

Projections of future beach loss in Japan and uncertainties in projected beach loss

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The beach is an important space that has functions of disaster prevention, environment and use, but beach erosions are reported all over the world. In Japan, significant beach erosion has occurred simultaneously with national land development during the rapid economic growth period and the problem has not been solved at present. There is further concern that sea level rise and typhoon enlargement caused by climate change exacerbate the erosion. In this study, we analyze past national beach erosion using sediment mass data of the entire river and coastal basin, project future beach loss due to climate change, and evaluate its uncertainty.

Keywords: Beach loss, Sediment budget, Sea level rise, Sediment yield