



Euro-INBO

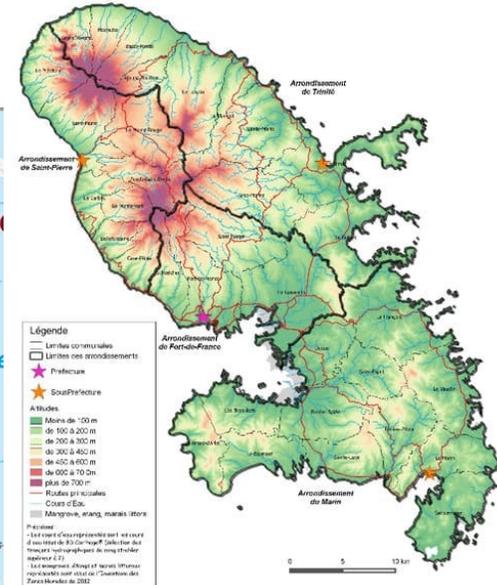
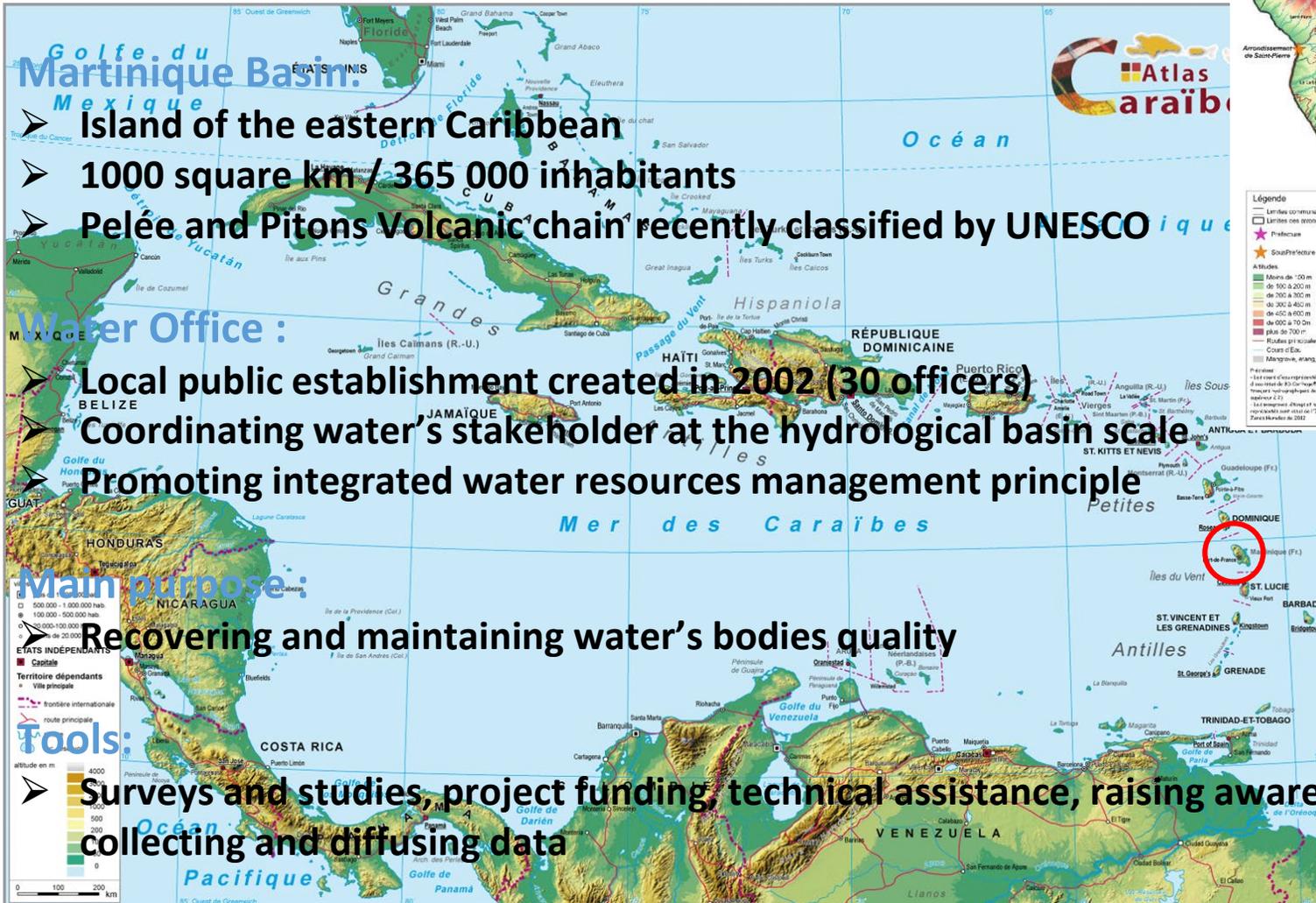
EU overseas regions facing water framework and other associated directives - achievements and remaining issues

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The example of Martinique Island

October 16th 2023
Valencia - Spain

Martinique Island Basin and Martinique Water Office



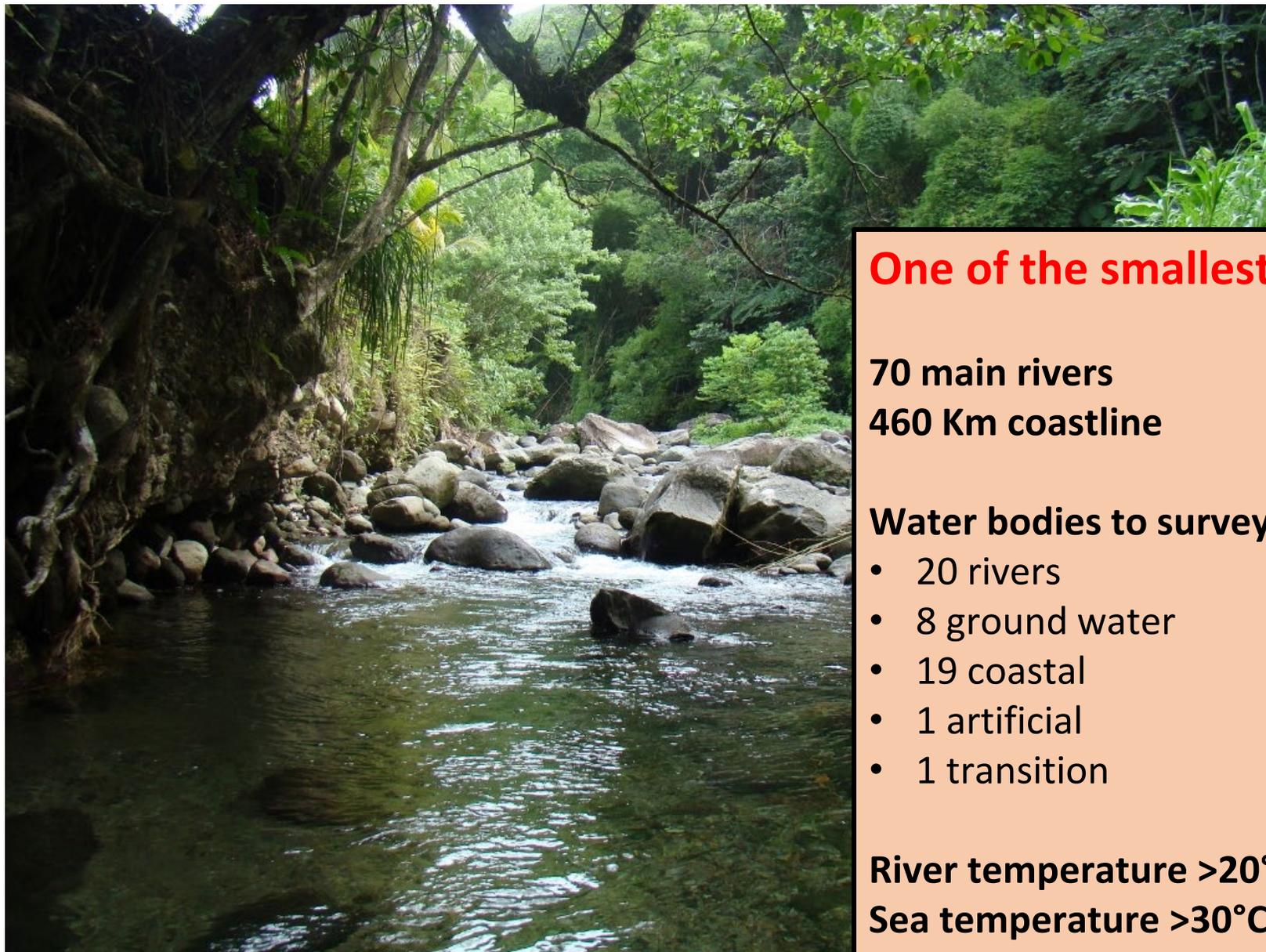
- Martinique Basin:**
- Island of the eastern Caribbean
 - 1000 square km / 365 000 inhabitants
 - Pelee and Pitons Volcanic chain recently classified by UNESCO

- Water Office :**
- Local public establishment created in 2002 (30 officers)
 - 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

Implementing WFD in Martinique



One of the smallest EU basin

70 main rivers

460 Km coastline

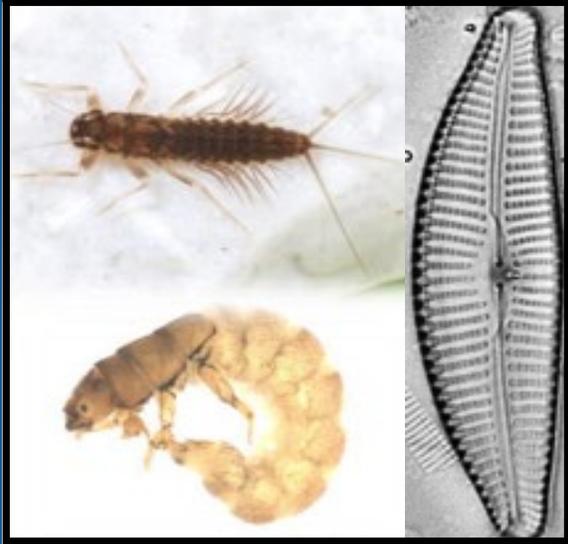
Water bodies to survey :

- 20 rivers
- 8 ground water
- 19 coastal
- 1 artificial
- 1 transition

River temperature >20°C

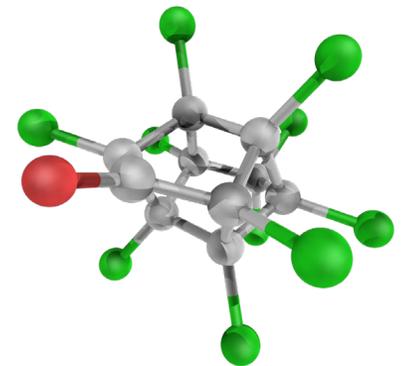
Sea temperature >30°C

Water bodies survey – tools, issues and limits



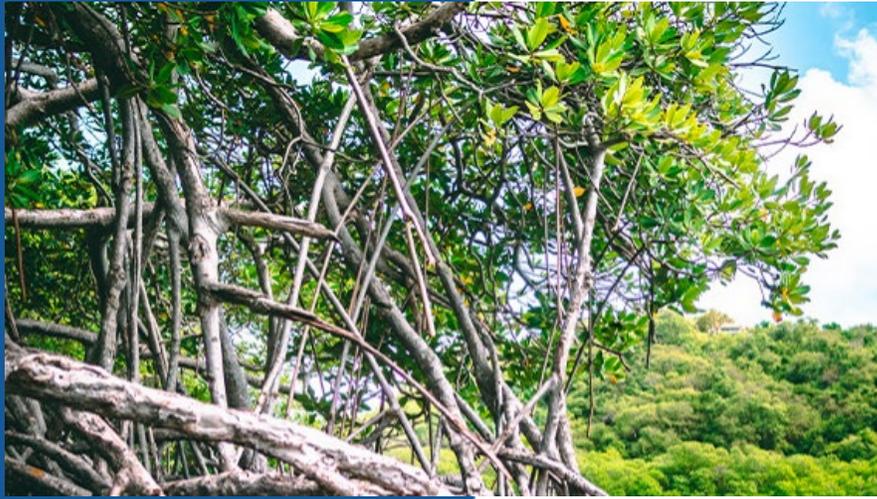
- Own **bioindicators developed for rivers** : diatomic and macroinvertebrates
- Specific river morphology protocol
- **Coral and herbal reefs quality indicators** in state of validation by the EU. Missing macroalgae and plankton
- Chemicals : **lack of local labs** able to measure micro pollutants : very costly to send water sample by plane each month
- But more than **80 pollutants detected** (mostly not in the 41 list)

- Case of **Chlordecone major pollution** (insecticide used in banana crops and remaining in soils for decades or maybe centuries) => **used in biological quality statement** (almost ten years fight with the French and EU authorities for this recognition)
- **Declassification of more the half the water bodies.** Two states reported to the EU (with and without CHLD)



➤ How to deal with **objectives delays?**





Mangroves

Very **specific ecosystem with many services** (nursery, landscape water filter, protection from the tropical storms)

- **Not referenced in the WFD**
- Currently developing quality descriptors
- Fully water bodies or parts off coastal water bodies ?

EU habitats directive and natura 2000 network do not apply in the oversea regions



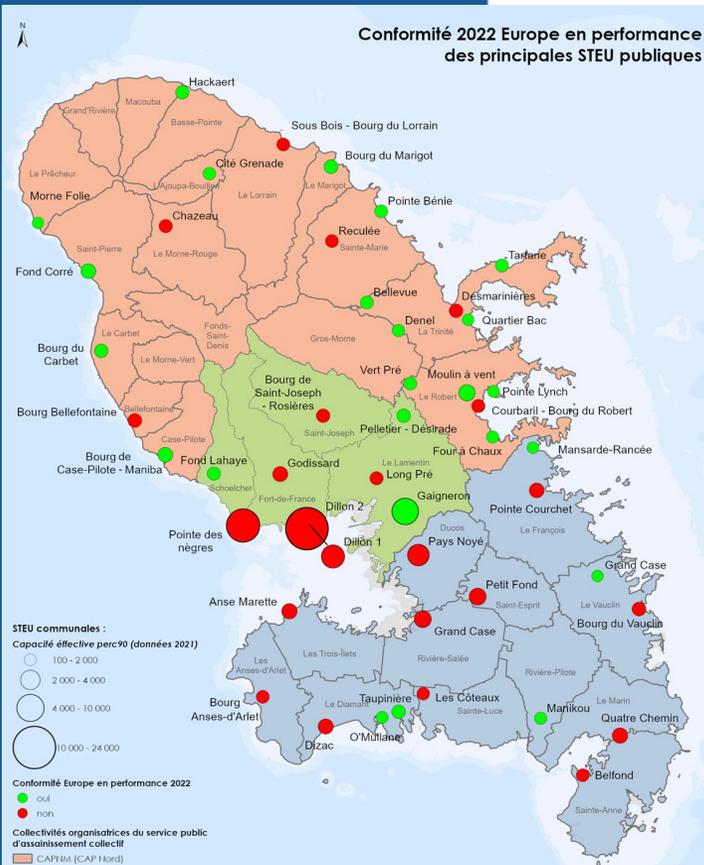
Global climate change pressures



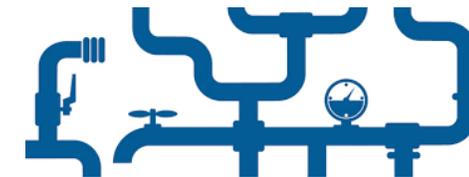
- Increasing occurrence of **massive hurricanes** with wind up to 300km/h and several meters sea elevation
- **Coral bleaching** (Caribbean sea temperature over 35°C in 2023)
- **Sargassum algae** invasion (mainly due to nitrogen apportionment from the central Atlantic sea)

Extended impact on the water bodies quality



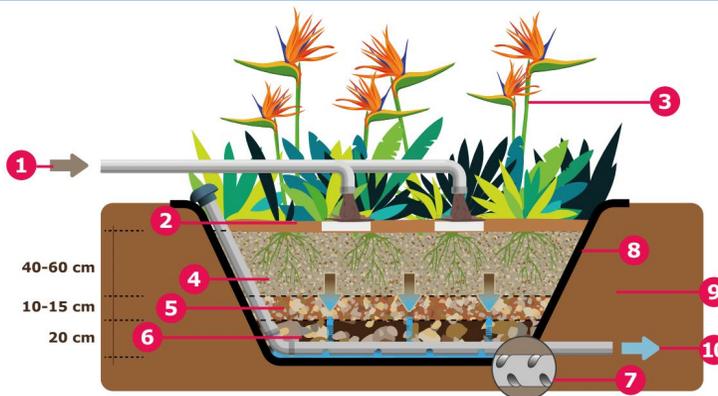


Waste water issue



- **Less than 20% conformity** off the main networks and plants
- 5 districts in judgment by EU environment court
- Facing **historic lack of funding** and uncontrolled urban development
- **National Water Program for oversea : PEDOM**
- Developing more resilient systems and promoting inside the Caribbean : **CARIBSAN Interreg program**

Sanitation is the main issue in WFD objectives achievement



Drinkable water issue

Economical issue

- High price of water cost. In Martinique > **5,6€/m³** (with sanitation and including 10% basin taxes)
- **Population low income** (30% lower than national)
- Important needs of funds for networks equipment and renewal

No more flexibility for funding water management

Social issues & drinkable water access

- Guadeloupe : over than 100 days/year without water or enough quality
- **Mayotte water crisis - less than 2 day a week with drinkable water and 1/3 off the inhabitant without drinkable water at home**
- French Guyana : isolated population and **water resource contaminated by mercury** (due to illegal gold mining)

EU oversea populations are far away from universal access to drinkable water







**GRACIAS !
TANKS FOR YOUR ATTENTION !**

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