

# The maps that saved lives during Kerala floods

**Manoj Karingamadathil**

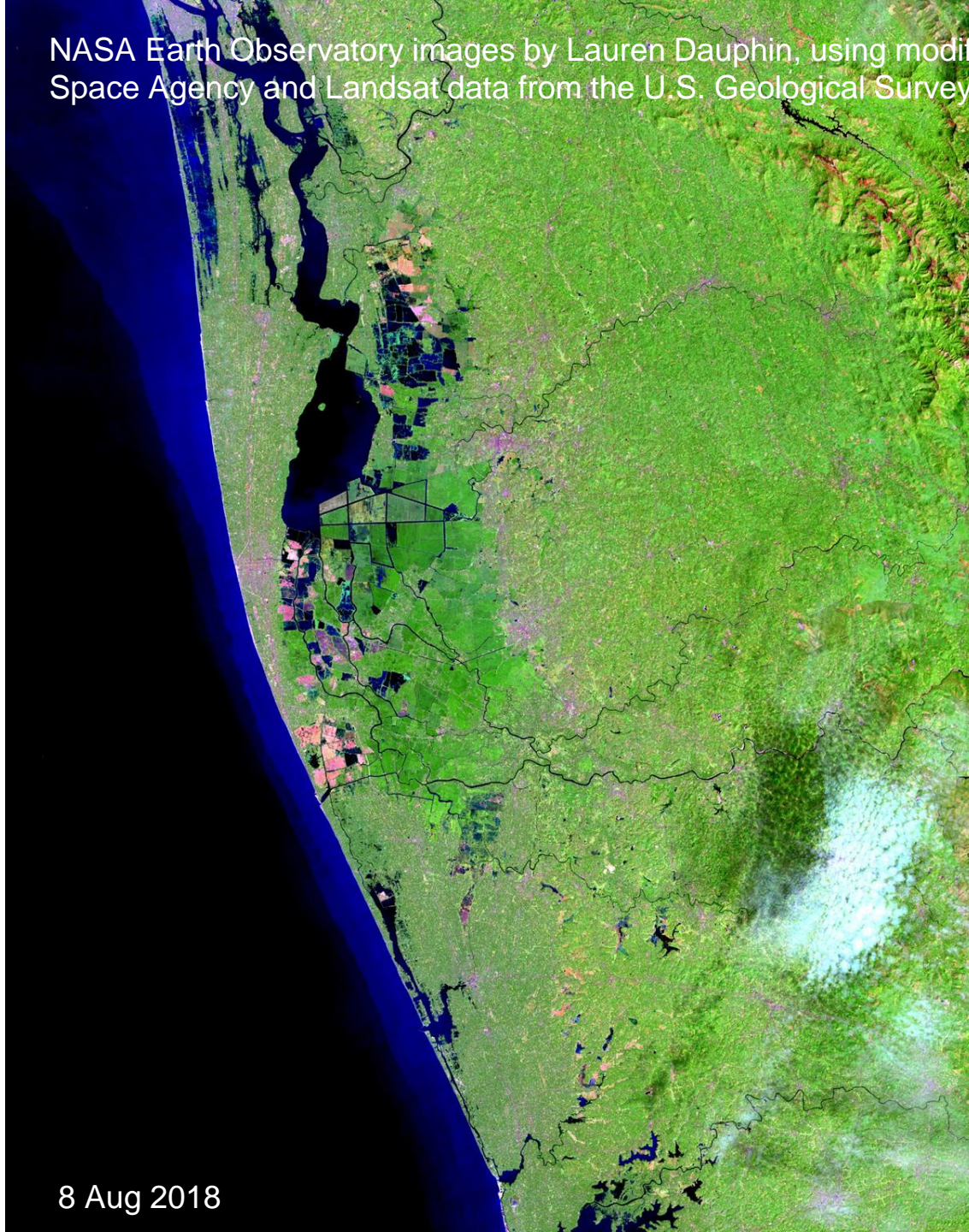
OpenStreetMap Kerala  
Swathanthra Malayalam Computing



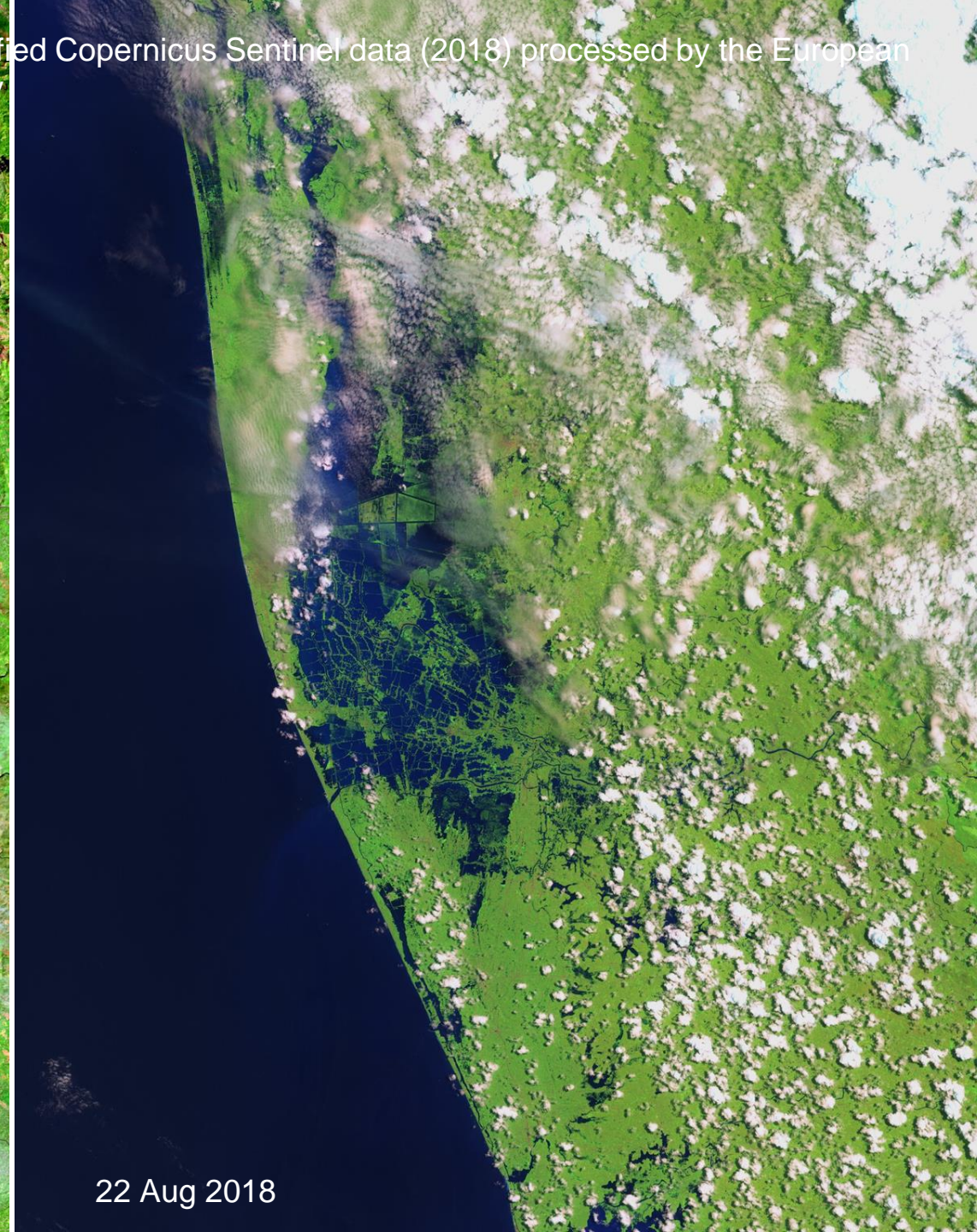
Total Rainfall (cm)



NASA Earth Observatory images by Lauren Dauphin, using modified Copernicus Sentinel data (2018) processed by the European Space Agency and Landsat data from the U.S. Geological Survey



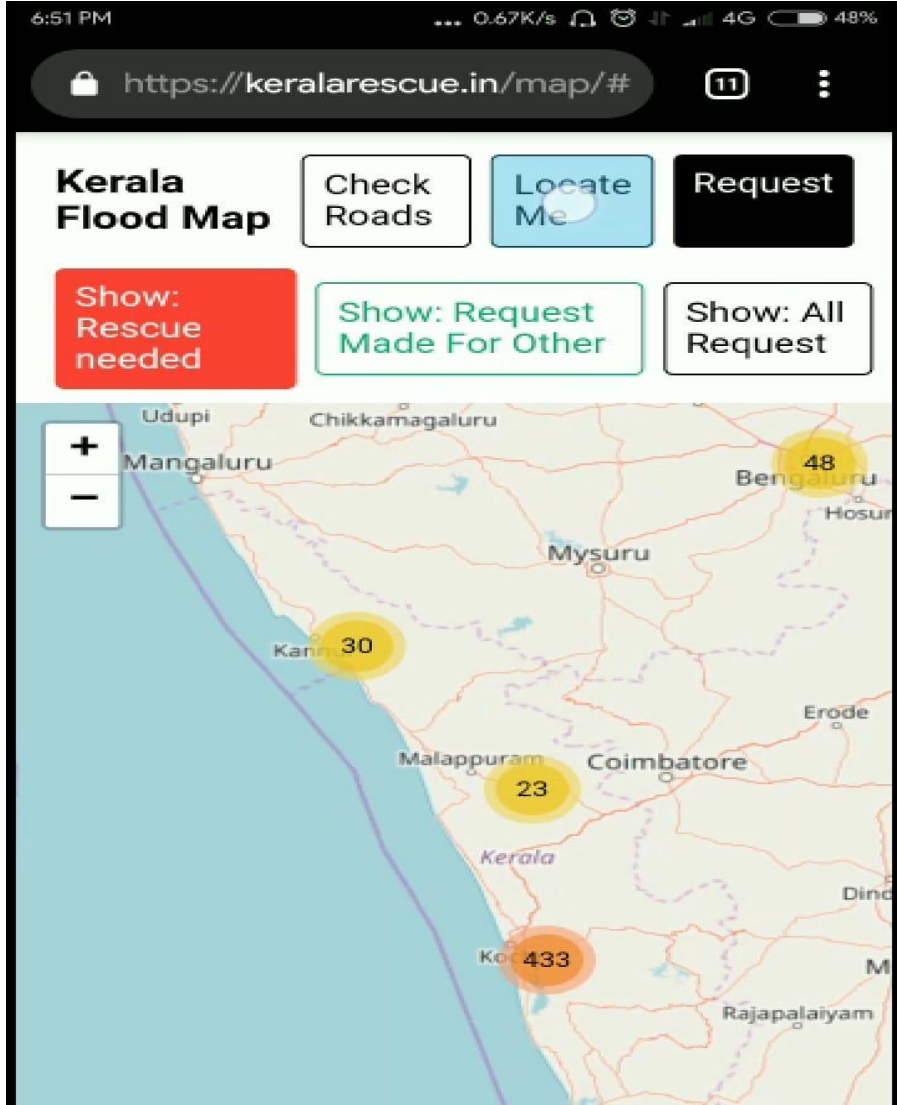
8 Aug 2018



22 Aug 2018



Source: SNC Initiates Operation 'Madad' in Kerala  
[Indian Navy](#)



<https://keralarescue.in/map/>

# Flooded Streets

## Kerala

1273 flooded streets in this region.

This is a crowdsourced effort to map inundated roads in Kerala. All the data is open source.

### How-To ?

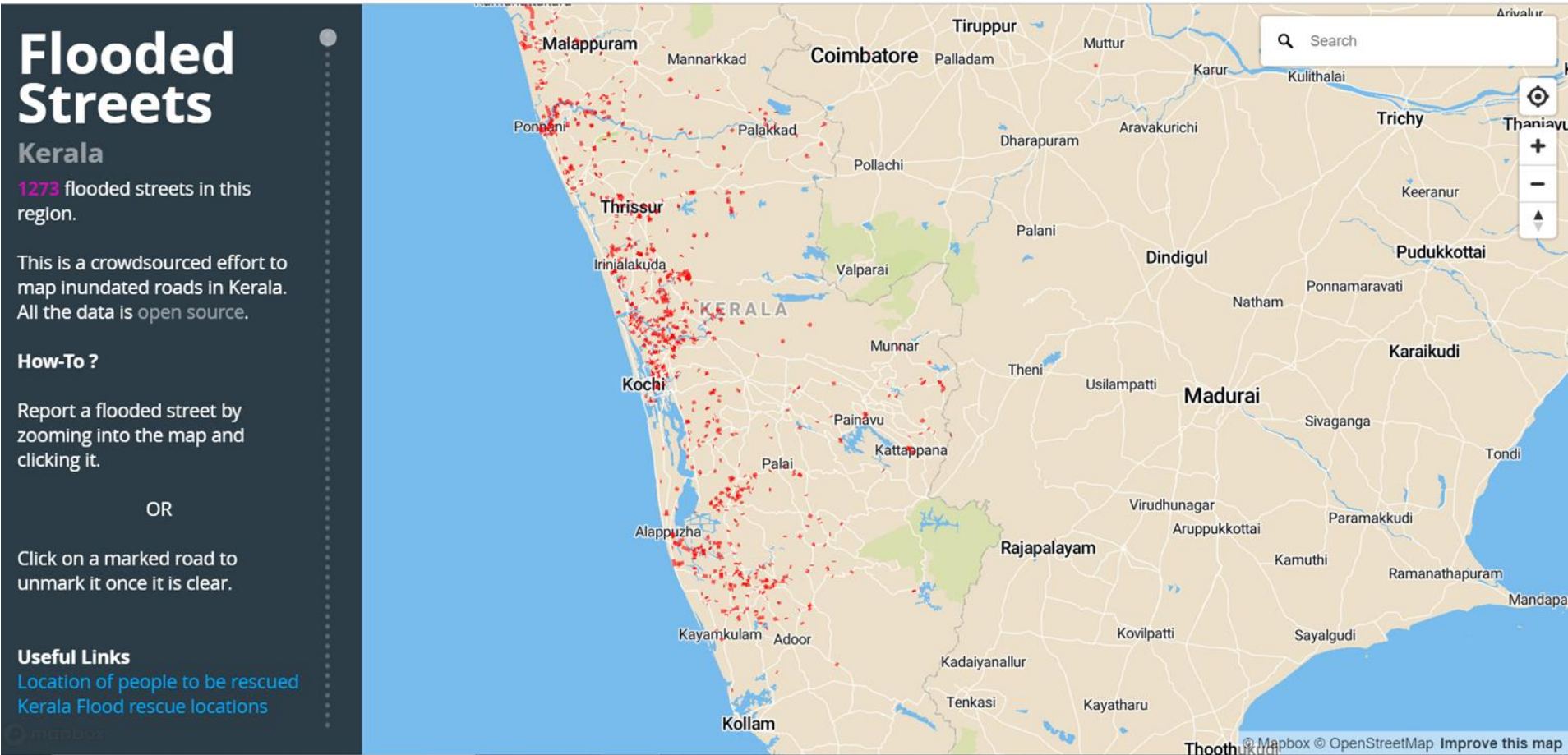
Report a flooded street by zooming into the map and clicking it.

OR

Click on a marked road to unmark it once it is clear.

### Useful Links

[Location of people to be rescued](#)  
[Kerala Flood rescue locations](#)



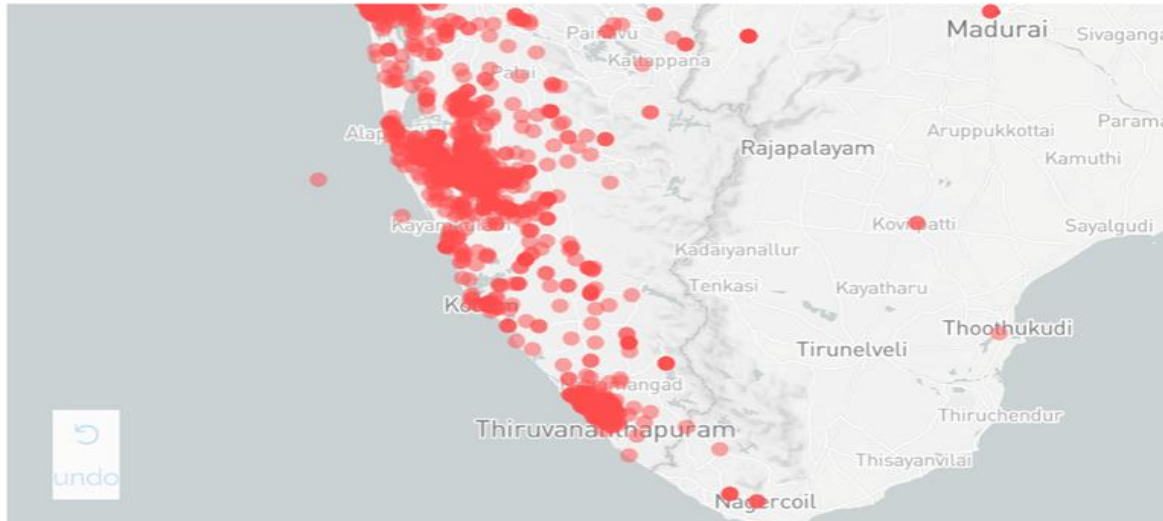
<https://www.microid.in/keralaflood/>

[Click here for Rescue Dashboard](#) || [Click here for Relief Camps Dashboard](#)

## Kerala Rescue Dashboard (Data updated on August 22, 2018 at 10:29)

✕ Need Rescue

All  Requested within last 3 hours  Requested today  Requested from yesterday  Old requests



Requests by District (Click to see detailed location in bottom graph)

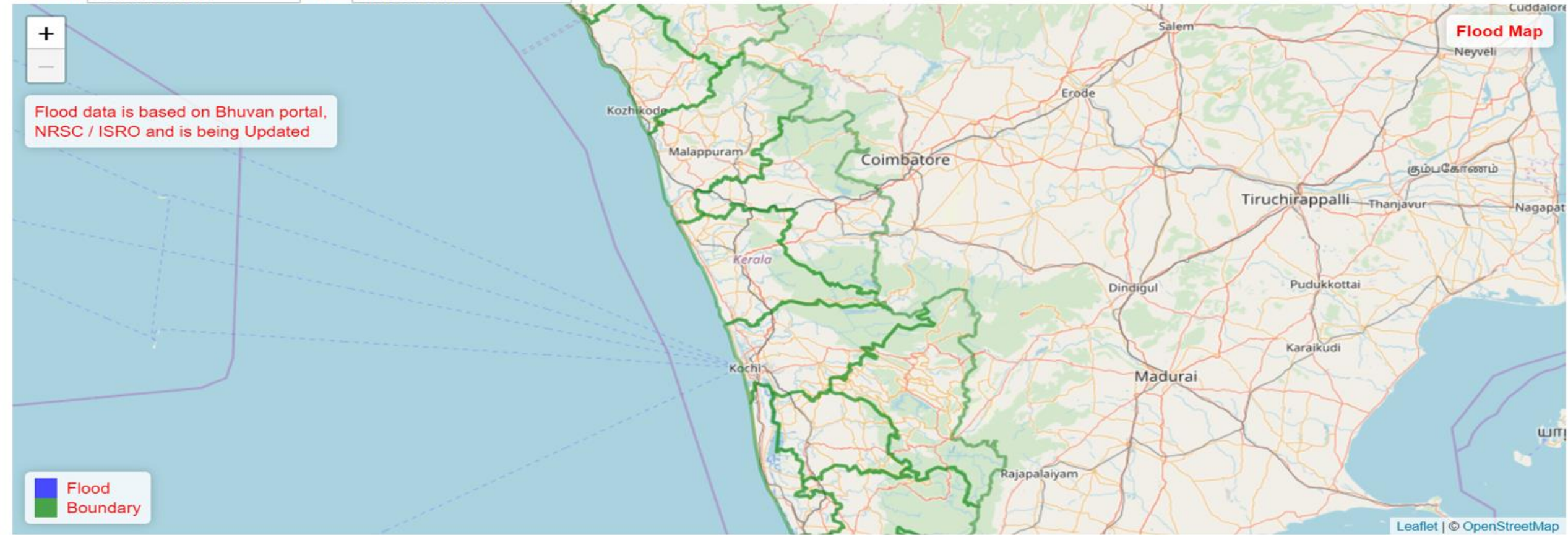


<https://process.keralarescue.in/>

**District**  **Date**

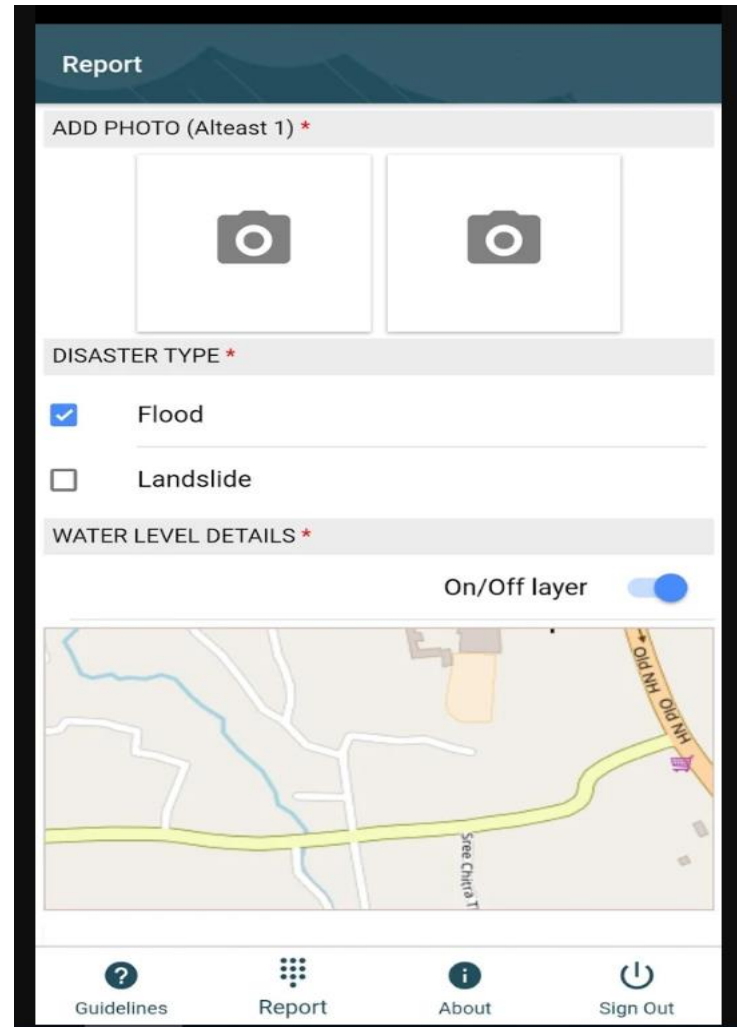


Flood data is based on Bhuvan portal, NRSC / ISRO and is being Updated

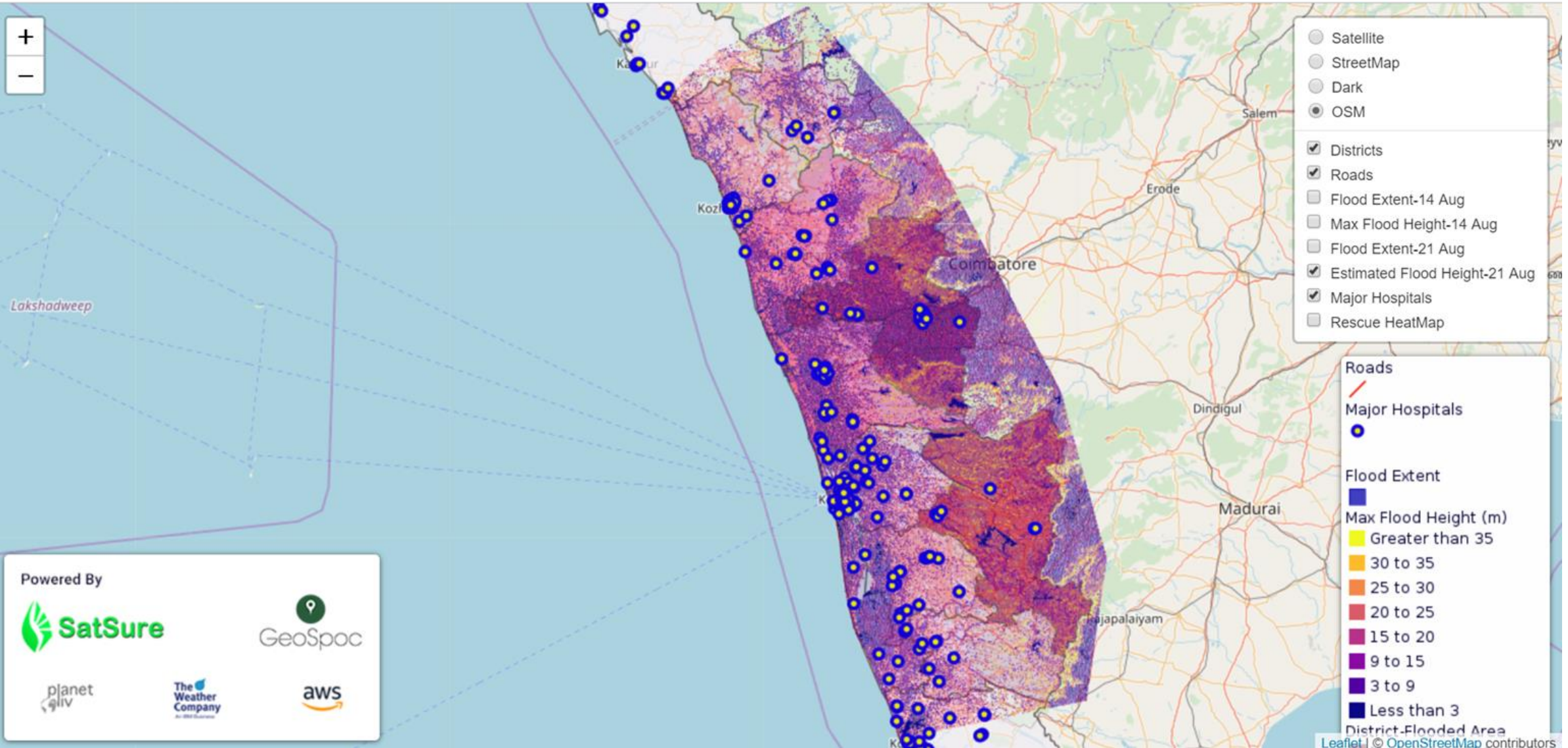


Post Flood:- [KSREC Kerala Flood](#)  
[https://kerala.gov.in/documents/10180/668459/KC\\_OCT%202018](https://kerala.gov.in/documents/10180/668459/KC_OCT%202018)





Kerala Floods 2018 Mobile App uses OSM base map  
<https://play.google.com/store/apps/details?id=org.ksdma.app>

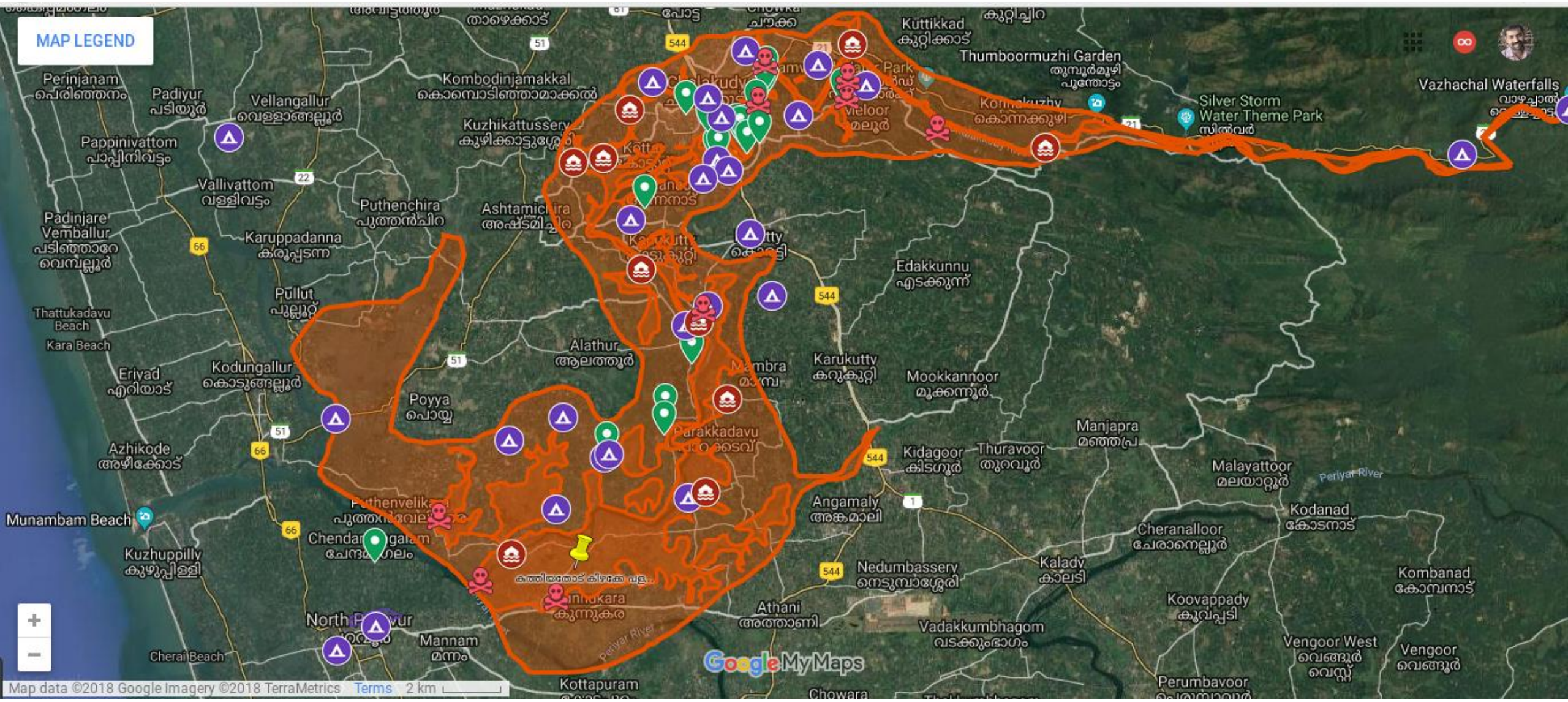




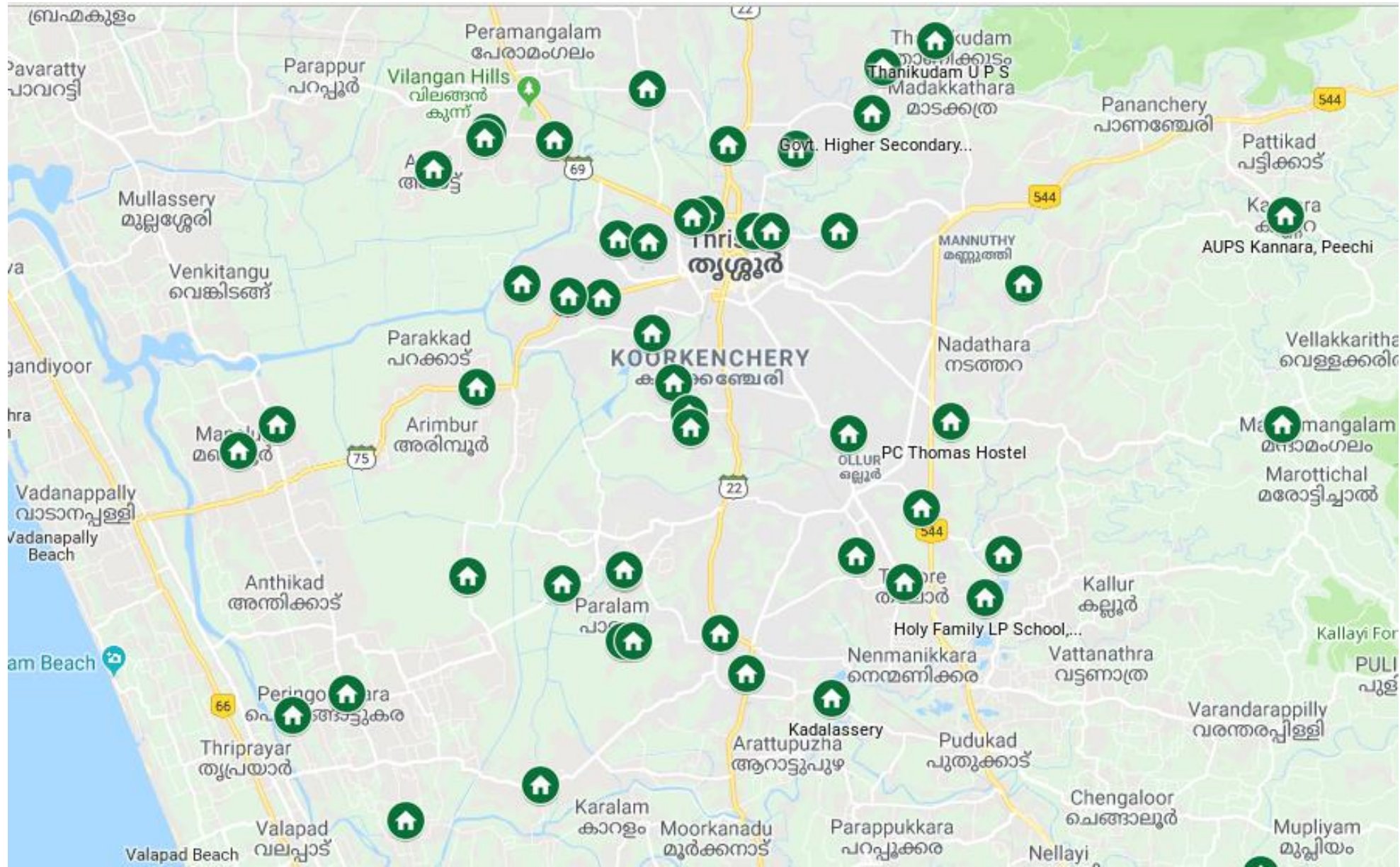
**HDX**  
Humanitarian  
Data Exchange

- [https://data.humdata.org/dataset/hotosm ind south roads](https://data.humdata.org/dataset/hotosm%20ind%20south%20roads)
- [https://data.humdata.org/dataset/hotosm ind south buildings](https://data.humdata.org/dataset/hotosm%20ind%20south%20buildings)
- [https://data.humdata.org/dataset/hotosm ind south waterways](https://data.humdata.org/dataset/hotosm%20ind%20south%20waterways)
- [https://data.humdata.org/dataset/hotosm ind south points of interest](https://data.humdata.org/dataset/hotosm%20ind%20south%20points%20of%20interest)

# Crowdsourcing Maps - Chalakudy River




# Community Relief camps, Resource Mapping



# ODK Collect, Kobo Toolbox

https://ee.humanitarianresponse.info/x/#ZeGdN1Zw 80% തിരയുക

KoBo Toolbox 

## Kerala Flood Map 2018

\* Place നാമം

\* GPS Co-ordinate  
*GPS coordinates can only be collected when outside.*


latitude (x,y °)

longitude (x,y °)

altitude (m)

accuracy (m)

search for place or address



# “free maps” -- Issues

The screenshot shows a web browser window with the URL <https://rebuild.lsgkerala.gov.in>. The page features a dark sidebar on the left with navigation options: Home, Damage | Approved, Volunteer Statistics, Map, Search, Reports, and Log in. The main content area has a search form with three dropdown menus: District (Thrissur), Local Body Type (Municipality), and Local Body (Chalakkudy). A green search button is located below the form. Below the search form is a section titled "Application Details - Map" which contains a map of Tamil Nadu. A white error dialog box is overlaid on the map, displaying the text: "Google This page can't load Google Maps correctly. Do you own this website? OK". The map shows various cities in Tamil Nadu, including Chennai, Coimbatore, and Tiruchirappalli.

<https://rebuild.lsgkerala.gov.in/>

**OSM Contributions !!!**



39 Volunteers,

4,404

Edits

2,799

Buildings

118 km

Roads



## OpenStreetMap Mapathon



Humanitarian  
OpenStreetMap  
Team



Free Software  
users group  
THRISSUR





Manoj Karingamadathil

# Kerala Floods 2018

## Humanitarian mapping



Humanitarian  
OpenStreetMap  
Team

HOT is an international team dedicated to humanitarian action and community development through open mapping.

Project No.	Location	What to map	Mapping status	Validation status
<b>Active projects</b>				
<a href="#">Project 5170</a>	South of Kochi	Roads,Buildings	Doing (43%)	Doing (0%)
<a href="#">Project 4987</a>	Wayanad, Kerala	Roads,Buildings	Doing (21%)	Doing (0%)
<a href="#">Project 5003</a>	Pathanamthitta, Kerala	Roads,Buildings	Doing (5%)	Doing (2%)
<a href="#">Project 5024</a>	Alleppey	Roads	Done (70%)	Done (28%)
<b>Complete/archived projects</b>				
<a href="#">Project 5010</a>	North of Kochi 02	Roads,Buildings	Done (100%)	Doing (33%)
<a href="#">Project 5026</a>	North of Kochi 03	Roads,Buildings	Done (100%)	Doing (66%)
<a href="#">Project 4986</a>	Idukki, Kerala	Roads,Buildings	Done (100%)	Done (21%)
<a href="#">Project 5009</a>	North of Kochi, Kerala	Roads,Buildings	Done (100%)	Done (1%)
<a href="#">Project 5025</a>	Alleppey	Buildings	Done (100 %)	Done (100%)

# Kerala Floods 2018

## Humanitarian mapping



Humanitarian  
OpenStreetMap  
Team

### India floods Stats

(includes Nagaland and Croog Flood Mapping efforts)

**2200** volunteers.

**453,421** Total Edits

**4,26,908** Buildings

**9,453** km Roads

# Facebook's Kerala Road Import via AI/ML



**Quick to help. One Month long effort**

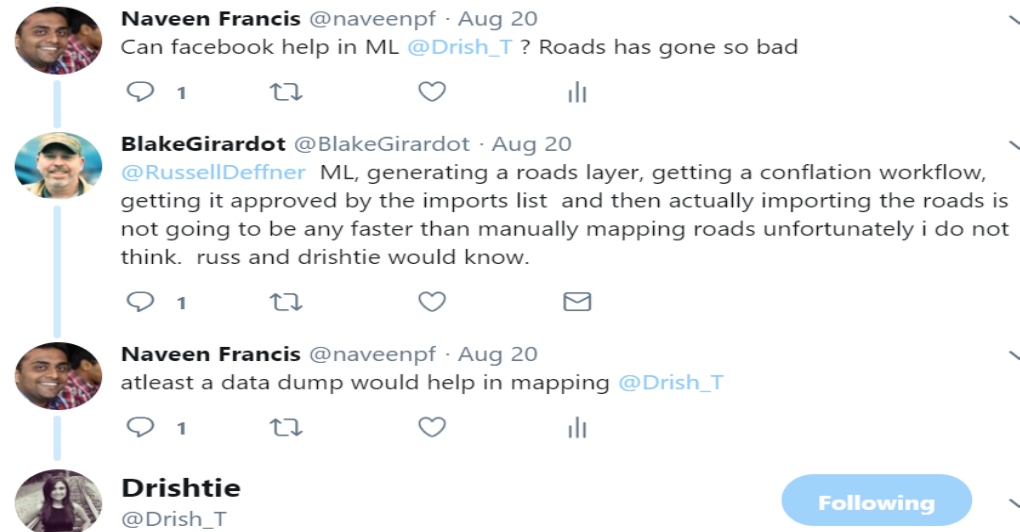
52,369 Total Edits

1,302 Buildings

13,143km Roads

For more details :-

[https://wiki.openstreetmap.org/wiki/Kerala\\_Road\\_Import](https://wiki.openstreetmap.org/wiki/Kerala_Road_Import)

A screenshot of a Twitter thread. The thread starts with a tweet from Naveen Francis (@naveenpf) asking if Facebook can help with ML for road mapping. Blake Girardot (@BlakeGirardot) replies, explaining the process of generating a roads layer and importing it. Naveen Francis replies that a data dump would help. Drishtie (@Drish\_T) replies with a 'Following' button.

**Naveen Francis** @naveenpf · Aug 20  
Can facebook help in ML @Drish\_T ? Roads has gone so bad

**BlakeGirardot** @BlakeGirardot · Aug 20  
@RussellDeffner ML, generating a roads layer, getting a conflation workflow, getting it approved by the imports list and then actually importing the roads is not going to be any faster than manually mapping roads unfortunately i do not think. russ and drishtie would know.

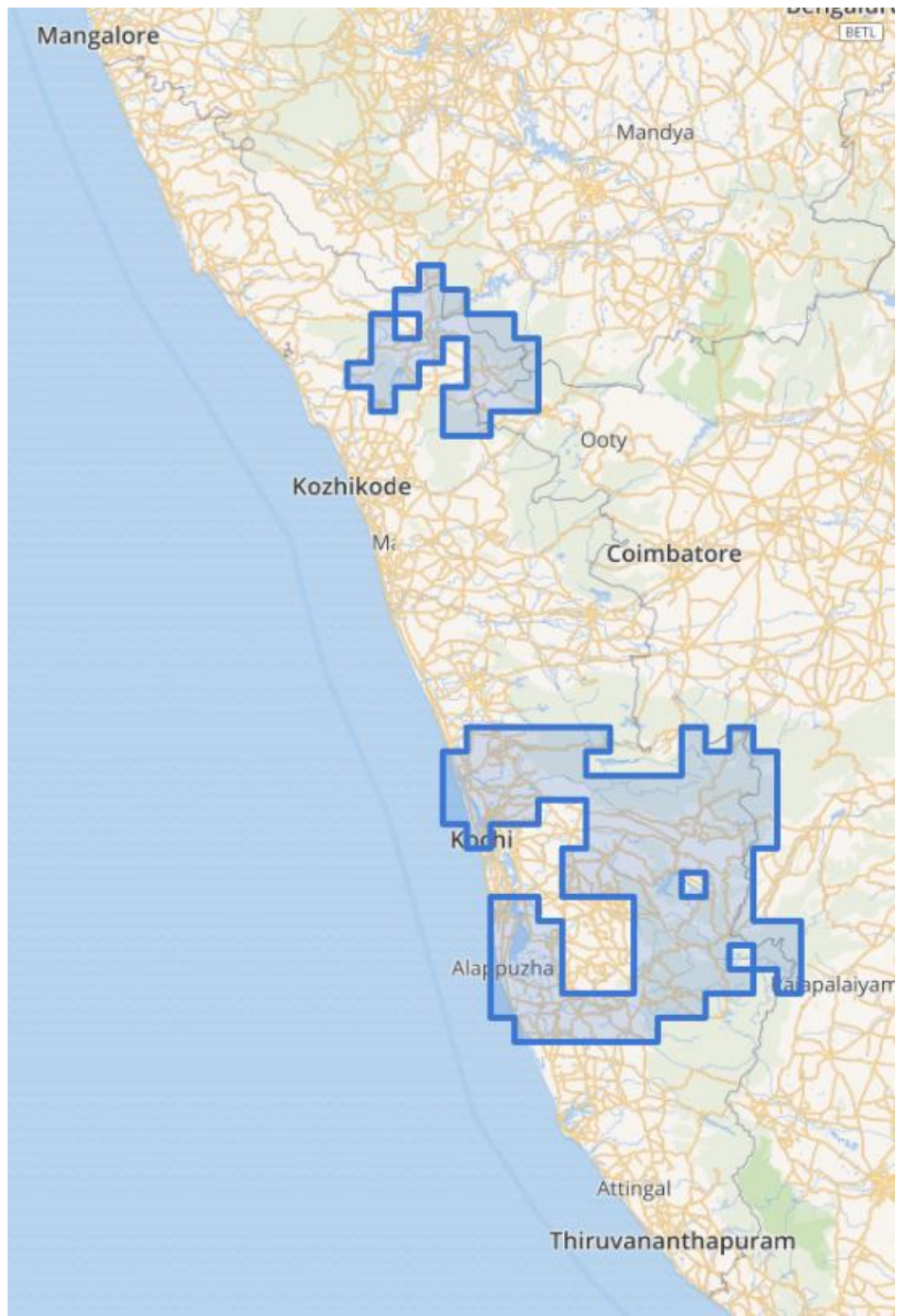
**Naveen Francis** @naveenpf · Aug 20  
atleast a data dump would help in mapping @Drish\_T

**Drishtie** @Drish\_T  
Following

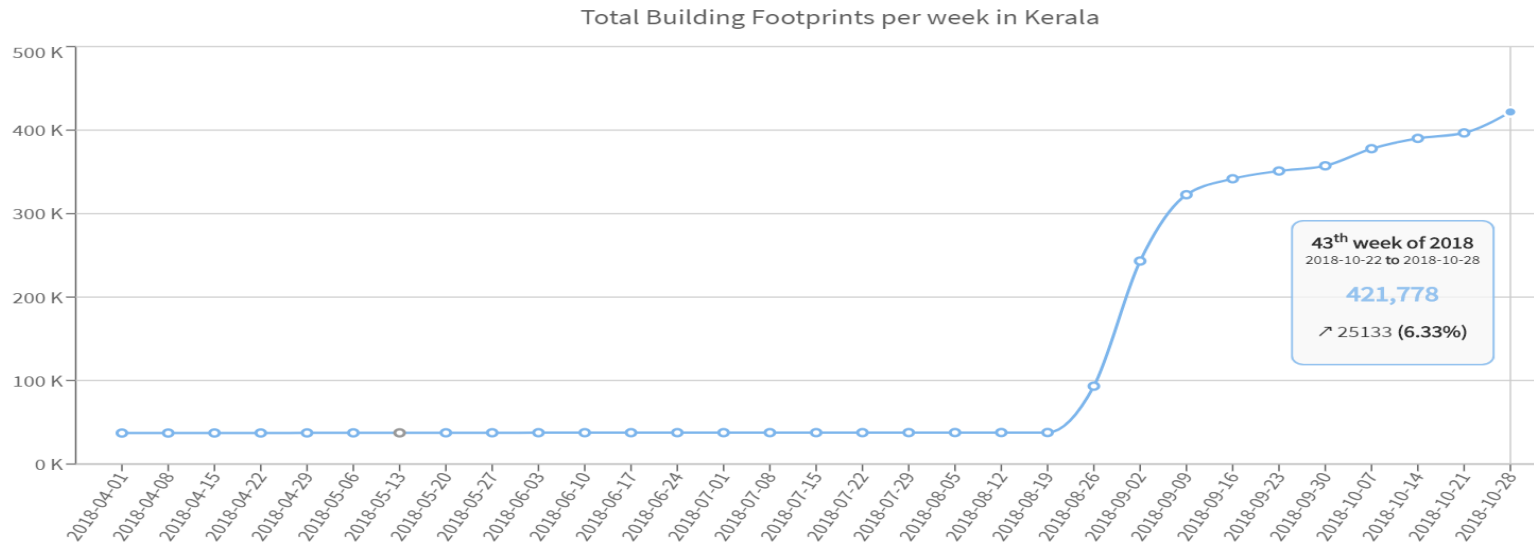
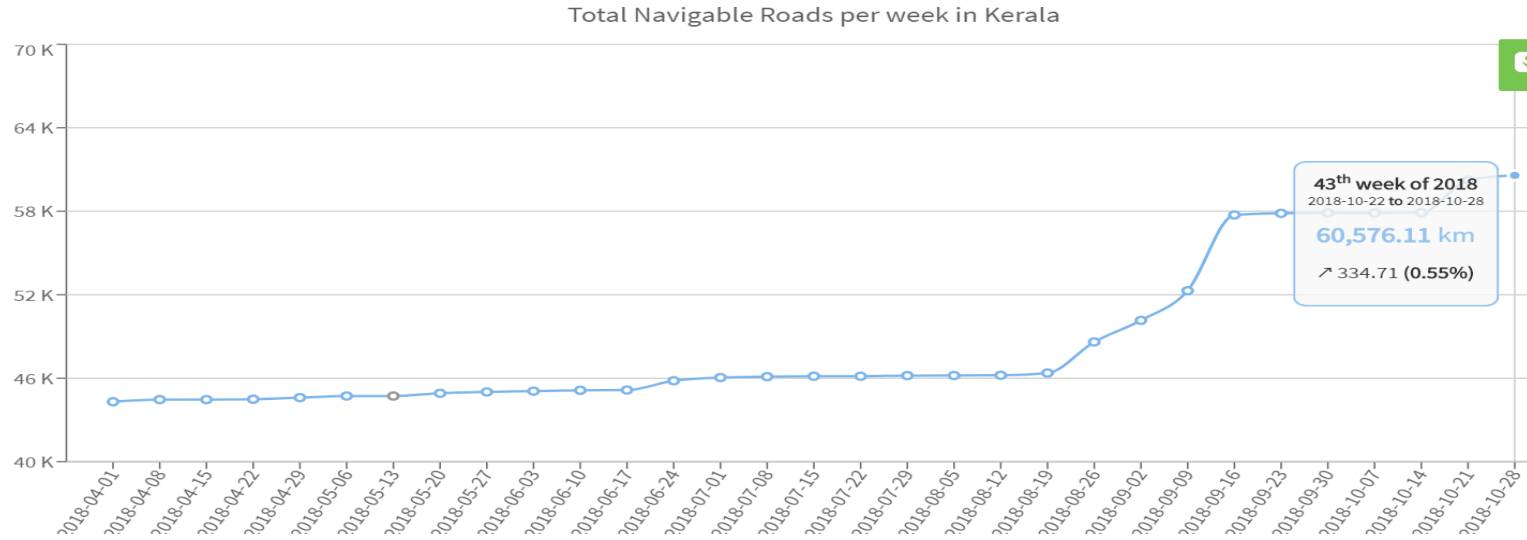
Replying to @naveenpf @BlakeGirardot and 5 others

Hey we are looking into it right now. Will keep you posted.

2:31 AM - 20 Aug 2018



# Stats



**15000 Kms Road, About 4 Lakh Buildings**

Thank You