



## **Morphological change due to seaside road construction on Ba Lang Beach, Central Vietnam**

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Nha Trang is a coastal city and capital of Khanh Hoa Province, on the South Central Coast of Vietnam. The city is on the beautiful Nha Trang Bay, which was chosen in two succeeding years as one of 29 most beautiful bays in the world. It has a long nice sandy beach in the south of Cai River and well known for international and domestic tourists. However, in the northern part of Cai River named as Ba Lang Beach is rather narrowed sandy beach. In addition, a new reclamation road was built in the year of 2002 which had changed the shoreline from a concave shape to a straight-line shape of the shoreline. Because of this, serious beach erosion has occurred afterwards, and the sandy beach has disappeared at some locations on the beach. The objective of this study is to investigate the impact of this construction on Ba Lang sandy beach through image analysis and numerical simulation of wave propagation into the bay area. The result clearly indicates that after the road construction, the wave direction is more oblique to the shoreline direction compare to the previous condition. This result also suggests that in order to recover the sandy beach in this area, the shape of shoreline position has to have a similar concave shape as previous shoreline position.