

**BUTUANON RIVER**  
**RIVERSCAN CHALLENGE 2025**



**UNIVERSITY *of***  
**SAN CARLOS**  
SCIENTIA • VIRTUS • DEVOTIO

**MAXIMUM FLOOD HEIGHTS ASSESSMENT**

Submitted By:

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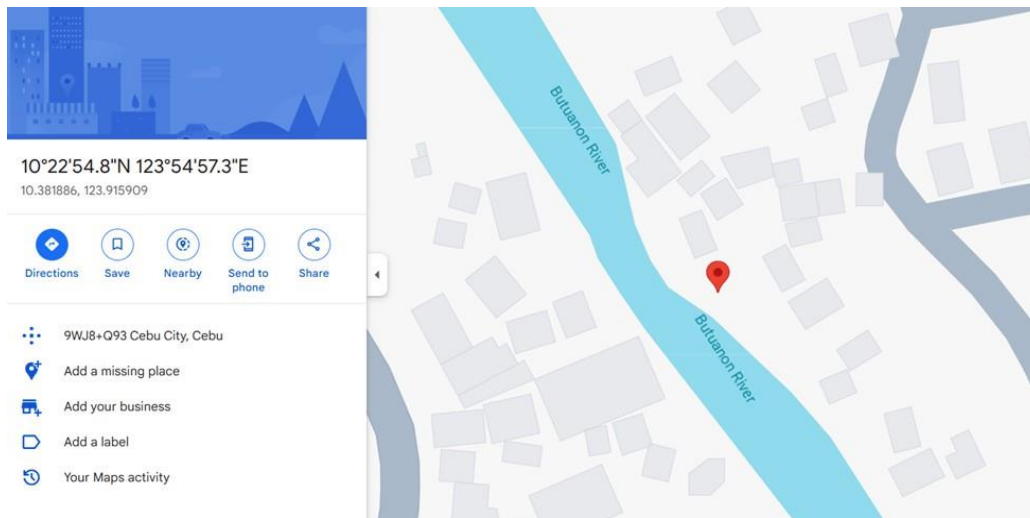
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## I. Location of the study

The researchers conducted fieldwork on Brgy. Bacayan, Sitio Common, Cebu City. The coordinates of the site where the team conducted the study are  $10^{\circ}22'54.8''\text{N}$   $123^{\circ}54'57.3''\text{E}$ . Barangay Bacayan has been prone to flooding due to improper waste disposal that affects the flow of the Butuanon River. Due to this problem, the team aimed to determine the flood height.



*Fig 1.1 Satellite View of Butuanon River*



*Fig 1.2 Georeference of the location*

## **II. Measurement of Maximum flood height:**

The fieldwork was done through a survey. The residents were interviewed and the maximum flood height of the location from the river was measured. Climatescan.org was also used to add the project to the location: <https://climatescan.org/projects/19327/detail>

Residents situated in the low-lying areas of the upstream parts of the Barangay had given the researchers an estimation of 420 cm from the ground to their household. Residents situated in areas with higher elevation had given an estimation of 320 cm.

The researchers have gathered information as well, from Brgy. officials on the maximum flood height of the location. The secretary of the Barangay, Janah Cabahug, relayed the information from the Brgy. Councilor that the maximum flood height is 600 cm.

The old riprap constructed was not effective enough for the community affected by the flood. That's why a new layer of riprap much higher than the old one was constructed. According to Brgy. Councilor, the new riprap is 600-700 cm high.



*Fig 2.1 The residents' estimation of flood height from the ground to their household*



*Fig 2.2 Measurement of new riprap is 200-250 cm*



*Fig 2.3 Measurement of old riprap in this area is 270 - 300 cm*