



setec  
hydratec

# Environmental and Social Impact Assessment for the new runway of Plaine Corail Airport

Multidisciplinary impact assessment / expertise on water

Apr. 2019 - Apr. 2020



MAURITIUS -  
Rodrigues - Plaine  
Corail

Client

AIRPORT OF  
RODRIGUES LTD

### Partners

SETEC HYDRATEC,  
SETEC IN VIVO, SETEC  
MAURITIUS

### Lead Partner

SETEC INTERNATIONAL

### Consultancy Services fees

408 858 €

### Setec subsidiary fees

101 885 €

### Assignment

Technical Assistance,  
Consulting expertise audit

### Disciplines

Water, Sanitation, Land  
Drainage, Resource,  
Coastal Engineering &  
Marine environment and  
biodiversity

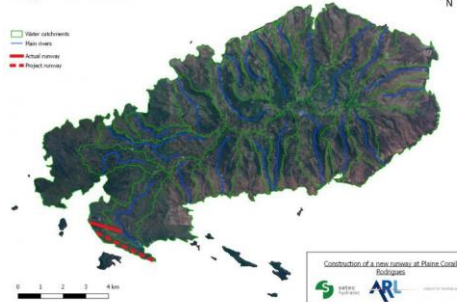
### Senior managers

F. TRANQUILLE (Water  
Expert),  
P. PEETERS (Coastal  
Engineering Expert)

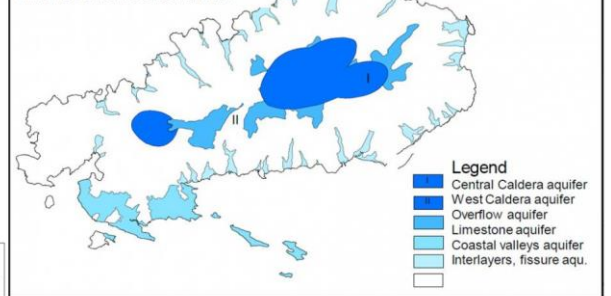
### Client's Address

Plaine Corail, Rodrigues

Rodrigues - Water catchments



HYDROGEOLOGICAL MAP



### The Project

Setec hydratec was commissioned with Setec to conduct the evaluation of the environmental and social impacts of the project of construction of a new runway for Plaine Corail Airport.

The scope comprised namely Water, Sanitation, Land Drainage, Resource, Coastal Engineering & Marine environment and biodiversity.

The expertise of the environmental impacts had to be in accordance with the requirements of the two funding agencies AFD and EU. This study included the baseline study followed by the preliminary design of remediation/mitigation solutions on all the above-mentioned fields including namely:

- Stormwater management and treatment
- Wastewater management and treatment
- Drinking water management as part of an integrated approach to the management / collection of stormwater and wastewater from the airport platform.
- Overall treatment capacity envisaged of approximately 100 m<sup>3</sup>/d, with a treatment process comprising mainly of: activated sludge (for wastewater treatment), reverse osmosis (for drinking water production), including sand filtration, UV disinfection and associated buffer storage facilities.

The main characteristics of the project are:

- Airport traffic envisaged by 2031 = More than 100,000 passengers.
- Amount of the works contract = about 100 M €.
- Runway of 2,100 m long and 45 m wide to accommodate Airbus A321 Neo.

### Our Services

- o Analysis of available input data (hydrology, sanitation, drinking water, hydrogeology, meteo-oceanic conditions (wave, current, wind) and identification of project impacts
- o Field visits and sediment sampling
- o Construction of numerical coupled wave-current-sediment transport model 2D (Delft3d)

### Definition of scenarios and associated wave-wind inputs:

- 15 days simulation to include an entire tidal cycle
- Winter, Summer, extreme and cyclonic conditions
- o Modeling the impact of a turbid plume propagation during the work phase (extent and maximum level)
- o Identifying possible deposit areas of sediment
- o Baseline study on the different components followed by preliminary design of remediation/mitigation solutions

### Remarkable elements of the project and the mission

- o Specific island context
- o Multidisciplinary team comprising several internal and external specialties at setec
- o AFD and European Union funding with their own requirements
- o Project of national interest with strong political stakes
- o High technicality of the solutions to be implemented
- o Significant environmental protection measures required

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setec  
hydratec

# Environmental and Social Impact Assessment for the new runway of Plaine Corail Airport

## Assessment of hydrodynamic and hydro-sedimentary impacts

Apr. 2019 - Apr. 2020



**MAURITIUS -  
Rodrigues - Plaine  
Corail**  
Client

**Airport of Rodrigues  
Ltd.**

### Partners

SETEC HYDRATEC,  
SETEC IN VIVO, SETEC  
MAURITIUS

### Lead Partner

SETEC INTERNATIONAL

### Consultancy Services fees

408 858 €

### Setec subsidiary fees

25 493 €

### Assignment

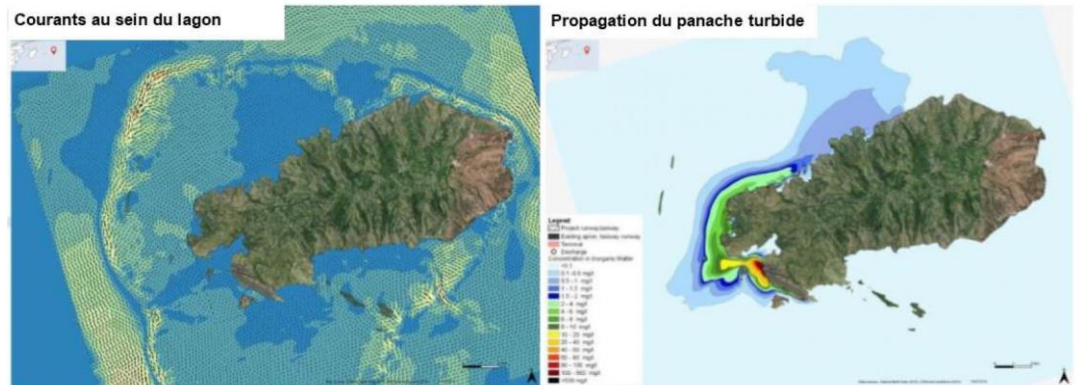
Technical Assistance,  
Consulting expertise audit

### Disciplines

Water & Sanitation /  
Stormwater management /  
Water resources / Coastal  
engineering / Marine  
environment and  
biodiversity

### Senior managers

F. TRANQUILLE (Water  
Expert),  
P. PEETERS (Coastal  
Engineering Expert)



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- o Construction of numerical coupled wave-current-sediment transport model 2D (Delft3d)

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- Winter, summer, extreme and cyclonic conditions
- o Modeling the impact of a turbid plume propagation during the works phase (extent and maximum level)
- o Identifying possible deposit areas of sediment
- o Baseline study on the different components followed by preliminary design of remediation/mitigation solutions

### Remarkable elements of the project and the mission

- o Specific island context.
- o Multidisciplinary team including several internal and external contributors to Setec.
- o Funding by AFD and European Union with their own requirements.
- o National project with strong political implications
- o High technicality of the solutions to be implemented.
- o Significant environmental protection measures required for compliance

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**setec**  
hydratec

## Updating of the Environmental and Social Impact Assessment for the expansion of Plaine Corail Airport, including its new runway

Multidisciplinary impact assessment & Expertise

Dec. 2022 - Sep. 2023



**MAURITIUS**

**Client**

**AIRPORT OF RODRIGUES LTD**

### Partners

SETEC INTERNATIONAL,  
 SETEC HYDRATEC,  
 SETEC IN VIVO  
 ENVIRO CONSULT,  
 INSUCO, ECOMED

### Lead Partner

Setec Mauritius

### Services fees

647 276 €

### Assignment

Technical Assistance,  
 Consulting expertise audit

### Disciplines

Water, Sanitation, Land Drainage/rainwater harvesting, Resource, Marine hydrodynamics, Marine environment, biodiversity, Road traffic management, Air & Noise quality, Terrestrial biodiversity, Social & Cultural Impacts

### Senior managers

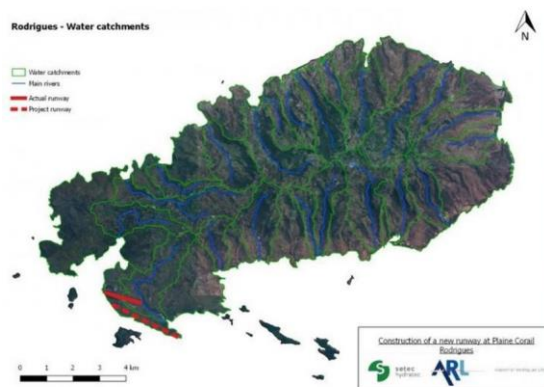
F. TRANQUILLE (Project Director)

### Client's Address

BRN C08023751 Plaine Corail Airport Rodrigues Island

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### The Project

An Environmental and Social Impact Assessment (ESIA) for the expansion of the Rodrigues Airport including its new runway was prepared in 2019/2020 by Setec to meet the requirements of the Government of Mauritius and those of the Agence Française de Développement (AFD) and the European Union (EU). Following a change in financing authority (World Bank) the Airport of Rodrigues Limited (ARL) was required to update the ESIA to meet the requirements of the World Bank Environmental and Social Framework (ESF). The proposed project has been classified as a High-risk project under the World Bank Environmental and Social Policy. In addition to meeting the World Bank ESF requirements, the project required disclosure of the ESIA 120 days prior to the Board decision date to meet the United States Federal Pelosi requirements (Pelosi Amendment).

Due to the short delay for the ESIA update, Airport of Rodrigues Limited (ARL) therefore contacted Setec for the updating of the previous Environmental and Social Impact Assessment (ESIA) prepared in 2019/2020. This assignment aimed at preparing a final ESIA and associated environmental and social (E&S) instruments for the Rodrigues Airport expansion project to be supported by the World Bank. The updating exercise carried out end 2022 / 2023 was to be completed within a short timeframe (before June 2023), including additional field investigations namely on the marine biodiversity, road traffic management and noise & air quality.

The main characteristics of the project are:

- Airport traffic envisaged by 2031 : More than 100,000 passengers.
- Runway of 2,100 m long and 45 m wide to accommodate Airbus A321 Neo.

### Our Services

A two-phased approach for the finalization of the updated ESIA.

**Phase 1 :** Which consisted of the updating the preliminary ESIA to meet early disclosure of a Draft ESIA. Phase 1 has subsequently been completed and a Draft ESIA has been disclosed end of January 2023.

#### Phase 2 :

-Task 2.1: Update the draft ESIA with the updated design information and supplement the baseline environmental and social aspects with the additional information and studies;

-Task 2.2: Preparation of the ESMP (Monitoring Plan), including Labour Management Plan (LMP), and a Sexual Exploitation and Abuse / Sexual Harassment (SEA/SH) Action Plan;

Task 2.3: Prepare a Stakeholder Engagement Plan (SEP) and conduct supplementary stakeholder engagements to be included in the ESIA;

Task 2.4: Prepare a Resettlement Plan Audit;

Task 2.5 : Prepare an Environmental and Social Commitment Plan (ESCP)

### Remarkable elements of the project and the mission

- Specific island context
- Multidisciplinary team comprising several internal and external specialties at Setec.
- World Bank funding with their own rules and requirements.
- Project of national interest with strong political stakes.
- High technicality of the solutions to be implemented.
- Significant environmental mitigation measures required.
- Tight timeframe to update the previous ESIA (less than 6 months).
- Direct liaison with the World Bank for approval of the deliverables.