

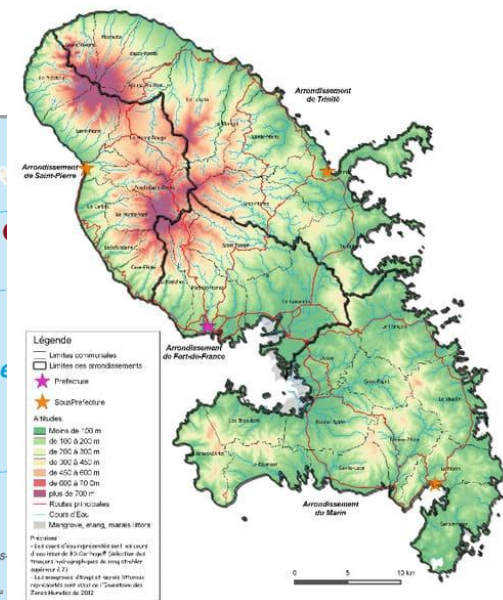
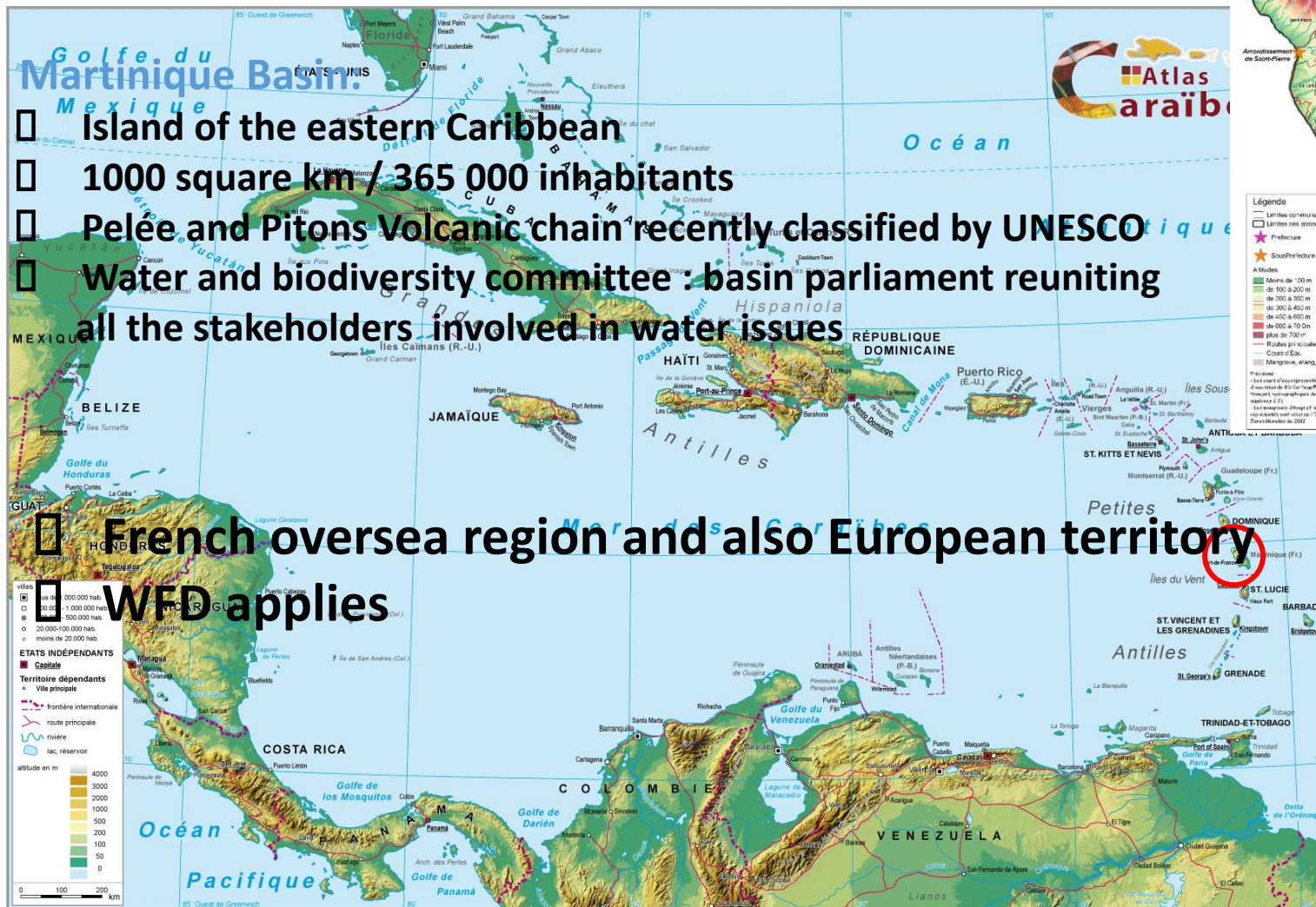


EURO-INBO

How to support food providing and
water efficient agriculture in the
context of *Martinique Island?*

Wednesday, May 21st
Parma - Italy

Martinique Island Basin



Martinique Water Office

Water Office :

- ❑ Local public establishment created in 2002 (30 employees)
- ❑ Coordinating water's stakeholder at the hydrological basin scale
- ❑ Promoting integrated water resources management principle

Main purpose :

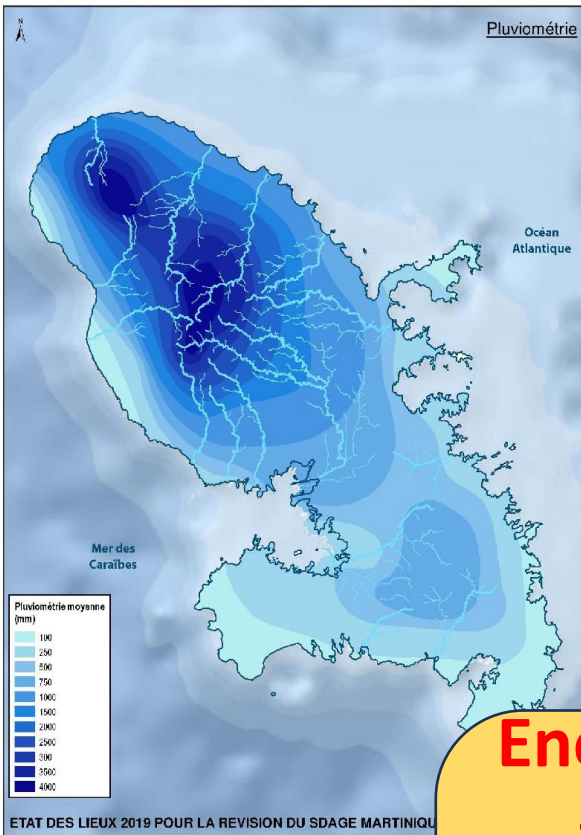
- ❑ Recovering and maintaining water's bodies quality

Tools:

- ❑ Surveys and studies, project funding, technical assistance, raising awareness, collecting and diffusing data



Water uses and climate change impacts






Rainfall

**2,7 Billion
m³/year**

**Usable volumes
rivers**

**1,1 Billion m³/year
Groundwater
80 millions m³/an**

**Total water
needs for all
usages
80 Million
m³/year**

	Martinique	France	Monde
 Eau potable (usage domestique)	73%	36%	12%
 Usage agricole (irrigation, bétail,...)	24%	49%	69%
 Usage industriel	3%	15%	19%

**Enough water to cover
all needs annually**

**Inequal repartition in space
and by seasons**

**Strong signal off less water
due to CC**

**- 15%
annual
rainfall
by 2050**

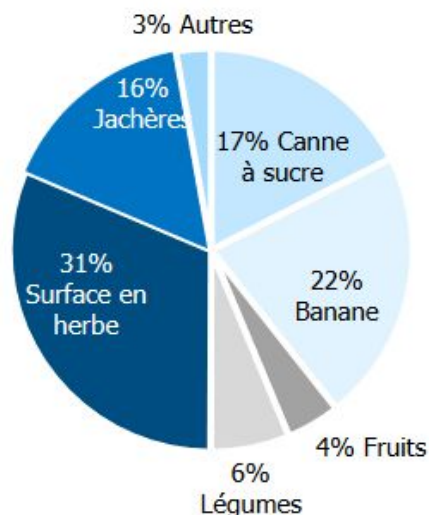
Water catchments

- 94% in rivers / 6% groundwater pumping
- Contrary to many regions over the world **agriculture in Martinique require only ¼ of domestic needs**
- But serious **competition in dry season** – drought and very low water level in mostly rivers

Key figures of Agriculture in Martinique

- UAA (Utilized Agricultural Area): 23,000 hectares, representing 23% of the territory
- Progressive decrease over the last 30 years (-0.7% per year between 2012 and 2022)
- Agriculture dominated by industrial or export sectors (sugarcane and bananas) with the largest farms
- Nearly 70% of fruits and vegetables are imported, and over 80% of animal products are imported for local consumption

Surfaces agricoles utilisées en 2022



- 55% of the UAA is dedicated to bananas and sugarcane
- 80% of EU subsidies for crops are allocated to bananas

- More than 2,000 small farms following the Creole model are poorly supported and vulnerable.



Agriculture and water cross policies moving slowly

Recent awareness on need for structural changes :

- ✓ **Chlordecone contamination public revelation in 2000**
- ✓ **New weather models for predicting climate change in 2015** (old models predicted extremes drought and hurricanes when new model add a gradual decline off annual rainfall)
- ✓ **Serious drought alerts in 2011, 2020, 2024, ... with water restriction, fall off yields, livestock mortality, ...**
- ✓ **Reality off temperature elevation** (+4°C from 1950, breaking records in 2023,2024, ...)

Strong political and technical Development for a structural change

- **Numerous measures in Bassin Guideline Document (SDAGE)** for reducing agricultural environmental and water use impacts
- **Irrigation scheme for Martinique act for a structural change** : less export crops and more subsistence farming with a global more efficient use off water – more **food autonomy and resiliency**
- **Development of agronomical expertise** : use of **soil cover plants** in banana crop development, re-implementation tree **hedges**, under three crops and **agroforestry** (Coffee, Cocoa, vanilla, ...)
- Recent development of **biological agriculture** (+285ha in 2022/2023)
- New farmer generation and also better-informed consumers

The role of the Martinique Water Office in the transition

Water office program for 2023-2027 contains different measures and tools for agriculture :

- ✓ **Survey and studies** off water pollution and water use for irrigation
- ✓ **Technical support** and **funding** water saving and reducing pressure (pesticides)
- ✓ **Supporting research** and **technical development** of in the field solutions
- ✓ **Traineeships** and **information and awareness** for all stakeholders in agricultural domain

Recently supported projects

- Study off **treated wastewater reuse potential** around the island
- Technical support and funding of the **territorial scheme for irrigation** based on a transformation of the system (more crops for local consumption)
- **Financial agreement with the local agriculture chamber** for the development of **agroecological farming and irrigation control**
- **Financial agreement with the French Association for Agroforestry** for the implementation and gestion of tree hedges and riverside forests
- **Financial agreement with the French State service** for agriculture for cross funding with EU funds for agroecological and climate friendly measures and biological agriculture



Conclusion : shared ambition but still many obstacles and constraints to overcome

- ❑ **History** : agriculture almost remains in the same state than in colonisation times (intensive crops for export predominance) – colonial trading economy and a domination of big farms
- ❑ **Funding** : 80% of the EU fund for agriculture are spend for banana grants
- ❑ **Social acceptance** : hard to develop treated wastewater and sludges use after chlordecone traumatism
- ❑ **Costs** : biological farming products are too expensive for most of the population. Only high-income households can offer
- ❑ **Technical references** : lack of technical references for alternative agriculture in tropical zone. Technical institutes worked during decencies for intensive agriculture especially banana and sugar cane and very few for subsistence farming and diversification crops
- ❑ **Insularity** : geography, climate... more vulnerability due to natural risks. More difficult to regulate and provide the market with local food.
- ❑ **Regional inclusion** : exchanges (commercial and scientific) are still manly done with the EU. Need to develop more partnerships with our neighbours inside the Caribbean

**Mèsi !
Grazie !
Thank you !**

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