

# Review of: "A Research Note on Natural Reclamation Processes that Support Mangrove Biodiversity Spheres: Sedimentation in Three Major River Deltas in Northwestern Luzon Using Aerial Imagery"

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**Potential competing interests:** No potential competing interests to declare.

This is a paper using mapping, satellite images, and drone video to look at the possible growth of three river deltas in the coastal Philippines on the western shore of Luzon Island. The author used different spatial scales to delineate possible new sediment deposition, which is then related to mangrove habitat.

A couple of comments to help improve the current manuscript. The acronym Consumer Off the Shelf Remotely Piloted Aircraft Systems (COTS-RPAS) is not used routinely. I recommend you replace with the commonly used and readily understood terms of "drone" and Unmanned Aerial Vehicle (UAV).

The terms macro, meso, and micro scales are not defined or referenced. I recommend you add explicit spatial scales for each term.

Ground-truthing should also be done to validate the new sediment deposit areas. Quantitative vegetation surveys with high precision GPS would be good to show new vegetation where there was none before. Sediment cores to show stratigraphic changes with new silt heavy muds overlying marine sand/shell deposits would also be good to have.

You should provide additional details in the methods to answer these questions: How were the different shorelines from the two time points delineated? How was the data from the two time points correctly geo-rectified and transformed to a common coordinate system and geoid model? How was elevation used to infer land above vs. below the water line at the time of the image/map collection? What were the tidal datums used and how was this tied into known elevation benchmarks?

Not all maps are presented to the same scale, therefore, it is hard to compare across images to see exactly how the historical, present-day sediment, and mangrove vegetation features overlap. I recommend you rescale images and explicitly identify the inset images for the mangrove area maps.

I also strongly encourage you to consider the sediment addition be indicated on the 2013 image and not on the 1979 line drawn topo map. The new sediment area should be indicated by a polygon outline, so it is obvious on the 2013 satellite image what the new shoreline compared to the 1979 shoreline is.

I found that two of the three vegetation density images are incorrectly identified.

Fig 7 is Bauang Delta

Fig 11 is Amburayan Delta

Fig 15 is duplicate of Figure 11, therefore, Aringay Delta mangrove image is missing.

There are numerous grammatical and language errors that detract from the quality of this paper and suggest a rushed effort. This could be revised and improved for future publication in a high impact-factor journal.