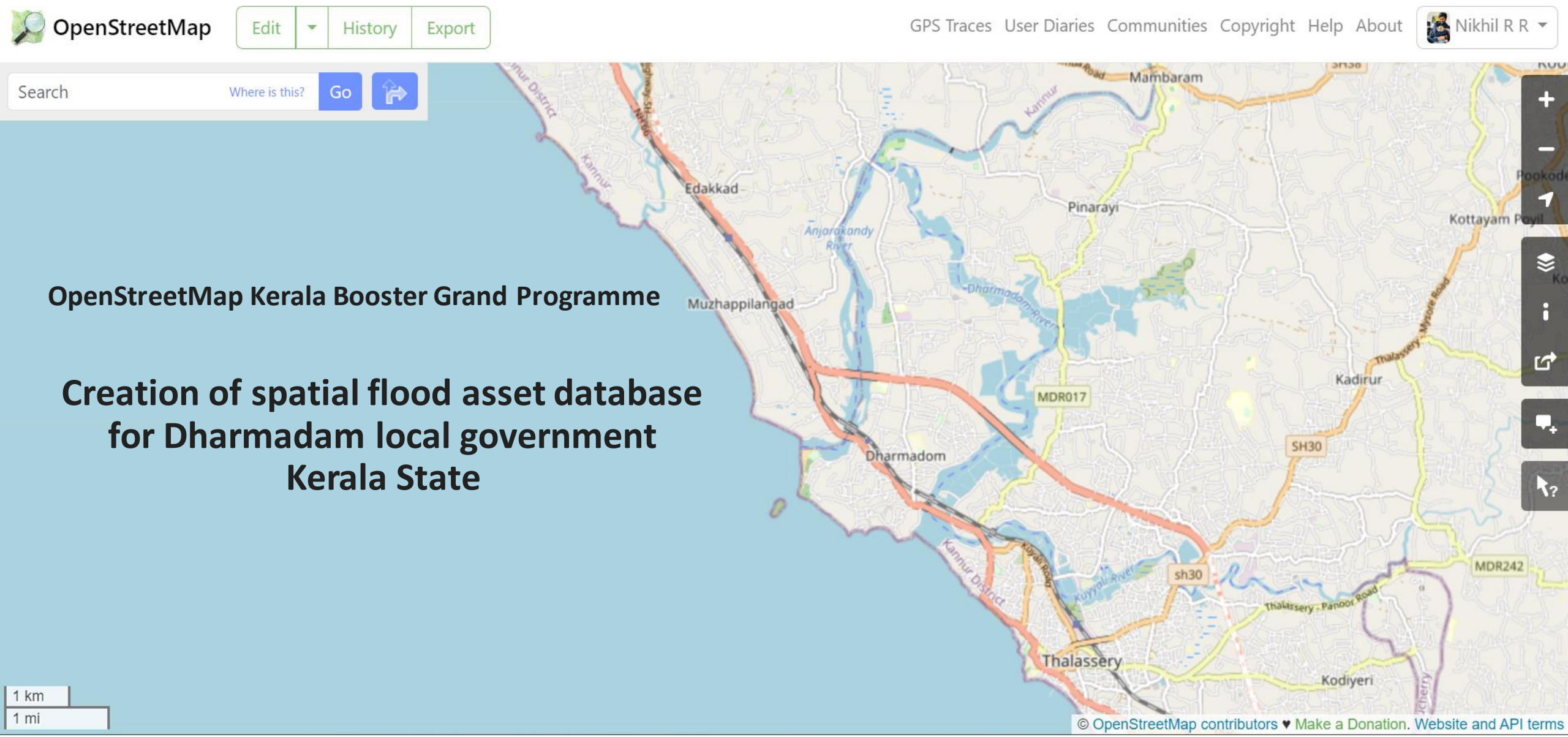


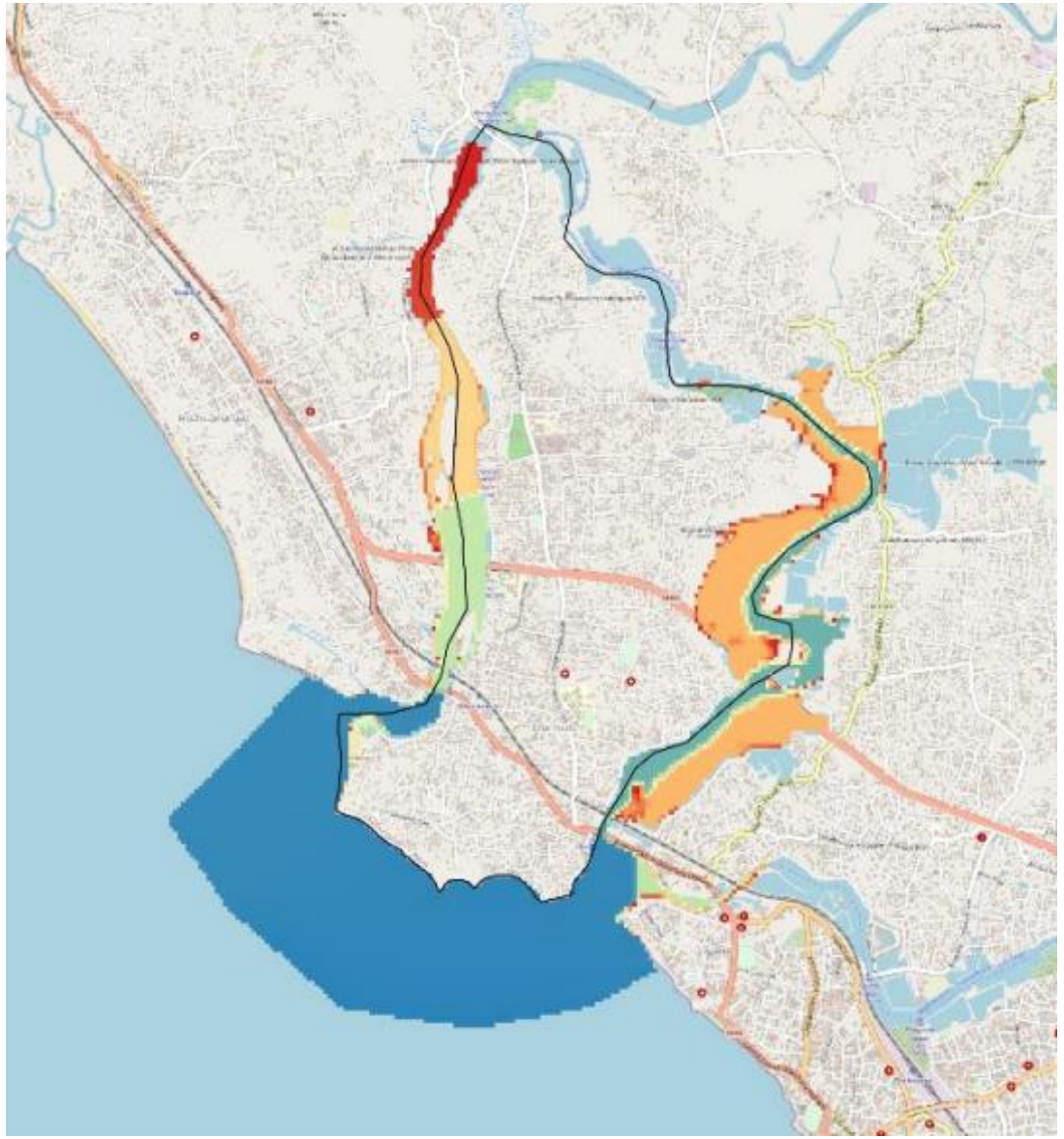
OpenStreetMap Kerala Booster Grand Programme

Creation of spatial flood asset database for Dharmadam local government Kerala State

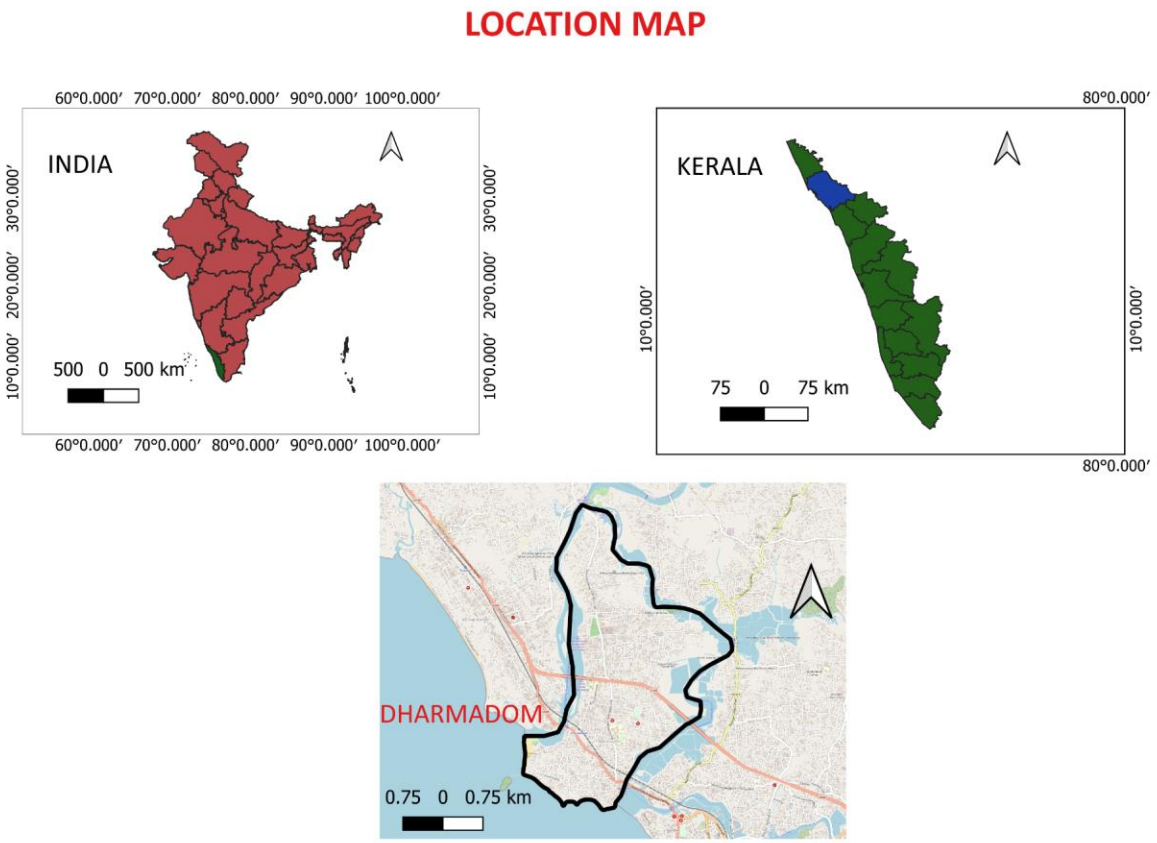
OSMKerala Community Meetup 2023

Background

- Harnessing coastal flood risk with mangroves: A Hydrodynamic Modelling Case Study of Dharmadom Local Government, India using HEC-RAS 6.3.1, and QGIS 3.28.8.
- Proposal: Flood assets
- Pudussery Grama Panchayat Mapping



About the project



Dharmadom Local Government, Kannur, Kerala

Suggested features to be mapped during the project

- Water bodies:These features can play a role in flood management by storing excess water during heavy rainfall
- Wetlands: Wetlands can act as natural flood barriers by absorbing and storing large amounts of water
- Mangroves: Mangroves can help reduce the impact of coastal flooding by dissipating wave energy and reducing erosion.
- Flood protection infrastructures: These features can help prevent flooding by blocking or redirecting floodwaters.
- Drainage infrastructure: These features can help reduce the risk of flooding by directing excess water away from populated areas.

- Propose a new tag **flood_assets** in OpenStreetMap to represent assets that provide flood defense or coastal protection functions.
- Maps the flood assets (man-made and natural) in Dharmadom Local Government, Kerala State, India.
- Creates a comprehensive database of flood defense assets.
- Makes it easier to use this information for disaster resilience and adaptation planning.
- Aims to improve local disaster resilience and adaptation planning by providing a spatial flood defense layer for Dharmadom Local Government using this new tag.
- Use of flood asset data in hydrodynamic models

Target Project Outcomes

- Relate any asset (man-made and natural) that provides flood defense or coastal protection functions in Dharmadom Local Government in the OpenStreetMap
- Propose a new tag for flood_asset in the OpenStreetMap
- Create a spatial flood defense layer for Dharmadom Local Government using this new tag
- Improve local disaster resilience and adaptation planning by providing a comprehensive database of flood defense assets

Target Project Output

- Flood_asset tag
- Open Spatial Flood Asset Map

Stage 1: Planning and Preparation

- Develop a data collection plan, including identification of data sources and methods for data collection.
- Initial Field Visits

Stage 2: Data Collection

- Conduct a half-day mapathon event with volunteers to map features using satellite imagery in the tasking manager.
- Conduct field surveys to collect data on flood assets in Dharmadom local government.
- Organise and clean collected data.

Stage 3: Data Analysis and Mapping

- Develop a spatial database of flood assets in Dharmadom local government
- Create maps and visualizations to display flood asset data
- Submit proposal for new OSM tag for flood assets to the OSM community for review and approval

PROJECT TEAM

- **Members**

- Nikhil R R
- Charesh C K
- Sachin Chandran

- **Supporting Organisation**

- Sahya Foundation

- **Facilitating Organisation**

- Geominds

Field Visit
05 August 2023

Field Visit
24 September 2023

Send your feedback!