OpenStreetMap

Universidad de Costa Rica Workshop

UNIVERSIDAD DE COSTA RICA

GEM
GLOBAL EARTHQUAKE MODEL
working together to assess risk

Mhairi O'Hara

29th May 2017

HOT
Humanitarian OpenStreetMap Team

Workshop

Outline

START 9.00 am

Welcome and Introductions	**10 mins**
OpenStreetMap + HOT	**20 mins**
Background and Data Model	
Remote Mapping in OSM	**60 mins**
HOT Tasking Manager	
Digitising with iD Editor	
San Jose Mapathon	**120 mins**
Digitise Buildings Footprints	
LUNCH 12.30 pm	**60 mins**

CONTINUE 1.30 pm

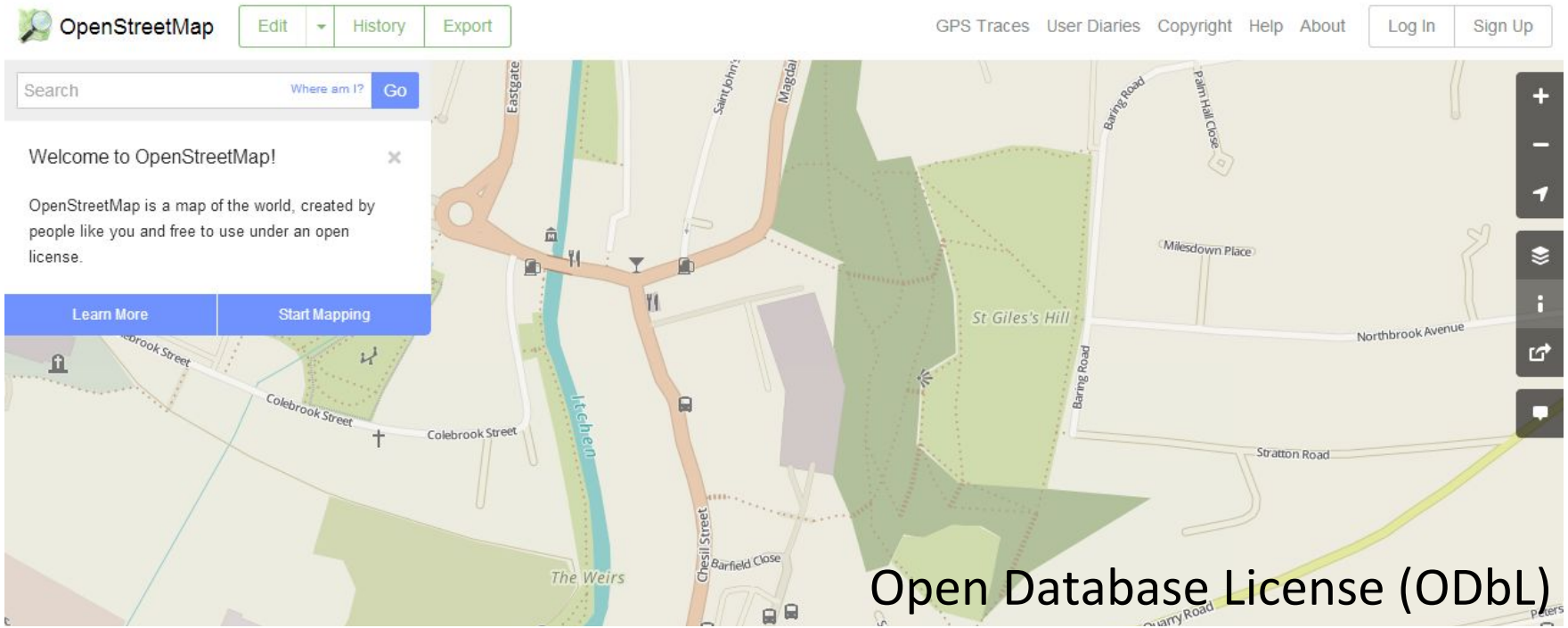
Field Mapping in OSM	**30 mins**
OpenMapKit	
Outdoor Exercise	**90 mins**
Install Application	
Collect Data in Field	
Extract OSM Data	**20 mins**
HOT Export Tool	
Model Hazard Impacts	**20 mins**
InaSAFE Plugin Tool	
YouthMappers	**20 mins**
San Jose Chapter	

END 5.00 pm

Total **~ 8 hours**

OpenStreetMap

Free Geospatial Data

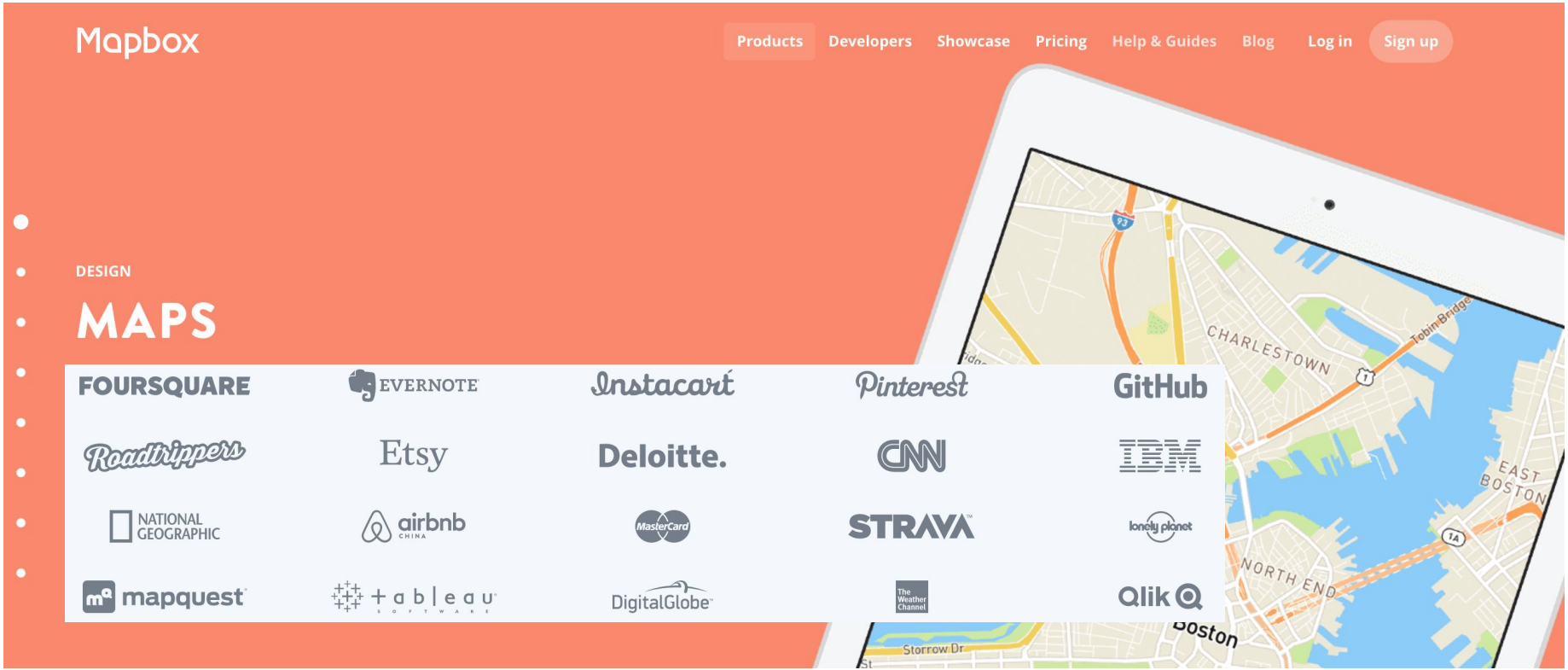


Open Database License (ODbL)

http://www.openstreetmap.org

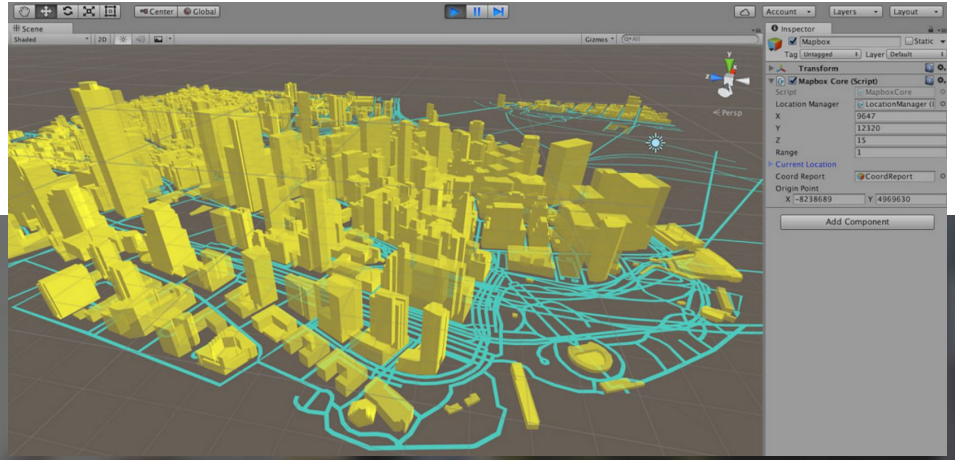
OpenStreetMap

Multiple Uses



Gaming

Real-life Data



Disaster Management

Exposure Data

DisasterWare

PetaBencana

InaSAFE

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.

MISSING MAPS

Humanitarian mapping on OpenStreetMap: all contributed edits

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 | @hotosm | facebook.com/hotosm

students, and volunteers

ted training workshops in open data ils. Workshops range in length from cate programs. Since 2010, HOT has minister-level government officials, dividual community members.

erve the humanitarian and open data communities

technology tools which make mapping easier, more r the OpenStreetMap community and humanitarian OpenStreetMap Tasking Manager, which enables te simultaneously, and OpenAerialMap, a free and imagery.

OpenAerialMap

hRedCross

OCHA

DRR

Australian Aid

HEWLETT FOUNDATION

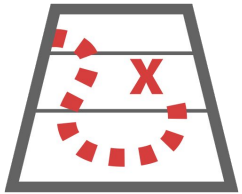
HOT is a worldwide nonprofit organization, registered in the United States [501(c)(3)] with offices in Washington D.C., USA and Jakarta, Indonesia.

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

https://hotosm.org/

Humanitarian OpenStreetMap Team

Community Mapping



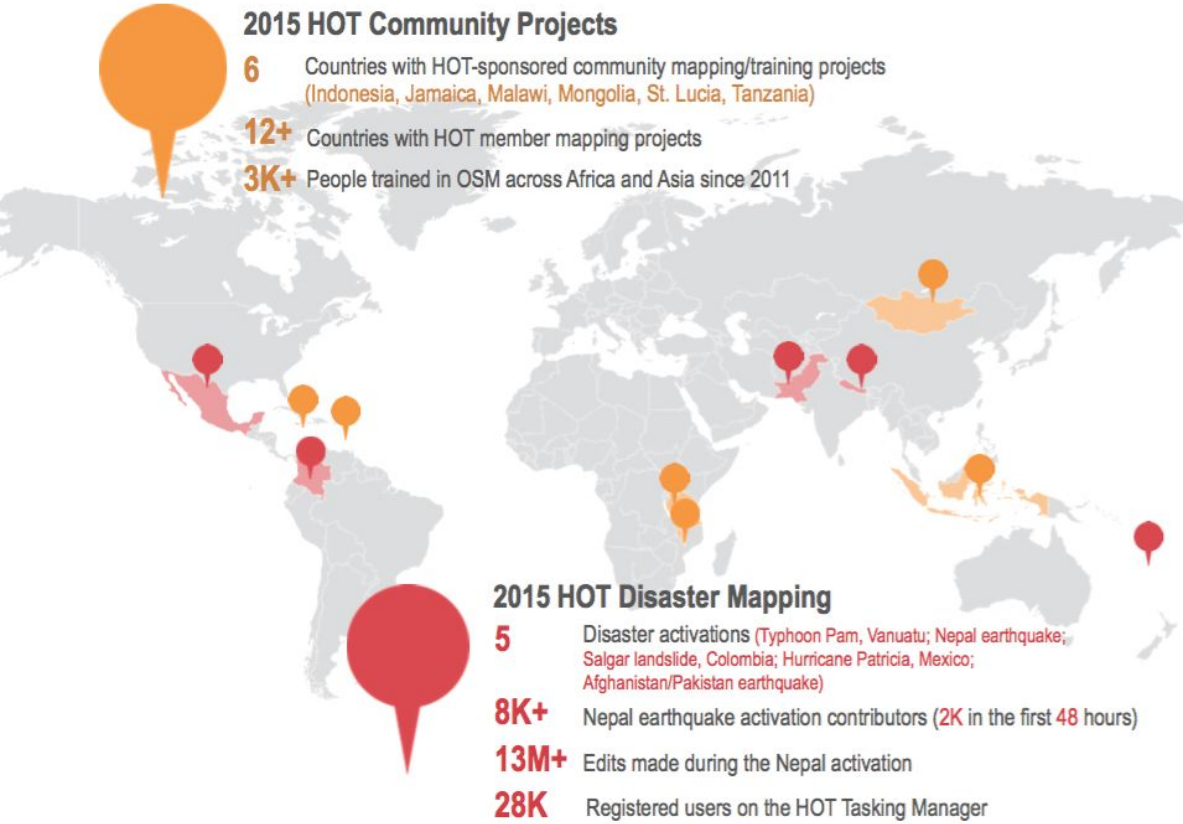
Disaster Mapping

Technical Projects

Community Development

Humanitarian OpenStreetMap Team

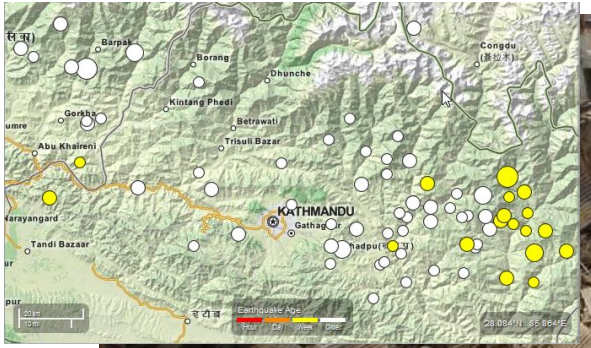
Projects Across the Globe

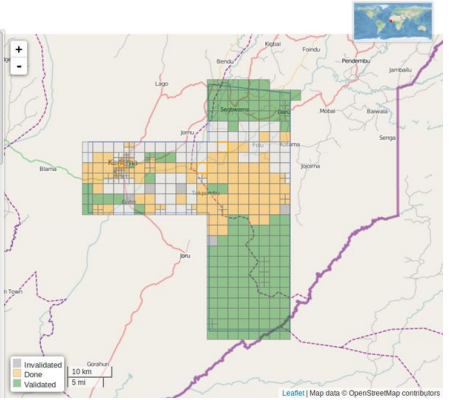


Humanitarian OpenStreetMap Team

Nepal Earthquake 2015

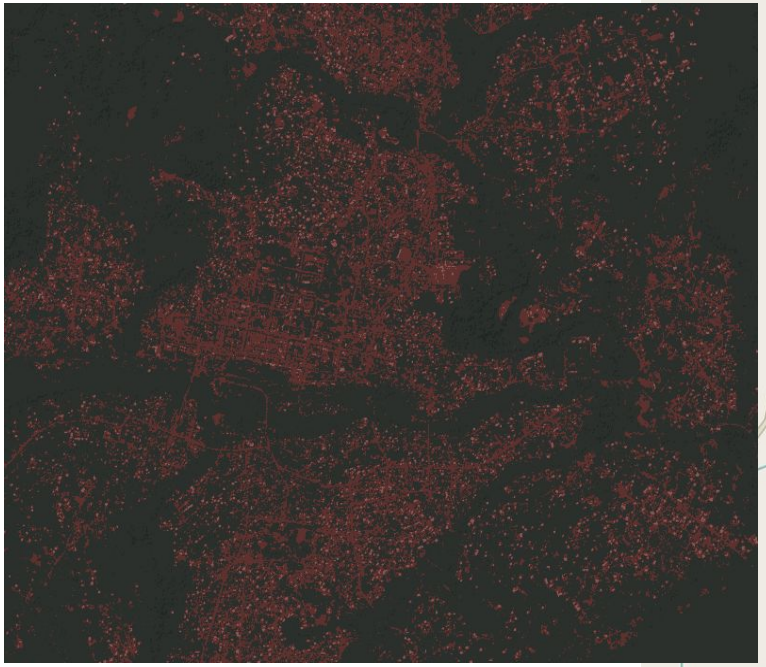
Kathmandu Living Labs

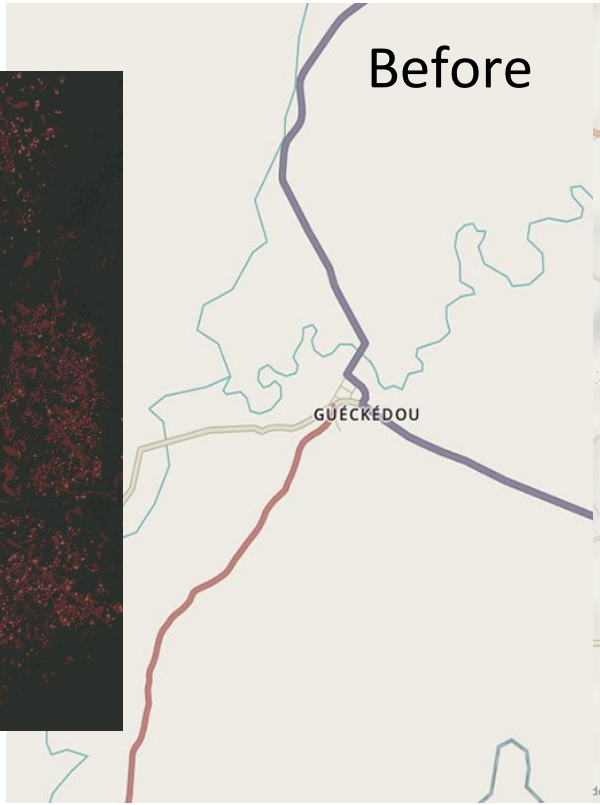




Humanitarian OpenStreetMap Team

Ebola Epidemic Response





MEDECINS
SANS FRONTIERES

Humanitarian OpenStreetMap Team

Indonesia InAWARE Project

USAID FROM THE AMERICAN PEOPLE

HOT

PACIFIC DISASTER CENTER

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

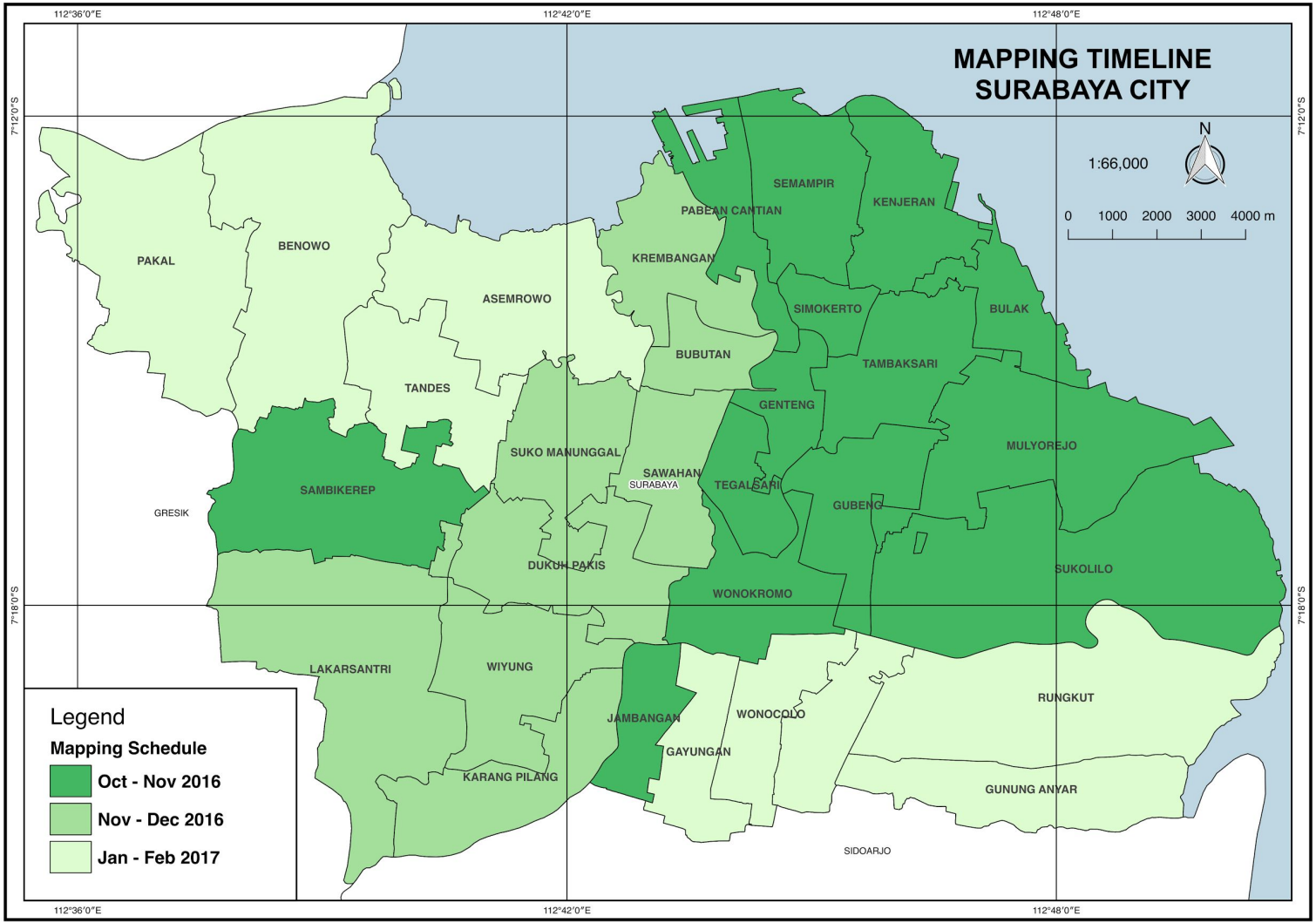
- Clinics/Hospitals

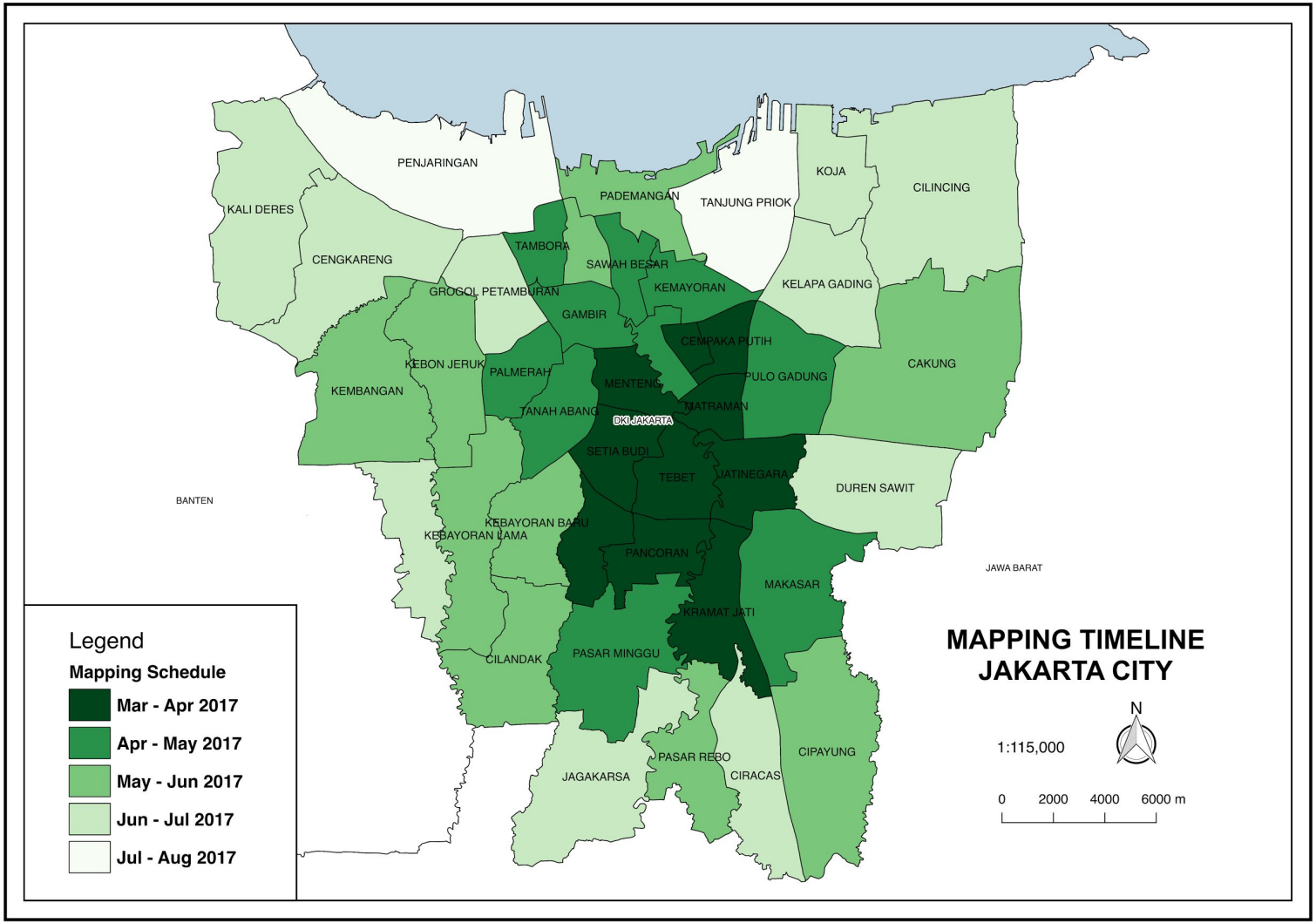
Emergency Services

- Police Stations
- Fire Stations

Government Establishments

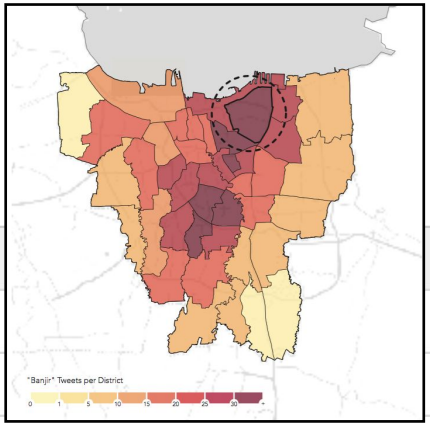
- Offices
  - Governor Office (Kantor Gubernur)
  - Townhall (Kantor Bupati/Walikota)
  - Subdistrict Office (Kantor Kecamatan)
  - Village Office (Kantor Desa/Kelurahan)
  - Community Group Office (Kantor RW)
  - Ministry (Kementerian/Instansi Pemerintah)
- Embassies
- Administrative Boundaries*
  -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

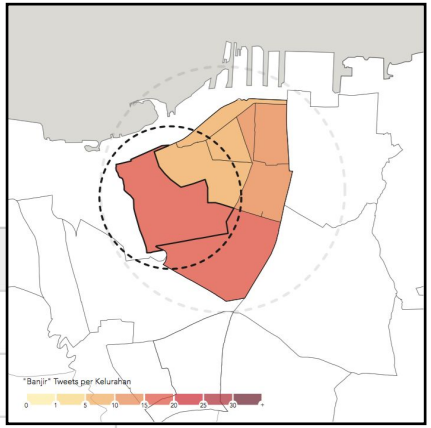

MAPPING TIMELINE
SURABAYA CITY
N
1:66,000
0 1000 2000 3000 4000 m
112°36'0"E
112°42'0"E
112°48'0"E
7°12'0"S
7°18'0"S
PAKAL
BENOWO
ASEMROWO
TANDES
SAMBIKEREP
GRESIK
SUKO MANUNGGAL
SAWAHAN
SURABAYA
DUKUH PAKIS
LAKARSANTRI
WIYUNG
KARANG PILANG
KREMBANGAN
PABEAN CANTIAN
SEMAMPIR
KENJERAN
SIMOKERTO
BULAK
BUBUTAN
TAMBAKSARI
GENTENG
TEGALSARI
GUBENG
MULYOREJO
SUKOLILO
WONOKROMO
JAMBANGAN
GAYUNGAN
WONOCOLO
RUNGKUT
GUNUNG ANYAR
SIDOARJO
Legend
Mapping Schedule
Oct - Nov 2016
Nov - Dec 2016
Jan - Feb 2017

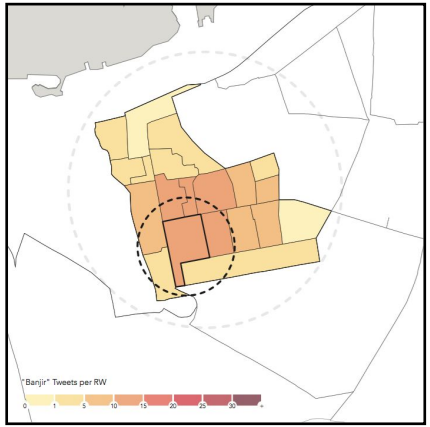

PENJARINGAN
KALI DERES
CENGKARENG
PADEMANGAN
TANJUNG PRIOK
KOJA
CILINCING
TAMBORA
SAWAH BESAR
KEMAYORAN
KELAPA GADING
GROGOL PETAMBURAN
GAMBIR
CEMPAKA PUTIH
KEBON JERUK
PALMERAH
MENTENG
PULO GADUNG
CAKUNG
KEMBANGAN
TANAH ABANG
MATRAMAN
DKI JAKARTA
SETIA BUDI
TEBET
JATINEGARA
DUREN SAWIT
BANTEN
KEBAYORAN BARU
KEBAYORAN LAMA
PANCORAN
JAWA BARAT
MAKASAR
KRAMAT JATI
CILANDAK
PASAR MINGGU
JAGAKARSA
PASAR REBO
CIRACAS
CIPAYUNG
Legend
Mapping Schedule
Mar - Apr 2017
Apr - May 2017
May - Jun 2017
Jun - Jul 2017
Jul - Aug 2017
MAPPING TIMELINE
JAKARTA CITY
N
1:115,000
0
2000
4000
6000 m

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>*

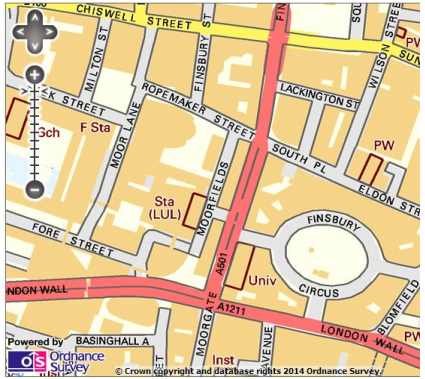
PetaBencana

Pumping Station

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

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

Refugee Crisis

Two of the largest crisis:

Uganda	**Turkey**
South Sudanese	Syrian

“Crowdsourcing Non-Camp Refugee Data Through OpenStreetMap”

Gift of the United States Government - Bureau of Population, Refugees, and Migration - US Department of State

Humanitarian OpenStreetMap Team

Malaria Initiative

Map over 500,000 square kilometers:

Southeast Asia

Cambodia

Laos

Central America

Guatemala

Honduras

Southern Africa

Botswana

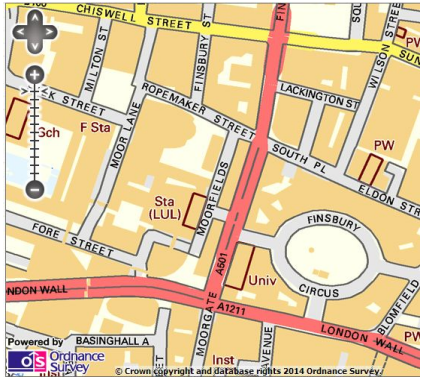
Zambia

Zimbabwe

#MappingAgainstMalaria

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

OSM Remote Mapping

Tracing Satellite Imagery

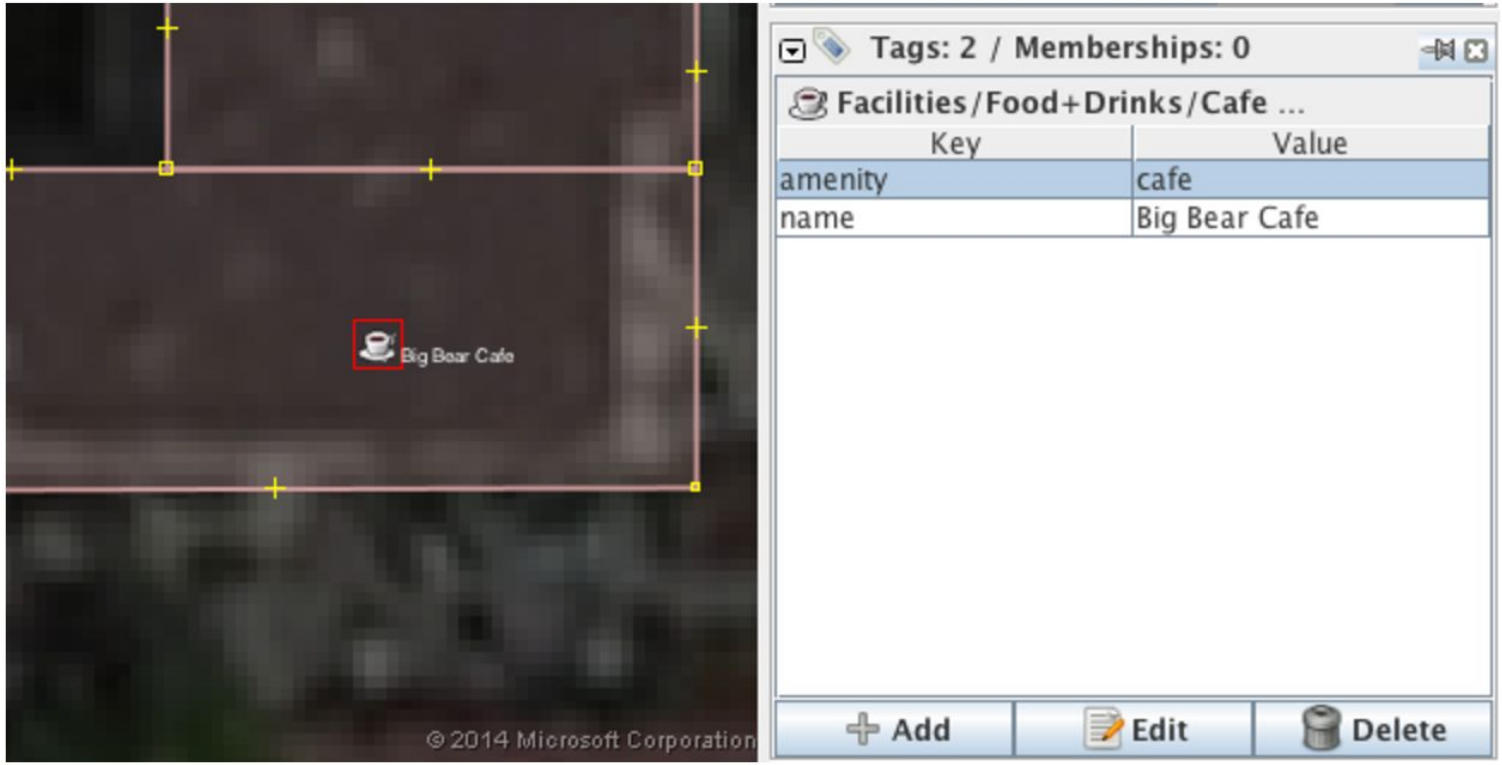
Obtain up-to-date satellite imagery for the area

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

Upload the data and see the changes

OpenStreetMap

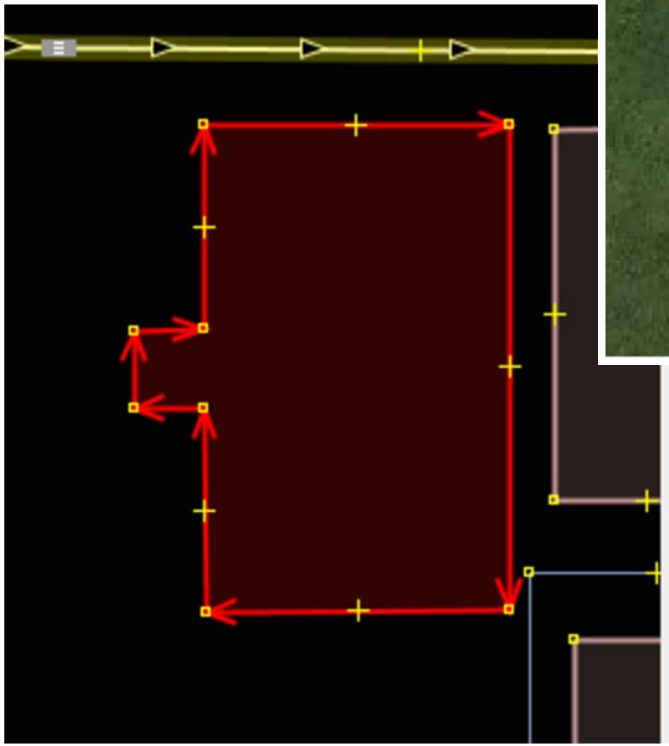
Data Model Elements

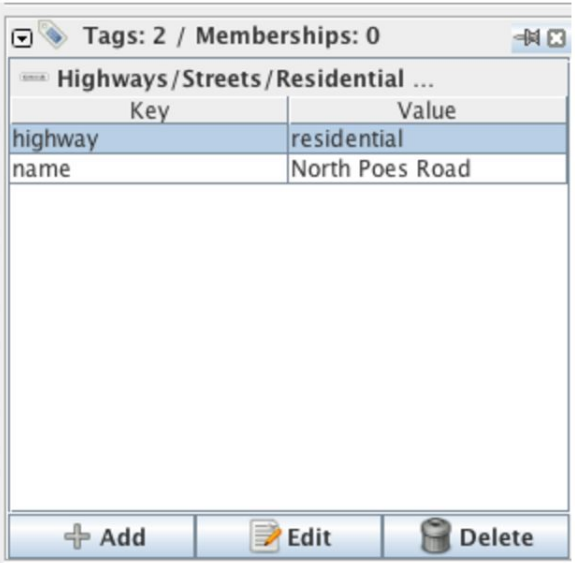


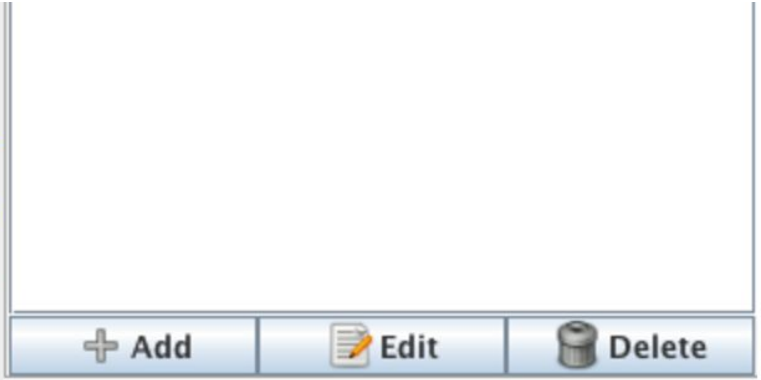
Nodes

OpenStreetMap

Data Model Elements



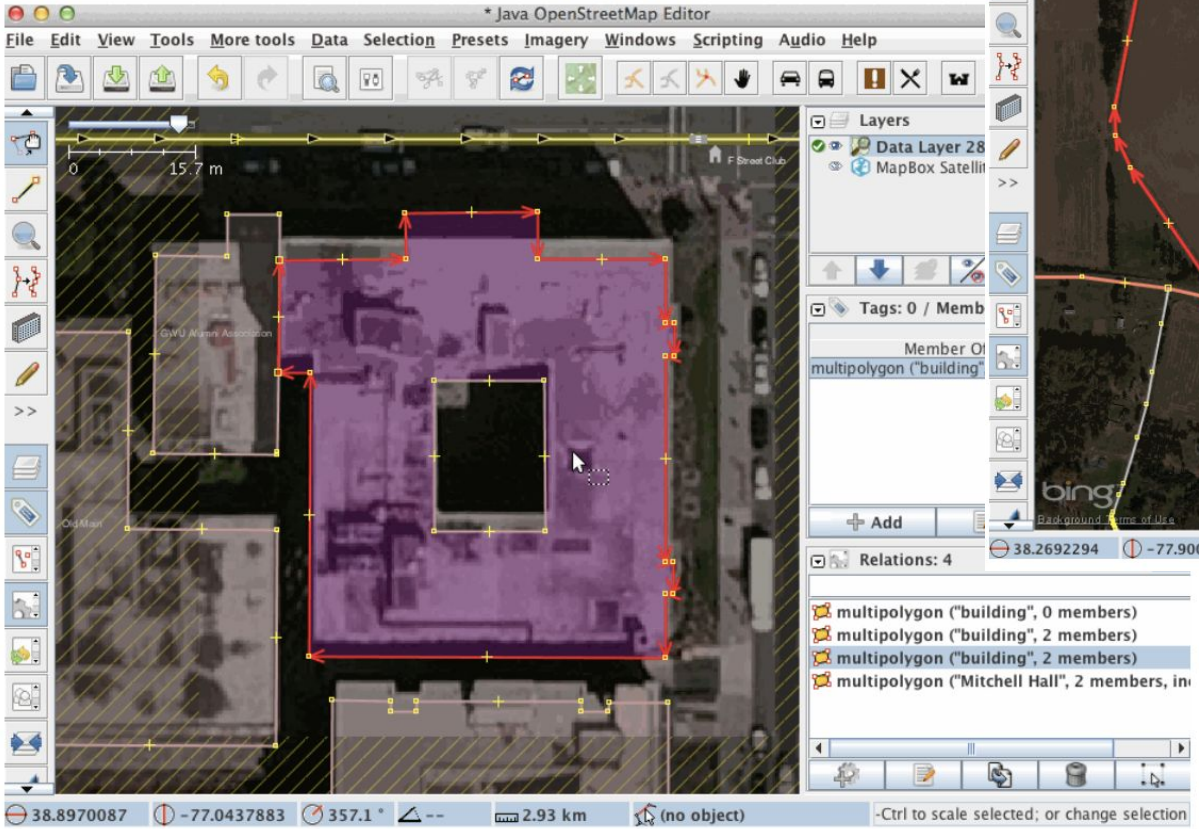


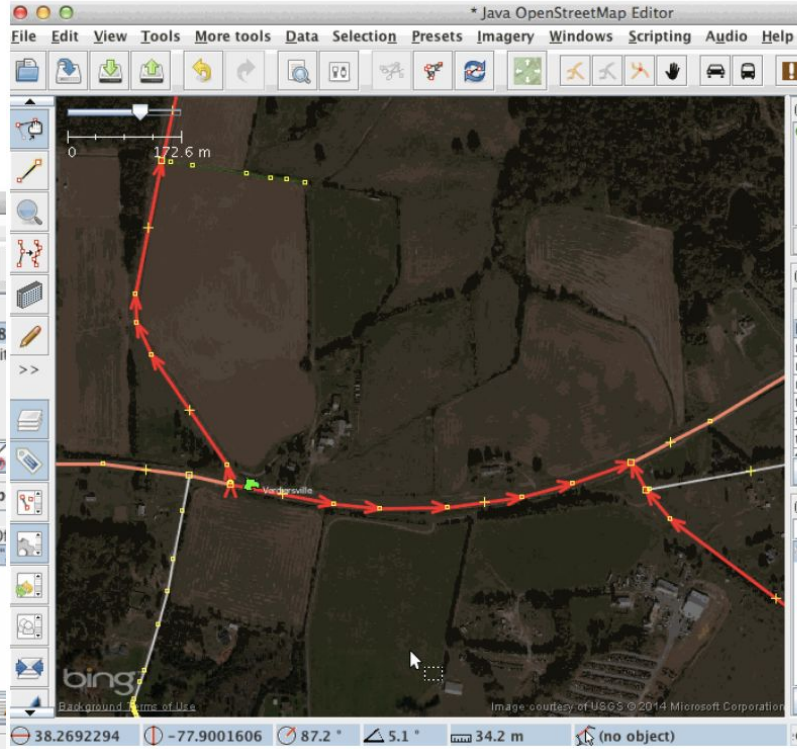


Ways

OpenStreetMap

Data Model Elements

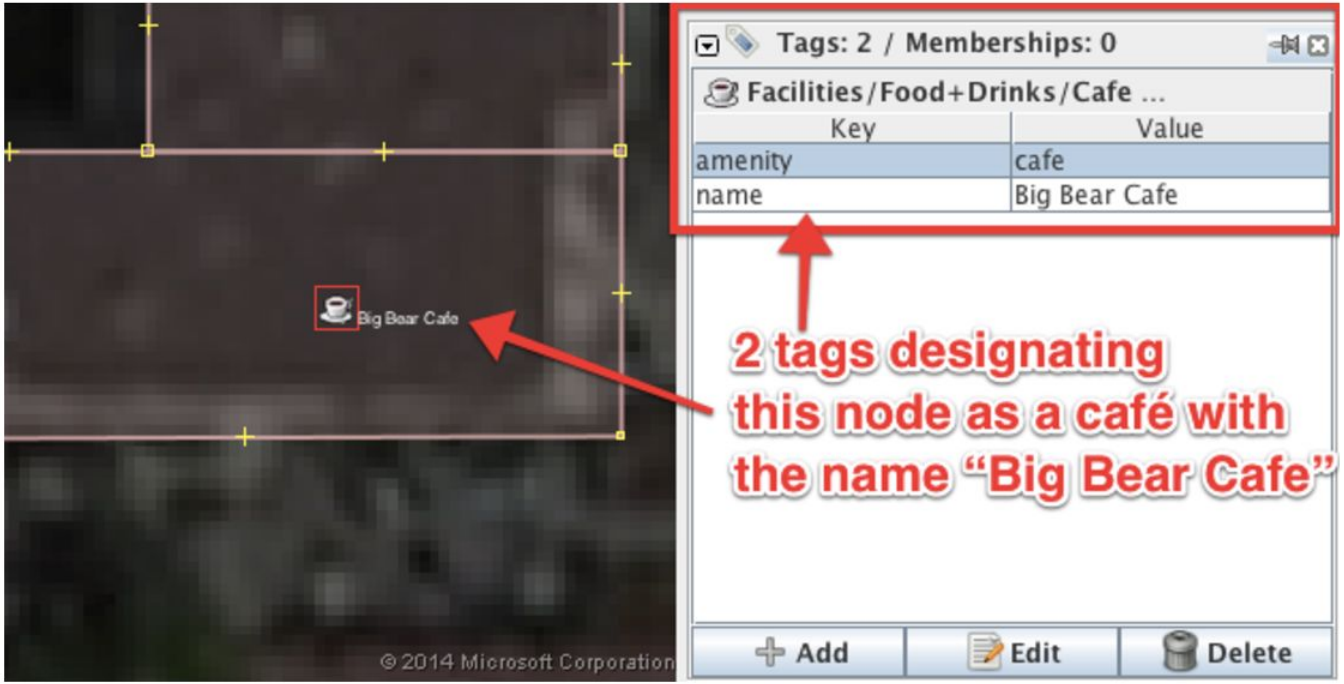




Relations

OpenStreetMap

Data Model Elements



Tags

http://wiki.openstreetmap.org/wiki/Elements

Tasking Manager

Coordination Tool

OSM Tasking Manager

About English mataharimhairi

Projects

Search

Sort by: **High priority first**

Your projects

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

69%

This job aims at updating and improving the map of SouthBangui, 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.

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 homogeinity 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)

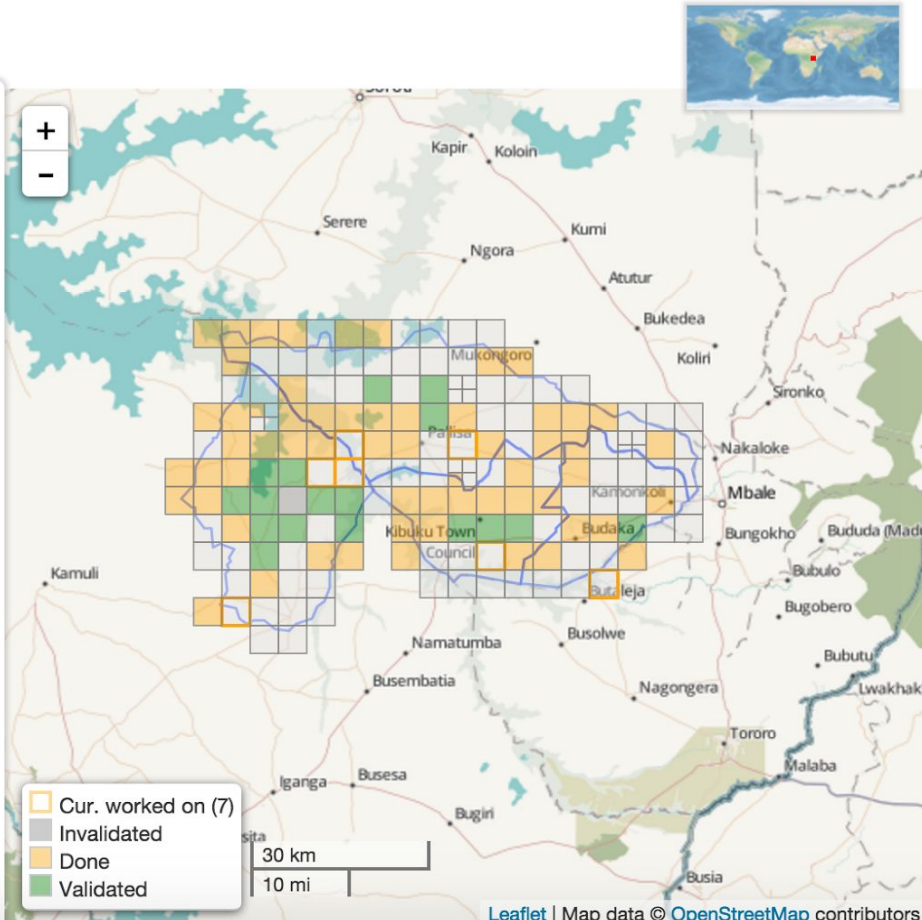
Edit Export

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.

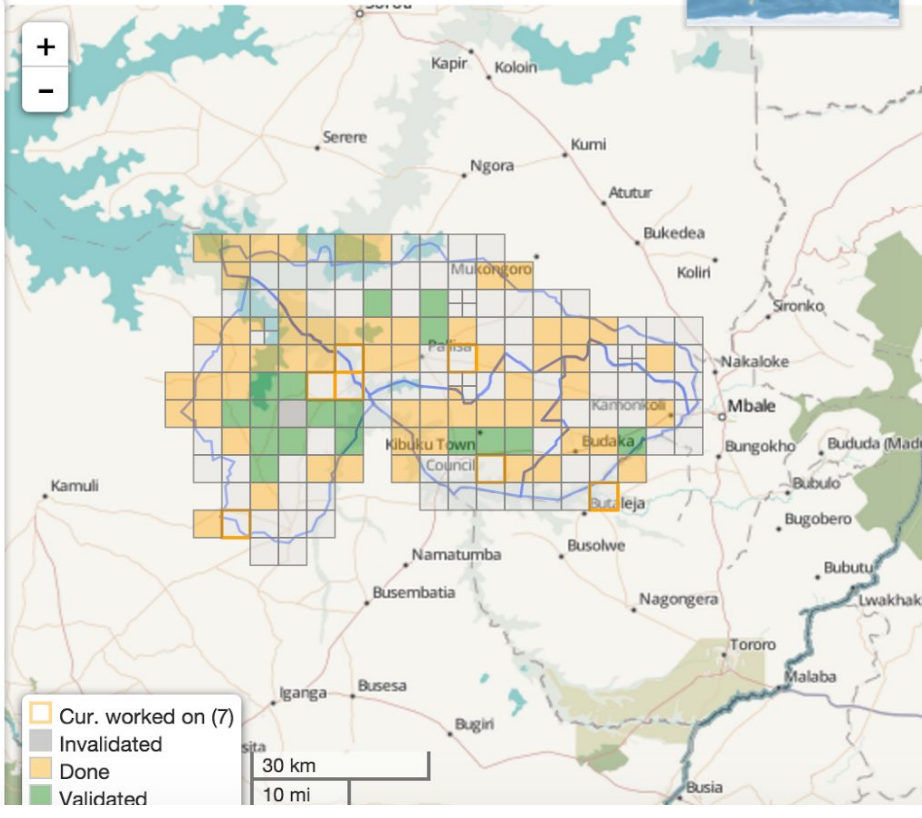
Tags to use:

Roads

1. highway=unclassified

Buildings

1. building=yes



OSM Tasking Manager

About English mataharimhairi

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

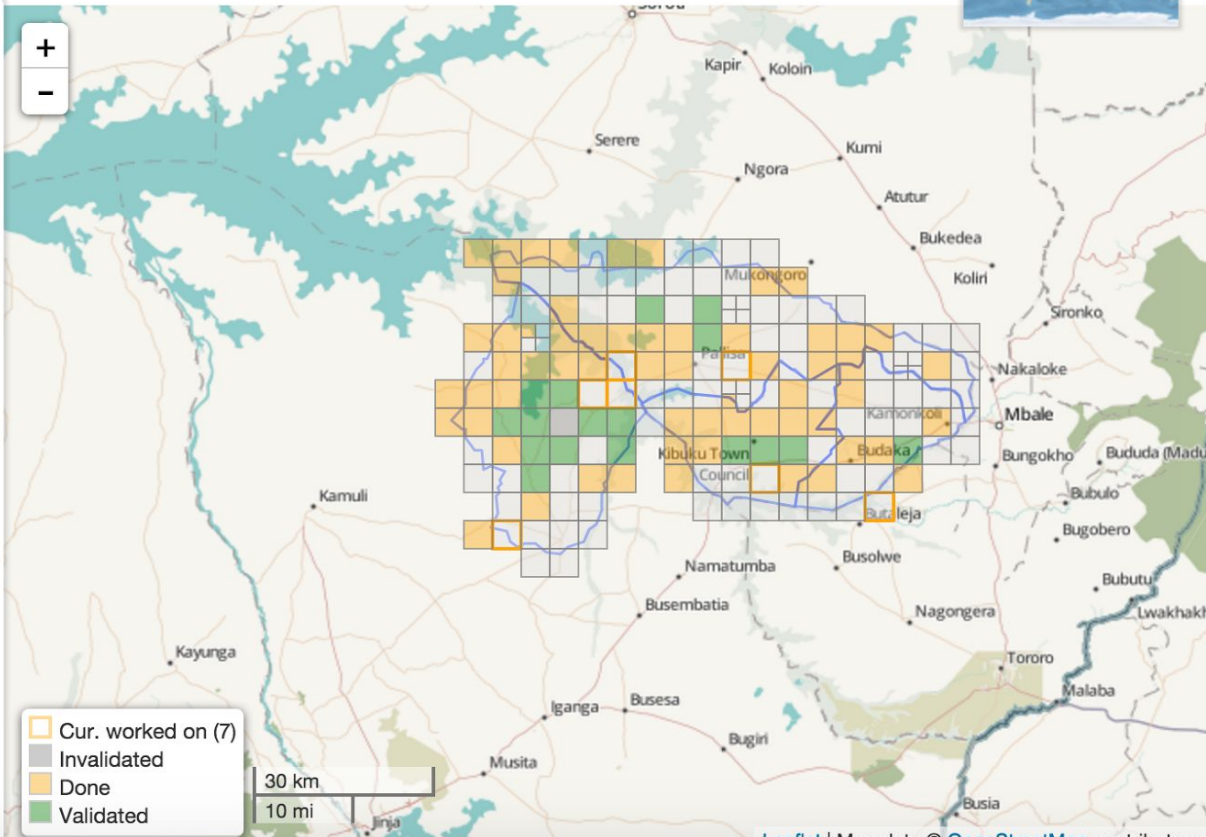
Edit Export

Description Instructions Contribute Activity Stats

Select a task on the map

or

Take a task at random



OSM Tasking Manager

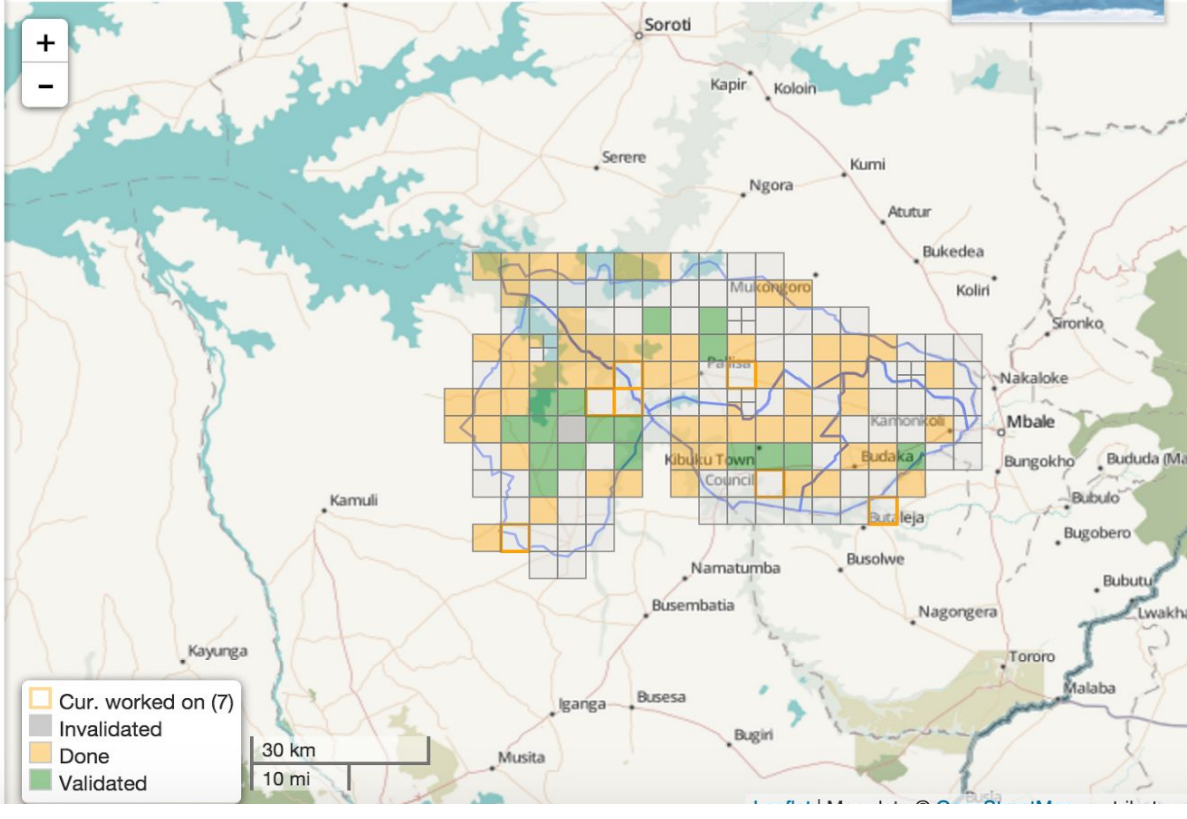
About English mataharimhairi

#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
- danielitucu marked #45 as **done**
  about 2 hours ago
- Esmanov marked #25 as **done**
  about 4 hours ago



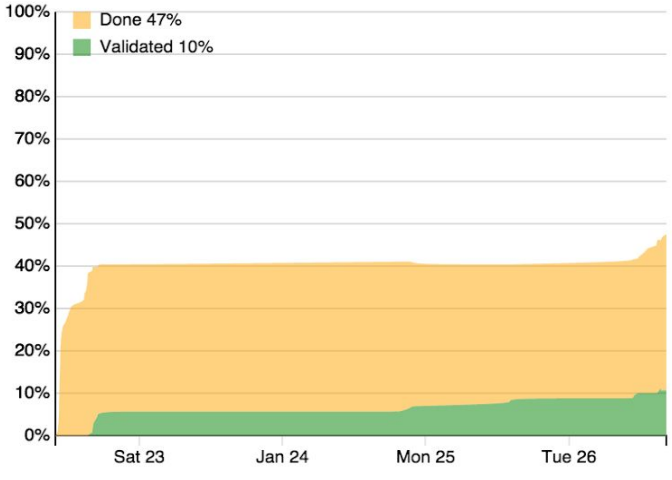
OSM Tasking Manager

About English mataharimhairi

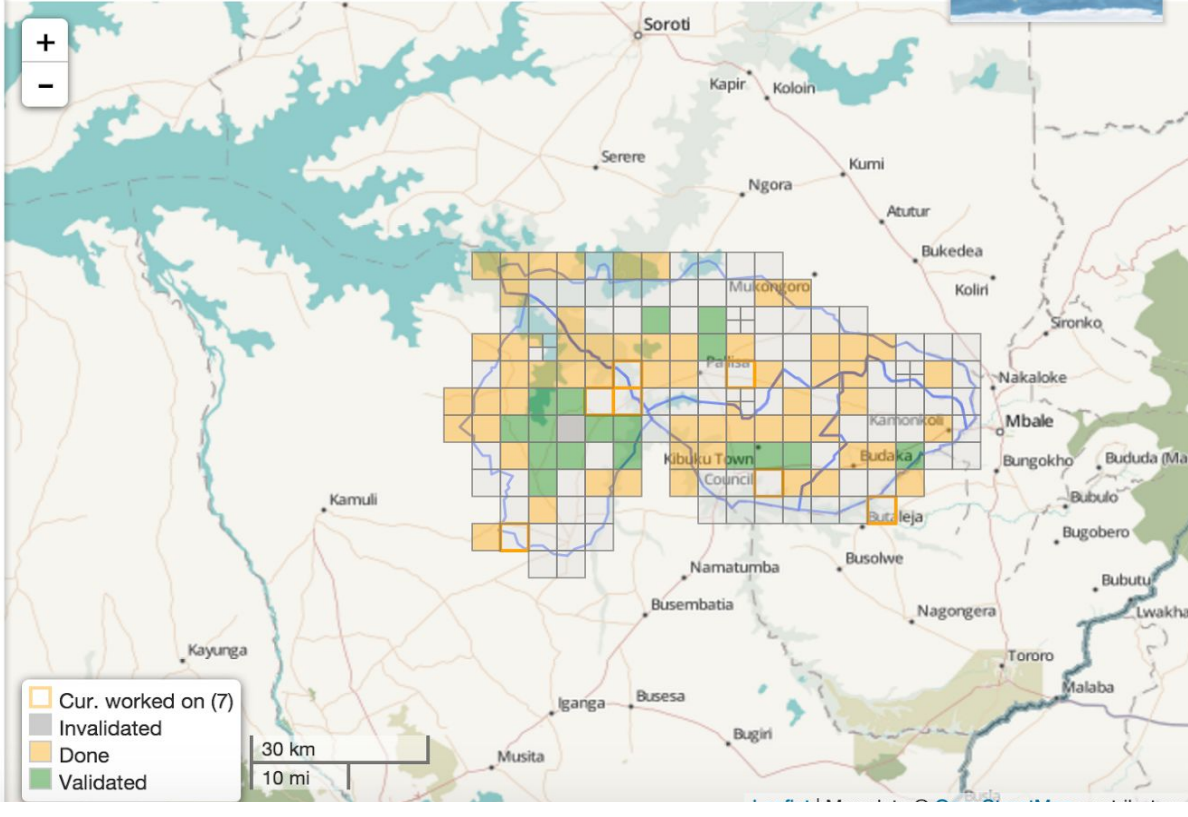
#1436 - MapUganda - Phase 1: Mbale (Pallisa, Kaliro, Kibuku and Budaka)

Edit Export

Description Instructions Contribute Activity Stats



Contributors	Done	Assigned
danielitucu	2	-
Esmanov	7	-
gilbiz	1	-
Ingrid k	3	-
judithkamugisha	1	-



OSM Tasking Manager

About English mataharimhairi

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

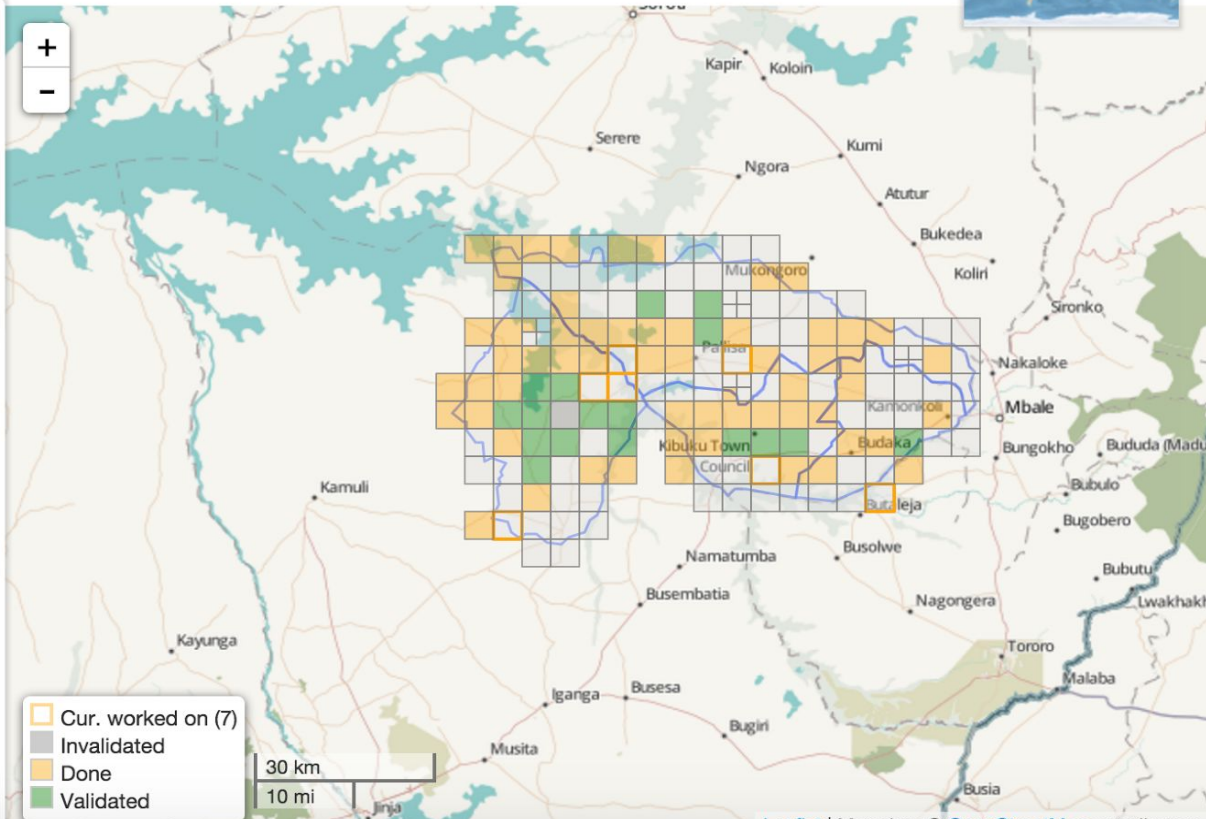
Edit Export

Description Instructions Contribute Activity Stats

Select a task on the map

or

Take a task at random



OSM Tasking Manager

About English mataharimhairi

#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

Cur. worked on (7)
Invalidated
Done
Validated

1 km
1 mi

OSM Tasking Manager

About English mataharimhairi

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

Edit Export

Description Instructions Contribute Activity Stats

Task #71

Difficulty

Locked by **you**. Unlock

119 min. left

Not assigned yet

Edit with JOSM

- JOSM
- iD editor
- Potlatch 2
- Walking Papers
- Field Papers

Tip: Download the t JOSM in order to see the current task bound

Leave a commer

Unlock

Mark task as done

Locked by mataharimhairi

less than a minute ago

Cur. worked on (8)

Invalidated

Done

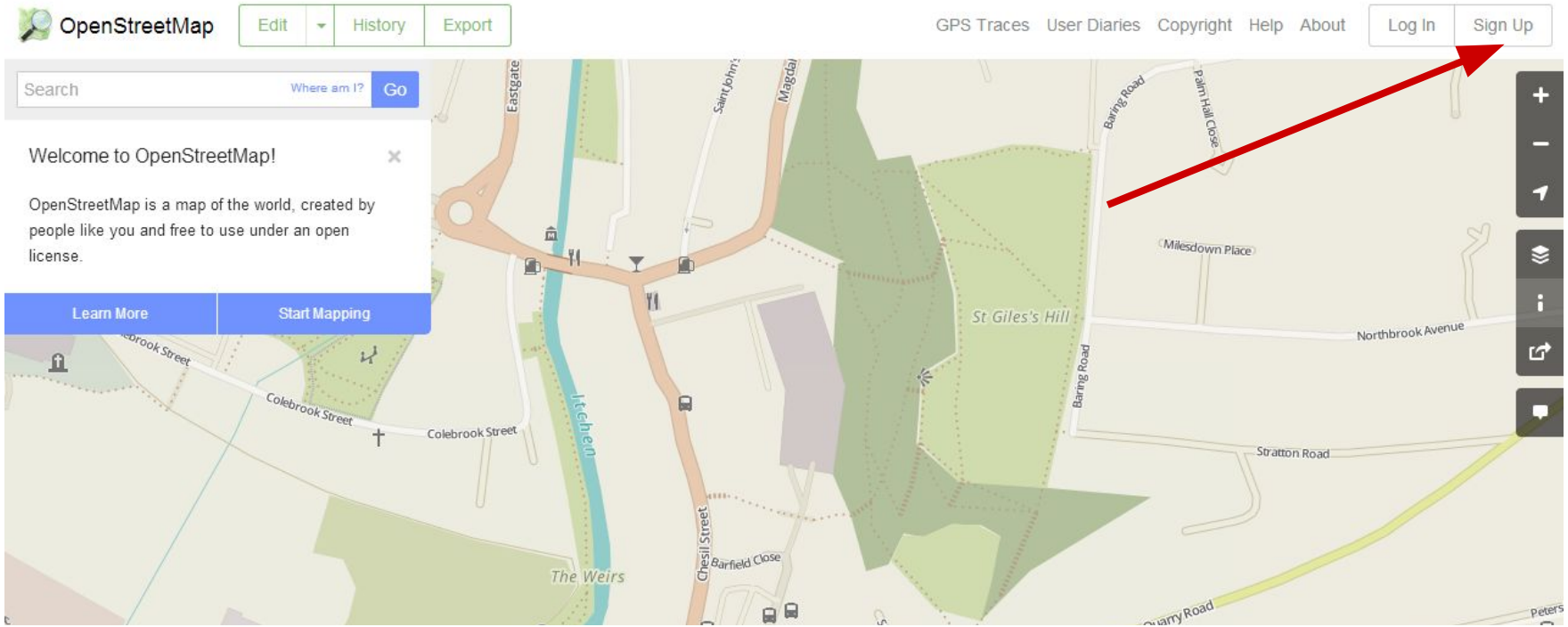
Validated

1 km

1 mi

Universidad de Costa Rica

Sign Up



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.

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/**2967**

Please donate!

SM Tasking Manager

About | English | mataharimhairi

#2967 - Universidad de Costa Rica

Edit | Export

Description | Instructions | Contribute | Activity | Stats

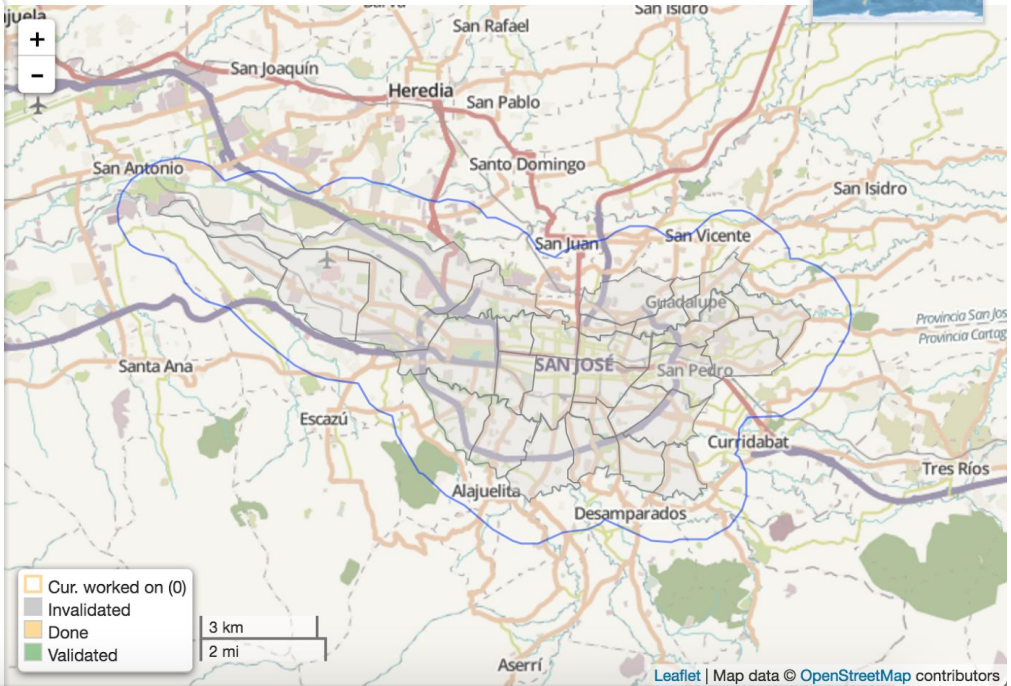
This Tasking Manager project is part of a larger collaboration between the Global Earthquake Model, the University of Costa Rica and USAID, to support the development of a digital map of San Jose, Costa Rica.

The project will be used during a mapathon workshop on the 29th of May for students and interested parties to help digitise building footprints for 17 districts of the capital, San Jose in OpenStreetMap.

This infrastructure information will then allow risk modellers to assess the potential losses due to natural hazards such as earthquakes, floods and volcanoes.

- Created by mataharimhairi - Updated an hour ago - Priority: low

Instructions



Universidad de Costa Rica

Buildings Features

Please donate!

SM Tasking Manager

#2967 - Universidad de Costa Rica

Description | **Instructions** | Contribute | Activity | Stats

Entities to Map

Buildings

Changeset Comment

#hotosm-project-2967 #sanjose-digitalmap

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

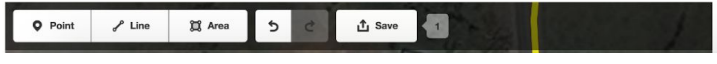
How to contribute:

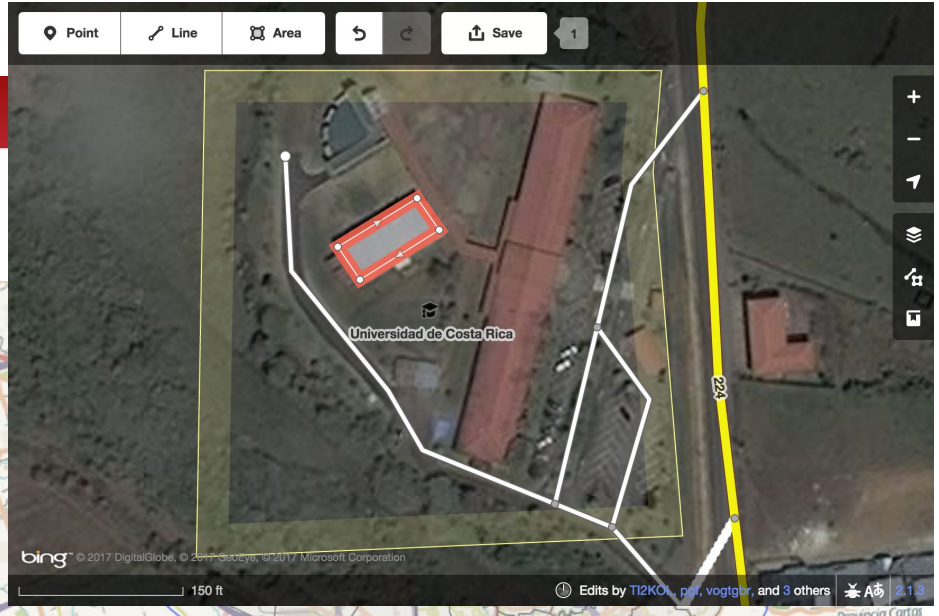
1. Pick a square.
2. If there is nothing map, add a comment and mark the task as done.
3. If you see buildings that haven't been traced, please trace them.
4. Upload your edits by clicking save and mark the task as done.
5. If you're not done, unlock the task and someone else can complete it.

Tags to use:

- building=yes

Example:





Please donate!

SM Tasking Manager

About | English | mataharimhairi

#2967 - Universidad de Costa Rica

Edit | Export

Description | Instructions | Contribute | Activity | Stats

Task #13

Difficulty

Locked by **you**. Stop mapping

119 min. left

Not assigned yet

Edit with iD editor

- JOSM
- iD editor
- Potlatch 2
- Walking Papers
- Field Papers

Leave a comme

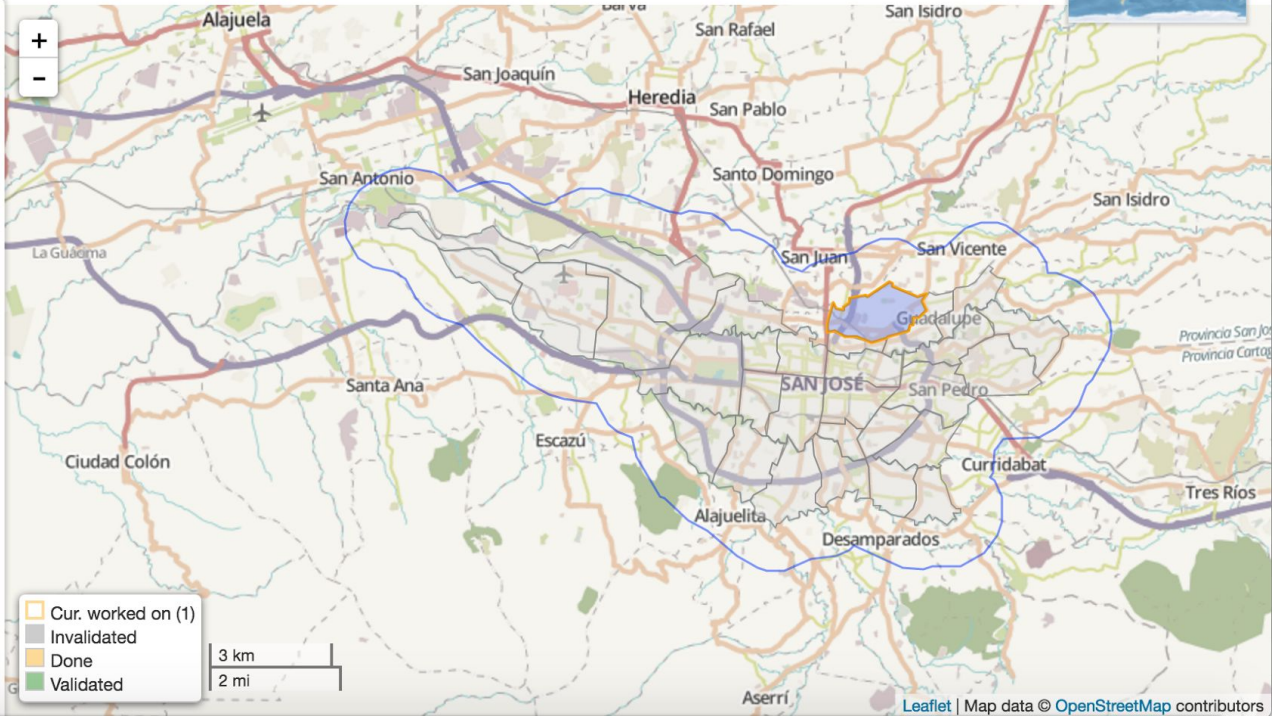
Stop r

k as done

Locked by mataharimhairi
a few seconds ago

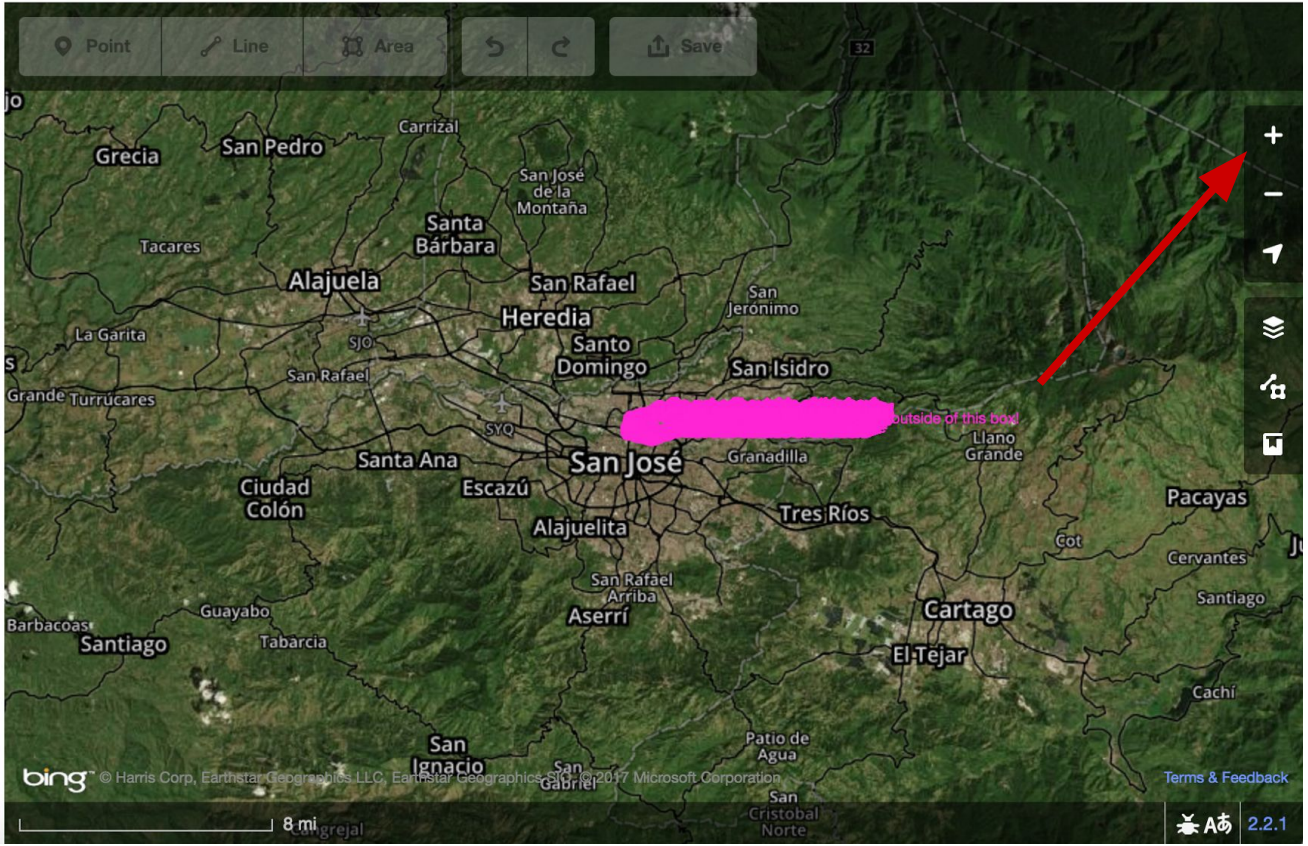
Locked by oticrc
2 hours ago for 12 minutes

Locked by oticrc
2 hours ago for 4 minutes



OpenStreetMap Edit History Export GPS Traces User Diaries Copyright Help About mataharimhairi

+ Zoom in to Edit



OpenStreetMap | Edit | History | Export | GPS Traces | User Diaries | Copyright | Help | About | mataharimhairi

Search features

Search

Point | Line | Area

Edits by devdelgado, joserrg12, droopyer, and 52 others | 190 hidden features

OpenStreetMap | Edit | History | Export | GPS Traces | User Diaries | Copyright | Help | About | mataharimhairi

Edit feature

Commercial Building

All fields

Name

Macoopa

Address

123 | Calle Ciprés

City | Postcode

Levels

2, 4, 6...

Smoking

No, Separated, Yes...

Source

View on openstreetmap.org

OpenStreetMap | Edit | History | Export | GPS Traces | User Diaries | Copyright | Help | About | mataharimhairi

Edit feature

Commercial Building

▼ All fields

Name
Macoopa

Address
123 | Calle Ciprés
City | Postcode

Levels
2, 4, 6...

Smoking
No, Separated, Yes...

Source

View on openstreetmap.org

Point | Line | Area | Save

Avenida 33
Calle 23
Avenida 35A
Calle 17
Calle 25
Nissi
Telepuerto RACSA Zurqui
Paseo de la Segunda Repú
300 ft

Background

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

Where does this imagery come from?

- Locator Overlay
- OpenStreetMap GPS traces
- Minimap

Edits by joserrg12, vogtgbr, Jorge_Chinchilla, and 12 others | 2.2.1

OpenStreetMap | Edit | History | Export | GPS Traces | User Diaries | Copyright | Help | About | mataharimhairi

Edit feature

Residential Road

All fields

Name
Avenida 33

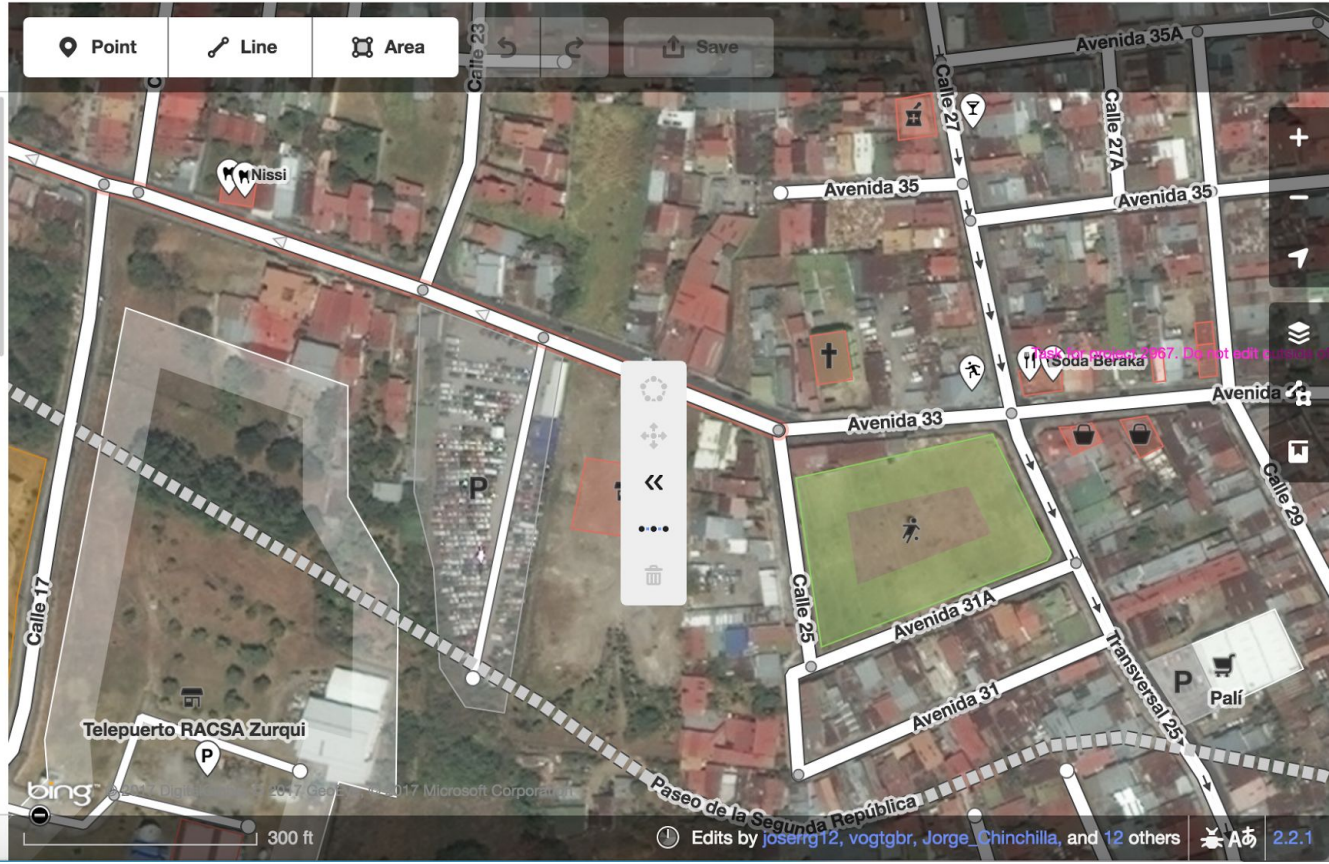
One Way
Assumed to be No

Speed Limit
40, 50, 60... km/h

Lanes
1, 2, 3...

Surface
asphalt

View on openstreetmap.org



OpenStreetMap | Edit | History | Export | GPS Traces | User Diaries | Copyright | Help | About | mataharimhairi

Upload to OpenStreetMap

Changeset Comment

#hotosm-project-2967 #saniose-digitalmap

About changeset comments

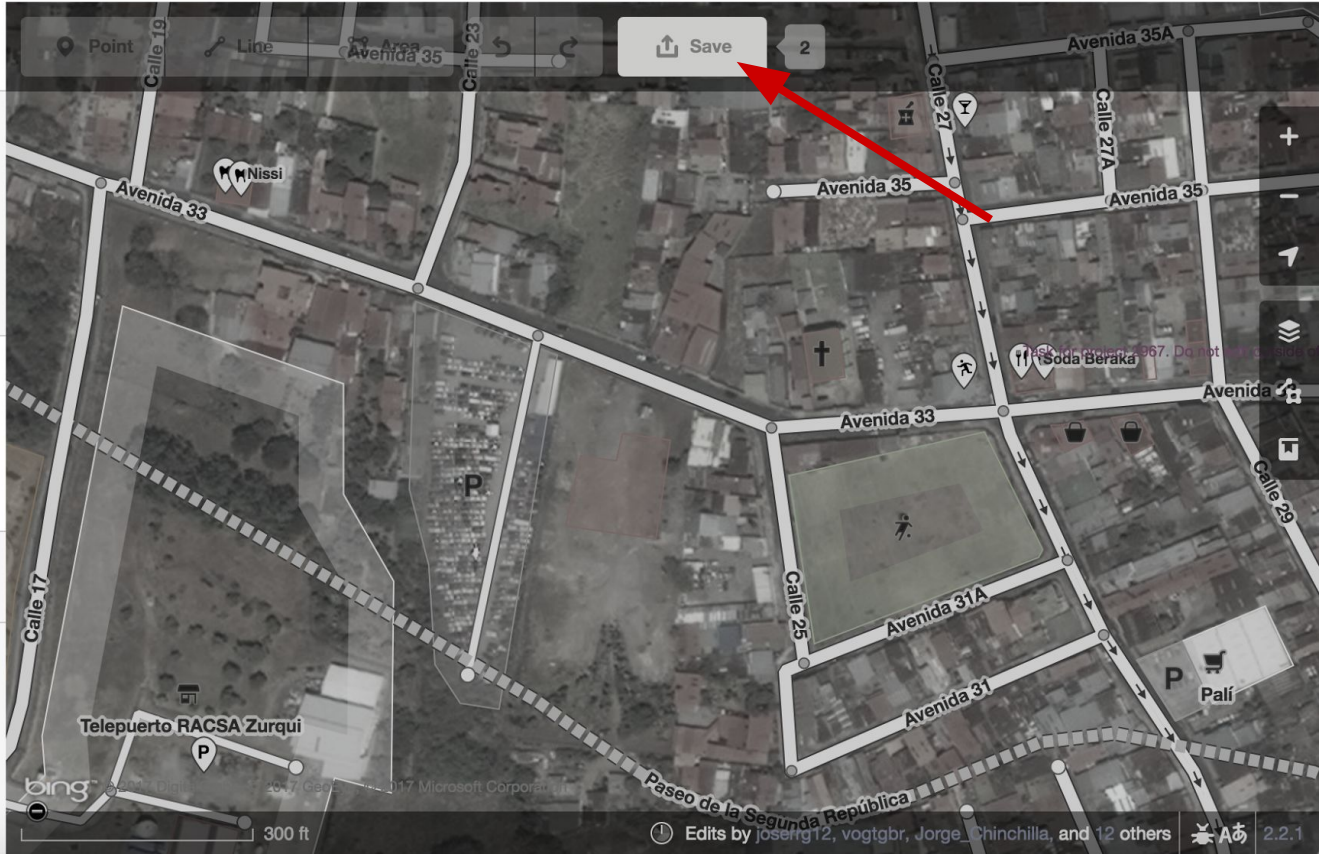
The changes you upload as mataharimhairi will be visible on all maps that use OpenStreetMap data.

Cancel | Upload

All tags (5)

2 Changes

- Modified **Residential Road**: Avenida 33
- Modified **Commercial Building**



Please donate!

SM Tasking Manager

About English mataharimhairi

#2967 - Universidad de Costa Rica

Edit Export

Description Instructions Contribute Activity Stats

Task #13

Difficulty

Locked by **you**. Stop mapping

93 min. left

Not assigned yet

Edit with iD editor

Leave a comment

Stop mapping

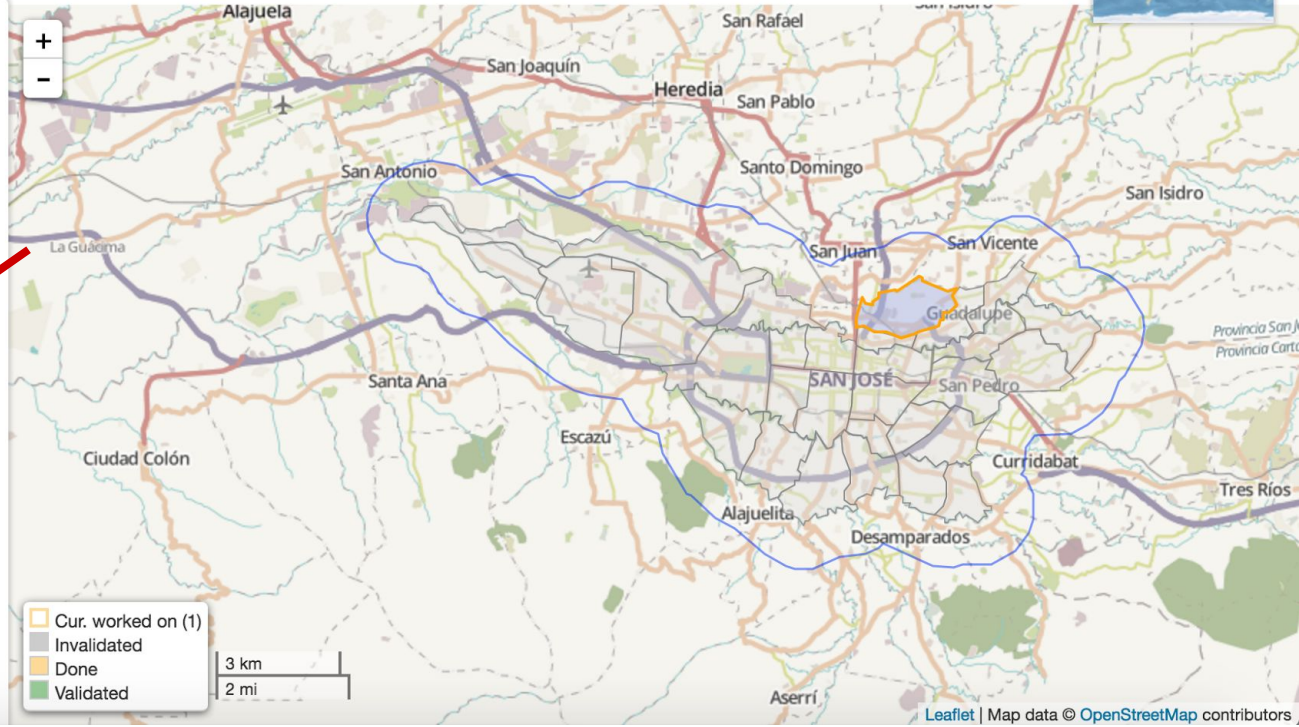
Mark task as done

Locked by mataharimhairi
13 minutes ago

Locked by mataharimhairi
14 minutes ago for a minute

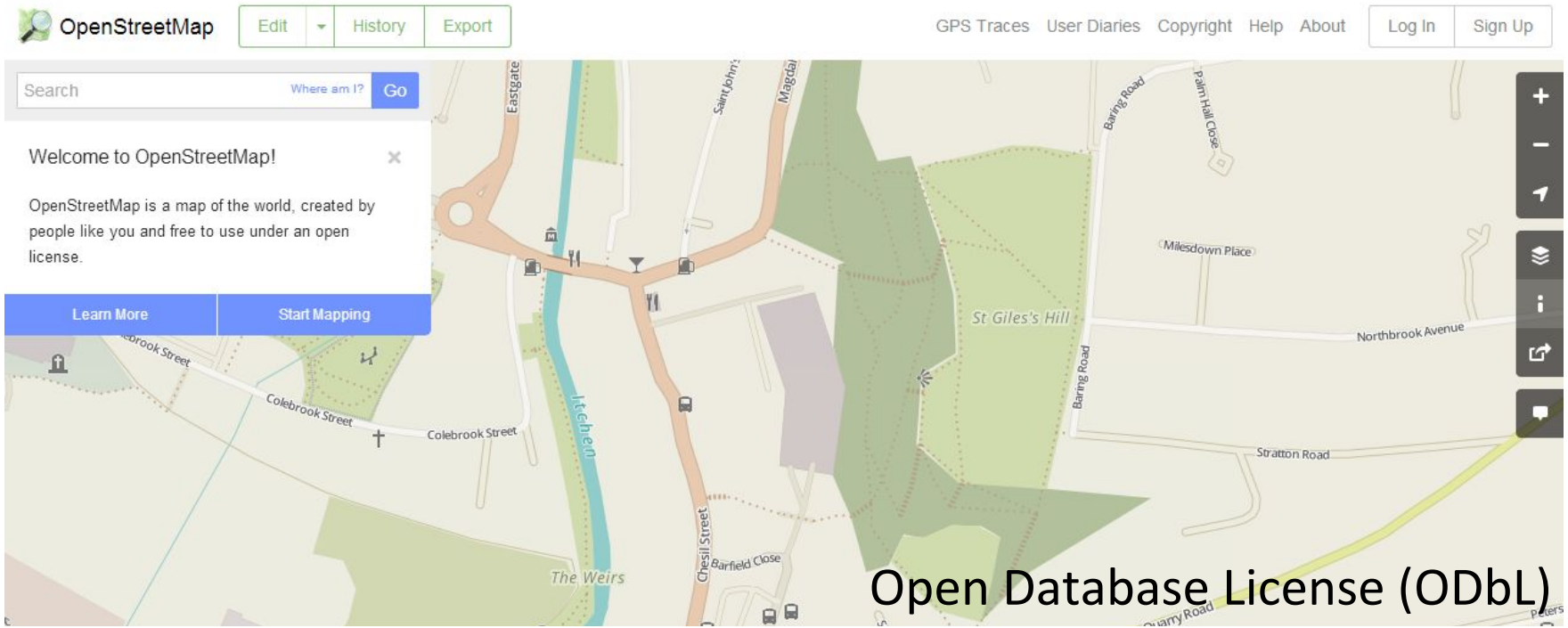
Locked by mataharimhairi
a day ago

Locked by oticrc



Digitising Tools

ID Editor vs. JOSM



Open Database License (ODbL)

http://www.openstreetmap.org

Please donate!

SM Tasking Manager

About English mataharimhairi

#2967 - Universidad de Costa Rica

Edit Export

Description Instructions Contribute Activity Stats

Task #13

Difficulty

Locked by **you**. Stop mapping 92 min. left

Not assigned yet

Edit with JOSM

Tip: Download the following .gpx file and load it in JOSM in order to see the current task boundary

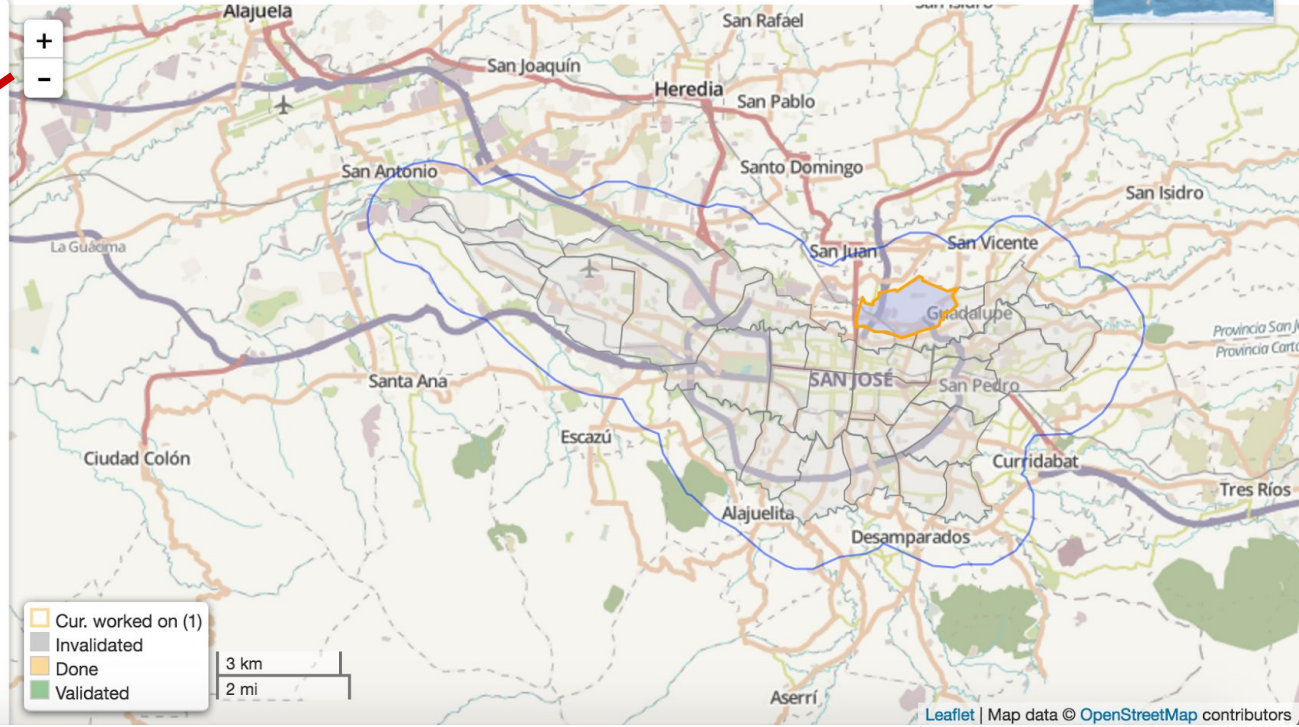
Leave a comment

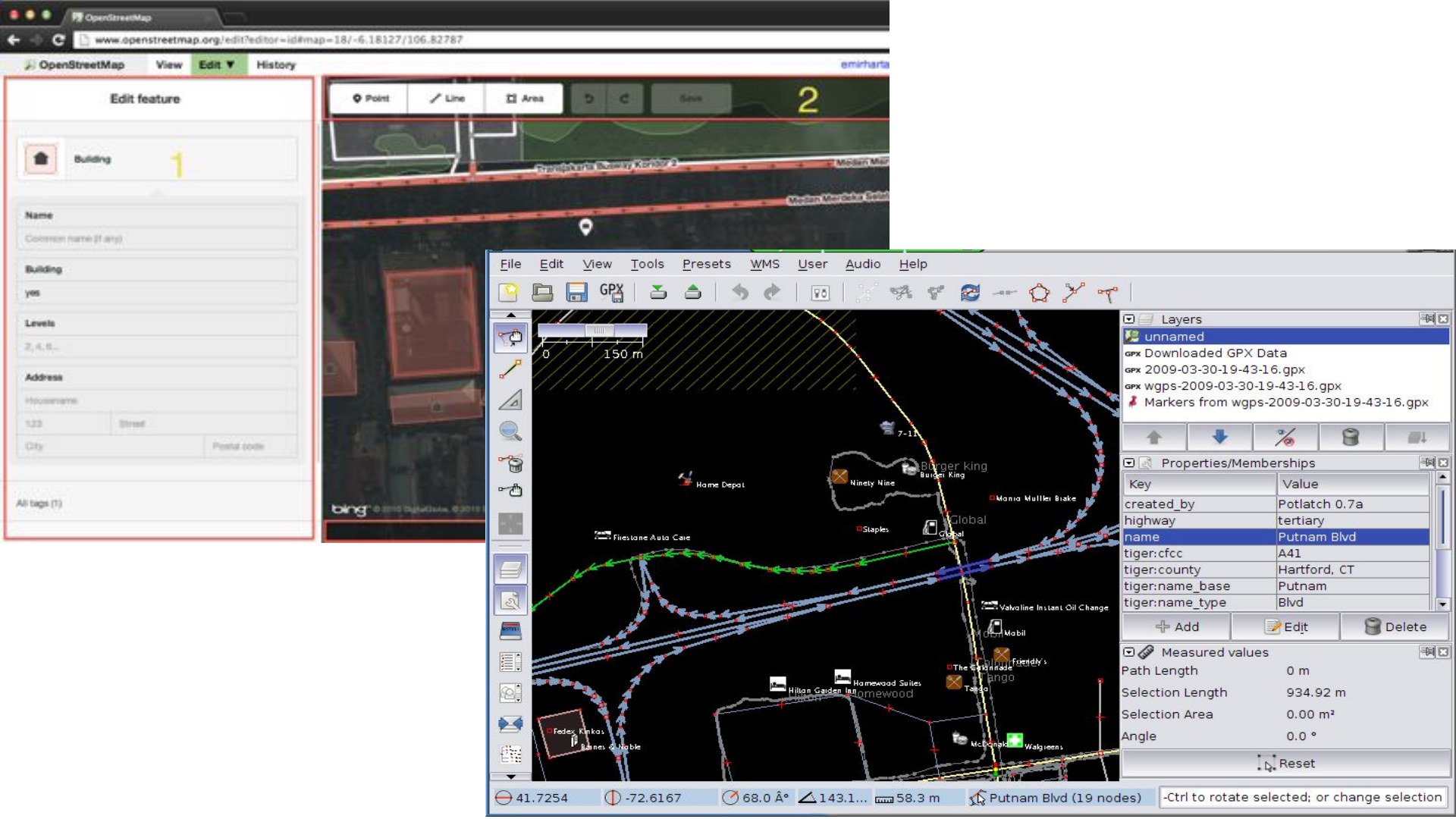
Stop mapping Mark task as done

Locked by mataharimhairi
13 minutes ago

Locked by mataharimhairi
14 minutes ago for a minute

Locked by mataharimhairi




OpenStreetMap
www.openstreetmap.org/edit?editor=id#map=18/-6.18127/106.82787
OpenStreetMap
View
Edit
History
emirharta
Edit feature
Building
1
Name
Building
yes
Levels
Address
All tags (1)
Point
Line
Area
Save
2
Transjakarta Busway Koridor 2
bing
File
Edit
View
Tools
Presets
WMS
User
Audio
Help
GPX
0
150 m
7-11
Home Depot
Ninety Nine
Burger king
Burger King
Mario Mulller Brake
Global
Staples
Firestone Auto Care
Valvoline Instant Oil Change
Mobil
Friendly's
The Cornerstone
Tango
Homewood Suites
Hilton Garden Inn
Homewood
Fedex Kinkos
Barnes & Noble
McDonald's
Walgreens
Layers
unnamed
Downloaded GPX Data
2009-03-30-19-43-16.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:cfcc
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 m²
Angle
0.0 °
Reset
41.7254
-72.6167
68.0 Â°
143.1...
58.3 m
Putnam Blvd (19 nodes)
-Ctrl to rotate selected; or change selection

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

100% Tue 16:51

Java OpenStreetMap Editor

About JOSM
Preferences... ⌘,
Services
Hide JOSM ⌘H
Hide Others ⌥⌘H
Show All
Quit JOSM ⌘Q

Uganda

JOSM – Java OpenStree

You should update!

News

- 2015-12-31 (stable version 9229)
  - Areas are filled only around their inner edges. This and other settings ar
    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, r
- 2015-09-28 (stable version 8800)
  - Integration of Overpass download and Overpass Turbo Wizard (Expert m
  - 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

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 JOS

- [x] Enable remote control
  - [ ] Enable HTTPS support

Permitted actions:

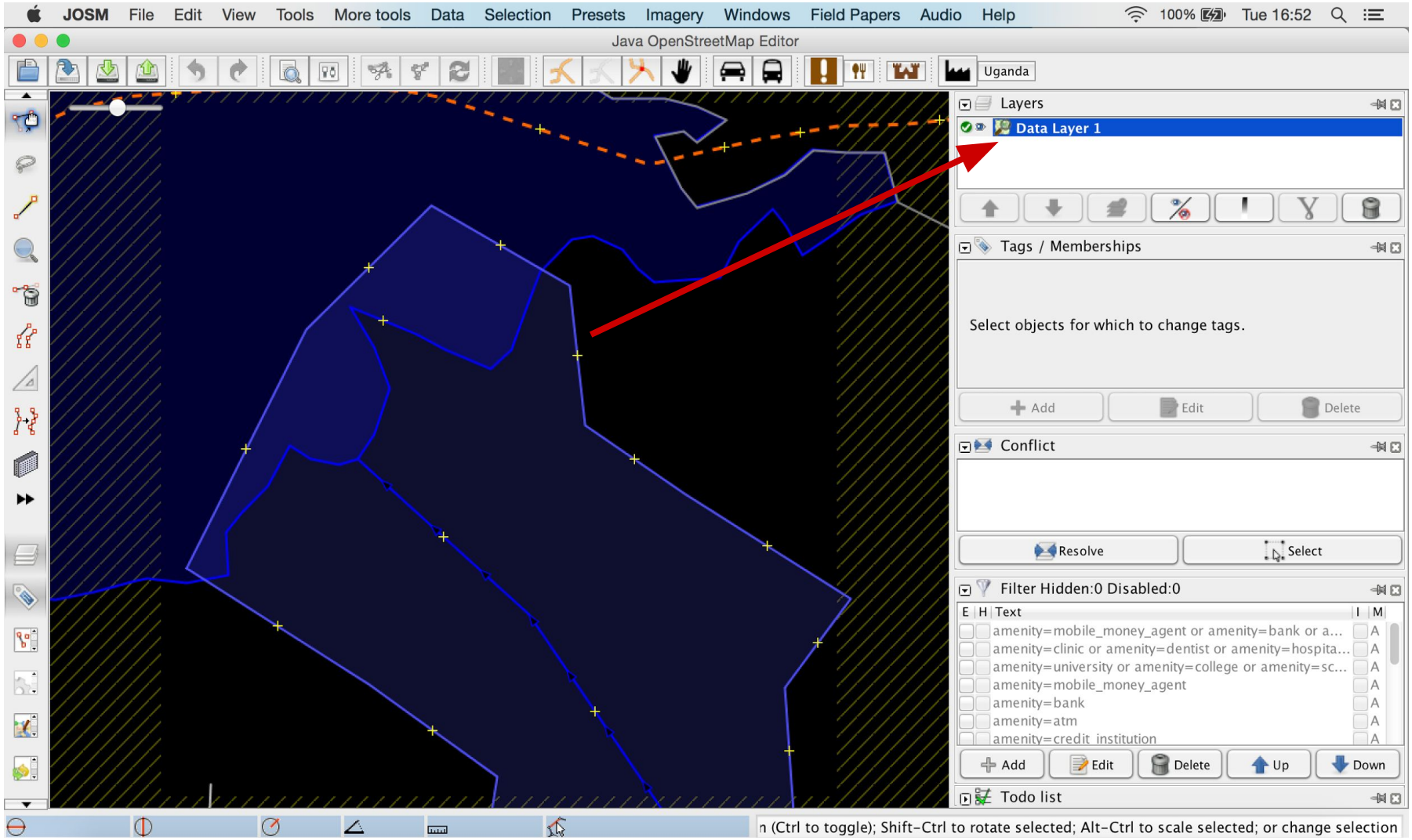
- [x] Load data from API
- [x] Import data from URL
- [ ] Open local files
- [x] Load imagery layers
- [x] Change the selection
- [x] Change the viewport
- [x] Create new objects
- [x] Read protocol version

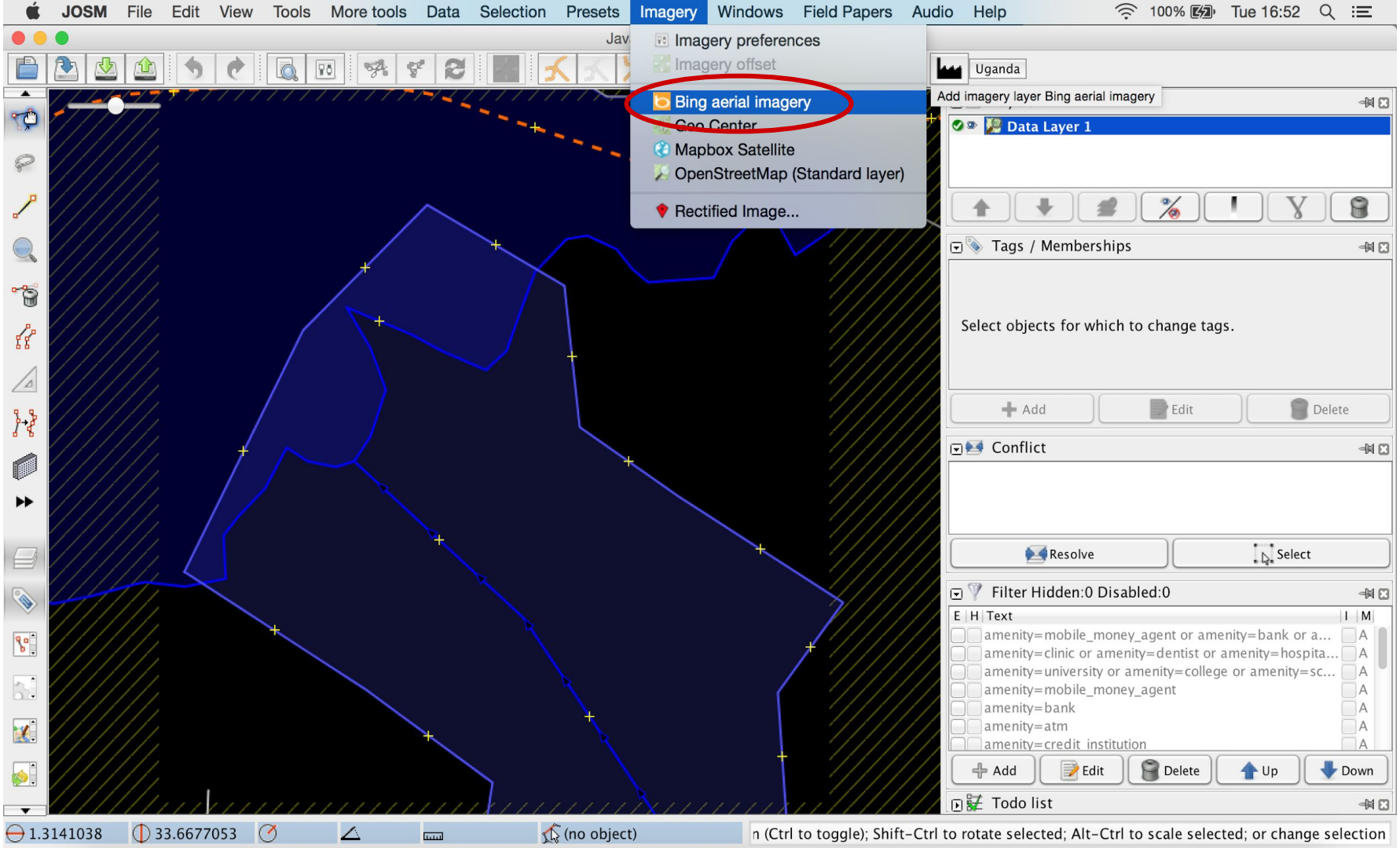
- [ ] Download objects to new layer
- [ ] Confirm all Remote Control actions manually

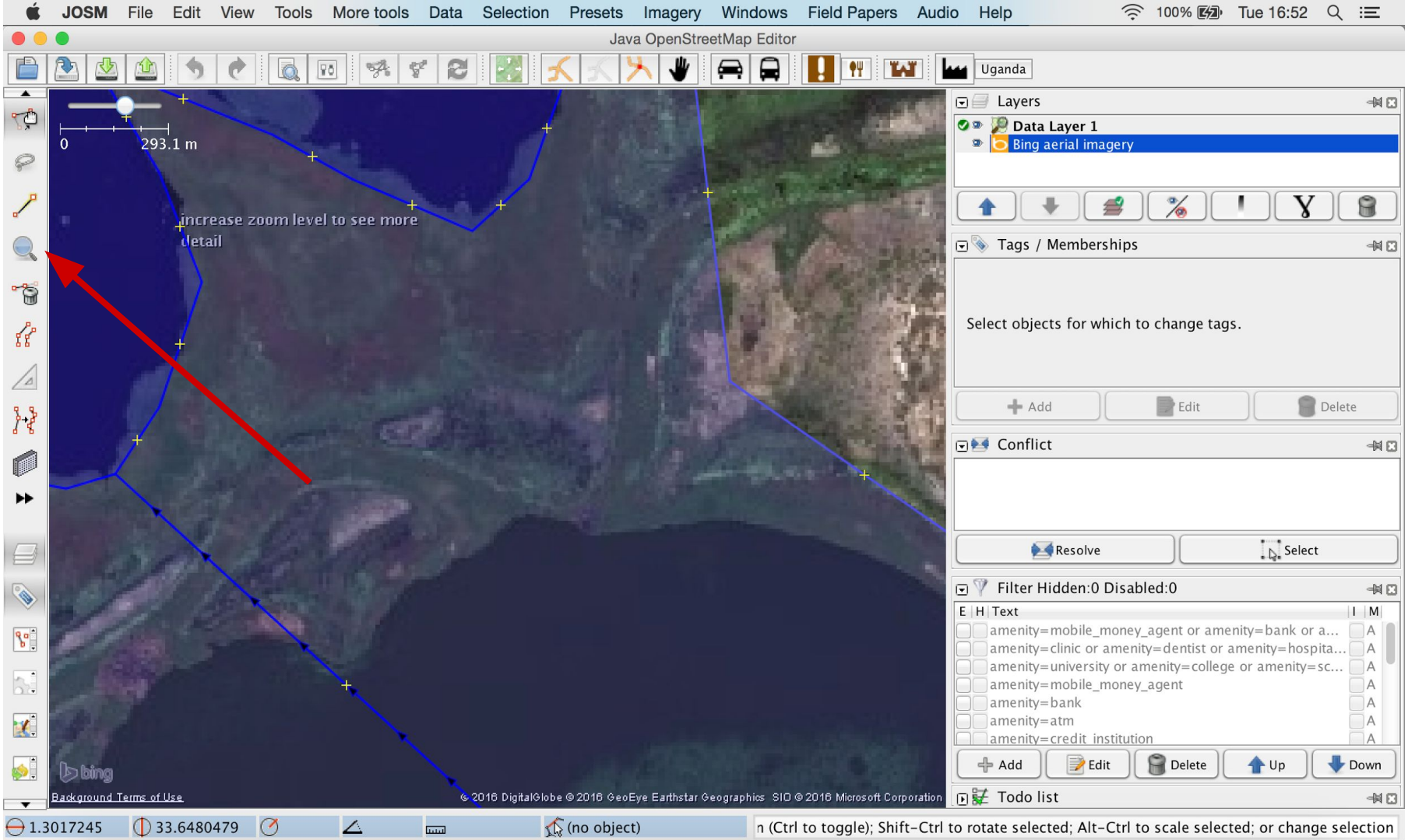
- [x] Expert mode

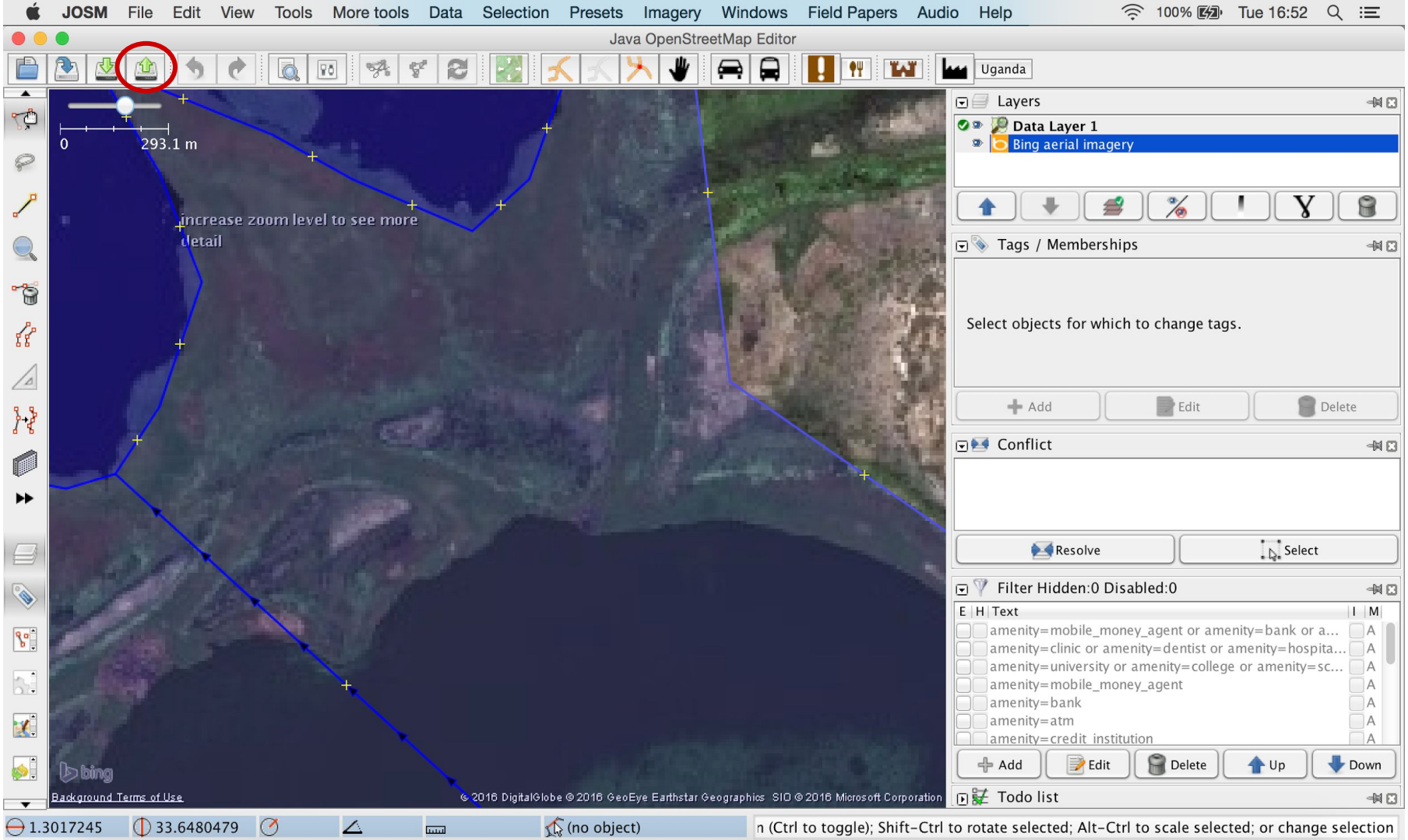
OK Cancel Help

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


JOSM File Edit View Tools More tools Data Selection Presets Imagery Windows Field Papers Audio Help
100% Tue 16:52
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 Text I M
amenity=mobile_money_agent or amenity=bank or a...
amenity=clinic or amenity=dentist or amenity=hospita...
amenity=university or amenity=college or amenity=sc...
amenity=mobile_money_agent
amenity=bank
amenity=atm
amenity=credit_institution
Add
Edit
Delete
Up
Down
Todo list
n (Ctrl to toggle); Shift-Ctrl to rotate selected; Alt-Ctrl to scale selected; or change selection


JOSM
File
Edit
View
Tools
More tools
Data
Selection
Presets
Imagery
Windows
Field Papers
Audio
Help
100%
Tue 16:52
Imagery preferences
Imagery offset
Bing aerial imagery
Geo Center
Mapbox Satellite
OpenStreetMap (Standard layer)
Rectified Image...
Uganda
Add imagery layer Bing aerial imagery
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
Text
I
M
amenity=mobile_money_agent or amenity=bank or a...
amenity=clinic or amenity=dentist or amenity=hospita...
amenity=university or amenity=college or amenity=sc...
amenity=mobile_money_agent
amenity=bank
amenity=atm
amenity=credit_institution
Add
Edit
Delete
Up
Down
Todo list
1.3141038
33.6677053
(no object)
n (Ctrl to toggle); Shift-Ctrl to rotate selected; Alt-Ctrl to scale selected; or change selection


JOSM File Edit View Tools More tools Data Selection Presets Imagery Windows Field Papers Audio Help
100% Tue 16:52
Java OpenStreetMap Editor
Uganda
0
293.1 m
increase zoom level to see more detail
bing
Background Terms of Use
© 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
E H Text I M
amenity=mobile_money_agent or amenity=bank or a...
amenity=clinic or amenity=dentist or amenity=hospita...
amenity=university or amenity=college or amenity=sc...
amenity=mobile_money_agent
amenity=bank
amenity=atm
amenity=credit_institution
Add
Edit
Delete
Up
Down
Todo list
1.3017245
33.6480479
(no object)
n (Ctrl to toggle); Shift-Ctrl to rotate selected; Alt-Ctrl to scale selected; or change selection


JOSM File Edit View Tools More tools Data Selection Presets Imagery Windows Field Papers Audio Help
100% Tue 16:52
Java OpenStreetMap Editor
Uganda
0
293.1 m
increase zoom level to see more detail
bing
Background Terms of Use
© 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
E H Text I M
amenity=mobile_money_agent or amenity=bank or a...
amenity=clinic or amenity=dentist or amenity=hospita...
amenity=university or amenity=college or amenity=sc...
amenity=mobile_money_agent
amenity=bank
amenity=atm
amenity=credit_institution
Add
Edit
Delete
Up
Down
Todo list
1.3017245
33.6480479
(no object)
n (Ctrl to toggle); Shift-Ctrl to rotate selected; Alt-Ctrl to scale selected; or change selection

LearnOSM

Resources

learnOSM

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...

Getting Started with JOSM

NOTE:

This guide may be downloaded as josm_start-josm_en.odt or josm_start-josm_en.pdf

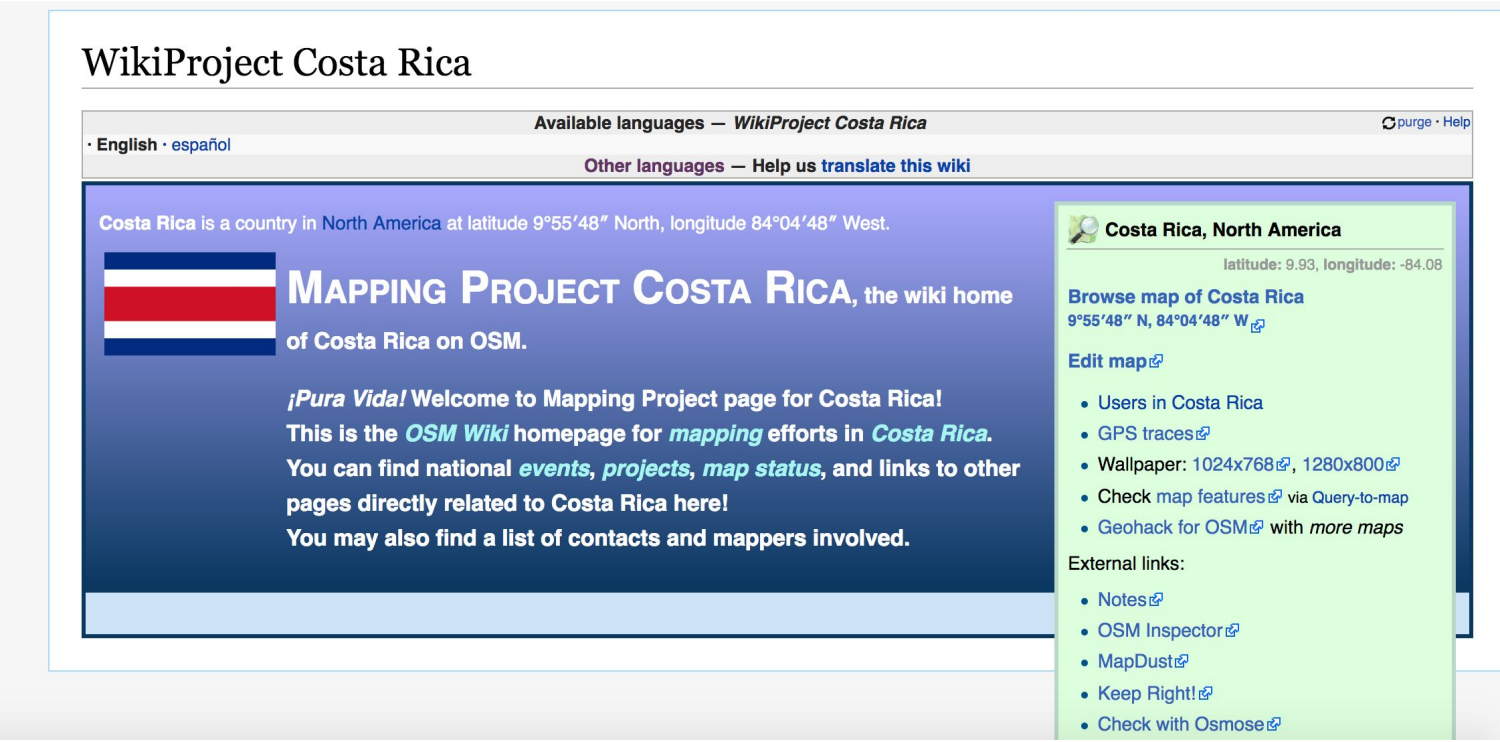
Reviewed 2015-07-12

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

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

OSM Wiki

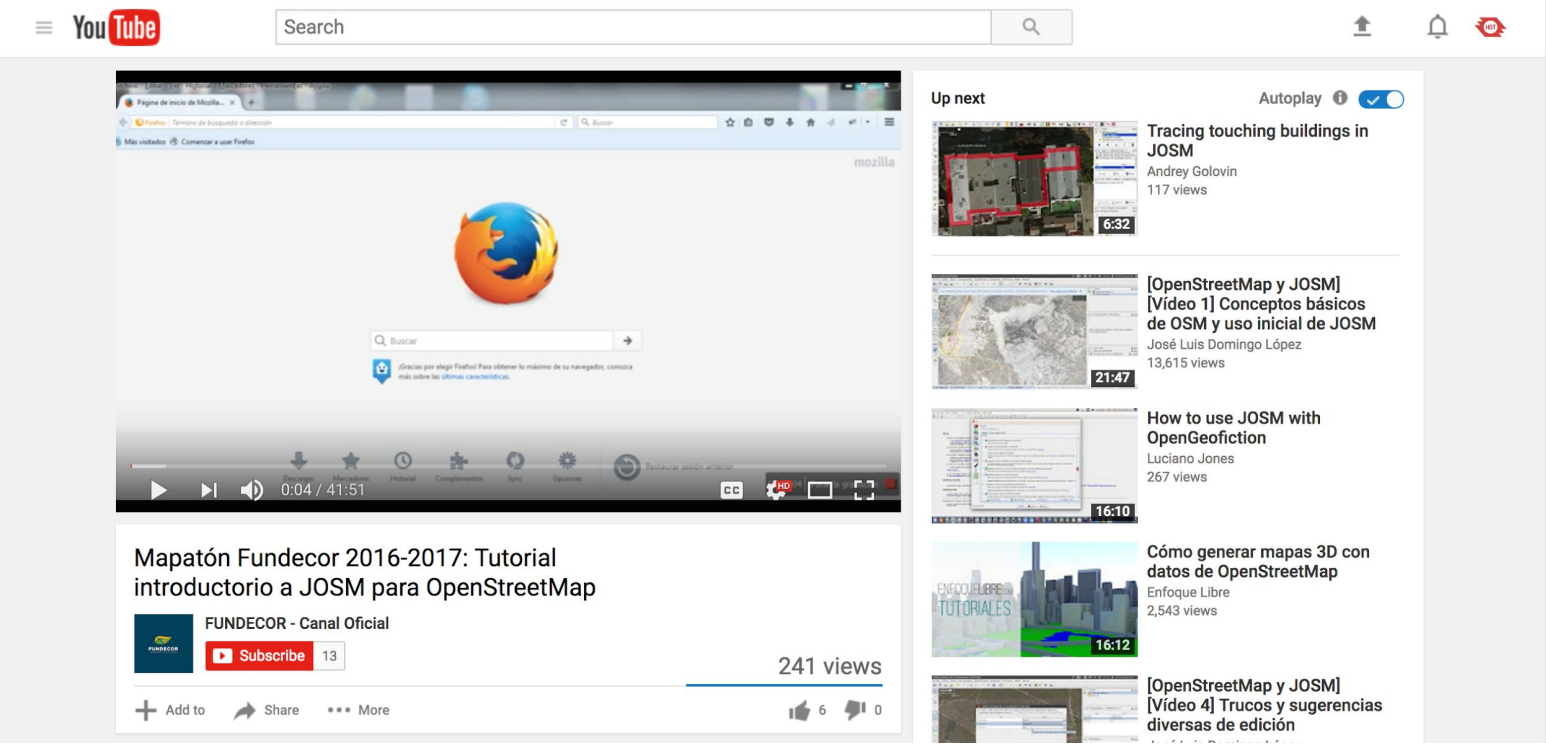
Costa Rica Site



https://wiki.openstreetmap.org/wiki/WikiProject_Costa_Rica

Spanish Youtube Video

JOSM Tutorial



https://www.youtube.com/watch?v=ZveSm9G7snM

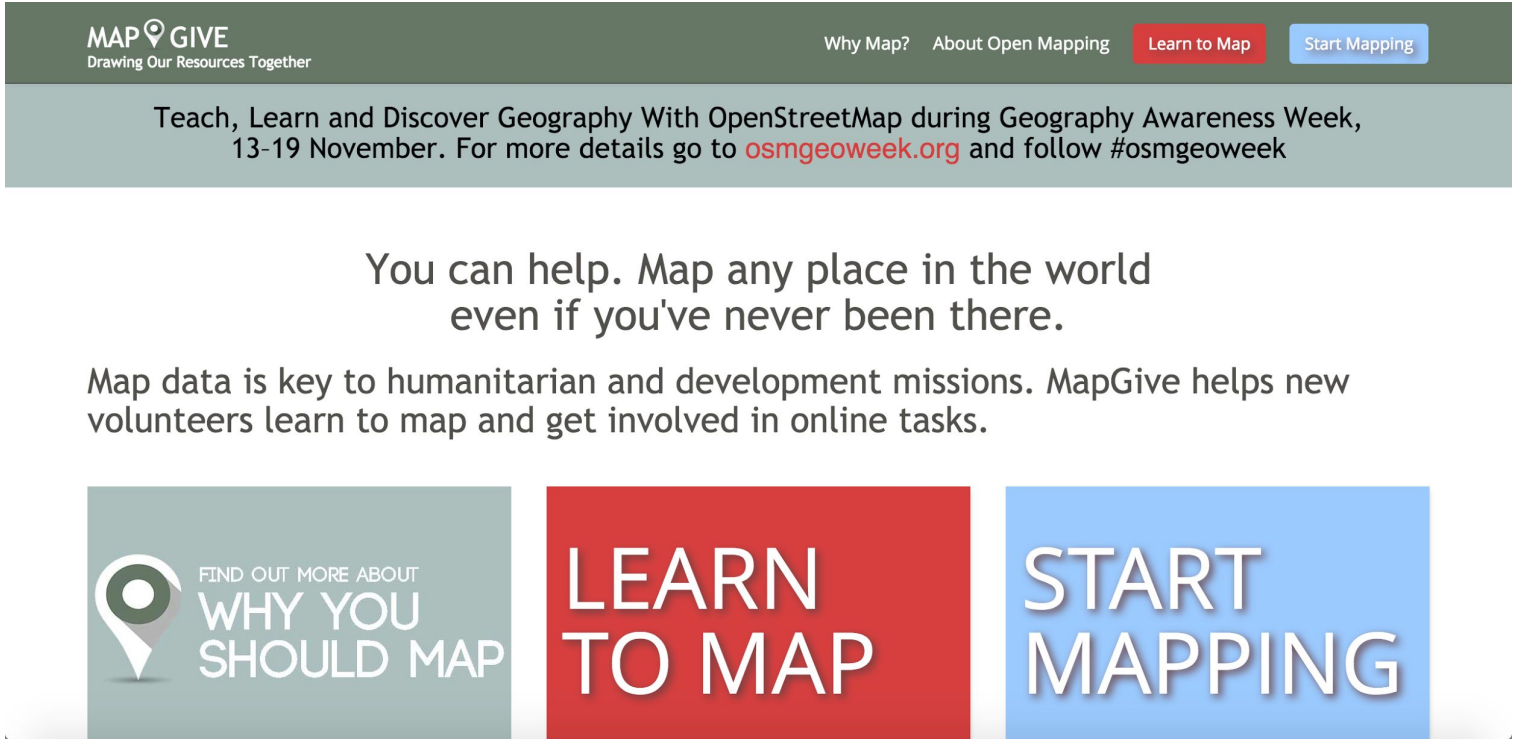
MissingMaps

Resources

http://www.missingmaps.org

MapGive

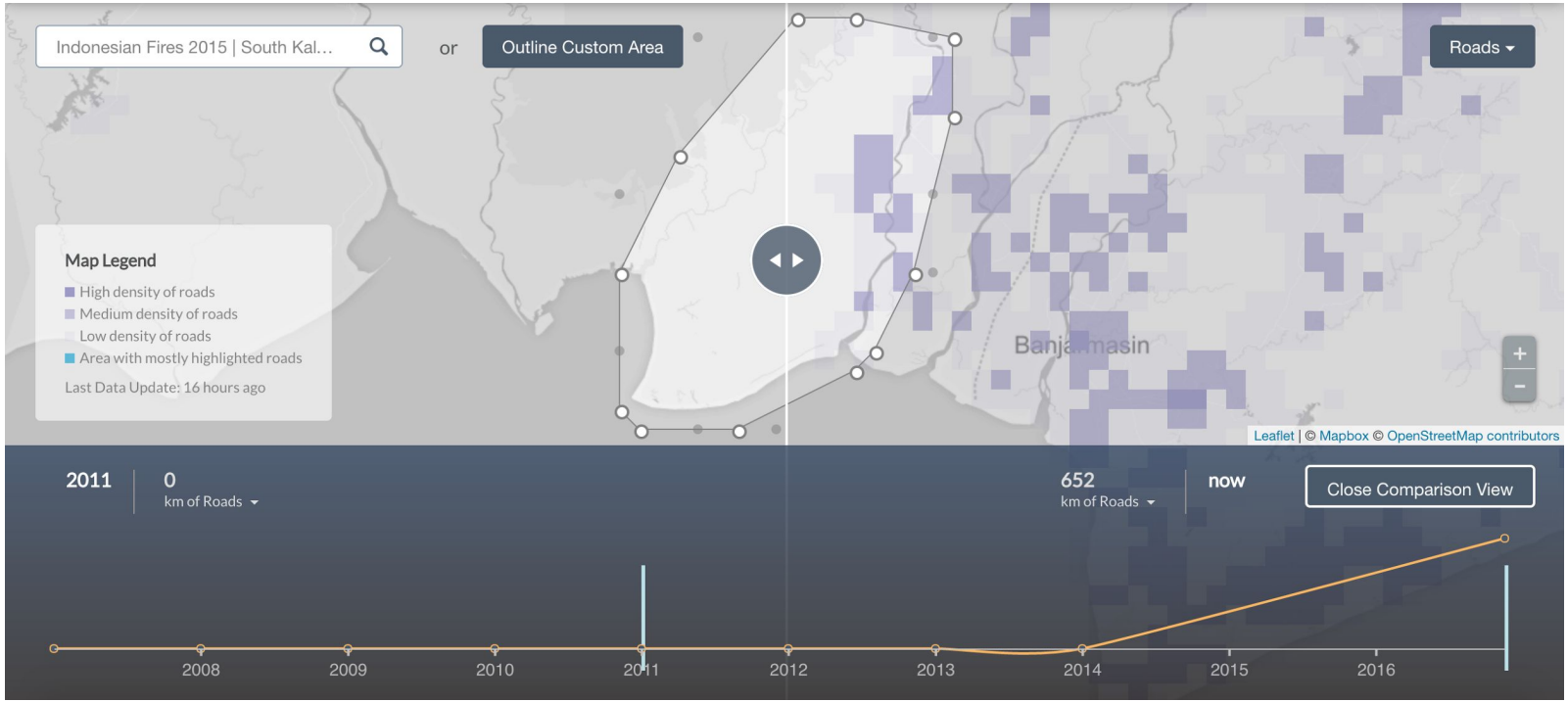
Resources



http://mapgive.state.gov/

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)

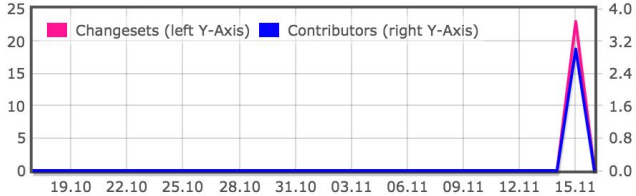
Information for 'hotosm-project-1339'

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

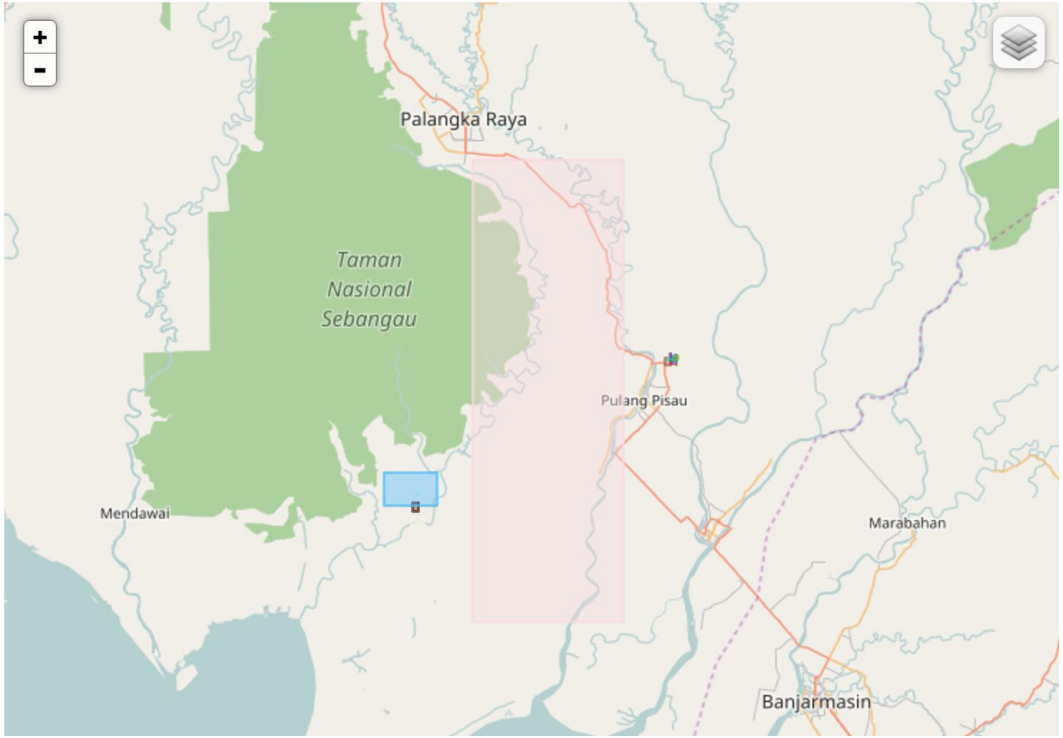


Number of created (modified) OSM Objects

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