



setec
hydratec

Audit of Rivers and Watercourses of Mauritius causing recurrent flooding

Hydraulic Expertise / modelling

Sep. 2019 - July. 2021



MAURICE

Client

Ministry of Environment, Solid Wastes and Climate Change

Joint consultants
SJPCE Ltd, SETEC (Mauritius) Ltd

Consultancy Services fees

251 745 €

Type of Project
Hydraulic Expertise

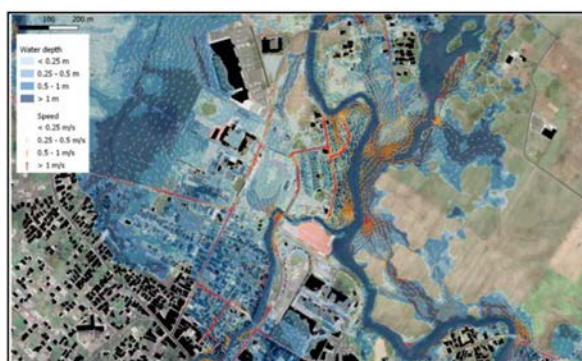
Setec subsidiary fees
166 162 €

Assignment
Consulting expertise audit

Disciplines
Hydraulic Expertise

Senior managers
F. TRANQUILLE (Project Director)

Client's Address
10th Floor, Ken Lee Tower,
Barracks Streets, Port-Louis, Mauritius



The Project

Rivers, rivulets and river reserves in Mauritius are protected under various legislation, more particularly under the Forests and Reserves Act 1983 and the Rivers and Canals Act 1863. However, despite the social, economic and cultural importance of rivers, survey reports undertaken over years have revealed that these are under constant stress from human activities and pollution. Debris and wastes which drift downstream get accumulated along rivers and watercourses, thus causing obstruction to the normal water flow and hence resulting in flooding. This project aims at conducting an audit of the main rivers and watercourses in Mauritius to assess their carrying capacity, particularly at critical sites over the island, taking into account the impacts of climate change.

The Scope of Work comprises the following main tasks:

- (i) Identification of the stretches of rivers and watercourses that cause recurrent flooding;
- (ii) Investigation of the causes of flooding of the identified rivers and watercourses;
- (iii) Recommendations of appropriate remedial measures to mitigate flooding in identified rivers and watercourses, including preparation of preliminary and typical drawings and quantifications of proposed upgrading infrastructural works and cost estimates.

Our expertise includes advice on frequency of maintenance of the watercourses, any relocation required, implementation of real-time telemetric flood monitoring system or flood sensors, planning guidance as regard to future development in flood prone areas.

Our Services

An island-wide inventory and mapping of the main stretches of rivers and watercourses that cause recurrent flooding.

Determination of the carrying capacity of identified rivers and watercourses and investigation of the causes of flooding, on the basis of field surveys.

- o Recommendations on appropriate remedial measures (soft and hard measures) that need to be taken to mitigate flooding in the identified rivers and watercourses, including preparation of preliminary and typical drawings and quantifications of proposed upgrading/infrastructural works and cost estimates.
- o Prioritisation of stretches of rivers and watercourses requiring urgent remedial actions.
- o Preparation of a costed Restoration Action Plan for prioritised rivers and watercourses.

A project requiring an island-wide field work in close collaboration with multi-stakeholders.

This assignment requires an island-wide inventory and mapping, a close collaboration with multi-stakeholders and the integration of their corresponding multiple constraints. In capitalising our previous work on the hydrology of the island within the scope of our previous Technical Assistance to the Land Drainage Authority, our knowledge of the hydrology of the island, coupled with our hydraulic modelling experience, lead to a high quality expertise in the assessment of the flood occurrences, their origin and causes, and enable us to provide the right and pertinent recommendations on the mitigation measures.