**Environmental Assessment of Coastal Sand Mining Using Proposed Criteria: A Case of Hai Phong**

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**A brief description of the novelty and importance of the findings**

Coastal sand mining in Hai Phong port city causing serious environmental problems that were not quantitively assessed has threatened the sustainable development goals of the city. Ten proposed criteria belonging to three sustainable development pillars were applied to evaluate quantitively the impacts of sand mining activities on the environment in the study area. Study results show quantitively the negative environmental impact levels from moderate to high. High negative impacts occurred in the areas with economic activities, benthic biodiversity, and coastal ecosystems. Moderate impacts were on other subjects and the whole study area. The study results support managers and planners in the sustainable development planning and management of the city with the Biosphere Reserve of Cat Ba and of the surrounding region, particularly the UNESCO Ha Long Bay Heritage Site.

**Declaration:** there is no conflict of interest.

**Informed consent:** written consent was obtained from all participants prior to the study.

**Contributorship:** Tran Dinh Lan conducted the study and wrote this paper. Do Thi Thu Huong developed and analyzed multi-criteria and maps. Do Gia Khanh collected data and satistical analysis of socio-economic data. Nguyen Van Thao analyzed physical and environmental data.

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