 m
Selection Length	934.92 m
Selection Area	0.00 m ²
Angle	0.0 °

Reset

41.7254 -72.6167 68.0 Å° 143.1... 58.3 m Putnam Blvd (19 nodes) -Ctrl to rotate selected; or change selection

The image shows a dual-pane OpenStreetMap editing interface. The left pane, titled 'Edit feature', displays a building's properties: 'Building' (set to 'yes'), 'Name' (empty), 'Levels' (set to '2, 4, 6, ...'), and an 'Address' section with 'Housename' (123) and 'City' (empty). Below these are sections for 'All tags (1)' and a Bing map watermark. The right pane, titled '2', shows a map of Putnam Blvd in Hartford, CT, with various buildings, roads, and landmarks like 'Burger King', 'Global', and 'McDonald's'. A toolbar at the top of the right pane includes icons for Point, Line, Area, Save, and a zoom level indicator. A status bar at the bottom provides coordinates (41.7254, -72.6167), an angle (68.0 Å°), a distance (143.1... 58.3 m), and the node count (Putnam Blvd (19 nodes)). A legend on the right lists layers: 'unnamed', 'GPX Downloaded GPX Data', 'GPX 2009-03-30-19-43-16.gpx', 'GPX wgps-2009-03-30-19-43-16.gpx', and 'Markers from wgps-2009-03-30-19-43-16.gpx'. A properties panel on the far right shows key-value pairs for the selected highway node, including 'name: Putnam Blvd'.

Tasking Manager

Coordination Tool

Projects

 Search

Sort by: High priority first ▾

Your projects

#1082 CAR, Bangui, 2014 update - Mapgive Project imagery

This job aims at updating and improving the map of South [Bangui](#), thanks to a March 24, 2014 WorldView-1 imagery provided by the MapGive project. The mapping encompasses improving the existing data and providing a date to the structures so that the urban growth can be monitored in the future.

 69%



As it deals with imagery date and potentially, improving the existing data, it fits more with experienced contributors using JOSM.

Created by [sev_hotosm](#) - Updated about 15 hours ago - Priority: high

About the Tasking Manager

OSM Tasking Manager is a mapping tool designed and built for the Humanitarian OSM Team collaborative mapping. The purpose of the tool is to divide up a mapping job into smaller tasks that can be completed rapidly. It shows which areas need to be mapped and which areas need the mapping validated.

This approach facilitates the distribution of tasks to the various mappers in a context of emergency. It also permits to control the progress and the homogeneity of the work done (ie. Elements to cover, specific tags to use, etc.).

New to Mapping?

Just jump over to openstreetmap.org create an account and then visit this tutorial learnosm.org/en/beginner/id-editor

Then come back here help map for people on the ground!

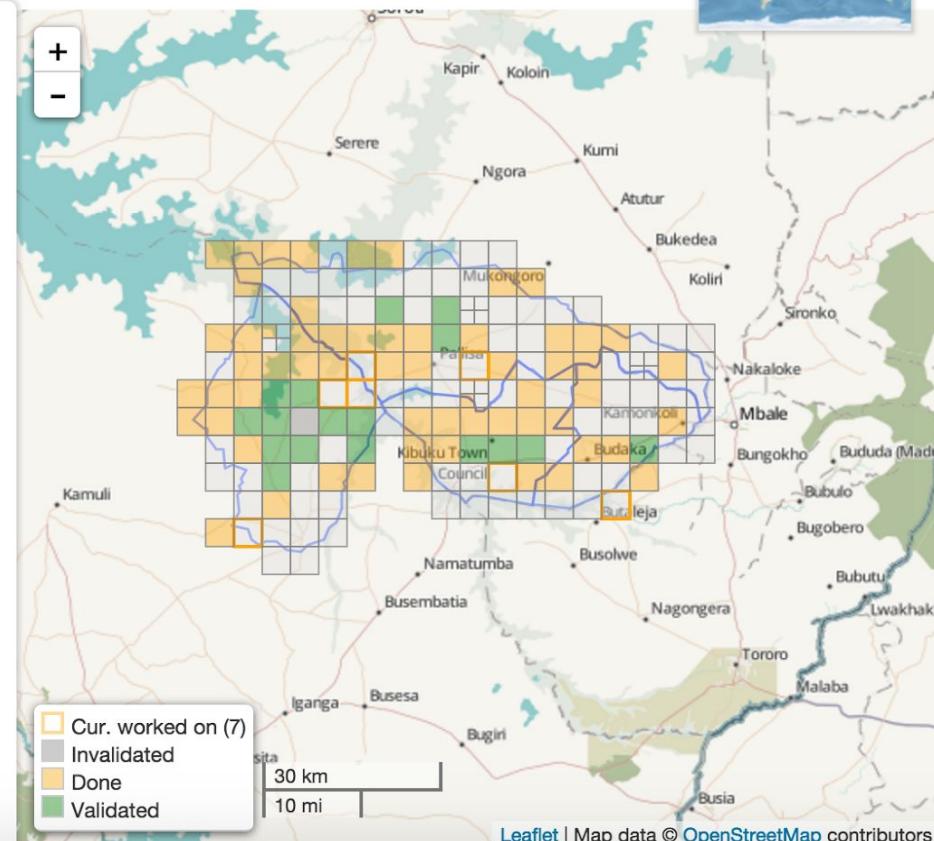
<http://tasks.hotosm.org/>

#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)

Students from Makerere University, Uganda Christian University (UCU), Livingstone University and Kumi University are collecting financial services, health and education points as part of a Humanitarian OpenStreetMap Team (HOT) project.

They are digitising the roads and towns in the districts of Pallisa, Kaliro, Kibuku and Budaka remotely prior to heading out in the field to collect the POIs with the use of OpenMapKit (OMK).

[➡ Instructions](#)

#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

Edit

Export

[Description](#) **Instructions** [Contribute](#) [Activity](#) [Stats](#)

Entities to Map

Roads and Buildings

Changeset Comment

#hotosm-project-1436

How to contribute:

1. Pick a square.
2. If there is nothing map, add a comment and mark the task as done.
3. If you see roads and buildings in the main towns that haven't been traced, please trace them.
4. Upload your edits by clicking save and mark the task as done.
5. If you're not done, unlock task and someone else can complete it.

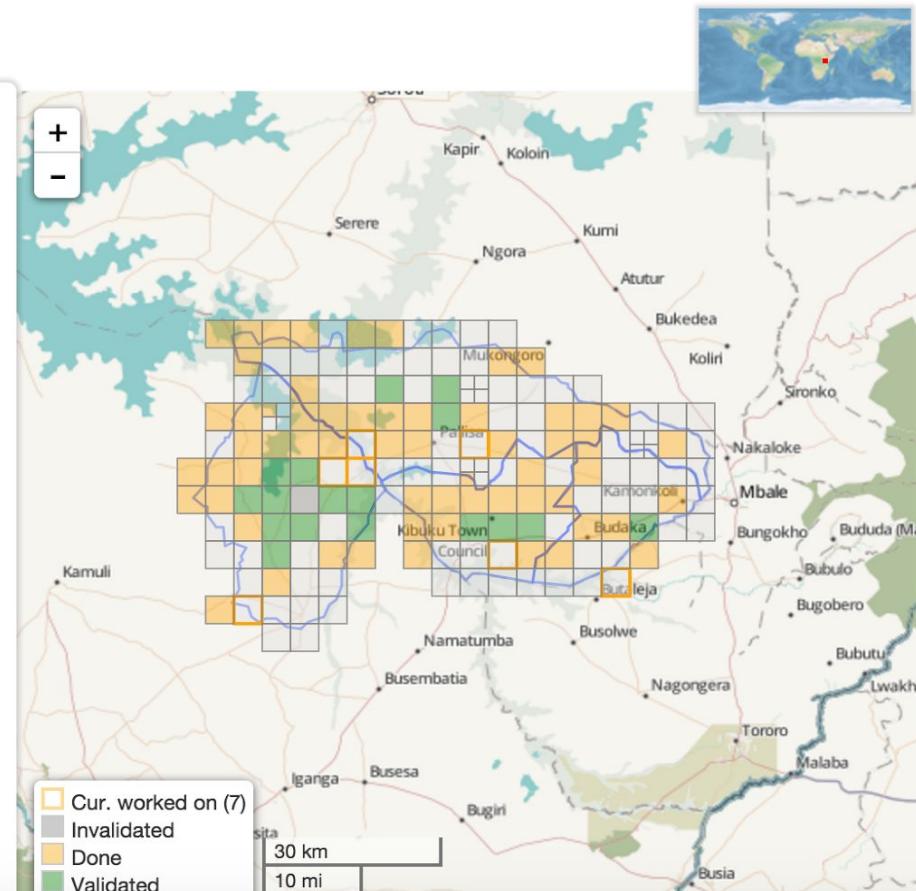
Tags to use:

Roads

1. highway=unclassified

Buildings

1. building=yes



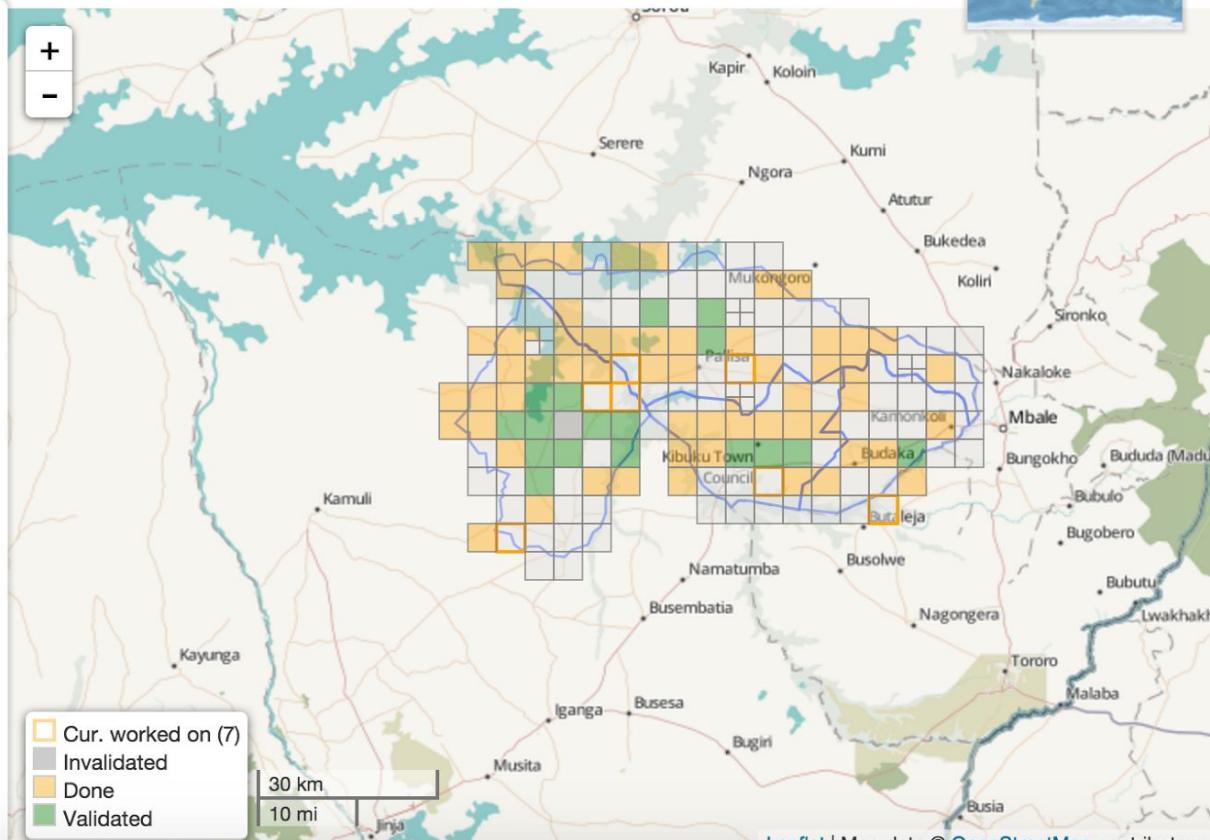
#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#) [Instructions](#) [Contribute](#) [Activity](#) [Stats](#)

Select a task on the map



or

[Take a task at random](#)

#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#) [Instructions](#) [Contribute](#) [Activity](#) [Stats](#)

✓ Ingrid k marked #48 as done

30 minutes ago

✓ PaulUithol marked #107 as done

about an hour ago

✓ Esmanov marked #16 as done

about an hour ago

! Esmanov invalidated #16

about an hour ago

! mataharimhairi validated #25

about an hour ago

! PaulUithol validated #89

about 2 hours ago

✓ muwando marked #42 as done

about 2 hours ago

✓ muwando marked #89 as done

about 2 hours ago

✓ muwando marked #168 as done

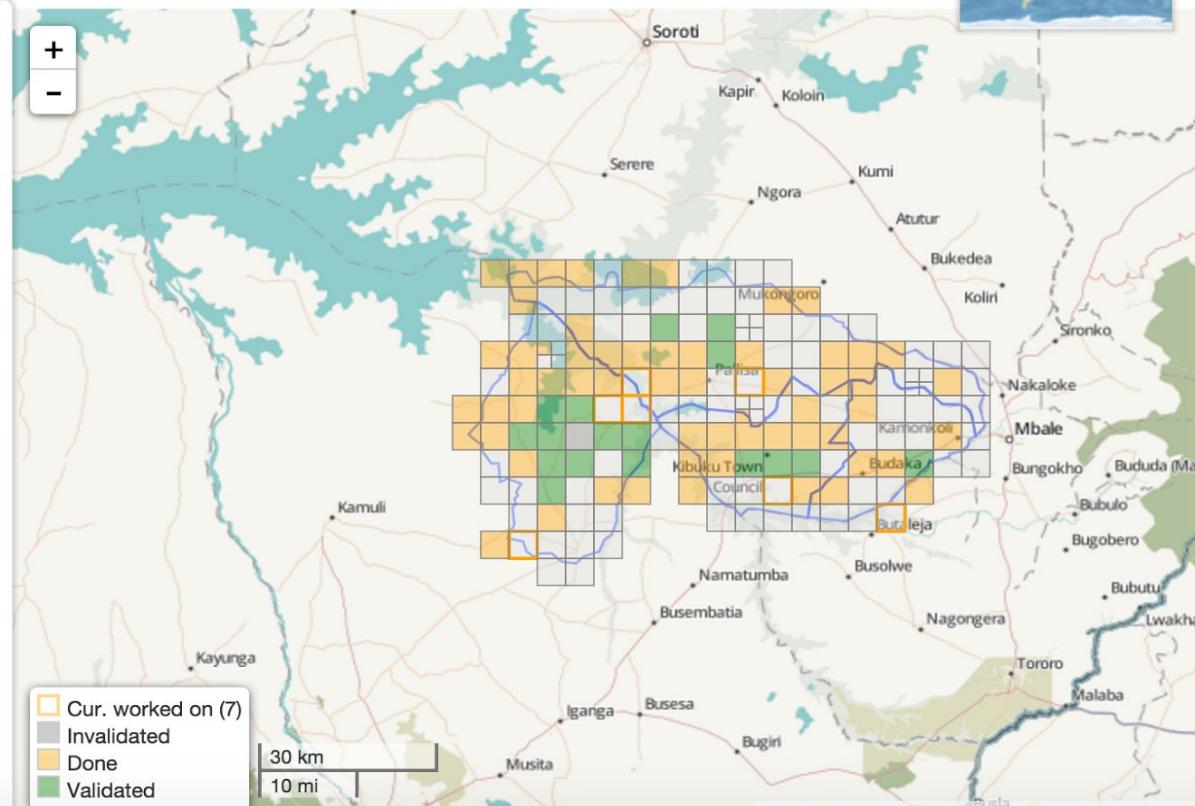
about 2 hours ago

✓ danielititu marked #45 as done

about 2 hours ago

✓ Esmanov marked #25 as done

about 4 hours ago



#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

Edit

Export

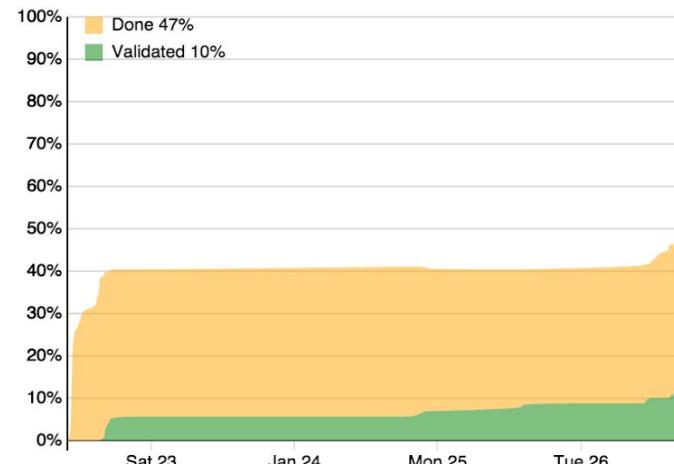
Description

Instructions

Contribute

Activity

Stats



Contributors

Done

Assigned

danielitucu

2

-

Eismanov

7

-

gilbiz

1

-

Ingrid k

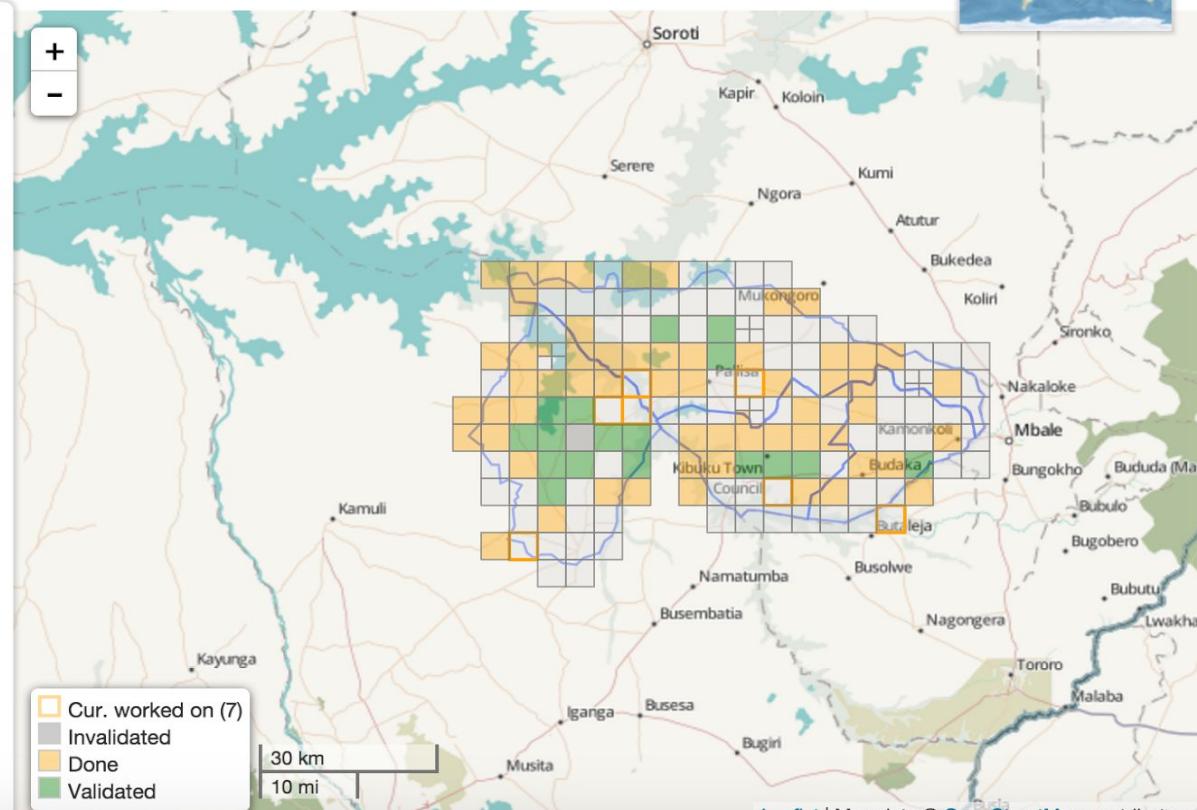
3

-

judithkamuisha

1

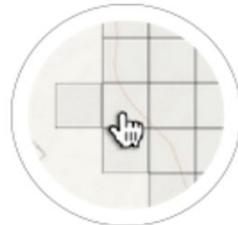
-



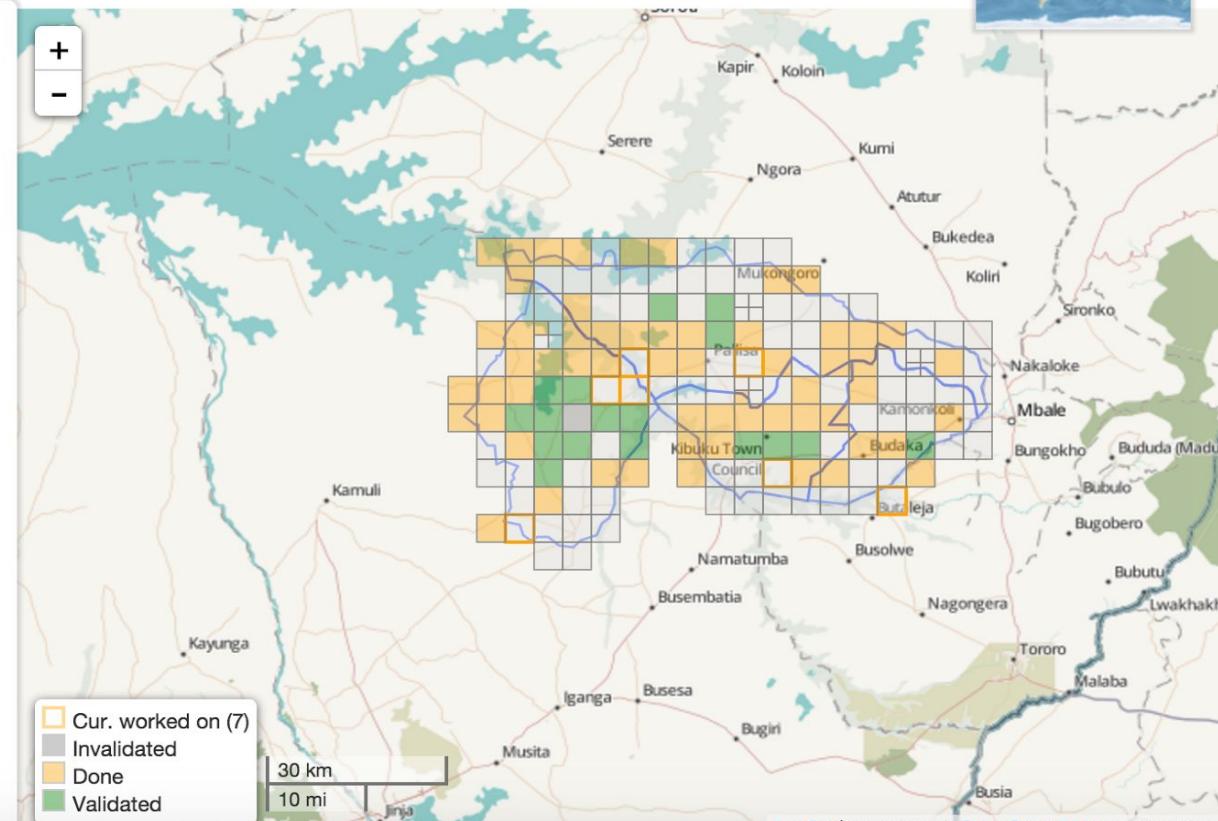
#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)

Select a task on the map



or

[Take a task at random](#)

#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)

Task #71

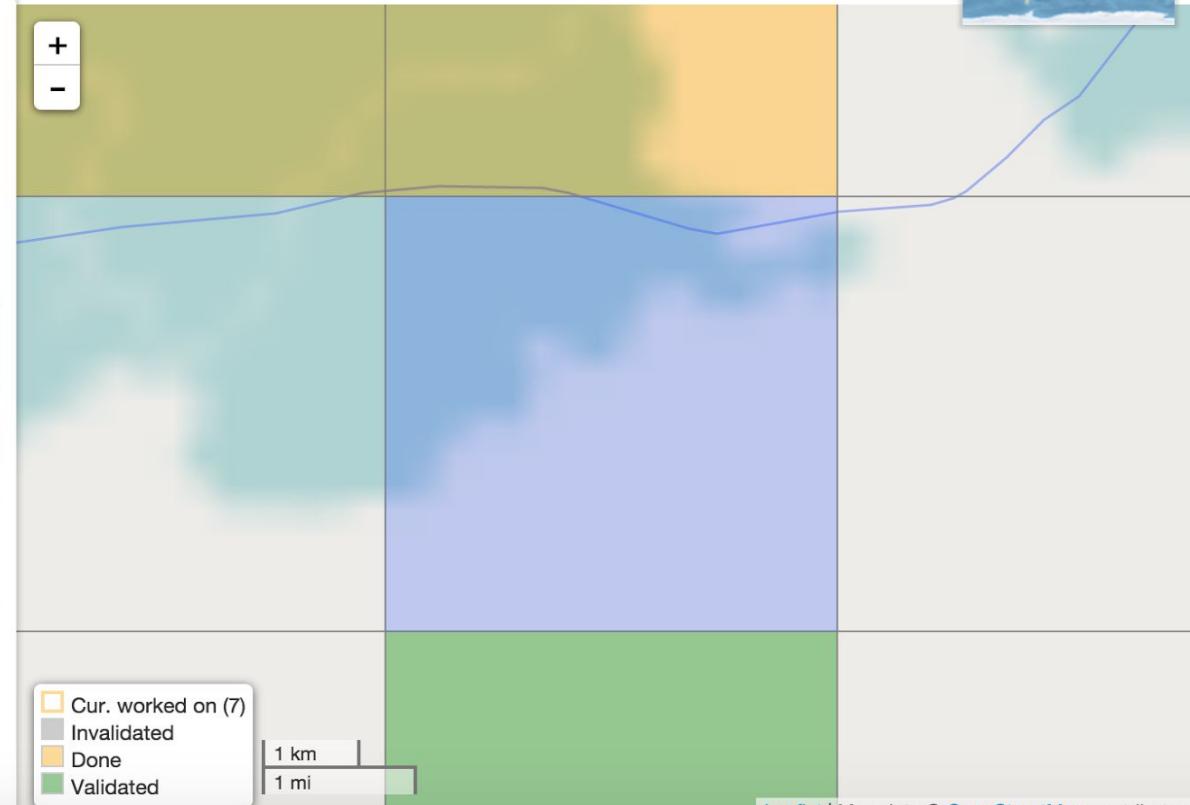
Difficulty



Not assigned yet



Lock this task to tell others that
you are currently working on it.

[Start mapping](#)[Leave a comment](#)[Comment](#)

Nothing has happened yet.

[OSM changesets](#) | [overpass-turbo](#)

#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)**Task #71**[Difficulty](#) [⚙️](#)[Locked by you.](#) [Unlock](#)

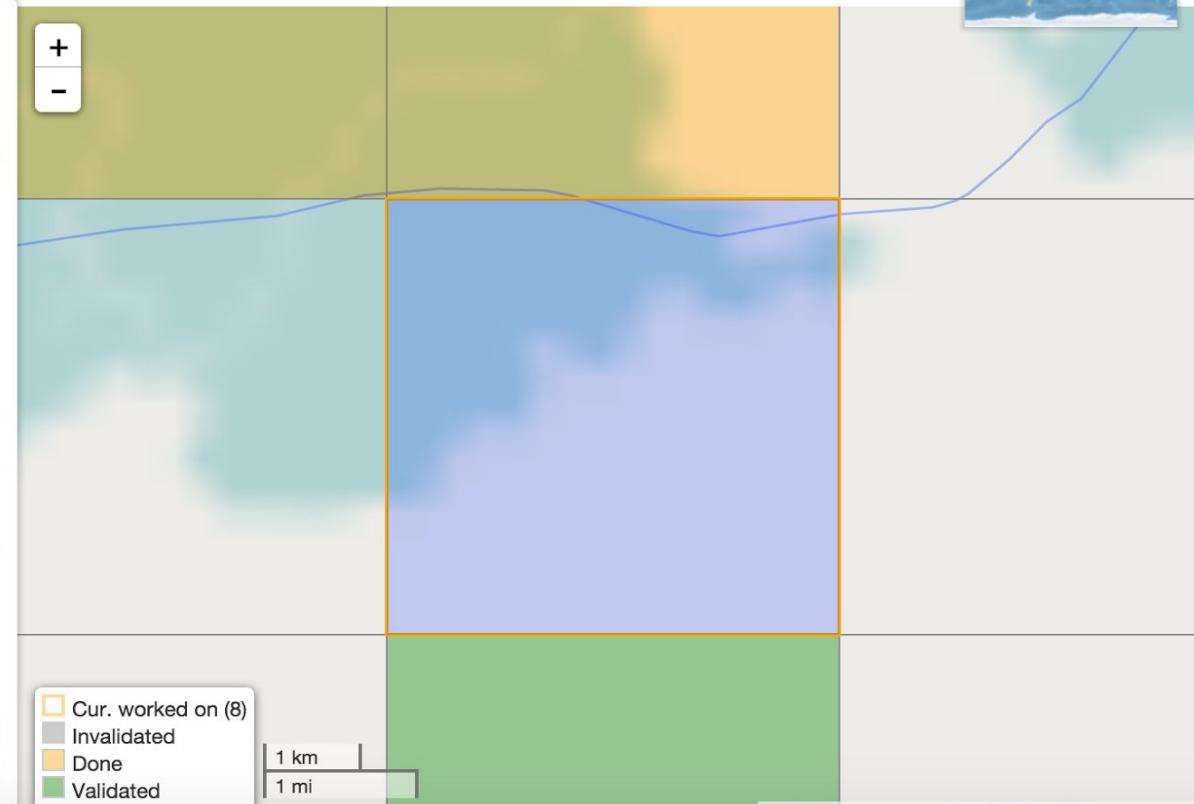
Not assigned yet

[+](#)[-](#)

⌚ 119 min. left

[Edit with JOSM](#)

- [JOSM](#)
- [iD editor](#)
- [Potlatch 2](#)
- [Walking Papers](#)
- [Field Papers](#)

[Unlock](#)[✓ Mark task as done](#)[Tip: Download the tile](#) [in JOSM](#) in order to see the current task boundary[Leave a comment](#)[Locked by mataharimhairi](#)
less than a minute ago

#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)**Task #71**[Difficulty](#) [⚙️](#)[Locked by you.](#) [Unlock](#)

Not assigned yet

[+](#)[-](#)

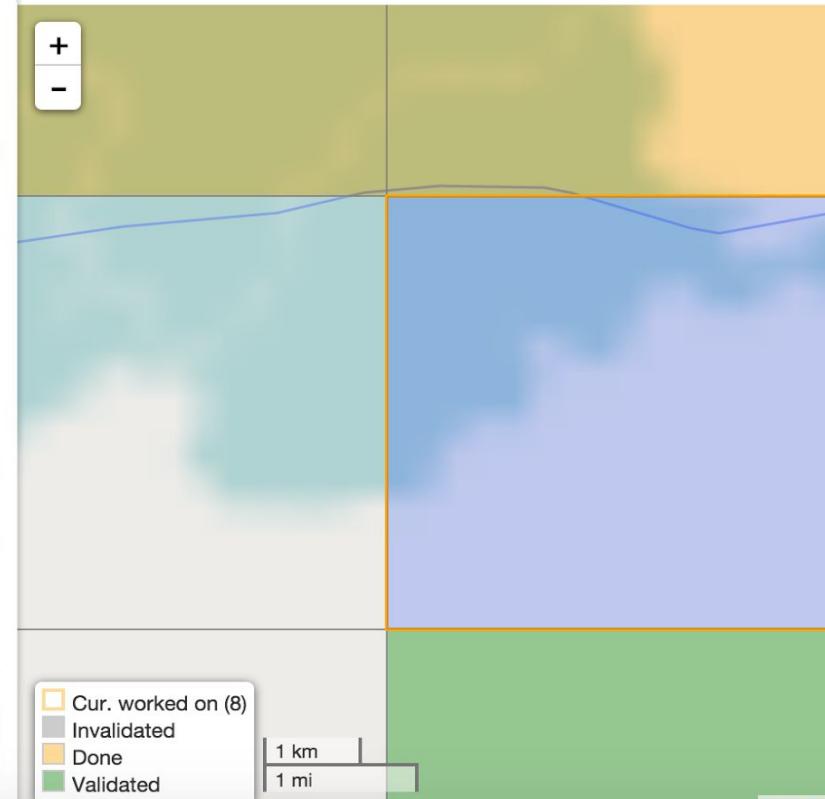
⌚ 119 min. left

[Edit with JOSM](#) ▾

ⓘ Tip: Download the following [.gpx file](#) and load it in JOSM in order to see the current task boundary

[Task is too big? Split](#) ☰

Leave a comment

[Unlock](#)[✓ Mark task as done](#)[Locked by mataharimhairi](#)
less than a minute ago

JOSM

Java OpenStreetMap



- Desktop GIS Application
- Advanced OpenStreetMap Editor
- Steep Learning Curve
- Used by Expert Mappers

<https://josm.openstreetmap.de/wiki/>

JOSM File Edit View Tools More tools Data Selection Presets Imagery Windows Field Papers Audio Help

Java OpenStreetMap Editor

About JOSM Preferences... ⌘,

Services

Hide JOSM ⌘H
Hide Others ⌘H
Show All

Quit JOSM ⌘Q

You should [update!](#)

News

- 2015-12-31 (stable version [9229](#))
 - Areas are filled only around their inner edges. This and other settings are mappaint style. [More info about Style settings](#)
- 2015-11-23 (stable version [9060](#))
 - Support Norwegian Bokmål language
- 2015-10-30 (stable version [8969](#))
 - Way splitting: reuse id/history of existing way for longest split segment
 - Display node icons from mapview also in lists (e.g. in selection dialog, relations)
- 2015-09-28 (stable version [8800](#))
 - Integration of Overpass download and Overpass Turbo Wizard (Expert mode)
 - Added Minimap
 - Added link to taginfo
 - Selectable Gamma value for background imagery
- [More news ...](#)
- Active version '9060' should be [updated!](#) The current stable snapshot is 932
- Help [translating JOSM into your language!](#) Currently 100% of program texts

Getting Started

<https://josm.openstreetmap.de/wiki/Download>

Preferences

Remote Control
Settings for the remote control feature.

Allows JOSM to be controlled from other applications, e.g. from a web browser.
JOSM will always listen at **port 8111** (http) and **port 8112** (https) on localhost.
These ports are not configurable because they are referenced by external applications talking to JOSM

Enable remote control

Enable HTTPS support

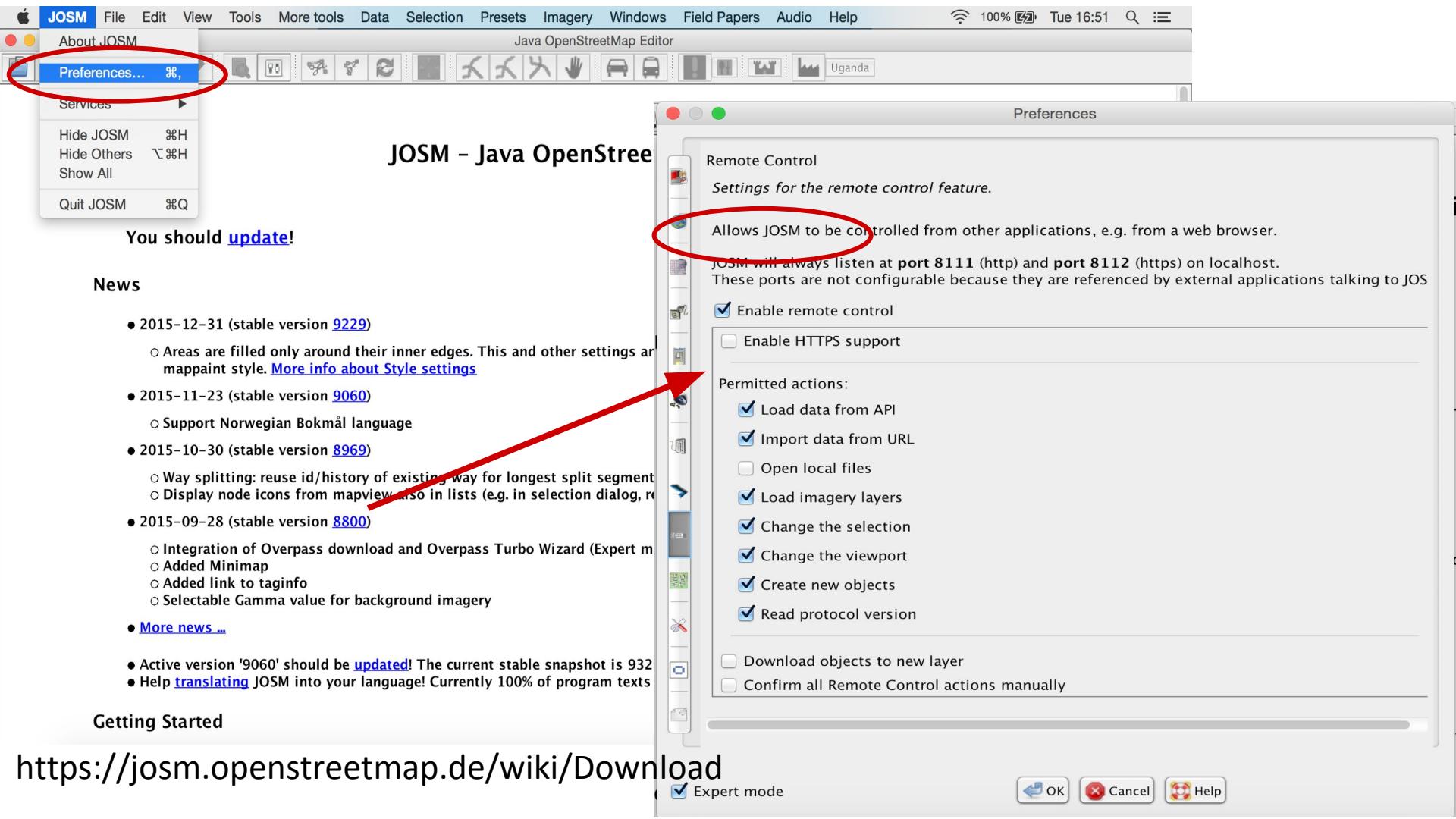
Permitted actions:

Load data from API
 Import data from URL
 Open local files
 Load imagery layers
 Change the selection
 Change the viewport
 Create new objects
 Read protocol version

Download objects to new layer
 Confirm all Remote Control actions manually

OK Cancel Help

Expert mode



Java OpenStreetMap Editor

Uganda

Layers

Data Layer 1

Tags / Memberships

Select objects for which to change tags.

Add Edit Delete

Conflict

Resolve Select

Filter Hidden:0 Disabled:0

E H T Text

- amenity=mobile_money_agent or amenity=bank or a... A
- amenity=clinic or amenity=dentist or amenity=hospita... A
- amenity=university or amenity=college or amenity=sc... A
- amenity=mobile_money_agent A
- amenity=bank A
- amenity=atm A
- amenity=credit_institution A

Add Edit Delete Up Down

Todo list

n (Ctrl to toggle); Shift-Ctrl to rotate selected; Alt-Ctrl to scale selected; or change selection

**Bing aerial imagery**

Geo Center

Mapbox Satellite

OpenStreetMap (Standard layer)

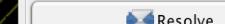
Rectified Image...



Add imagery layer Bing aerial imagery

Data Layer 1**Tags / Memberships**

Select objects for which to change tags.

**Conflict****Filter Hidden:0 Disabled:0**

E H Text

- | | |
|--|----------------------------|
| <input type="checkbox"/> amenity=mobile_money_agent or amenity=bank or a... | <input type="checkbox"/> A |
| <input type="checkbox"/> amenity=clinic or amenity=dentist or amenity=hospita... | <input type="checkbox"/> A |
| <input type="checkbox"/> amenity=university or amenity=college or amenity=sc... | <input type="checkbox"/> A |
| <input type="checkbox"/> amenity=mobile_money_agent | <input type="checkbox"/> A |
| <input type="checkbox"/> amenity=bank | <input type="checkbox"/> A |
| <input type="checkbox"/> amenity=atm | <input type="checkbox"/> A |
| <input type="checkbox"/> amenity=credit_institution | <input type="checkbox"/> A |

**Todo list**

Java OpenStreetMap Editor

increase zoom level to see more detail

0 293.1 m

Layers

- ✓ Data Layer 1
- bing aerial imagery

Tags / Memberships

Select objects for which to change tags.

Add Edit Delete

Conflict

Resolve Select

Filter Hidden:0 Disabled:0

<input type="checkbox"/>	amenity=mobile_money_agent or amenity=bank or a...
<input type="checkbox"/>	amenity=clinic or amenity=dentist or amenity=hospita...
<input type="checkbox"/>	amenity=university or amenity=college or amenity=sc...
<input type="checkbox"/>	amenity=mobile_money_agent
<input type="checkbox"/>	amenity=bank
<input type="checkbox"/>	amenity=atm
<input type="checkbox"/>	amenity=credit institution

+ Add Edit Delete Up Down

Todo list

Background Terms of Use

© 2016 DigitalGlobe © 2016 GeoEye Earthstar Geographics SIO © 2016 Microsoft Corporation

(no object)

n (Ctrl to toggle); Shift-Ctrl to rotate selected; Alt-Ctrl to scale selected; or change selection

Java OpenStreetMap Editor

The screenshot shows the Java OpenStreetMap Editor (JOSM) interface. The main window displays a satellite image of a river flowing through a green landscape. A blue line has been drawn across the river, with yellow crosshair markers at each vertex. A tooltip says "increase zoom level to see more detail". In the top left toolbar, the "Upload" icon is circled in red. The top right status bar shows "Background Terms of Use" and "2016 DigitalGlobe © 2016 GeoEye Earthstar Geographics SIO © 2016 Microsoft Corporation".

Layers

- Data Layer 1
- Bing aerial imagery

Tags / Memberships

Select objects for which to change tags.

Add **Edit** **Delete**

Conflict

Resolve **Select**

Filter Hidden:0 Disabled:0

<input type="checkbox"/>	amenity=mobile_money_agent or amenity=bank or a...	<input type="checkbox"/> A
<input type="checkbox"/>	amenity=clinic or amenity=dentist or amenity=hospita...	<input type="checkbox"/> A
<input type="checkbox"/>	amenity=university or amenity=college or amenity=sc...	<input type="checkbox"/> A
<input type="checkbox"/>	amenity=mobile_money_agent	<input type="checkbox"/> A
<input type="checkbox"/>	amenity=bank	<input type="checkbox"/> A
<input type="checkbox"/>	amenity=atm	<input type="checkbox"/> A
<input type="checkbox"/>	amenity=credit institution	<input type="checkbox"/> A

Add **Edit** **Delete** **Up** **Down**

Todo list

#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

[Edit](#)[Export](#)[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)**Task #71**[Difficulty](#) [⚙️](#)[Locked by you.](#) [Unlock](#)

Not assigned yet

[+](#)[-](#)

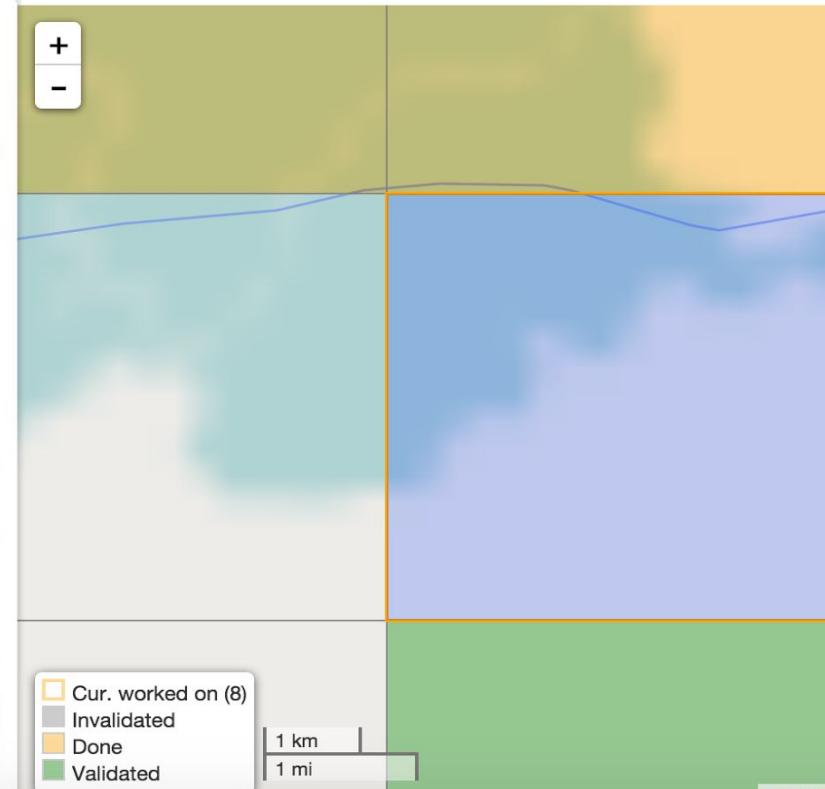
⌚ 119 min. left

[Edit with JOSM](#)

ⓘ Tip: Download the following [.gpx file](#) and load it in JOSM in order to see the current task boundary

[Task is too big? Split](#)

Leave a comment

[Unlock](#)[✓ Mark task as done](#)

🔒 Locked by [mataharimhairi](#)
less than a minute ago

LearnOSM

Further Documentation



Learn OpenStreetMap Step by Step



JOSM - DETAILED EDITING

- ▶ Getting Started with JOSM
- ▶ The JOSM Editing Process
- ▶ Editing Field Data
- ▶ JOSM Tools
- ▶ JOSM Plugins
- ▶ JOSM Building Tools & Utilsplugin2 pl...
- ▶ JOSM Presets

Getting Started with JOSM

NOTE:

This guide may be downloaded as [josm_start-josm_en.odt](#) or [josm_start-josm_en.pdf](#)

Reviewed 2015-07-12

How to download and install JOSM, the Java OpenStreetMap editor, change some of the settings, open a sample map and learn some of the basic operations of the software. Remember in the introduction chapter when we asked you to draw a map of your town or village? We will conclude this chapter by drawing your map again, this time digitally. After this you should have a good understanding of how to draw maps in JOSM.

<http://learnosm.org/en/josm/>

MissingMaps

Further Documentation



CONTRIBUTE EVENTS ABOUT BLOG DISCOVER | en



Putting the World's Vulnerable People on the Map

Each year, disasters around the world kill nearly 100,000 and affect or displace 200 million people.

Many of the places where these disasters occur are literally 'missing' from any map and first responders lack the information to make valuable decisions regarding relief efforts. Missing Maps is an open, collaborative project in which you can help to map areas where humanitarian organisations are trying to meet the needs of vulnerable people.

GET INVOLVED

<http://www.missingmaps.org>

MapGive

Further Documentation

The screenshot shows the MapGive homepage with a dark green header bar. On the left is the MapGive logo with the tagline "Drawing Our Resources Together". On the right are navigation links: "Why Map?", "About Open Mapping", a red button labeled "Learn to Map", and a blue button labeled "Start Mapping". Below the header is a light grey banner containing promotional text about Geography Awareness Week.

Teach, Learn and Discover Geography With OpenStreetMap during Geography Awareness Week,
13-19 November. For more details go to osmgeoweek.org and follow #osmgeoweek

You can help. Map any place in the world
even if you've never been there.

Map data is key to humanitarian and development missions. MapGive helps new volunteers learn to map and get involved in online tasks.



FIND OUT MORE ABOUT
**WHY YOU
SHOULD MAP**

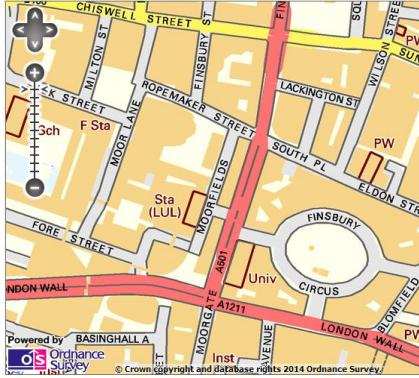
**LEARN
TO MAP**

**START
MAPPING**

<http://mapgive.state.gov/>

Mapping Exercise

Stage 2 + 3



1. Import existing open datasets



2. Remote mapping through digitizing aerial imagery



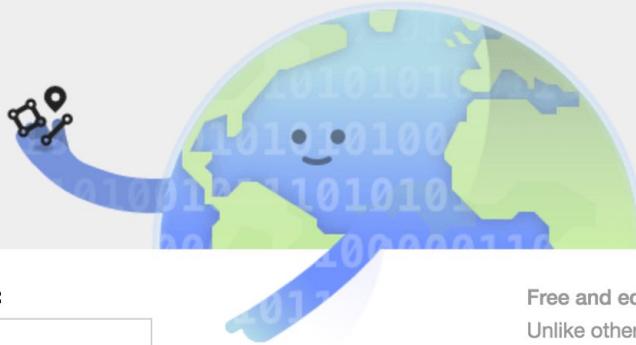
3. Detailed attribute information collection on the ground

University of South Pacific

Sign Up

The image shows the OpenStreetMap website interface. At the top left is the "OpenStreetMap" logo. To its right are buttons for "Edit", "History", and "Export". Along the top navigation bar are links for "GPS Traces", "User Diaries", "Copyright", "Help", and "About". On the far right of the top bar are "Log In" and "Sign Up" buttons, with a red arrow pointing to the "Sign Up" button. Below the top bar is a search bar with placeholder text "Search" and a "Where am I?" button with a "Go" link. To the right of the search bar is a blue "Upload" button with an upward arrow icon. A "Welcome to OpenStreetMap!" message box is visible on the left side of the map area. The main content is a map of Laucala Bay, Fiji, showing streets like "Grantham Road", "Laucala Bay Road", "Moana Drive", and "Aita Street". Landmarks labeled include "University of the South Pacific" with a graduation cap icon, "LAUCALA BAY", and "National Stadium" with a person icon. A scale bar at the bottom left indicates "100 m" and "300 ft". On the right side of the map are various control icons for zooming, panning, and orientation. At the very bottom right, there is a copyright notice: "© OpenStreetMap contributors. Tiles courtesy of Humanitarian OpenStreetMap Team".

Sign Up

**Email Address:****Confirm Email Address:**

Your address is not displayed publicly, see our [privacy policy](#) for more information

Display Name:

Your publicly displayed username. You can change this later in the preferences.

Password:**Free and editable**

Unlike other maps, OpenStreetMap is completely created by people like you, and it's free for anyone to fix, update, download and use.

Sign up to get started contributing. We'll send an email to confirm your account.

Tasking Manager

Workshop Project

<http://tasks.hotosm.org/project/2362>

Please donate! HOT Tasking Manager

#2362 - OSMWorkshop 2016 | University of the South Pacific (Draft)

About English mataharimhairi

Description Instructions Contribute Activity Stats

⚠ This project is not published yet. ↗ Publish

A small project set up as part of the OSM Workshop taking place on the 2nd December 2016 at the University of the South Pacific to demonstrate and get hands on experience using the Tasking Manager to digitise data. Building footprints and road networks will be traced over satellite imagery in preparation for the participants to go on the ground and collect attribute data using OpenMapKit.

Created by mataharimhairi - Updated about 16 hours ago - Priority: low

↗ Instructions

Map data © OpenStreetMap contributors

University of South Pacific

Buildings and Roads Features

Please donated to OSM Tasking Manager

#2362 - OSMWorkshop 2016 | University of the South Pacific (Draft)

Description Instructions Contribute Activity Stats

Entities to Map ?
Buildings and Roads

Changeset Comment ?
#hotosm-project-2362 #OSMWorkshop #Pacific

When saving your work, please leave the default comment but add what you actually mapped, for example "added buildings and a residential road".

How to contribute:

1. Pick a square.
2. If there is nothing map, add a comment and mark the task as done.
3. If you see buildings and roads that haven't been traced, please trace them.
4. Upload your edits by clicking save and mark the task as done.
5. If you're not done, unlock the task and someone else can complete it.

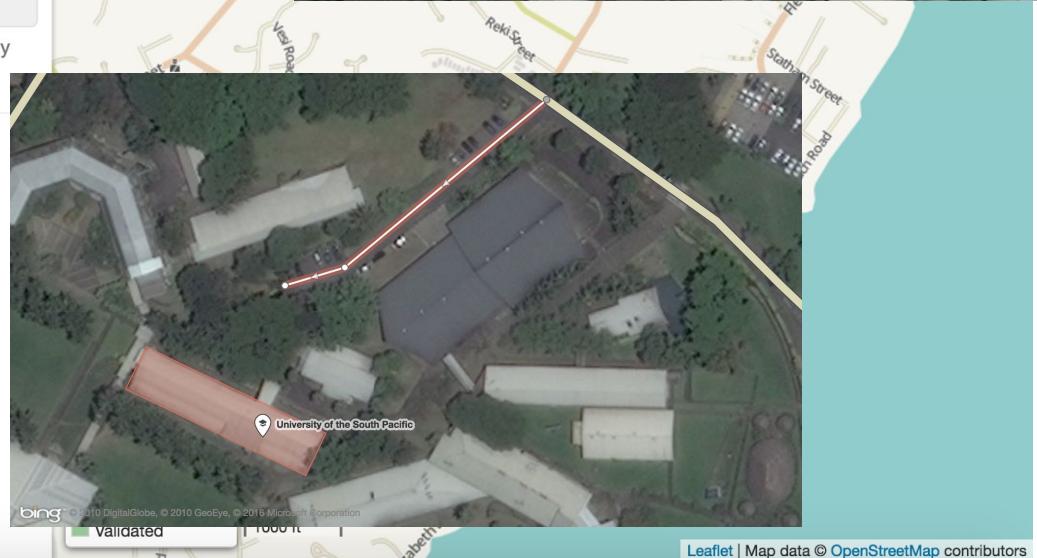
Tags to use:

Buildings

- building=yes

Roads

- highway=unclassified



Please donate!

#2362 - OSMWorkshop 2016 | University of the South Pacific (Draft)

[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)

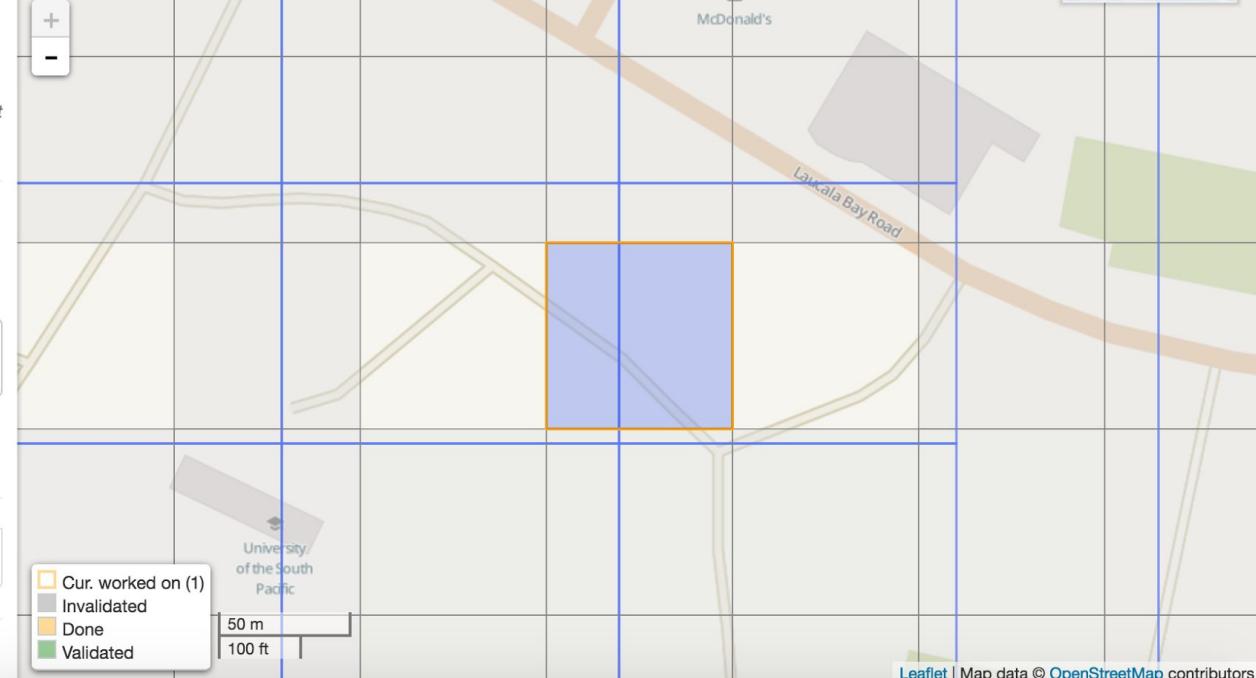
Task #110

Difficulty

Locked by you. [Stop mapping](#)

Not assigned yet

⌚ 119 min. left



Leave a comment

► Edit with iD editor



JOSM

iD editor

Potlatch 2

Walking Papers

Stop mapping

Mark as done

Locked by mataharimhairi
less than a minute ago

OSM changesets | ➔ overpass turbo



OpenStreetMap

Edit

History

Export

GPS Traces

User Diaries

Copyright

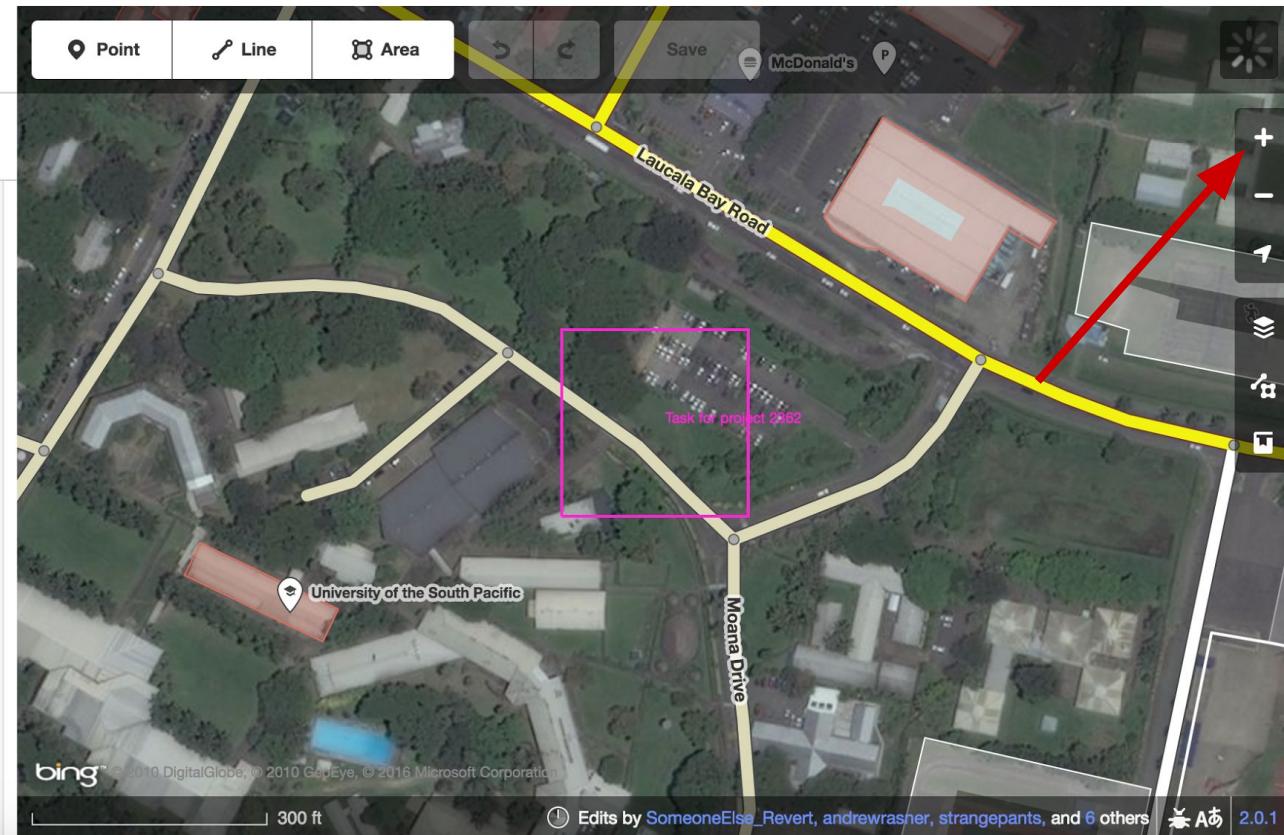
Help

About



Search features

Search



bing

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300 ft



Edits by SomeoneElse_Revert, andrewrasher, strangepants, and 6 others



2.0.1

◀ Edit feature



 Building

▼ All fields

Name

Common name (if any)



Building



yes

Levels

2, 4, 6...



Address

123

Street

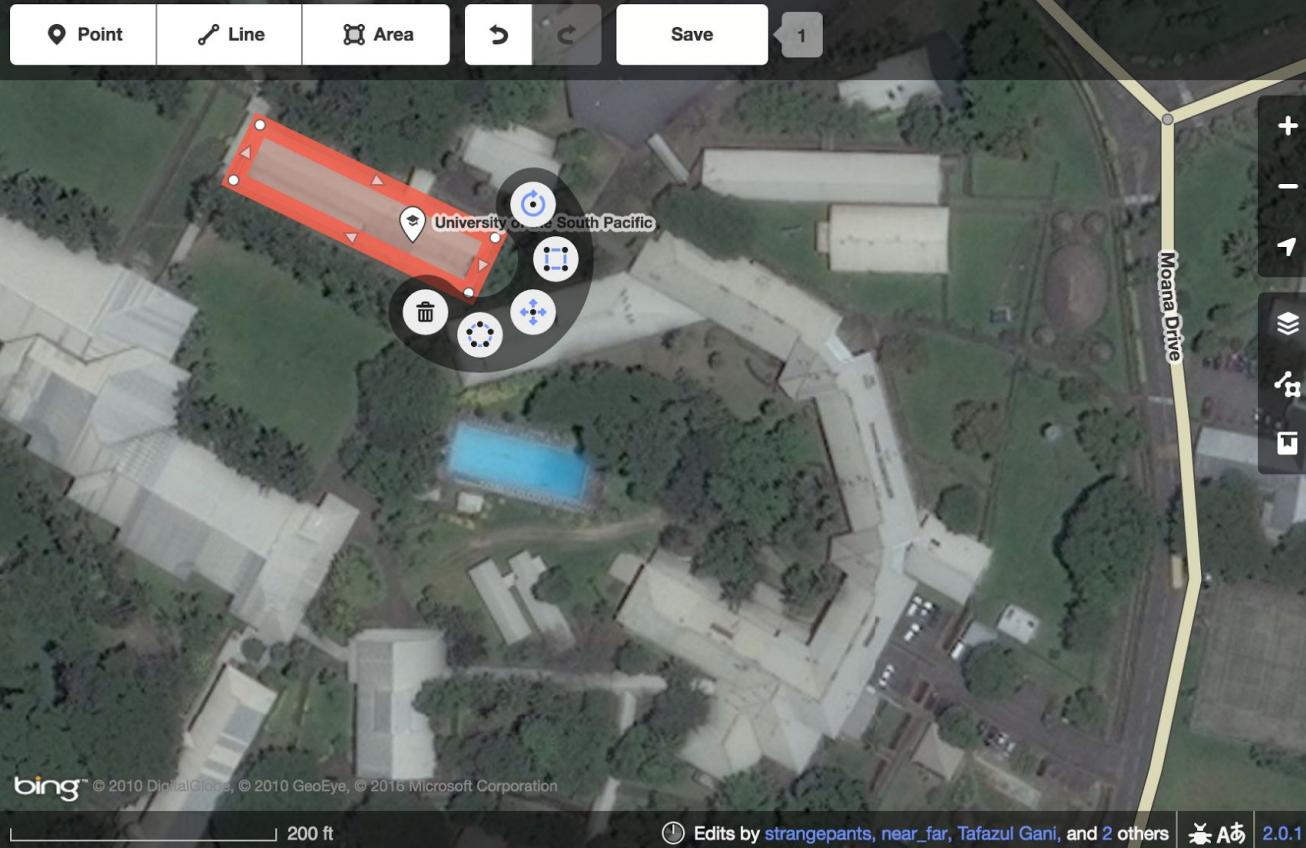


City

Postcode



Point Line Area   Save 1



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200 ft

Edits by strangepants, near_far, Tafazul Gani, and 2 others

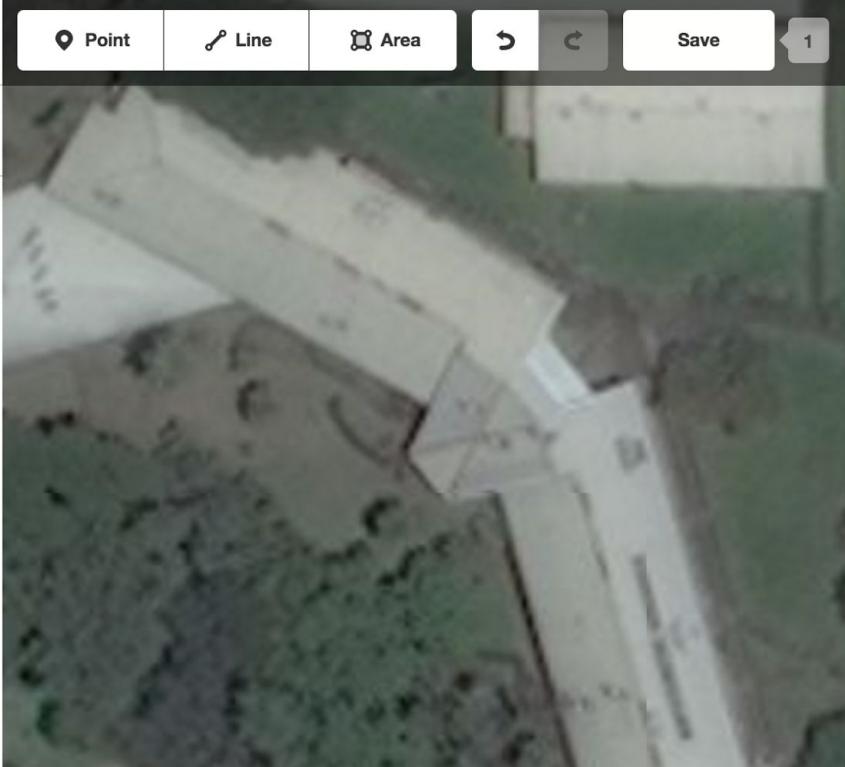
A A 2.0.1



Search features

Search

Point Line Area ⌛ ↻ ⌛ Save 1



Background

- Bing aerial imagery
- Mapbox Satellite
- OpenStreetMap (Standard)
- Stamen Terrain
- Thunderforest Landscape
- None
- Custom

Where does this imagery come from?

- Locator Overlay
- OpenStreetMap GPS traces
- Minimap

▶ Adjust imagery offset

bing™ © 2010 DigitalGlobe, © 2010 GeoEye, © 2016 Microsoft Corporation

50 ft

Edits by near_far, Tafazul Gani, SomeoneElse_Revert, strangepants

A 2.01

◀ Edit feature



	Minor/Unclassified Road	
--	-------------------------	---

▼ All fields

Name

Common name (if any)



One Way

 Assumed to be No

Speed Limit

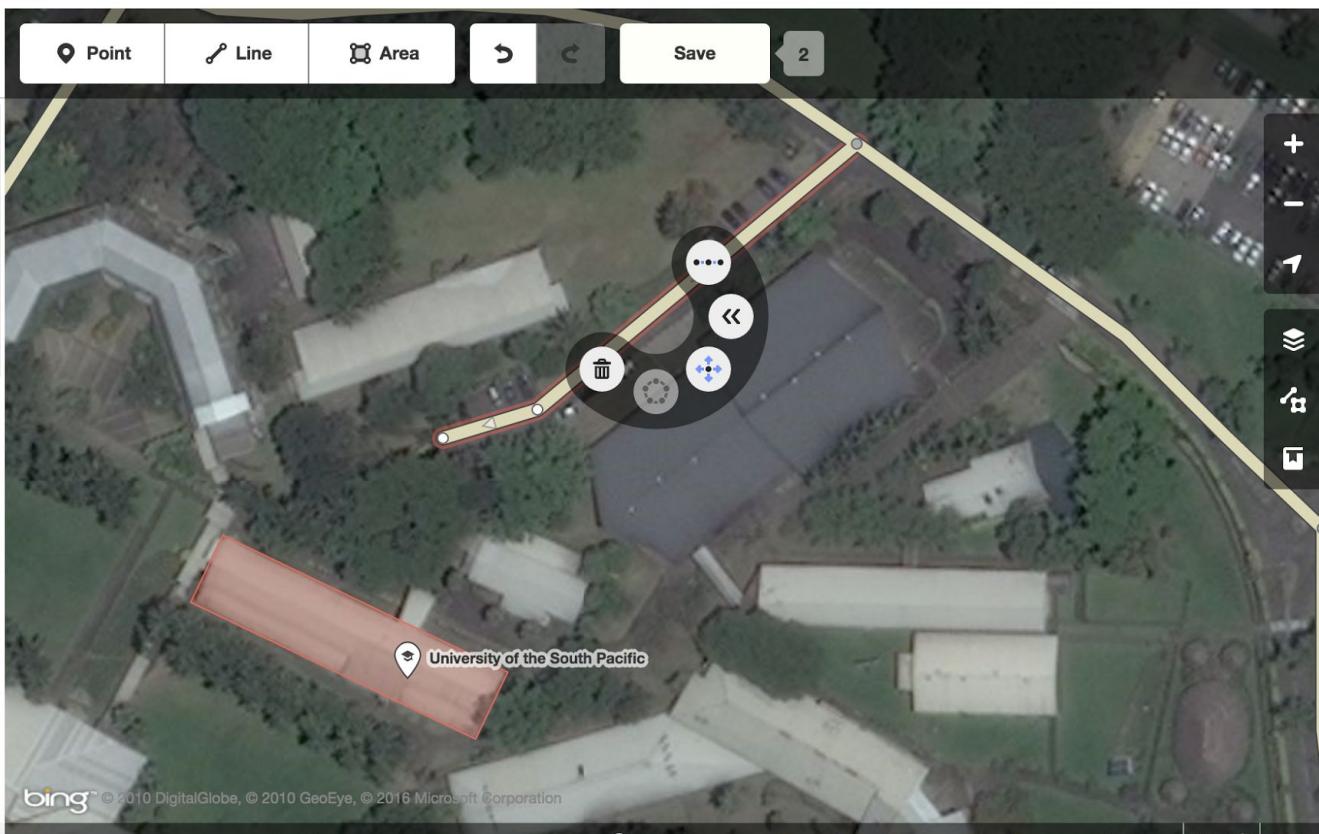
40, 50, 60...

km/h

Structure

 Bridge Tunnel Embankment

Point Line Area   Save 2



University of the South Pacific

bing™ © 2010 DigitalGlobe, © 2010 GeoEye, © 2016 Microsoft Corporation

150 ft

Edits by near_far, Tafazul Gani, SomeoneElse_Revert, and 2 others |  A 2.0.1

Save Changes

Changeset comment

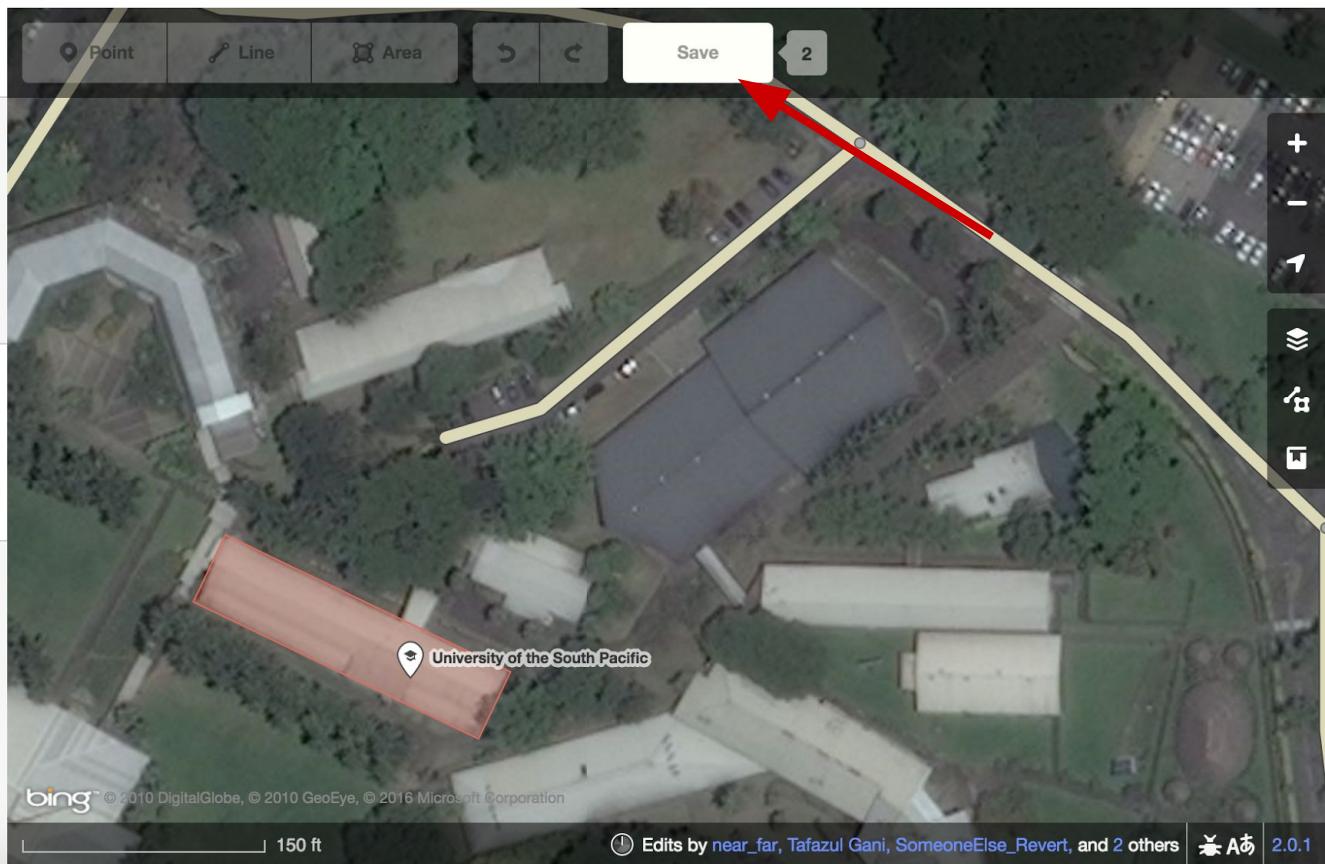
#otosm-project-2089 #missingmaps #PDCSurabaya

[About changeset comments](#)

The changes you upload as  mataharimhairi will be visible on all maps that use OpenStreetMap data.

[Cancel](#)[Save](#)

2 Changes

 Created Building Created Minor/Unclassified Road

#2362 - OSMWorkshop 2016 | University of the South Pacific (Draft)

Edit Export

Description Instructions Contribute Activity Stats



Task #110

Difficulty

Locked by you. Stop mapping

Not assigned yet

Edit with iD editor

Task is too big? Split

Leave a comment

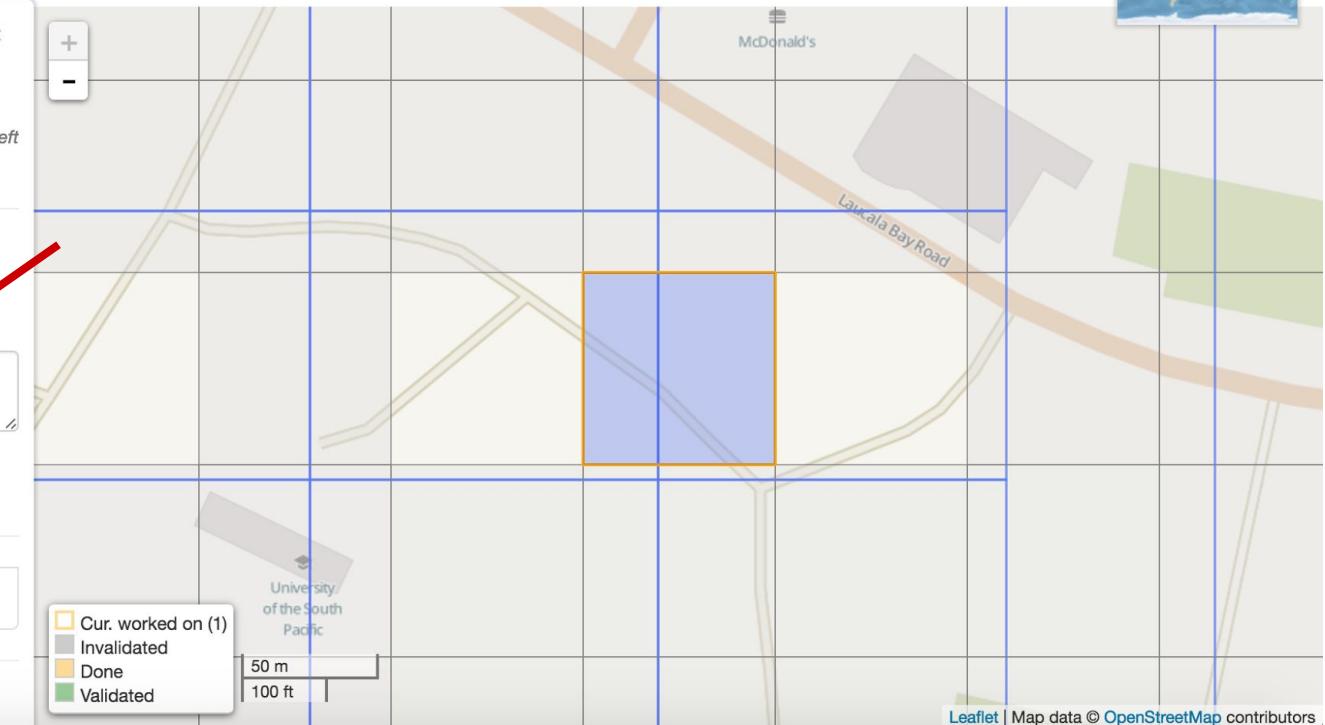
Stop mapping

Mark task as done

Locked by mataharimhairi

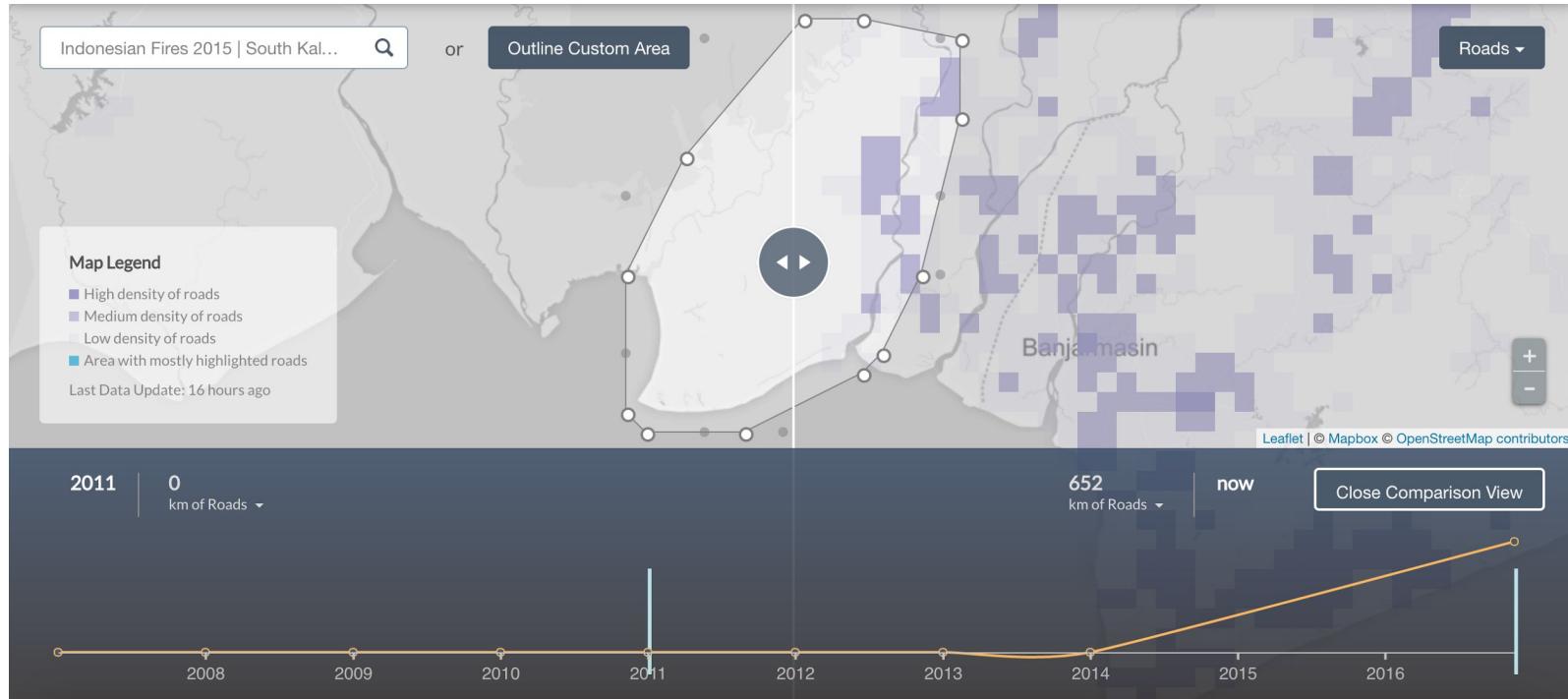
11 minutes ago

OSM changesets | overpass turbo



OSM Analytics

Data Comparison



<http://osm-analytics.org/#/>

Neis-One.org

OSM Edits

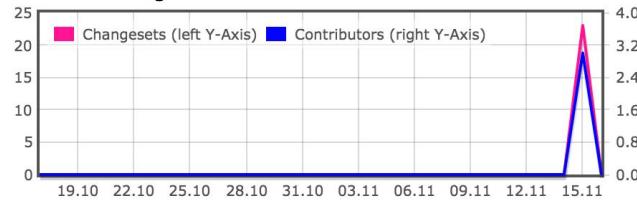


Search for a specific Text: Go!
(min. 6 and max. 20 characters)

Information for 'hotosm-project-1339'
Some used terms: hotosm-project-1339

Number of OSM Contributors: 3
Number of Map Changes: 169
Total number of Changesets: 23
Displayed Changesets : 23
(Limit is 5000 Changesets) hide large Changesets

Number of Changesets and Contributors



Number of created (modified) OSM Objects

Nodes: 100 (31)
Ways: 21 (16)
Highways: 1 (0)
Buildings: 0
Land-uses: 1
Waterways: 19

Top 7 Countries: Contributors - Changesets (Map Changes)
1. Indonesia: 3 - 23 (169)



<http://resultmaps.neis-one.org/osm-changesets>