

Irrigation on the west coast of Réunion

Sectors 4 and 8



Country

France (Réunion island)

Client

Département de La Réunion

Date

1997-1999 / 2000-2006

Cost of works

- ◆ Sector 4: € 29 million (State, EAGGF, Department)
- ◆ Sector 8: € 29 million

Sogreah's services

Complete project coordination and management:

- ◆ Basic infrastructure, pumping stations and reservoirs
- ◆ Sector 4: 1860 ha irrigation area, secondary and tertiary networks
- ◆ Sector 8: 1043 ha irrigation area.

Background

Rainfall distribution on Réunion Island is extremely unequal:

- ◆ up to 120 l/s/km² on the east coast
- ◆ 17 l/s/km² on the west coast

The targets set by the Department for developing sugar cane production and for urban and tourist development on the west coast are the reasons behind the West Coast Irrigation Project. On completion, 6.35 m³/s will be conveyed by a network to the west coast.

Key figures

The main pipe serves 7000 ha, as well as a population equivalent of 100 000. The first stage of works includes 17 km of 1600 and 1400 mm dia. steel pipes. The second stage runs from Saint-Gilles to Saint-Leu, i.e. about 18 km, with a 1200 mm dia. steel pipe,

Sector 4 irrigation area

At the end of the first-stage main pipe is the 1850 ha Sector 4 irrigation area, situated at elevations ranging from 0 to 660 m CD.

The infrastructure consists of the following:

- ◆ a steel feeder and distribution pipe, 800-450 mm in diameter and 7 km long,
- ◆ 45 km of cast iron tertiary irrigation pipes, 400-100 mm in diameter, between elevations 0 and 660 m CD
- ◆ 5 semi-buried concrete reservoirs, used to provide buffer storage and regulate distribution; their capacities are 12 700 m³, 7700 m³, 7500 m³, 4200 m³ and 3400 m³,
- ◆ 4 pumping stations that deliver irrigation water from 200 m CD to 750 m CD; their capacities are respectively 3200 kVA, 2500 kVA, 1600 kVA and 1000 kVA.

Sector 8 irrigation area

At the end of the second-stage main pipe is the future Sector 8 irrigation area covering about 1043 ha, situated at elevations ranging from 0 to 660 m CD.

Sector 8 consists of the following:

- ◆ a steel feeder and distribution pipe, 800-400 mm in diameter and 5 km long,
- ◆ 40 km of cast iron tertiary irrigation pipes, 300-100 mm in diameter,
- ◆ 5 semi-buried concrete reservoirs, used for storage and regulation; their capacities range from 1000 to 10 000 m³,
- ◆ 4 pumping stations that deliver irrigation water from 200 m CD to 790 m CD; their capacities range from 1250 to 3200 kVA.