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STUDY OF MODIFICATION SOLUTIONS IN THE MEANDERING RIVER WITH ALLUVIAL GROUND ALONG THE TIEN RIVER FLOWING THROUGH SA DEC - CAO LANH - CHAU THANH

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The Tien River flowing through the area of Sa Dec - Cao Lanh - Chau Thanh in Dong Thap Province, covering a stretch of approximately 22 kilometers, is a meandering section with dangerous erosion on the Tien and Hau River system, along with alluvial ground developing in river changing the flow. The development of alluvial ground combined with fish raft farming and sand exploitation has led to severe erosion of the riverbed and banks in the Binh Hang Tay and An Hiep communes, causing psychological instability for the local people and local authorities. The content of the study introduces modification solutions for natural, environmentally friendly bank adjustment, in which dredging alluvial ground to widen the riverbed helps reduce the flow pressure pushing against the concave banks. The modification solutions indicate a significant reduction in erosion along the concave bank. Calculation results show that proactively widening and dredging the alluvial ground with an appropriate scale can reduce riverbed erosion by $1 \div 2$ m after 6 years and change the river flow in a rational way to effectively reduce erosion. The solution involving dredging and sand exploitation with a reasonable scale not only reduces erosion but also saves costs while utilizing sand resources for other construction projects. However, this dredging solution requires time for stable adjustment, strict monitoring, management of alluvial ground development, dredging and mining of resources in a rational manner.

Minioral

Yes

IEEE Member

No

Are you a student?

No

Authors: Mr DO, Hoai Nam (Institute of Coastal and Offshore Engineering); PHAN, Thi Ha Tuyen (Institute of Coastal and Offshore Engineering); Mrs TRUONG, Thi Nhan (Institute of Coastal and Offshore Engineering)

Presenter: Mrs TRUONG, Thi Nhan (Institute of Coastal and Offshore Engineering)

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