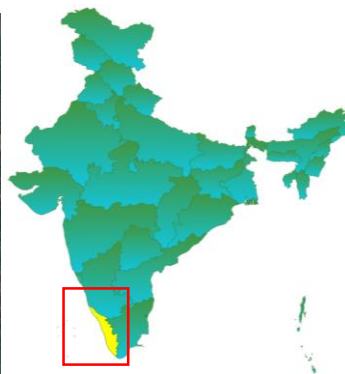
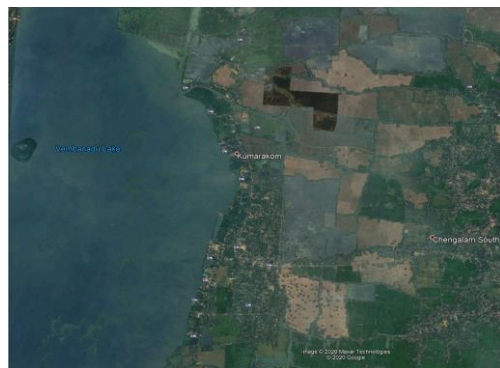
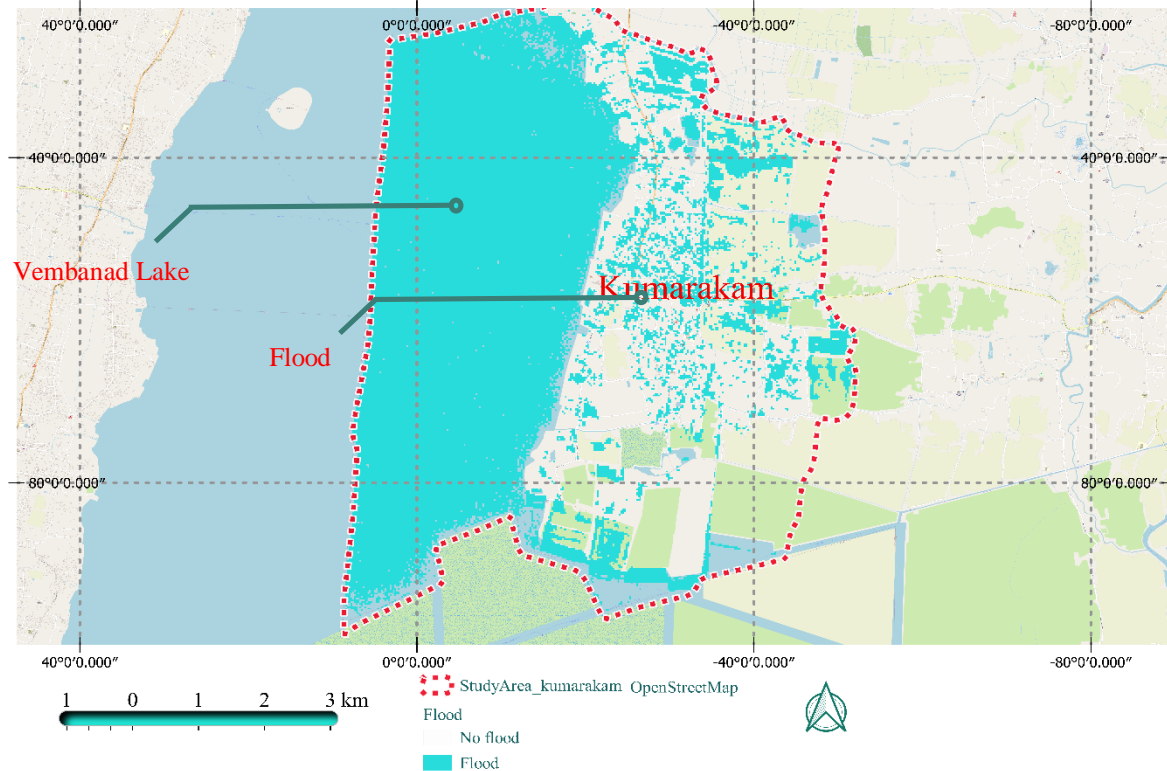


Flood map of kumarakkam village, Kottayam district, Kerela



Map Description and Analysis

Introduction:

Kumarakom is a village situated on back waters of Kerala, Vembanad lake in the district of Kottayam. It is having elevation range of 1-2 m from the MSL which makes it more prone to flooding during monsoon season. This study showed the inundated area in the village in the month of December, 2017 where there is minute flooding because of heavy rain fall.

About the map:

The following map shows the flooded water that are retained in the area during the month of December 2017. It includes the Vembanad lake and nearby inundated areas in the village of kumarakom. The village is spread across 54.77 Sq.Km approximately out of which 35.085 sq.km is shown as water.

Methodology:

The map is prepared from Resourcesat-2, LISS-III sensor, which acquires data in Green, Red, NIR and SWIR bands. To extract the waterbodies, 2 images pre and post flood are taken, one on April 2017 and the other in the month of December 2017. The Normalized Difference Water Index is calculated and threshold is applied to get the water bodies out. To calculate the inundated area, the post flooded image is subtracted from pre flood to yield the flooded areas.

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