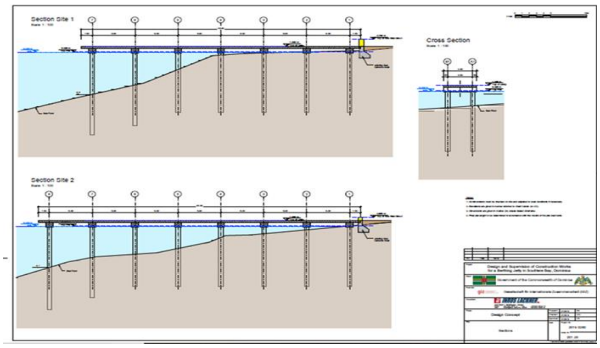
TOPIC „Construction in IC“– Case Study

Berthing Jetty Construction in Soufriere Bay Dominica to support community adaptation to climate change

SUMMARY

The Soufriere berthing jetty was a major collaborative effort between the GIZ-CATS, the Government of the Commonwealth of Dominica, Inros Lackner and Offshore Civil & Marine Inc. The jetty is 38 m long, 14 tubular steel piles structure with diameters of 558 mm constructed next to a major slipway in the community of Soufriere. A concrete deck (0.6 m thickness) made from marine resistant concrete sits on top of the concrete-filled tubular piles. The deck level is at +1.50 m CD corresponding to 1.05 m above MSL affording access to small artisanal fishing crafts, medium size pleasure and cargo vessels. Potable drinking water lines and solar light are also installed to facilitate operations. The facility was completed in July 2021 by a local marine construction firm on the island

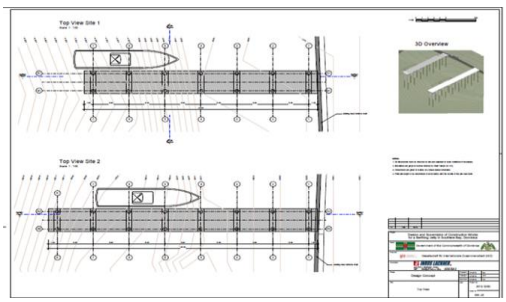


Contractors design of berthing Jetty in Soufriere Bay

SHORT OVERVIEW	16.2208.3
Program	Caribbean Aqua-Terrestrial Solutions II
Commissioning party	BMZ
Partner	Ministry of Blue and Green Economy, Agriculture and National Food Security, GoCD
Location	Dominica – St. Mark / Soufriere Bay
Building type	Berthing Jetty ...
Project length	November 2020 – Jul 2021
Responsible	APLAK – 2C00

PROJECT CONTEXT

Dominica, various community-based organizations within Soufriere and Scotts Head as well as the Local Area Management Authority (LAMA) echoed the need for assistance in disaster vulnerability reduction under the GIZ implemented CATS II Program to improve community adaptation to climate change. The construction of a climate resilient berthing jetty was seen as the most economically viable option that can provide for quick unimpeded access and sea escape route in times of emergencies. The communities are linked to the capital city via a single access road which is prone to landslide, flash floods and sea swells in multiple areas. The jetty infrastructure reduces the emergency response time between Soufriere/Scotts Head communities and Roseau by nearly half. At the same time, the construction of such a facility within the community creates and expands new economic opportunities in fisheries and tourism.

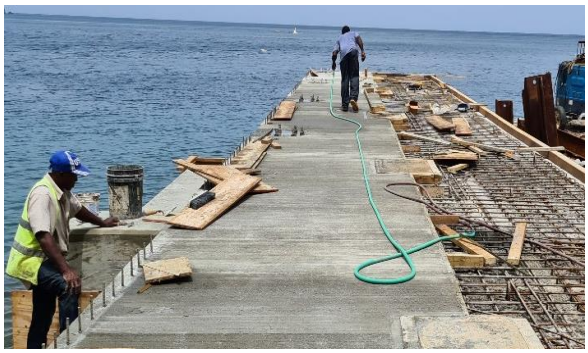


Final design of the berthing jetty in Soufriere Bay, Dominica

In 2017 Hurricane Maria destroyed access roads and communications systems across the island of Dominica. For vulnerable communities like Soufriere and Scotts Head, the need for seascape access was paramount for the transport of relief supplies and handling medical emergencies. The jetty was constructed in response to this crisis and to create new livelihood opportunities for the local people.

Mobilization and Construction

The jetty, designed to function as a multi-purpose facility was informed by broad community consultations, preliminary data collected on site, biophysical factors, and cost considerations. Owing to the absence of any ground data, test piling was done to determine load bearing capacity, which at minimum would accommodate an emergency vehicle for any rescue operation. Much of the construction work was completed by Dominican engineers and locals employed from the community under the supervision of Inros Lackner. To ensure that the structure can survive sea swell and hurricane induced waves, deck stands 1.5 m above mean sea level. To allow for the berthing of the local small fishing boats, a lowered platform was added to the southern side of the jetty.



Active construction phase of the berthing jetty in Soufriere Bav. Domiinca.

Installation of Berthing Equipment

The jetty is a multipurpose facility and will serve the interest of fishers, dive operators, small shipping vessel among others. A number of amenities and equipment are installed for that purpose. Bolts for the bollards are embedded in the concrete deck. Fenders and ladders are installed to facilitate loading and offloading from smaller crafts. A pipeline for freshwater supply is installed. The solar lights are dismountable and will allow night traffic for the jetty.

LESSONS LEARNED

Implementing multi partner and community-based projects is always a challenge particularly in the context where the project is widely expected to transform and create new avenues for income generation

Among the key lessons learned are:

- Before a project commences, it is recommended to have a meeting between the project team and beneficiaries to clarify everything in detail. A meeting that brings everyone together before the project starts, and not just the leaders, is a good way to achieve this.
- Initiate ideas for management of the facilities as early as possible. As routine maintenance is necessary, if not institutionalized appropriately, may become an issue for sustainable maintenance. Therefore, a management model must be considered and factored into design of facility early in the game.
- Engagement with locally assigned engineer help speed up processes and approvals from local authorities.
- Employment of locals created community buy in for the project

Formal handover of the jetty Facility to the Government of Dominica: Seat right; Dr. Volker Hamann, SMF Project Leader; Seated left: Honorable Fidel Grant-Minister for the Blue and Green Economy, Agriculture and National Food Security; Center: Honorable Denise Charles, Minister for Tourism and Maritime Affairs and Parliamentary Representative for the Soufriere Constituency; standing left: Jullan Defoe-Chief Fisheries Officer

Legal Info

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