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## Enhancing Resilience to Climate Change (ER2C) in the Republic of Mauritius

Focus on Land Drainage Component, including the implementation as emergency works on 3 priority sites

(sep. 2018 - dec. 2023)



### MAURITIUS

#### Client

**AFD AGENCE  
FRANCAISE DE  
DEVELOPPEMENT**

#### Joint consultants

DAI (Brussels) , ACOA (Réunion), KAIROS (France), IREDD (France)

#### Consultancy Services fees

997 544 €

#### Type of Project

Adapt'Action to climate change

#### Setec subsidiary fees

363 970 €

#### Assignment

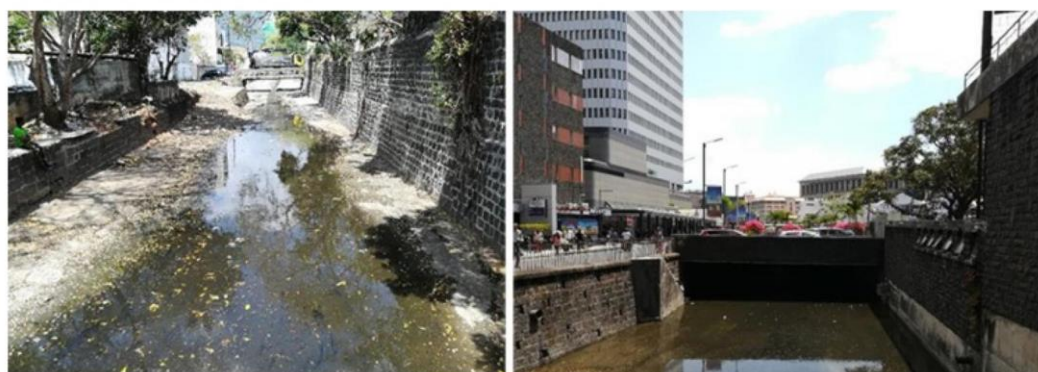
Consulting expertise audit, Design Engineering

#### Senior managers

F. TRANQUILLE (Local Project Manager)

#### Client's Address

5 RUE ROLAND BARTHES  
75598 PARIS CEDEX 12



#### The Project

This project aimed at helping the Government of Mauritius to achieve its climate change priority objectives by providing the necessary resources and expertise to deliver both technically and operationally effective solutions: conceptual and policy options, leadership and support for climate change action, effective work plans, management systems and resources. The scope of the project concerns the whole island of area around 2 000 km<sup>2</sup> with a population of about 1.2 million inhabitants.

After a first phase of Technical Assistance prior to and including the preparation of the Terms of Reference for the National Land Drainage Master Plan for the management of stormwater runoff, a second phase was launched on Consultancy Engineering to assist the Land Drainage Authority (LDA) in the implementation of the mitigation measures as emergency works on 3 priority sites identified with the LDA.

The work items were specifically the following:

- Technical Assistance to Land Drainage Authority (governmental institution newly implemented), on Priority Measures and Master Planning (Flood Assessment, Prevention, Mitigation Measures).
- Following the above, Consultancy Engineering for the implementation of the mitigation measures as emergency works on the 3 priority sites identified: Midlands, Bel Ombre and Flacq.

#### Our Services

- Vulnerability assessment of the areas exposed to flood risks by overflow of watercourses : hydrological studies of catchment areas.
- Hydraulic modelling and determination of technical solutions of flood prevention in relation with an adequate management of stormwater runoff.
- Technical Assistance to the Land Drainage Authority (LDA), for the preparation of the Terms of Reference for the National Land Drainage Master Plan for the management of stormwater runoff.
- Technical Assistance for the elaboration of IDF curves adapted to different areas of the island and assistance for the adapted capitalisation of the new Digital Elevation Model.
- Capacity Building workshops for the reinforcement of the Land Drainage Authority (LDA) and external communication to explain the Land Drainage Authority's responsibilities and mandate.
- Consultancy Engineering for the implementation of the mitigation measures, including Preliminary Design, Detailed Design and Tender Documents.

#### Political and multi-stakeholder context and absence of accurate hydrological input data

This assignment required a close collaboration with the different political stakeholders and government institutions, with different operation constraints. In absence of hydrological input data sufficiently accurate, assumptions have been made leading to adequate solution

- Past rainfall events to compile and digitalise
- Absence of Intensity / Duration / Frequency curves representative of the different areas of the island.

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## Enhancing Resilience to Climate Change (ER2C) in the Republic of Mauritius

Implementation of mitigation measures as emergency works on 3 priority sites identified

Feb. 2022 - Dec. 2023



### MAURITIUS

#### Client

**AFD AGENCE  
FRANCAISE DE  
DEVELOPPEMENT**

#### Joint consultants

DAI (Brussels), ACOA (Réunion), KAIROS (France), IREEDD (France)

#### Consultancy Services fees

226 771 €

#### Setec subsidiary fees

206 155 €

#### Assignment

Consulting expertise audit, Design Engineering

#### Disciplines

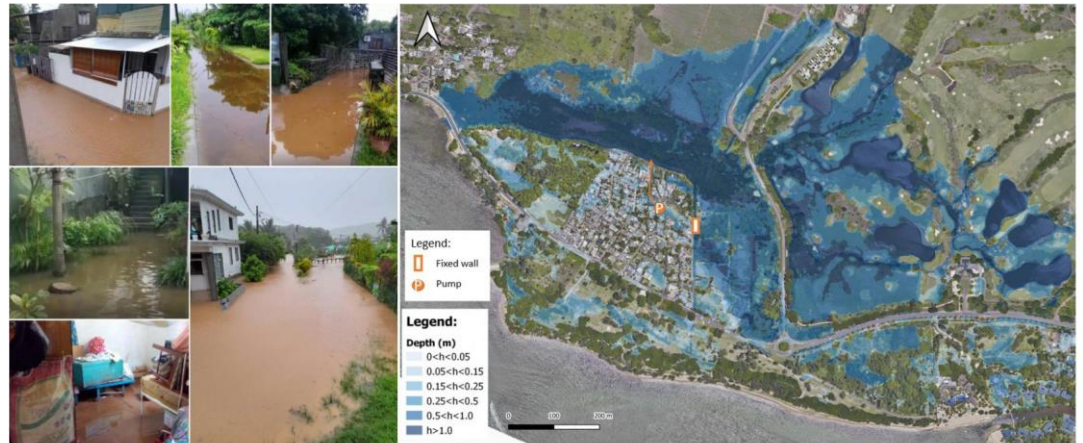
Adapt'Action to climate change

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After a first phase of Technical Assistance prior to and including the preparation of the Terms of Reference for the National Land Drainage Master Plan for the management of stormwater runoff, a second phase was launched on Consultancy Engineering to assist the Land Drainage Authority (LDA) in the implementation of the mitigation measures as emergency works on 3 priority sites identified with the LDA: Midlands, Bel Ombre and Flacq.

The work items comprised specifically the following:

- Preliminary Design of feasible solutions
- Detailed Design of selected solution
- Tender Documents of selected solution
- All the Hydraulic Modelling Work to confirm the mitigation solutions to be implemented
- A component of Environmental and Social Impact Assessment of the proposed solutions on each site.

### Our Services

Consultancy Engineering for the implementation of the mitigation measures, within a context of emergency works, including:

- Preliminary Design of feasible solutions including cost estimate of construction works
- Detailed Design of selected solution including Bill of Quantities and refined cost estimate of construction works
- Tender Documents of selected solution including Bill of Quantities of construction works
- All the Hydraulic Modelling Work to confirm the mitigation solutions to be implemented
- A component of Environmental and Social Impact Assessment of the proposed solutions on each site.
- All the Topographical Survey work required on site
- Preparation of the Technical Requirements for the Geotechnical Survey required on site.
- Liaison with the different Stakeholders and Local Authorities of the priority sites concerned

#### Close collaboration and tight deadlines

This assignment required a close collaboration with the Land Drainage Authority and the local authorities and stakeholders concerned by the priority sites in order to implement the mitigation measures within a context of emergency works before the coming heavy rainfall period.

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