

# D2 地図系セッション：IT×災害

2015.11.21 Tachikawa

クライシスマッピング  
を体験してみる

NPO法人 伊能社中 山内 啓之

クライシスマッピングを体験してみる

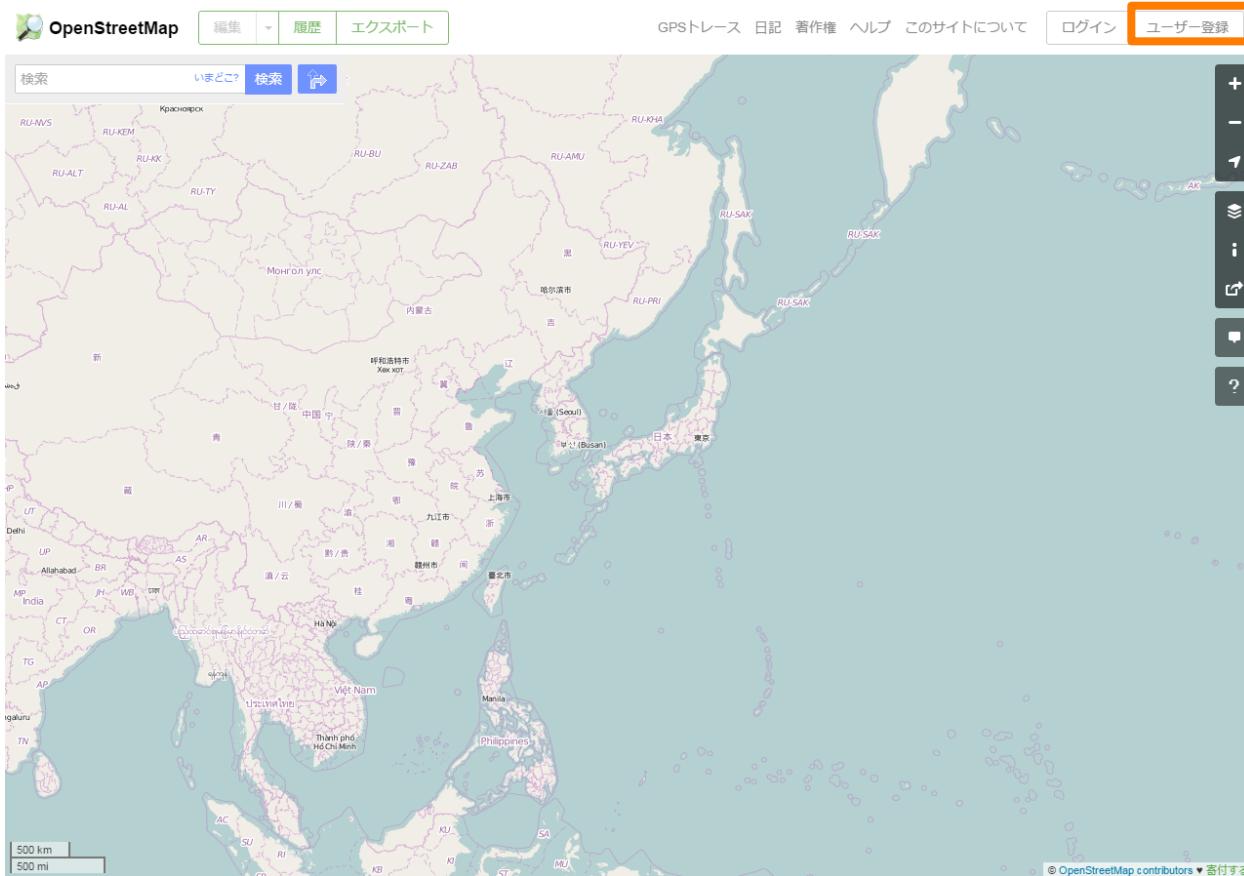
# 実習のフロー

- ↓ OpenStreetMapの練習
- ↓ Tasking Managerを利用する
- ↓ 建物と居住域の追加 (タスクの実行)
- ↓ Tasking Managerを終了する

時間があれば...

- ↓ データをダウンロードする
- ↓ Carto DBでWebMapを作成

# OpenStreetMapアカウント



<http://www.openstreetmap.org>

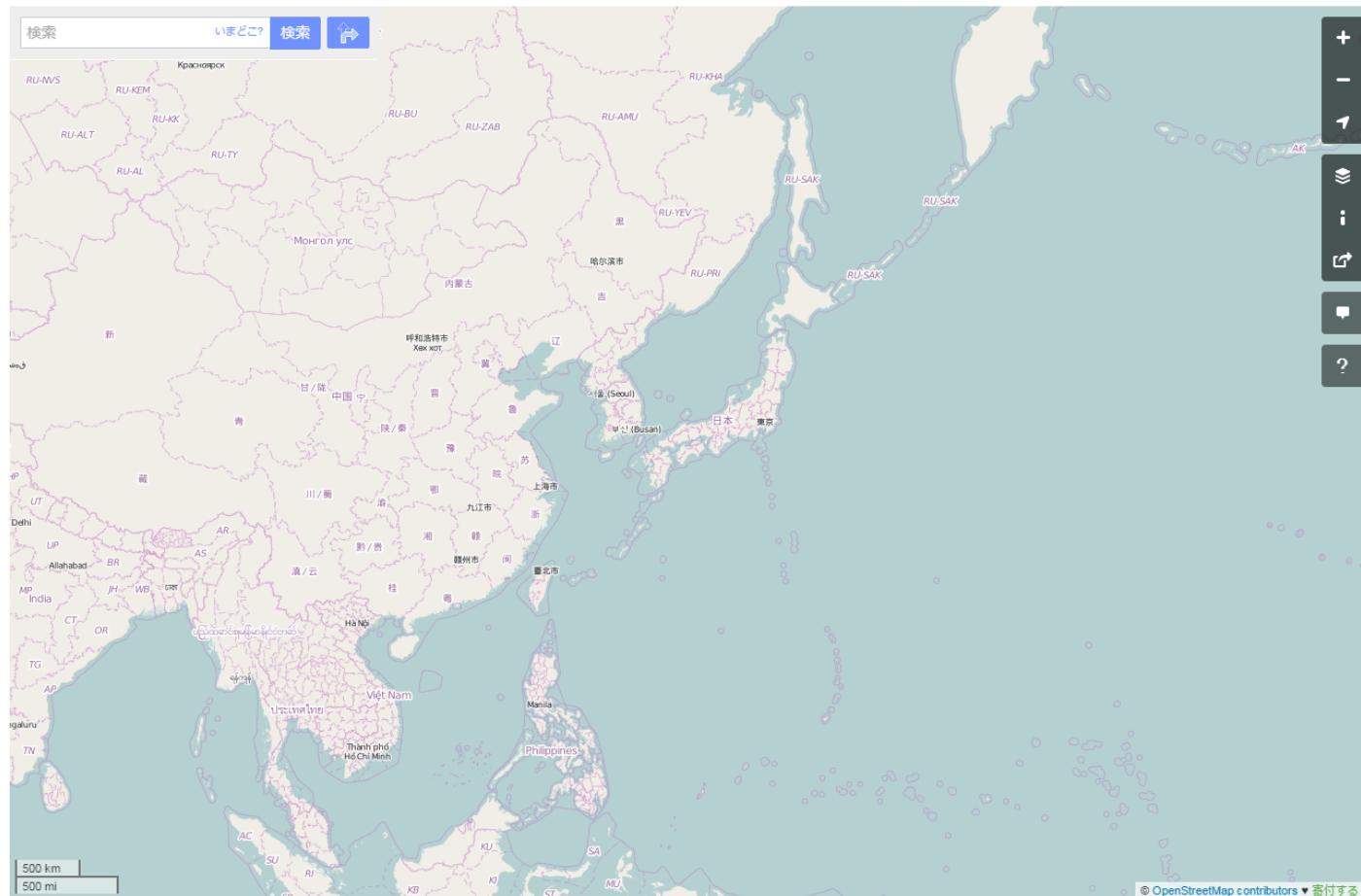


編集 履歴 エクスポート

GPSトレース 日記 著作権 ヘルプ このサイトについて

ログイン

ユーザー登録





編集 過去 エクスポート

GPSトレース 日記 著作権 ヘルプ このサイトについて

ログイン ユーザー登録

## ユーザー登録



メール アドレス:

メール アドレスの確認:

非公開です (詳細は [プライバシー ポリシー](#) を参照してください)

表示名:

自分の公開ユーザー名です。あとで設定ページで変更できます。

パスワード:

パスワードの確認:

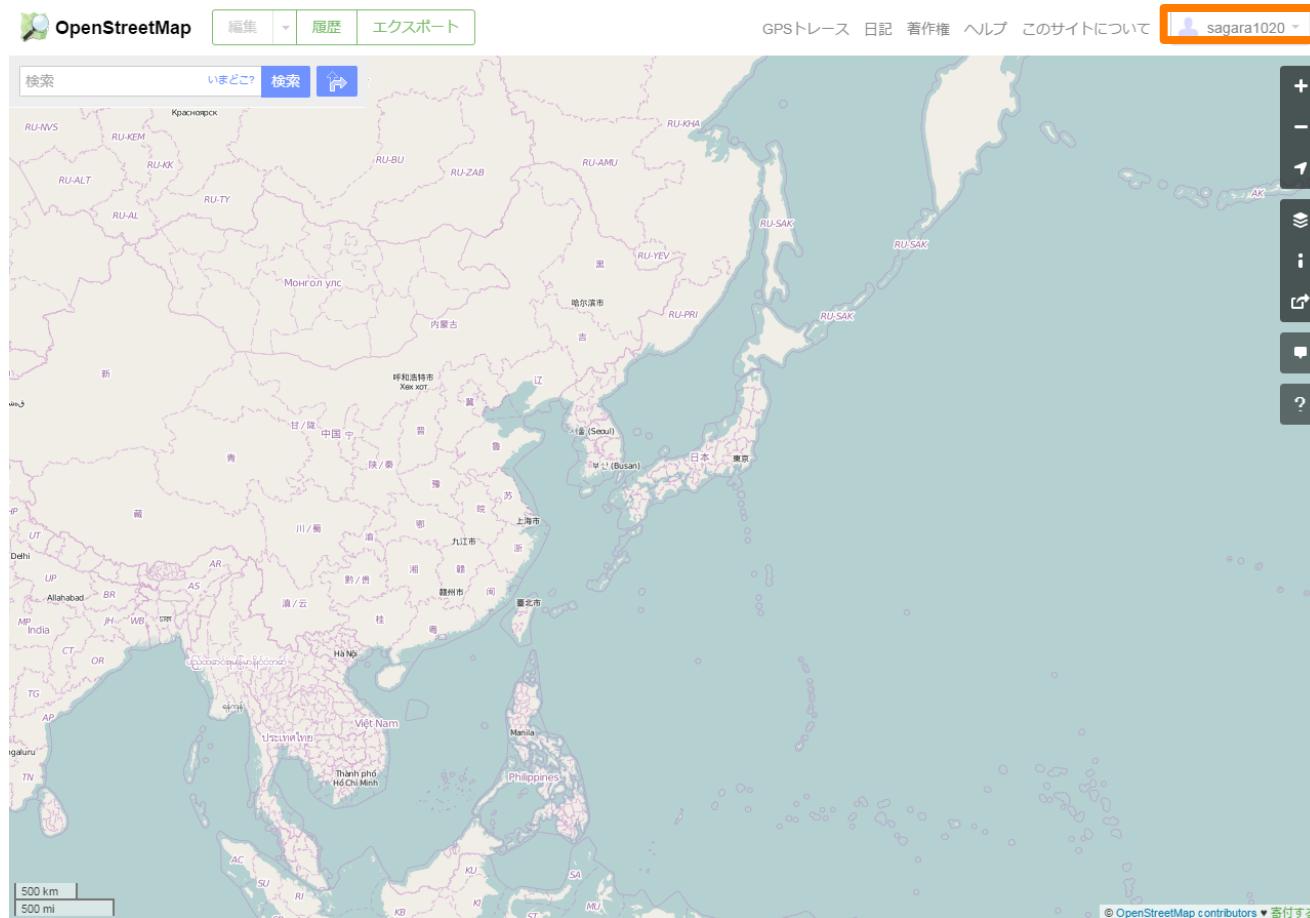
フリー、編集可能

他の地図とは異なり、OpenStreetMapは完全にあなたのような人々によって作成され、だれでも自由に修正、更新、ダウンロードすることができます。

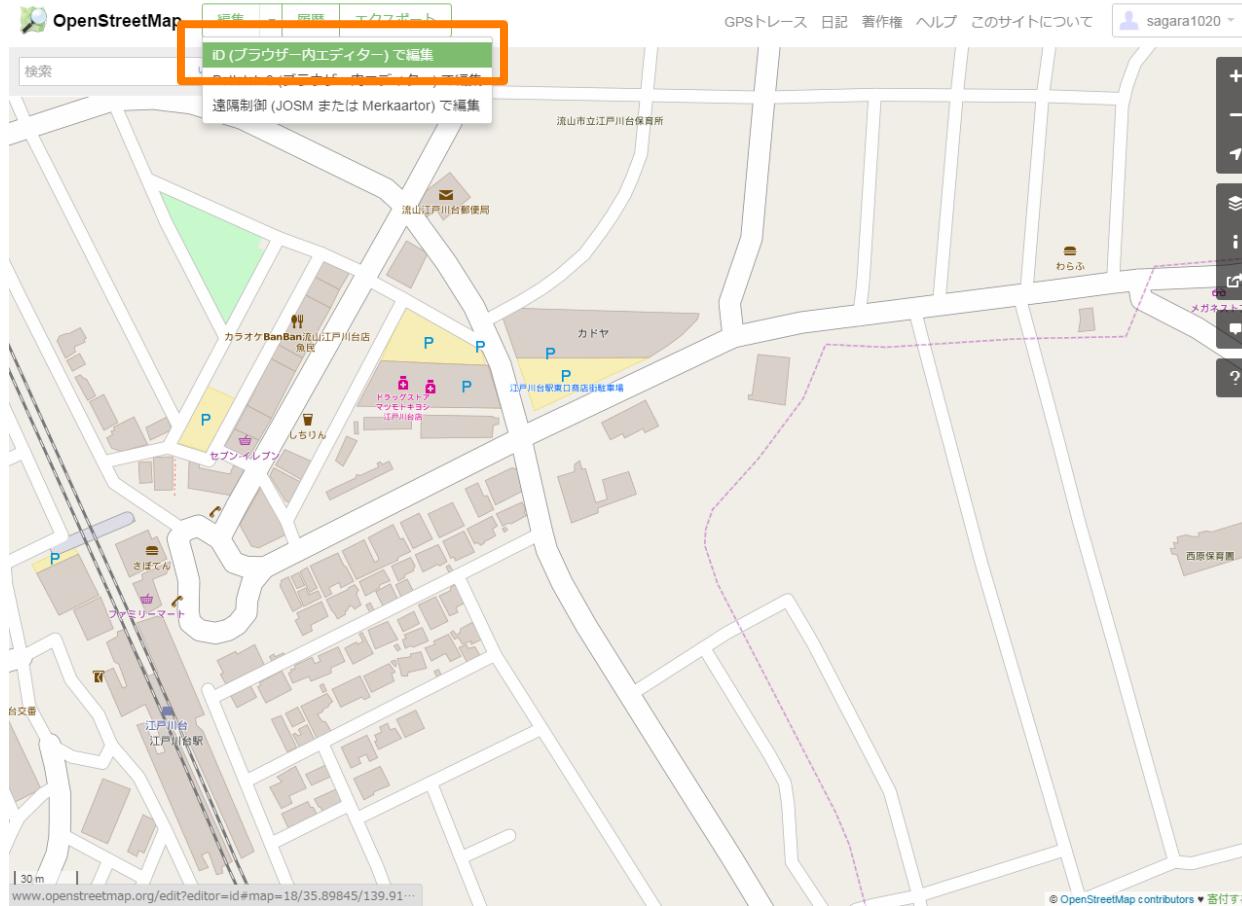
協力を始めるにはサインアップしてください。あなたのアカウントの確認メールが送信されます。

[Alternatively, use a third party to login](#)

ユーザー登録



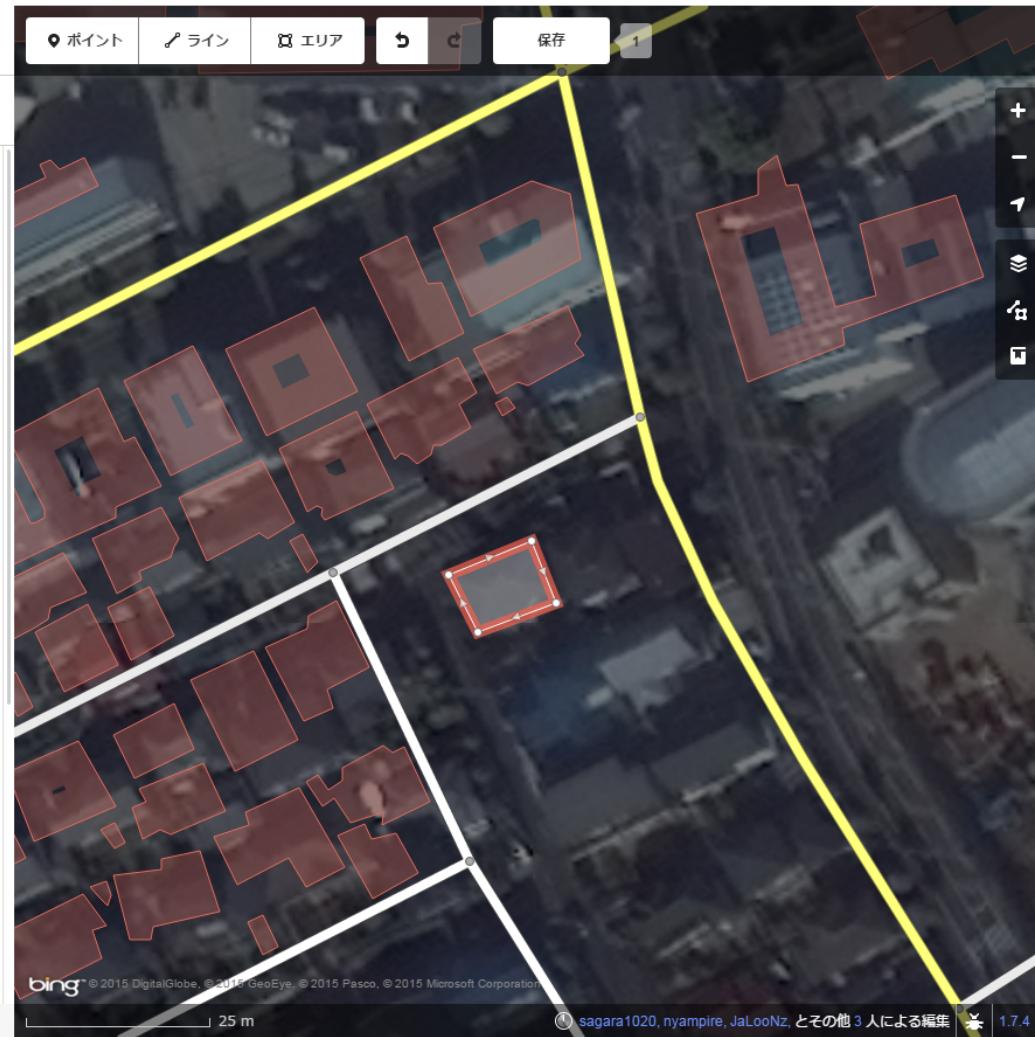
# OpenStreetMapの練習



地物の種類を選択

検索

	土地利用
	建物
	一戸建て住宅
	集合住宅
	オフィスビル
	工場
	住宅
	建物
	水面
	公園



## 地物を編集

X

ポイント

ライン

エリア



保存

1



建物

名称

一般的な呼称(もしあれば)

建物

yes, house, residential...

階数

2, 4, 6...

住所

123

所属する街路名

市町村名

郵便番号

情報源

Bing

項目追加: 標高、階数、メモ...

## ▼すべてのタグ(2)

building

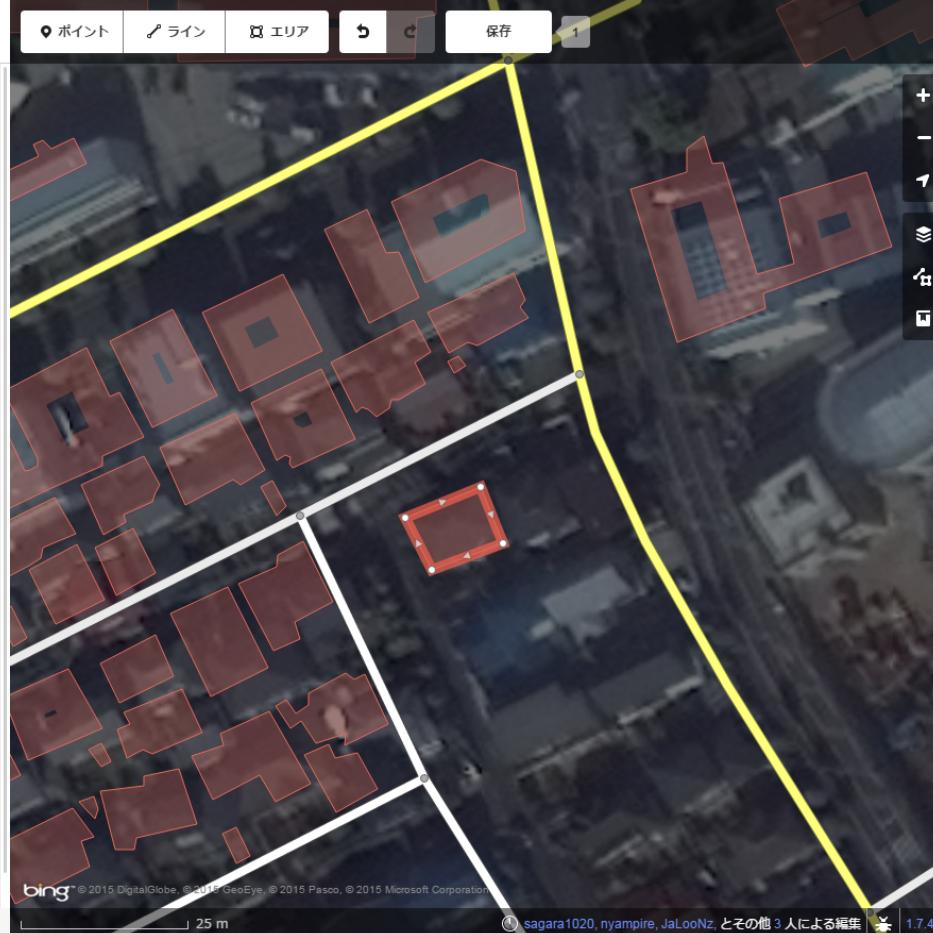
yes

source

Bing



## ▼すべてのリレーション(0)





編集 順序 エクスポート

GPSトレース 日記 著作権 ヘルプ このサイトについて

sagara1020

編集結果を保存

変更セットコメント

Add building in nagareyama city

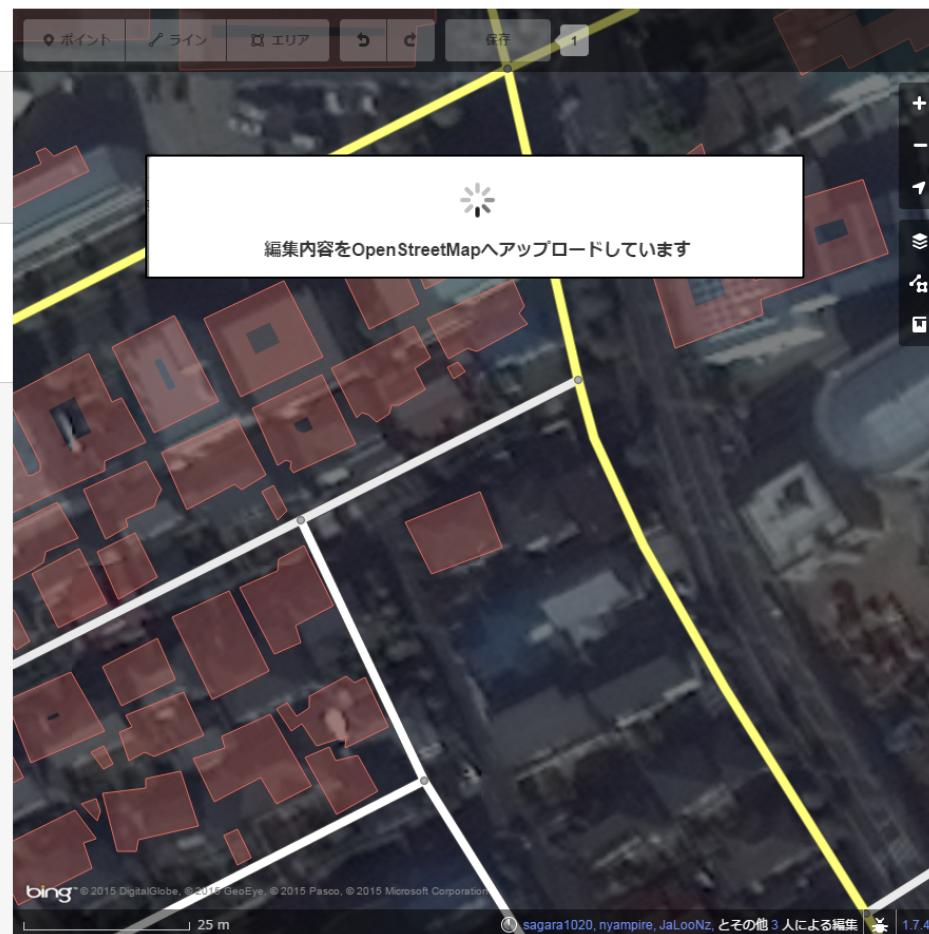
編集した内容を sagara1020 アカウントでアップロードし、OpenStreetMapを利用しているすべてのユーザが閲覧できるようにします。

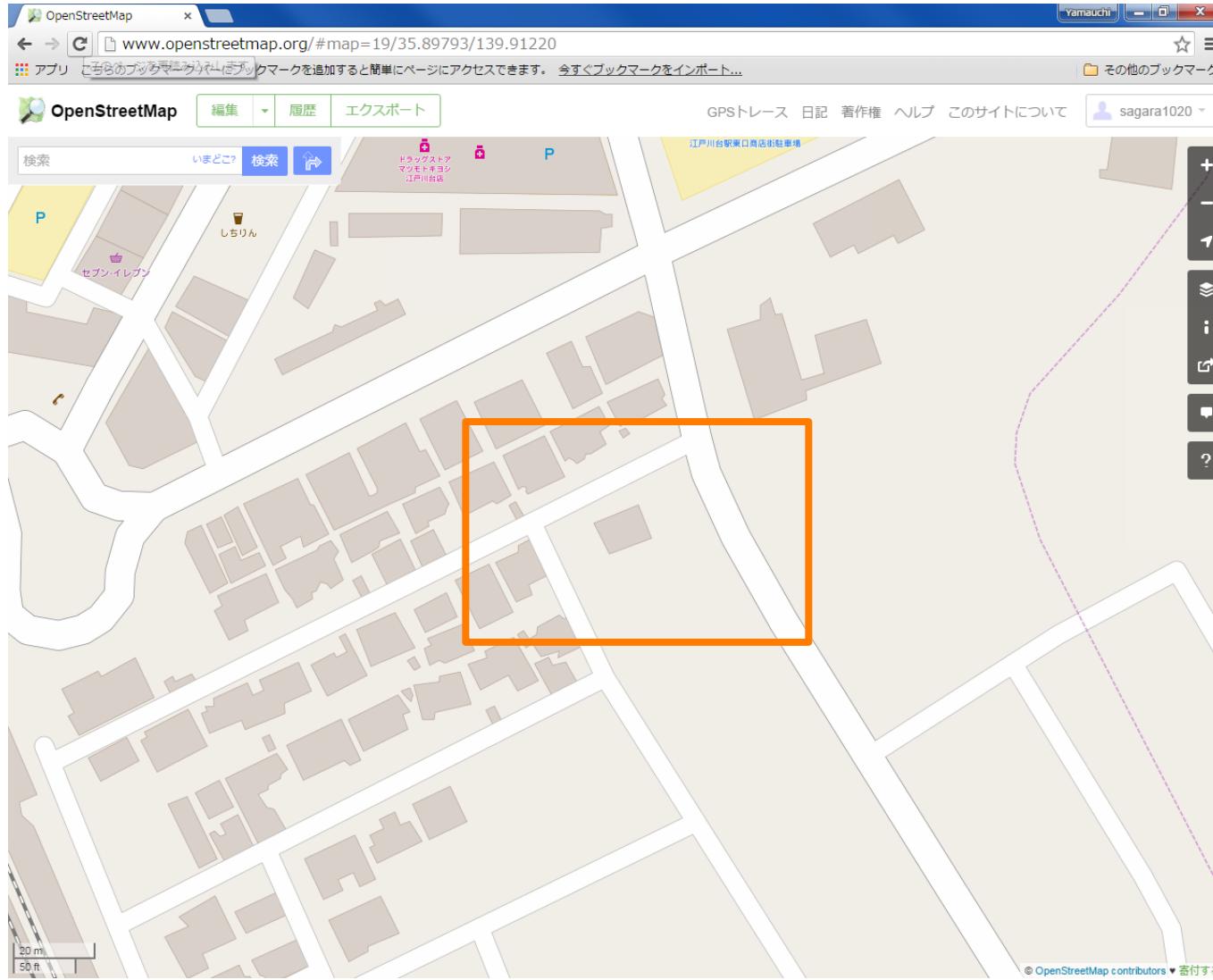
Save

キャンセル

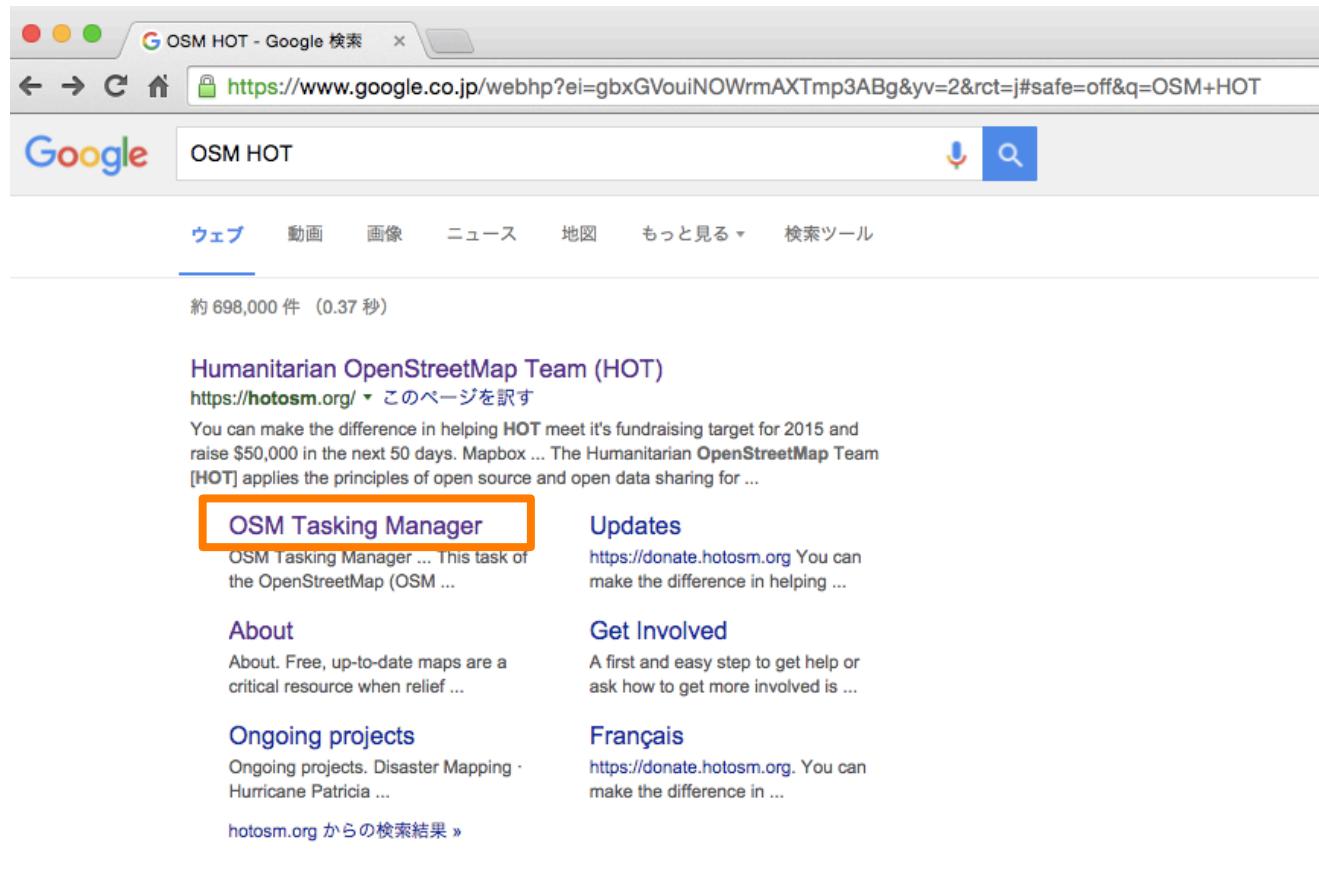
1 個の変更

作成した地物 建物





# Tasking Managerを利用する



OSM HOT - Google 検索

<https://www.google.co.jp/webhp?ei=gbxGVouiNOWrmAXTmp3ABg&yv=2&rct=j#safe=off&q=OSM+HOT>

Google OSM HOT

ウェブ 動画 画像 ニュース 地図 もっと見る ▾ 検索ツール

約 698,000 件 (0.37 秒)

**Humanitarian OpenStreetMap Team (HOT)**  
<https://hotosm.org/> このページを読む

You can make the difference in helping HOT meet its fundraising target for 2015 and raise \$50,000 in the next 50 days. Mapbox ... The Humanitarian OpenStreetMap Team [HOT] applies the principles of open source and open data sharing for ...

**OSM Tasking Manager**

OSM Tasking Manager ... This task of the OpenStreetMap (OSM ...)

**About**

About. Free, up-to-date maps are a critical resource when relief ...

**Ongoing projects**

Ongoing projects. Disaster Mapping · Hurricane Patricia ...

**Updates**

<https://donate.hotosm.org> You can make the difference in helping ...

**Get Involved**

A first and easy step to get help or ask how to get more involved is ...

**Français**

<https://donate.hotosm.org>. You can make the difference in ...

hotosm.org からの検索結果 »

ブラウザで「OSM HOT」を検索し、「OSM Tasking Manager」をクリックする

Please donate!

OSM Tasking Manager -

https://tasks.hotosm.org

# OSM Tasking Manager

[About](#) [English ▾](#) [login to OpenStreetMap](#)

## Projects

Search

Sort by: High priority first ▾

**#1335 Biu city - NE Nigeria crisis**

This task of the OpenStreetMap (OSM) and Humanitarian OpenStreetMap Team (HOT) projects in Northeast Nigeria aims at providing baseline data (buildings and roads) in Biu (towns and areas) to support relief efforts in the context of the on-going regional complex humanitarian crisis which affects the Northeast of Nigeria and the neighbouring countries.

Created by [edvac](#) - Updated about an hour ago - Priority: high



1 41%

**#1300 Afghanistan EQ Response 2015: Baharak, Jurm and Kishim Districts**

In continuation to the response and recovery from the magnitude 7.5 earthquake that struck Afghanistan on October 26, 2015; HOT is requesting assistance to complete the road network and identify settlements in the Baharak, Jurm and Kishim Districts.

Created by [russdeffner](#) - Updated about 6 hours ago - Priority: high



60%

**#1245 Burkina Faso, consolidated mapping, Base Roads Check**

Getting a thematic, consolidated data over a territory is one of the main concerns for OSM, that often confronts very detailed areas and very partially mapped areas, as in Burkina Faso. The state of completeness and consistency is totally unknown



10%

## 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!

### Questions About Tasks, Mapping or HOT?

If you have any questions about a project, a task or mapping in general please ask on our mailing list: [HOT E-Mail List](#)  
Or visit us in our IRC Chat Channel, just select #hot from the pop down channel list: [OSM HOT IRC Channel #hot](#)  
General inquiries and comments are welcomed at: [info@hotosm.org](mailto:info@hotosm.org)

← 左側に地域とタスクが表示される  
(今回は、アフガニスタンのタスクを選択)

Please donate!

## #1300 - Afghanistan EQ Response 2015: Baharak, Jurm and Kishim Districts

Description Instructions Contribute Activity Stats



**Note:** This is a continuation to Project #1264, expect overlap/complete tiles in the west/northwest of the project.

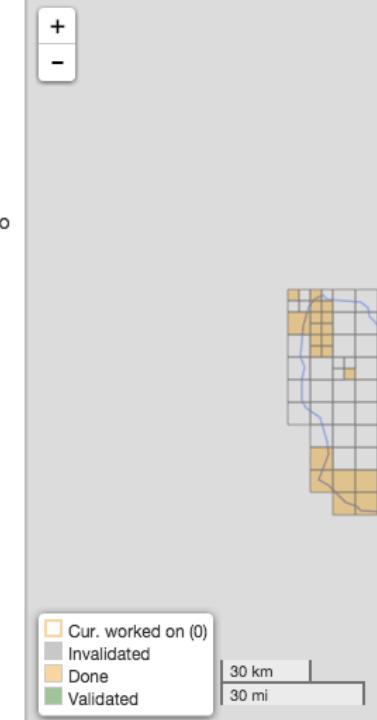
To assist the recovery from the magnitude 7.5 earthquake that struck Afghanistan on October 26, 2015; HOT is requesting assistance to complete the road network and identify settlements in the Baharak, Jurm and Kishim Districts.

HOT is supporting the local OSM community in this response.

The first priority established in the first hours after the Earthquake is the road network to connect to remote areas. We will also identify residential areas polygons.

2015 Eastern Afghanistan Earthquake coordination wiki

→ Instructions



Leaflet | Map data © OpenStreetMap contributors

「Instructions」をクリックする

## #1300 - Afghanistan EQ Response 2015: Baharak, Jurm and Kishim Districts

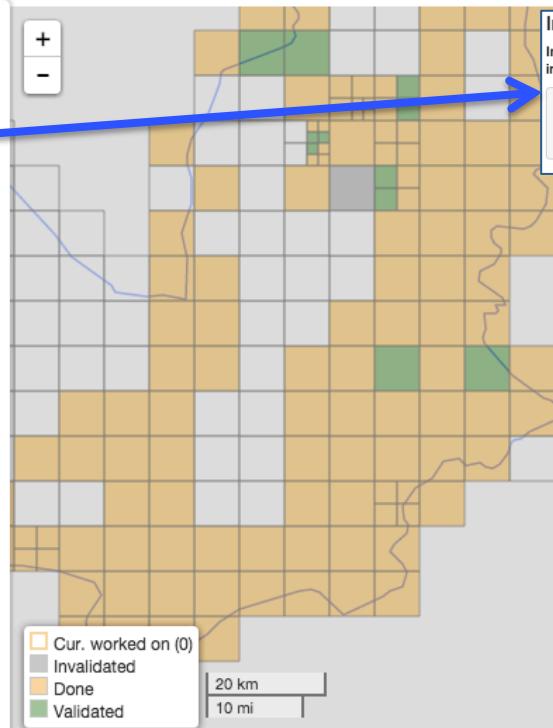
Description    **Instructions**    Contribute    Activity    Stats



- It is ok to "split" task squares** - Sometimes a task square will have a lot detailed settlement mapping. If you think it would help to make the task square smaller so the mapping could be finished in a more reasonable time, use the "split" link above the task square comment box.
- Personal knowledge** - If you have local knowledge, that is incredibly valuable and any information you are 100% sure of you can add to the object you are mapping. Building names, health facilities, names of roads, etc, are all very valuable and the name= tag can be used to supply that information.
- Sometimes a task square is already mapped** - Sometimes you will find a task square that looks totally mapped or has nothing in it to map. Just double check that it is complete, map anything that was missed, straighten up anything that needs it and then mark it "Done".
- Invalidated task squares** - You might get a notice that a task square was "invalidated" that almost always just means someone found a few more things to map and they did not have time to map them in. No worries, it is part of the process and happens all the time. **If you have to stop mapping before you have mapped everything use the "Unlock" link instead of "Done"** As long as you are trying to map everything in a task square you feel confident mapping before you mark one "Done" then all is good.
- Ask questions** - if you have questions, please ask. The front page of this [HOT Tasking Manager](#) website offers a few ways to ask or if you are at a mapping event, raise your hand and ask.
- You are making a real difference mapping** - Every contribution matters in a real, tangible way. Mapping is not easy but know that your mapping is used by humanitarian organizations around the world every single day.

↗ Start contributing

ソースや入力項目をチェックし、  
「Start contributing」をクリックする

**Imagery**

Imagery NOTE: Bing is missing for some areas. In these cases, try Mapbox imagery

Comment source=Bing Imagery  
If any problem with Bing Imagery, verify if MapBox covers the area.  
Then, source=MapBox

**Roads and Paths**

- Please map roads and major paths as completely as possible by connecting them to the main road networks where ever possible.
- Very short segments that do not connect to anything should not be mapped.
- Short segments of a road or path that you cannot see through the trees but seem very likely to exist should be mapped to keep the road complete
- Try and map a little beyond your task square so the person who maps the task square next to yours can easily connect them
- Always connect roads to other roads where they meet and never end roads on Residential area polygon edges.

You will most often use the following road classifications:

- highway=unclassified - This is for roads that a vehicle with 4 wheels could travel on that connect small villages and settlements
- highway=track - This is for roads that a 4 wheel vehicle or farm tractor could travel on and only lead to farm fields or forests. They do not connect settlements.
- highway=path - This is for small paths that a 4 wheeled vehicle could not travel on and are usually used by people on foot or 2 wheeled vehicles. They may or may not connect settlements or lead to farm fields. Only map the major paths that connect to settlements or other roads.

[Leaflet](#) | Map data © OpenStreetMap contributors

**Residential Areas**

- Please draw one large area outline around groups of buildings and tag them **landuse=residential**
- About 5 or more buildings can be outlined as a landuse=residential area.
- Do your best to keep the outline close to buildings and not include a lot of farmland or forest.
- When to draw the residential area outline takes some judgement, but when in doubt, draw an outline around the settlement.

Please donate!

## #1300 - Afghanistan EQ Response 2015: Baharak, Jurm and Kishim Districts

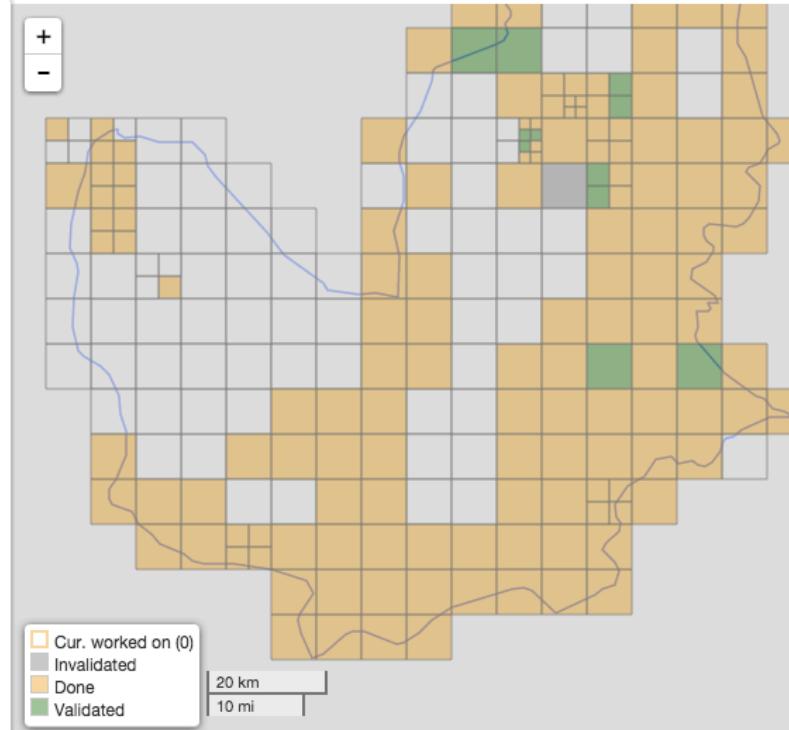
[Description](#)[Instructions](#)[Contribute](#)[Activity](#)[Stats](#)

Select a task on the map

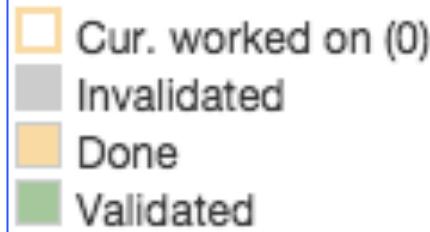


or

[Take a task at random](#)



[Leaflet](#) | Map data © OpenStreetMap contributors



Invalidated or 色のついていないエリア をクリックする

Please donate!

## #1300 - Afghanistan EQ Response 2015: Baharak, Jurm and Kishim Districts

Description Instructions Contribute Activity Stats



Task #92

→ Start mapping

Unlocked

4 days ago

Locked by Katie\_Thomas19

4 days ago

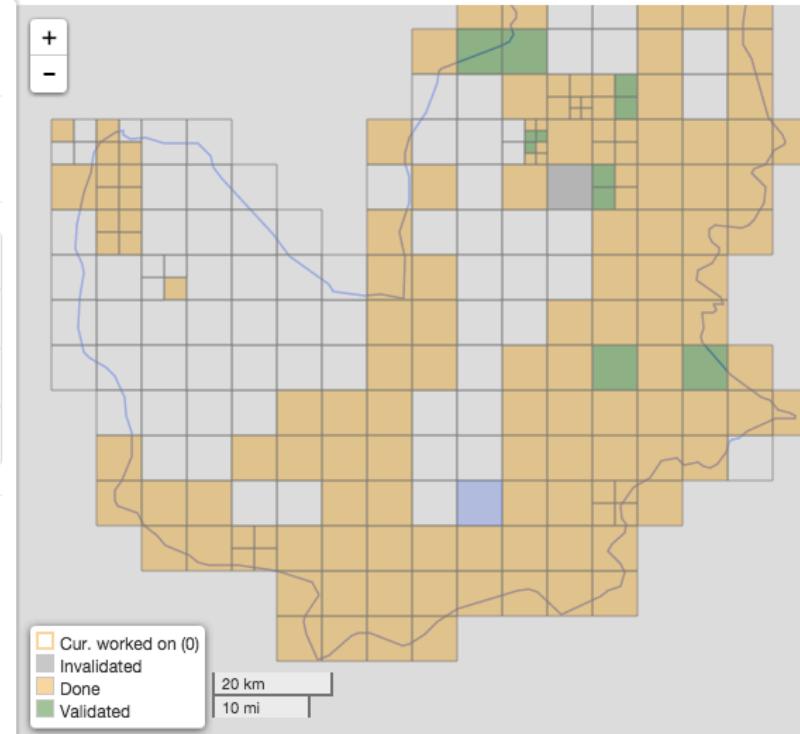
Unlocked

4 days ago

Locked by moriella

4 days ago

OSM changesets | → overpass-turbo



Leaflet | Map data © OpenStreetMap contributors

「Start mapping」をクリック

## Login

Don't have an account? [Register now](#)

Email Address or Username:

Password:

[Lost your password?](#)

Remember me

[Login](#)

---

Alternatively, use a third party to login:



Remember me

Email Address or UsernameとPassword:を入力する



## あなたのアカウントへのアクセスの認証

アプリケーション [OSMTM](#) があなたのアカウント、[sagara1020](#) への接続許可を求めていきます。そのアプリケーションに許可してもよいかどうかを確認してください。複数のアプリケーションに許可を与えることもできます。

クライアント アプリケーションに以下の操作を許可する:

- 自分のユーザー設定を読み込む。

[Grant Access](#)

Get Accessをクリックする

Please donate!

## #1300 - Afghanistan EQ Response 2015: Baharak, Jurm and Kishim Districts

Description Instructions **Contribute** Activity Stats



### Task #92

Locked by you. [Unlock](#)

⌚ 119 min. left

↗ Edit with iD editor ▾

Task is too big? [Split](#) ☒

Leave a comment

[Unlock](#)

[Mark task as done](#)

Locked by sagara1020

less than a minute ago

Unlocked

4 days ago

Locked by Katie\_Thomas19

4 days ago

Unlocked

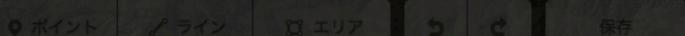
4 days ago

Locked by morielia



- Cur. worked on (1)
- Invalidated
- Done
- Validated

1 km  
5000 ft



### iD 起動中

iDは、世界に例を見ない自由な地図を編集するにあたり、馴染みやすく、かつ使い勝手をそこなわないことを目的に開発されています。現在のバージョンは 1.7.4 です。詳細は [ideditor.com](http://ideditor.com) で公開中です。  
バグ報告は [github.com](https://github.com) で受け付けています。



[チュートリアルを開始](#)



[編集開始](#)

+ 編集するには地図を拡大してください



# 建物と居住域の追加（タスクの実行）

OpenStreetMap 編集 履歴 エクスポート GPSトレイス 日記 著作権 ヘルプ このサイトについて sagara1020

地物を編集 ×

建物

名称  
一般的な呼称(もしあれば)

建物  
yes, house, residential...

階数  
2, 4, 6...

住所  
123 所属する街路名  
市町村名 郵便番号

項目追加: 標高、階数、メモ...

▼すべてのタグ (1)  
building yes

▼すべてのリレーション (0)

bing ©2015 DigitalGlobe, ©2015 GeoEye, ©2015 Microsoft Corporation 35 m sagara1020, Mira\_による編集 17.4

## 編集結果を保存

## 変更セットコメント

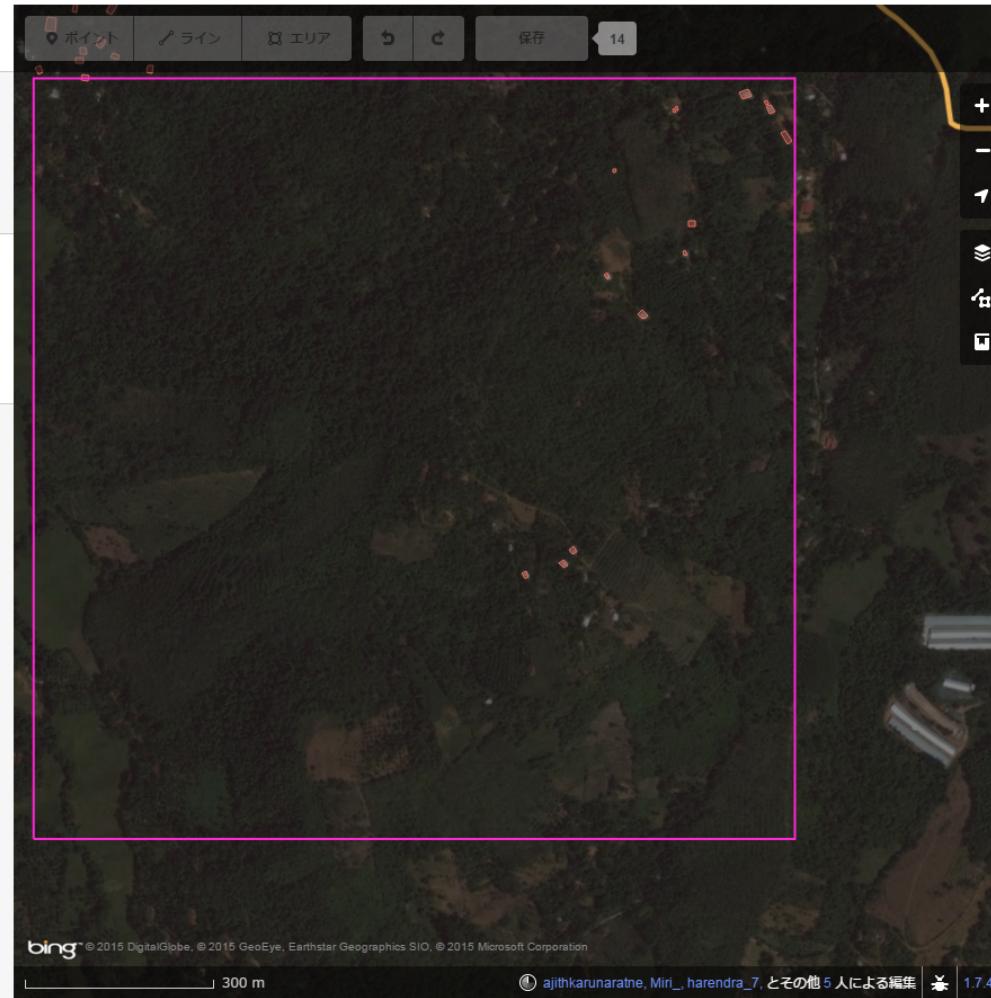
#hotosm-project-1340 #osmgeoweb #opencities #opendri  
#MapGive Source=Bing

編集した内容を [sagara1020](#) アカウントでアップロードし、  
OpenStreetMapを利用しているすべてのユーザが閲覧できるよう  
にします。

[Save](#)[キャンセル](#)

## 14 個の変更

- 作成した地物 建物



## 地物を編集

ポイント ライン エリア

保存

1

傾斜  
up, down, 10%...ハイキングの難易度  
山岳ハイキング、高地登山...道の可視度  
優・良・悪...マウンテンバイク難易度  
0, 1, 2, 3...マウンテンバイク登山難易度  
0, 1, 2, 3...IMBA トレイル難易度  
初級者、中級者、上級者...管理番号  
不明

項目追加: 住所、標高、階数...

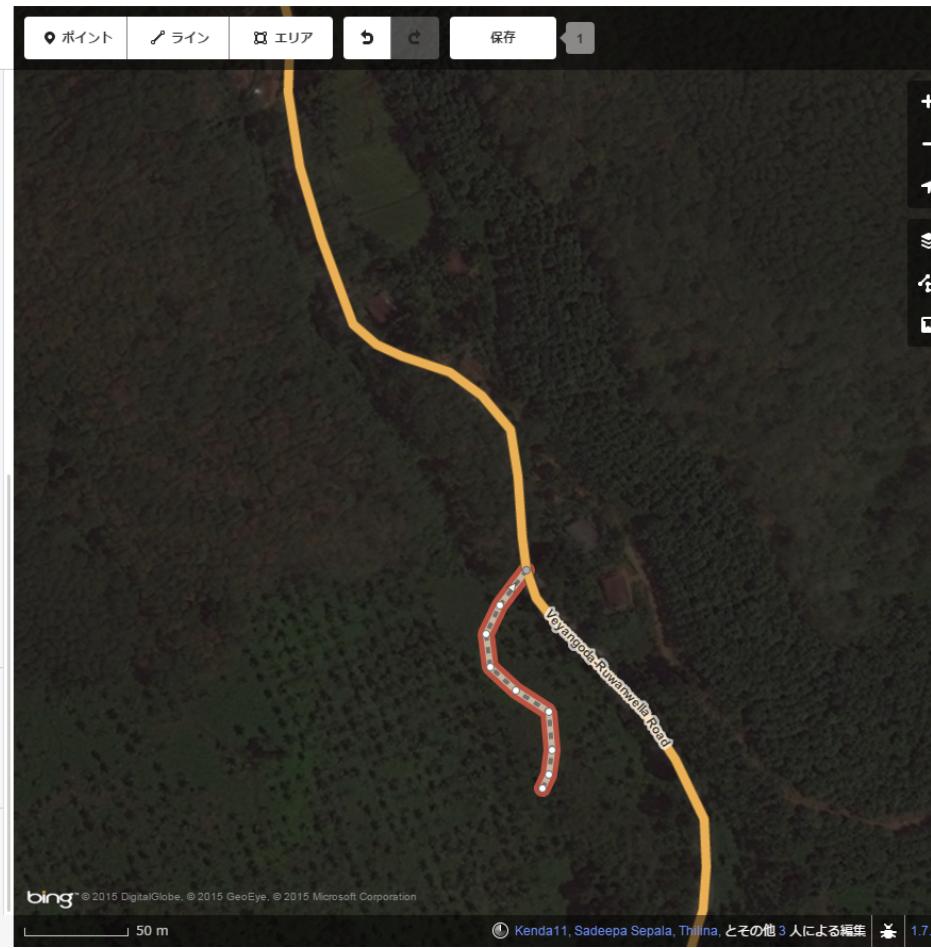
## ▼すべてのタグ (1)

**highway** path

+

## ▼すべてのリレーション (0)

+



## 編集結果を保存

変更セットコメント

```
#holosm-project-1340 #osmgeoweek #opencities #opendri  
#MapGive Source=Bing
```

編集した内容を  sagara1020 アカウントでアップロードし、  
OpenStreetMapを利用しているすべてのユーザが閲覧できるよう  
にします。

 Save

キャンセル

## 1 個の変更

 作成した地物 小道

## 地物を編集

ポイント

ライン

エリア



保存

1



農地

名称

一般的な呼称(もしあれば)

作物

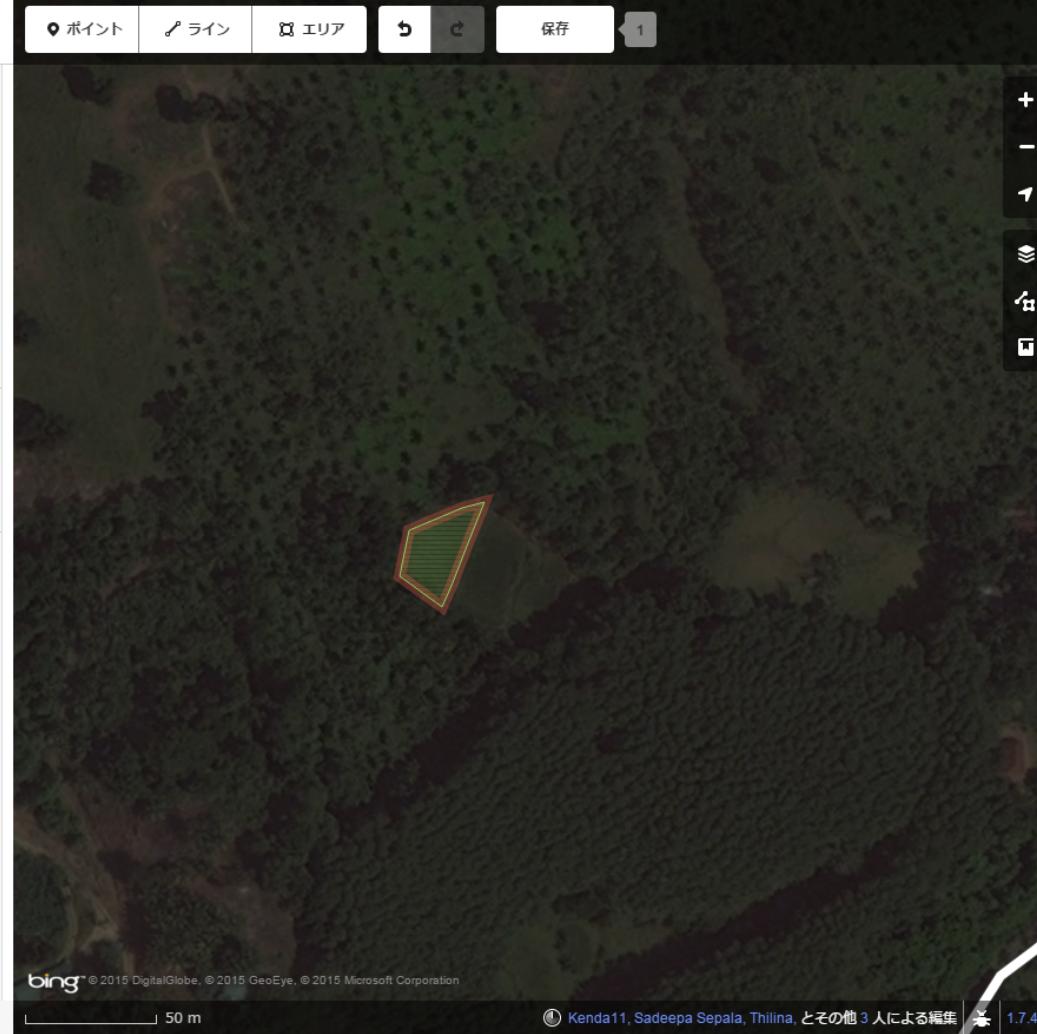
rice, grass, corn...

すべてのタグ(1)

landuse

farmland

すべてのリレーション(0)



# Tasking Managerを終了する

Please donate! [OSM Tasking Manager](#) About English sagara1020

#1300 - Afghanistan EQ Response 2015: Baharak, Jurm and Kishim Districts

Description Instructions Contribute Activity Stats

**Task #128**

Locked by you. [Unlock](#) 119 min. left

[Edit with iD editor](#) Task is too big? [Split](#)

Leave a comment

[Unlock](#) ✓ [Mark task as done](#)

Locked by sagara1020 less than a minute ago

Unlocked 2 days ago

Locked by Sysvolution 2 days ago

Unlocked 4 days ago

Locked by simpson H

Cur. worked on (1)  
Invalidated  
Done  
Validated  
10 km  
5 mi

Leaflet | Map data © OpenStreetMap contributors

「Unlock」をクリックし、終了

# データのダウンロード

The screenshot shows the Overpass Turbo interface. At the top, there are tabs for '実行' (Run), '共有' (Share), 'エクスポート' (Export), 'ウィザード' (Wizard) (which is highlighted in orange), '保存' (Save), '読み込み' (Import), '設定' (Settings), and 'ヘルプ' (Help). The title bar says 'overpass turbo'. On the right, there are buttons for '地図' (Map) and 'データ' (Data).

The left side of the interface displays an Overpass query:

```
1 /*
2 This has been generated by the overpass-turbo wizard.
3 The original search was:
4   "[landuse=residential"
5 */
6 [out:json][timeout:25];
7 // gather results
8 (
9   // query part for: "[landuse=residential"
10  node["landuse"="residential"]((bbox));
11  way["landuse"="residential"]((bbox));
12  relation["landuse"="residential"]((bbox));
13 );
14 // print results
15 out body;
16 >;
17 out skel qt;
```

A modal window titled 'クエリ ウィザード' (Query Wizard) is open in the center. It contains a text input field with the query 'landuse=residential'. Below the input field, there is explanatory text: 'ウィザードを使うことで、Overpassクエリの作成をより簡単に行なうことができます。クエリのサンプルは以下のとおりです：' followed by three examples: 'Drinking Water', 'highway=\* and type:way', and 'tourism=museum in Vienna'. At the bottom of the modal are two buttons: 'クエリを作成して実行' (Create and Run Query) and 'キャンセル' (Cancel).

The main area shows a map with numerous red and blue circular markers representing residential landuse. A legend at the bottom right indicates 'landuse=residential'. A scale bar shows '10 km'. At the bottom right, there is status text: '読み込み完了 - ノード: 9643, ウェイ: 838, リレーション: 1' and '表示中 - POI: 0, ライン: 0, ポリゴン: 837'.

実行 共有 エクスポート ウィザード 保存 読み込み 設定 ヘルプ overpass turbo

地図 データ

```
1 /*  
2 This has been generated by the overpass-turbo wizard.  
3 The original search was:  
4 "landuse=residential"  
5 */  
6 [out:json][timeout:25];  
7 // gather results  
8 {  
9     // query part for: "landuse=residential[al]"  
10    node["landuse~='residential[al]']((bbox));  
11    way["landuse~='residential[al]']((bbox));  
12    relation["landuse~='residential[al]"]((bbox));  
13};  
14 // print results  
15 out body;  
16 >;  
17 out skel qt;
```

**エクスポート**

データ

geoJSON形式 (選択)

GPX形式

KML

生のデータ

Overpass API から抽出された生データ

OSMエディタでデータ読み込み JOSM, Level0

GeoJSONを gist として保存

地図

クエリ

完了

読み込み完了 - ノード: 9643, ウェイ: 838, リレーション: 1  
表示中 - POI: 0, ライン: 0, ポリゴン: 837

overpass-turbo.eu

実行 共有 エクスポート ウィザード 保存 読み込み 設定 ヘルプ overpass turbo 

地図 データ

```
1 /*
2 This has been generated by the overpass-turbo wizard.
3 The original search was:
4 "[landuse=residential"
5 */
6 [out:json][timeout:25];
7 // gather results
8 (
9     // query part for: "[landuse=residential]"
10    node["landuse"="residential"]({{bbox}});
11    way["landuse"="residential"]({{bbox}});
12    relation["landuse"="residential"]({{bbox}});
13 );
14 // print results
15 out body;
16 >;
17 out skel qt;
```

**エクスポート**

**エクスポート - GeoJSON**

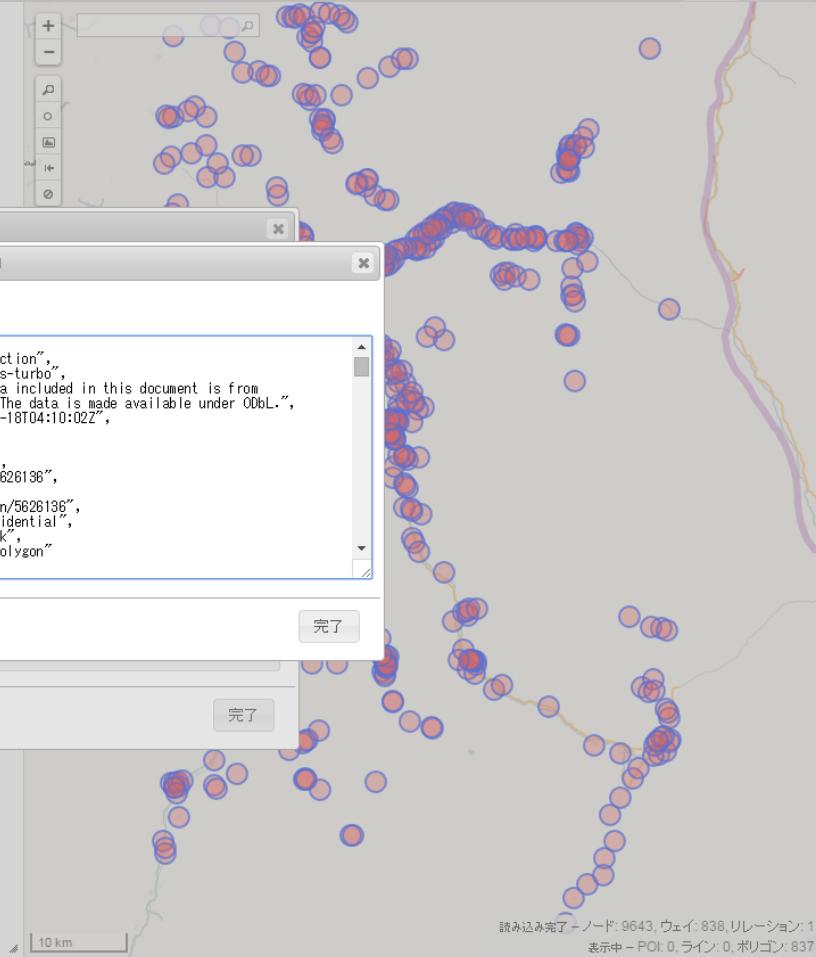
GeoJSON形式で表示中:

```
{
  "type": "FeatureCollection",
  "generator": "overpass-turbo",
  "copyright": "The data included in this document is from www.openstreetmap.org. The data is made available under ODbL.",
  "timestamp": "2015-11-18T04:10:02Z",
  "features": [
    {
      "type": "Feature",
      "id": "relation/5626136",
      "properties": {
        "rid": "relation/5626136",
        "landuse": "residential",
        "name": "Baharak",
        "type": "multipolygon"
      }
    }
  ]
}
```

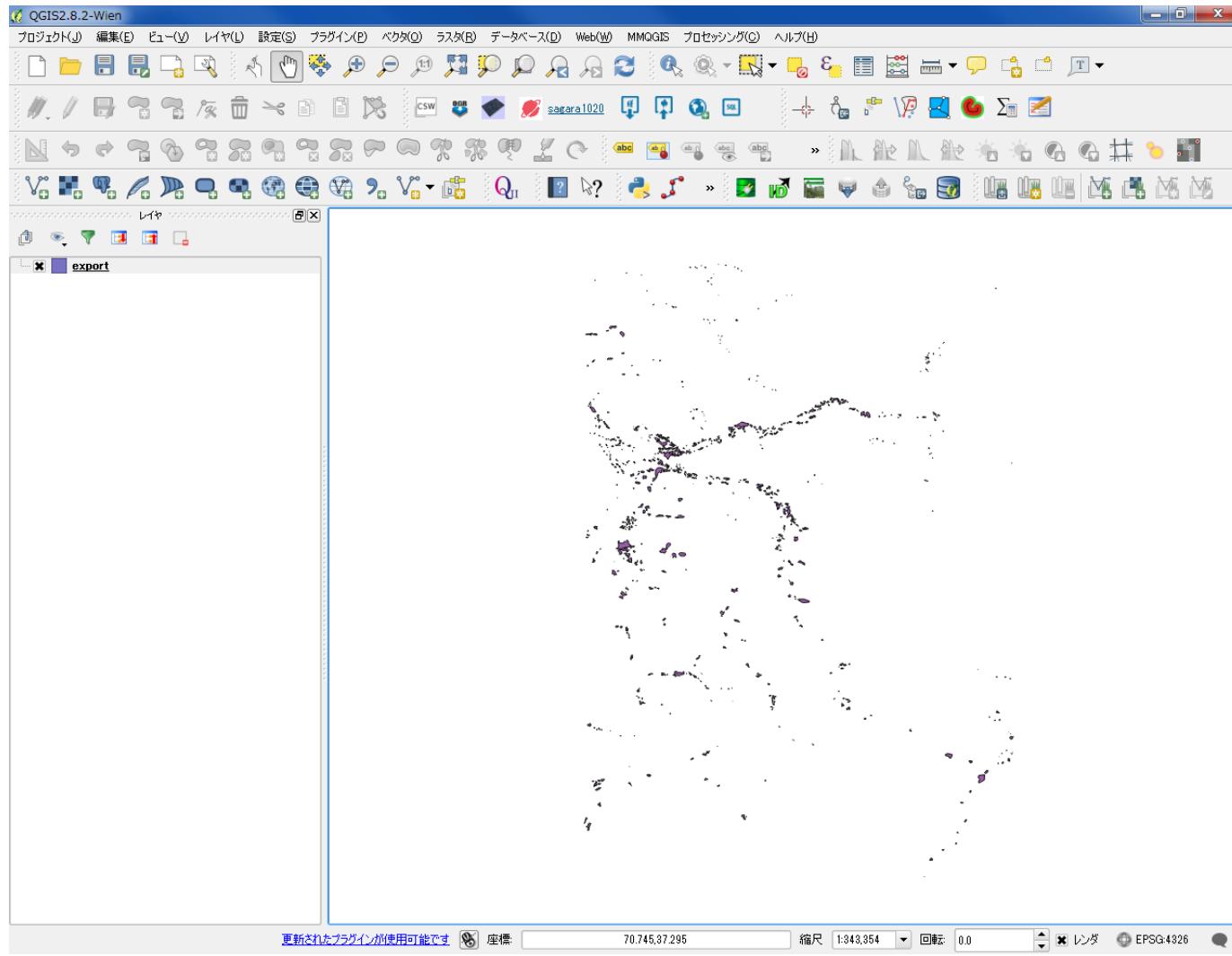
完了

完了

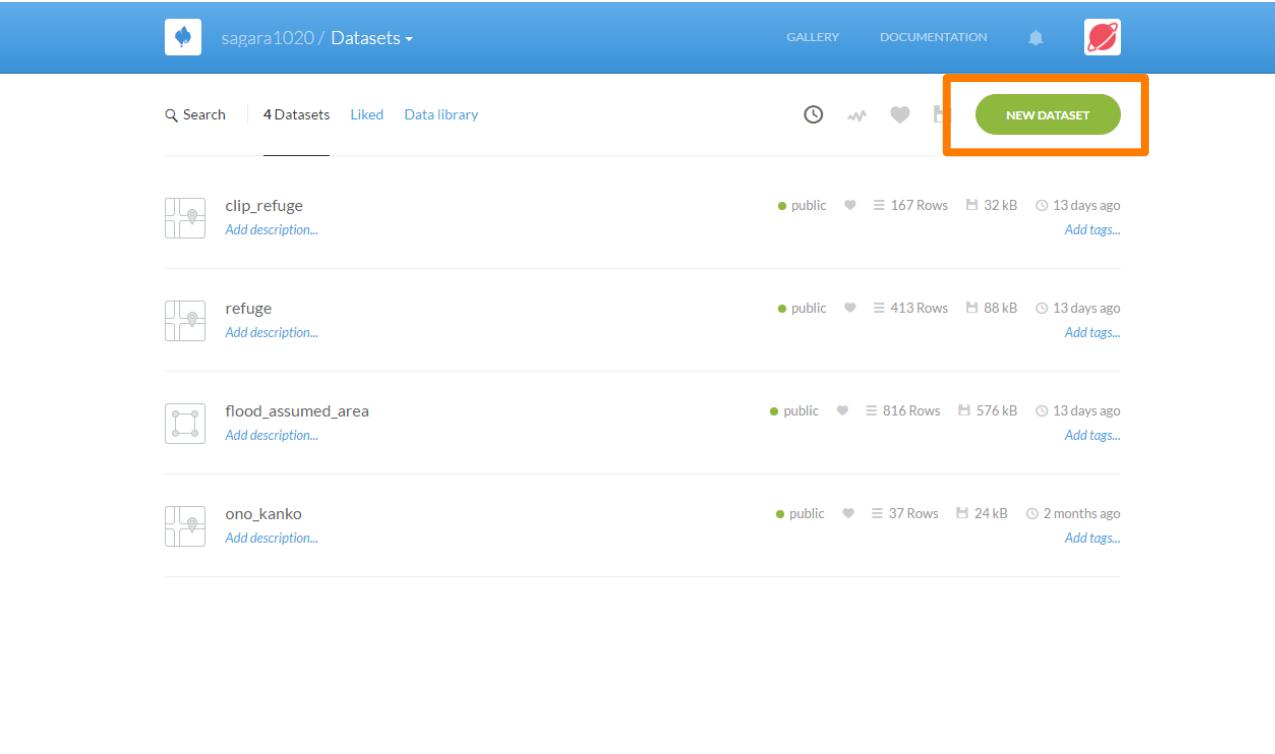
10 km



読み込み完了 - ノード: 9643, ウェイ: 838, リレーション: 1  
表示中 - POI: 0, ライン: 0, ポリゴン: 837



# Carto DBでWebMapを作成する



The screenshot shows the Carto DB interface for managing datasets. At the top, there's a blue header bar with the user name 'sagara1020 / Datasets'. Below the header, there are navigation links for 'GALLERY', 'DOCUMENTATION', and a bell icon. A prominent green button labeled 'NEW DATASET' is highlighted with an orange border. The main content area displays four datasets listed vertically:

- clip\_refuge**: A public dataset with 167 rows, 32 kB, and was created 13 days ago. It has an 'Add tags...' link.
- refuge**: A public dataset with 413 rows, 88 kB, and was created 13 days ago. It has an 'Add tags...' link.
- flood\_assumed\_area**: A public dataset with 816 rows, 576 kB, and was created 13 days ago. It has an 'Add tags...' link.
- ono\_kanko**: A public dataset with 37 rows, 24 kB, and was created 2 months ago. It has an 'Add tags...' link.

At the bottom of the page, there's a 'Community support' section featuring a person icon and text: 'For all technical questions contact our community support forum. If you experience any problem with the CartoDB service, feel free to [contact us](#)'. There's also a 'COMMUNITY SUPPORT' button.

sagara1020 / Datasets ▾

GALLERY DOCUMENTATION 🔔

SEARCH 5 Datasets Liked Data library NEW DATASET

export Add description... ● public ❤️ 837 Rows 324 kB a few seconds ago Add tags...

clip\_refuge Add description... ● public ❤️ 167 Rows 32 kB 13 days ago Add tags...

refuge Add description... ● public ❤️ 413 Rows 88 kB 13 days ago Add tags...

flood\_assumed\_area Add description... ● public ❤️ 816 Rows 576 kB 13 days ago Add tags...

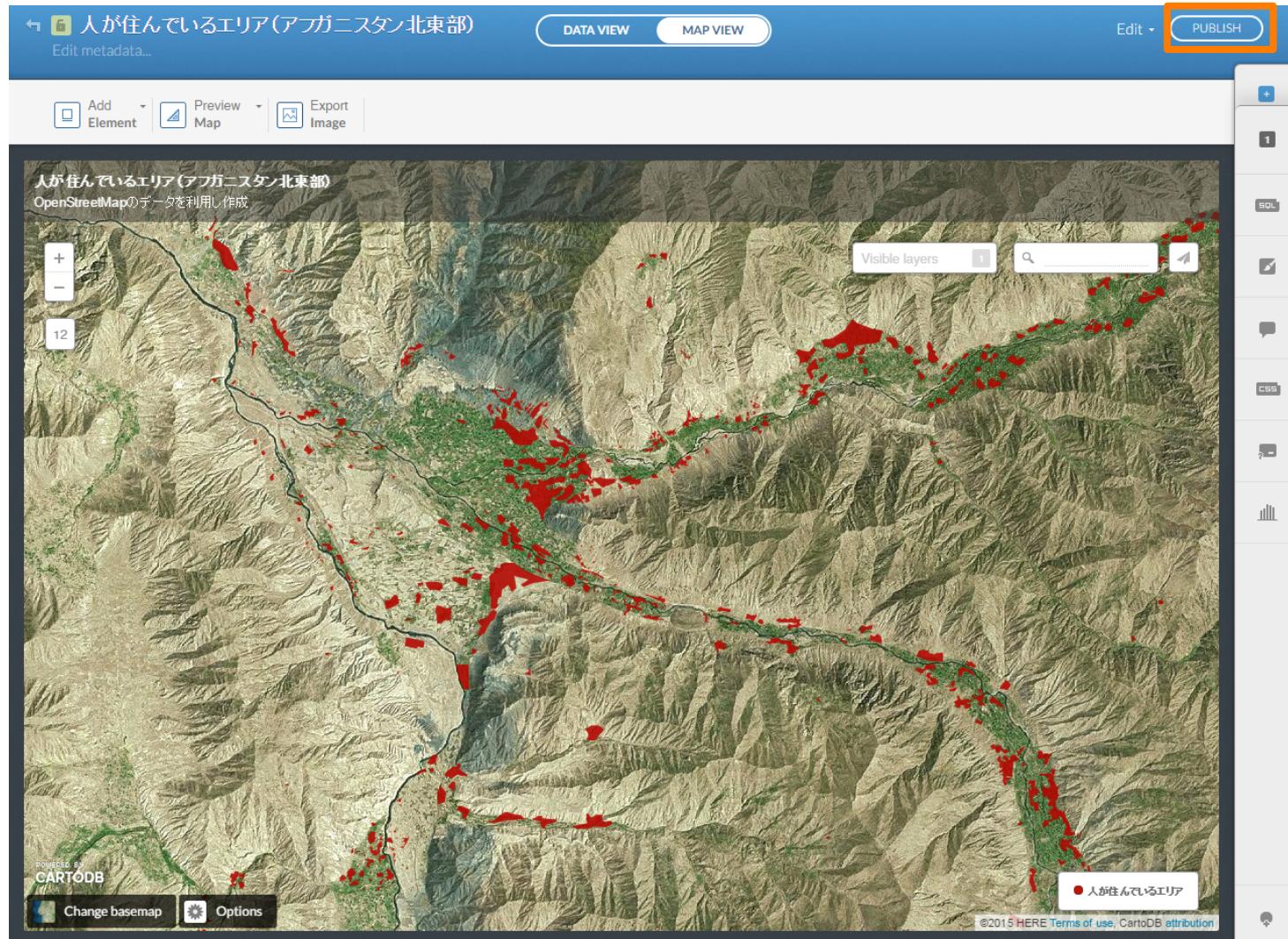
ono\_kanko Add description... ● public ❤️ 37 Rows 24 kB 2 months ago Add tags...

Community support

For all technical questions contact our community support forum.

If you experience any problem with the CartoDB service, feel free to [contact us](#).

COMMUNITY SUPPORT





Publish your map

Share the link, embed it in your website or develop a cartodb.js application with it.

---

 Get the link

Share it with your friends or co-workers, or post it in your social networks.

<http://bitly/1OetO4d>

 Embed it

Publish your map on your blog or website.

[Go to your map](#)

<iframe width="100%" height="520" fram

 CartoDB.js

Add your map to your applications by using this URL.

[Read more](#)

<https://sagara1020.cartodb.com/api/v2/vi>

CANCEL

CARTODB

Change basemap

Options

人が住んでいるエリア

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PRODUCT ▾

SOLUTIONS ▾

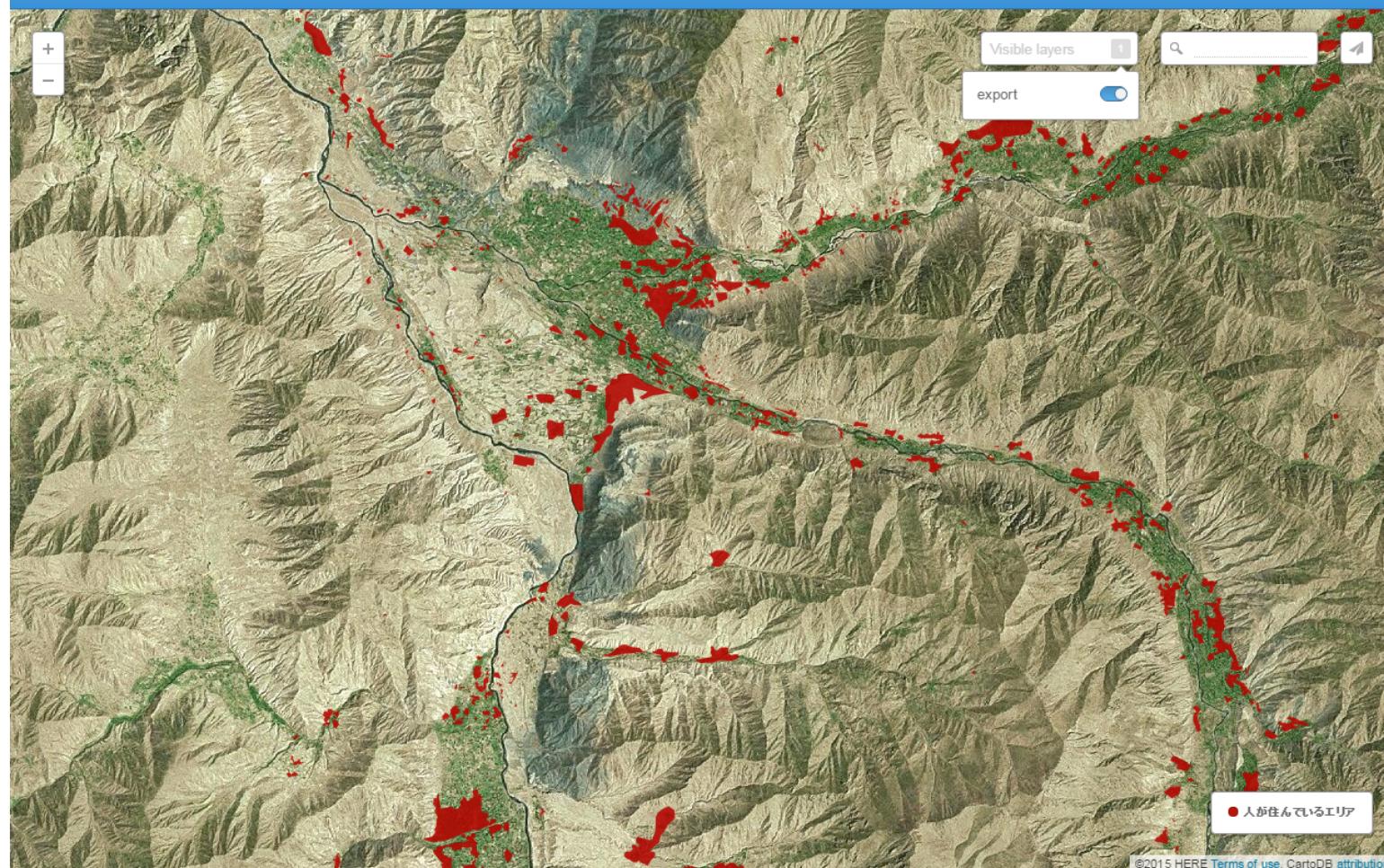
DISCOVER ▾

LEARN ▾

PRICING

MAPS

DATASETS



SAGARA1020 &gt; MAPS



EDIT IN CARTOBOX