

# Review of: "Larache's Coastal in Morocco: Evaluating Dredging's Impact on Fisheries and Shoreline evolution"

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The paper titled "Larache's Coastal in Morocco: Evaluating Dredging's Impact on Fisheries and Shoreline Evolution" explores the effects of marine dredging in the Larache coastal area, Morocco, focusing on its physical and biological impacts. It analyzes the changes in coastline evolution between 2011 and 2020, employing a detailed methodology that includes the use of Google Earth Pro for spatial analysis. The study identifies significant coastal erosion and accretion patterns, evaluates the implications for local fishery resources, and proposes mitigation measures to minimize dredging's negative effects. The findings highlight a need for responsible dredging practices, habitat restoration efforts, and environmental safeguards to balance development and conservation in the Larache region.

The paper is interesting, but I have a few small observations to make. All the Latin names of the species are italicized, and when they are mentioned for the first time in the text, the author who first identified the respective species and the year is given. For example: *Sardine pilchardus* (Walbaum, 1792).

The data regarding the Benthic fauna, and other information, are yours, or are extracted from literature. Otherwise, it is better to put some references at the end of this. If those are yours, you can add a table with these values, or a graphic.

Based on the sections reviewed, both the **Results** and **Discussion** sections of the paper are well-structured and provide a detailed analysis of the observed effects of dredging on the coastline evolution and fishery resources in the Larache region of Morocco. Here are some observations and recommendations for each section:

## Results

- The **Results** section clearly delineates the findings related to coastline evolution between 2011 and 2016, and then from 2016 to 2020, including specific measurements of accretion and erosion. It effectively uses figures and tables (e.g., Table 1 and Table 2, Figures 5 and 7) to present the quantitative data supporting the text's claims.
- The presentation of data on fishery resources, including the quantity of fish landed over the decade, provides a tangible measure of the dredging impact on local fisheries. This is further supported by statistical data and visual aids (e.g., Figure 9).

## Recommendation for Results:

- Ensure that all data presented are consistent and clearly attributed to their sources. Any discrepancies or anomalies in

the data should be explicitly acknowledged and explained.

- It might be beneficial to include a brief summary of key findings at the end of the Results section to reinforce the study's most significant outcomes.

## Discussion

- The **Discussion** section thoughtfully interprets the results, considering both natural and anthropogenic factors contributing to coastline changes and impacts on fishery resources. It integrates the findings with existing literature, highlighting the role of environmental factors, dredging activities, and their combined effects on the studied phenomena.
- The identification of mitigation measures and the evaluation of the impact of dredging on fishery resources are particularly noteworthy. These subsections provide actionable insights and suggest practical steps for managing the negative effects of dredging, demonstrating a comprehensive understanding of the issue.

### Recommendation for Discussion:

- While the analysis is thorough, ensuring a direct linkage between specific results and the discussion points can help readers better understand how the conclusions were derived. Clarifying the connection between observed data and the broader implications discussed would strengthen the section.
- Consider discussing any limitations of the study or areas where further research is needed. This would not only provide a more balanced view but also suggest future directions for investigation.
- The **Methods** section of the paper provides a detailed description of the procedures and tools used to study the impact of dredging on the Larache coastline and its fisheries. It outlines the use of Google Earth Pro for analyzing coastline evolution and mentions the analysis of statistical reports to assess the impact on fishery resources. This section is crucial for understanding the foundation upon which the study's results are based.

In general, the **Methods** section should contain descriptions of the techniques and approaches used to gather and analyze data. In contrast, the **Results** section should strictly present the findings of those methods without procedural details, except for brief mentions as necessary to contextualize the results.

Based on the review of the **Methods** section, the detailed steps for using Google Earth Pro and the statistical analysis of fishery impacts seem appropriately placed. These descriptions provide readers with a clear understanding of how the study was conducted, which is essential for replicating the research or evaluating its validity.

However, if the **Methods** section includes extensive data interpretations or preliminary findings, these should indeed be moved to the **Results** section. The **Results** should be where the outcomes of the methodology are reported, including data on coastline changes, accretion, erosion rates, and fishery statistics. Any interpretations of these data or discussions on their implications should be reserved for the **Discussion** section.

**Overall**, the paper seems to effectively communicate its findings and their implications for coastal management and conservation in the Larache area. Any corrections or enhancements should aim at increasing clarity, ensuring data

consistency, and more explicitly connecting results to the discussed implications and recommendations.