

**ESTIMATION OF DEVELOPMENT AND MAINTENANCE COST OF NIPAH ISLAND  
RESTORATION PROJECT**

**I PUTU SAMSKERTA**

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## **ABSTRACT**

Nipah Island is a small island in Batam municipality that has important role both in economic and politic term for Indonesia. Dredging activity had caused erosion along shoreline, devastated environment and coral reef, as well as reduced the size of the island from 60 hectares to 36 hectares at highest tide. Ministry of Public Work commenced an emergency project through direct negotiated tender and open tender to conserve the island. A case study research is carried out to analysis general requirement, development and maintenance cost of Nipah Island Restoration Project.

After the project completed, Nipah has 50.38 hectares new areas which divided into 15.00 Ha North Zone, 12.28 Ha mangrove zone, 16.19 Ha South zone and 6.91 Ha Sandy Beach – Lagoon, which major presently land use is defense area. The general requirements of the project are: 4.983 km shoreline protection; 43.75 Ha land reclamation; building and utilities; and small dock. Budget of the project is 43.58 million allocated from state and loan budget, with original contract sum is 42.86 million USD and 39.90 million USD final contract sums. Four times routine monitoring as part of maintenance activities had been performed which spent average cost 1,833.83 USD. Nipah Island probably not requires maintenance due sea level rise impact for a century, since its design water level had included 0.60 m sea level rise impact.

Maintenance of Nipah Island is not only national policy but also local responsibility. Actions and plans for land use of Nipah Island is need to be regulated under regulation. In an effort to build up cost maintenance plan for a budgeting purpose, the government is required to develop a database maintenance cost of Nipah Island. Routine inspection is required to compose a good database maintenance of the island.