



ECONOMIC TOOLS FOR BASIN MANAGEMENT: INTEGRATING ENVIRONMENT AND BIODIVERSITY IN COST-RECOVERY

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LEGAL TOOL: WATER FRAMEWORK DIRECTIVE (2000)

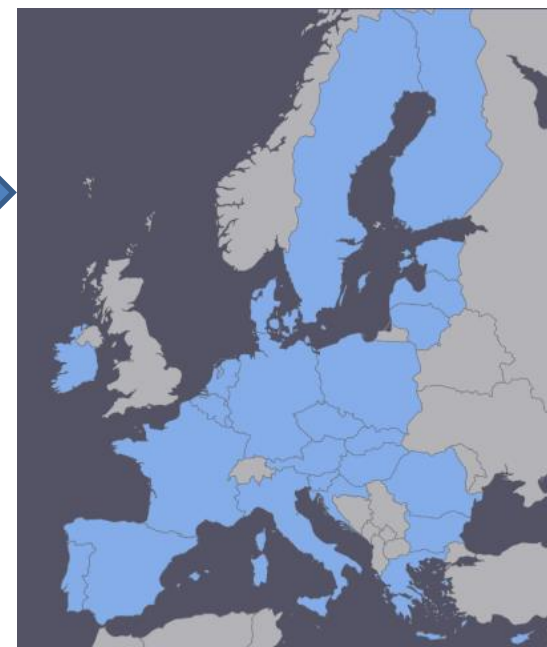
- Water Framework Directive (WFD): **23 October 2000**
- Result of **5** years of discussions
- Milestone: 1st Time Eon. Principles integrated into a piece of legislation - shaping **Environmental Policy**



EU in **2000**

- Four years after 2004 WFD-expansion:
 - East & South

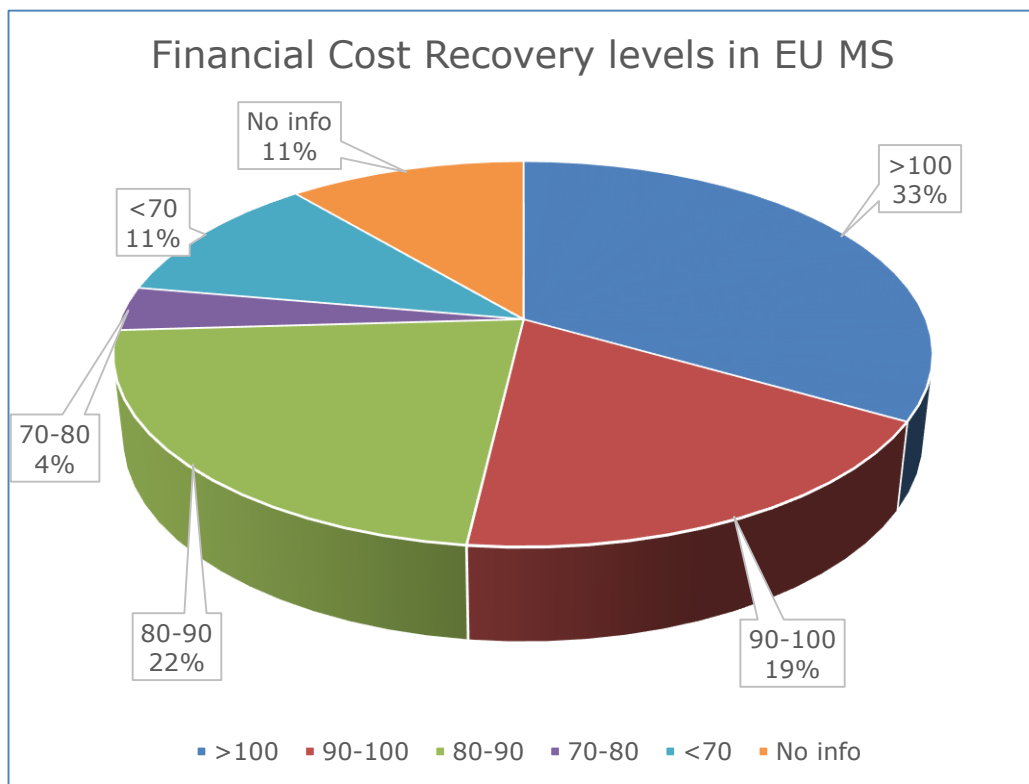
- **Flexible & Result-Oriented** Approach



EU in **2021**

ARTICLE 9: COST-RECOVERY LEVELS IN EU MS

Article 9 WFD: Take account of the principle of **recovery of the costs of water services**, including **environmental and resource costs**, according to the ***polluter pays principle***.



Source: Economic data related to the implementation of the WFD and the FD and the financing of measures; Directorate-General for Environment (CION); 2021

Common misconception: **Achieve full cost recovery (FCR)**

"Overall, the implementation of full cost-recovery still presents some weaknesses at the EU level, although improvements have taken place since 2006- following the WFD implementation"

Art 9 does NOT impose FCR:

- But "an adequate contribution...to the recovery of the costs of water services...taking account of the PPP"
- The Directive allows MS to account for social, environmental and economic effects
- -Flexible & Pragmatic Approach

FROM FINANCIAL TO ECONOMIC

WFD: go broad i.e. $\text{Total Cost} = \text{Financial Cost} + \text{Resource Cost} + \text{Environmental Cost}$

*"Member States shall take account of the principle of recovery of the costs of water services, including **environmental** and **resource** costs"*

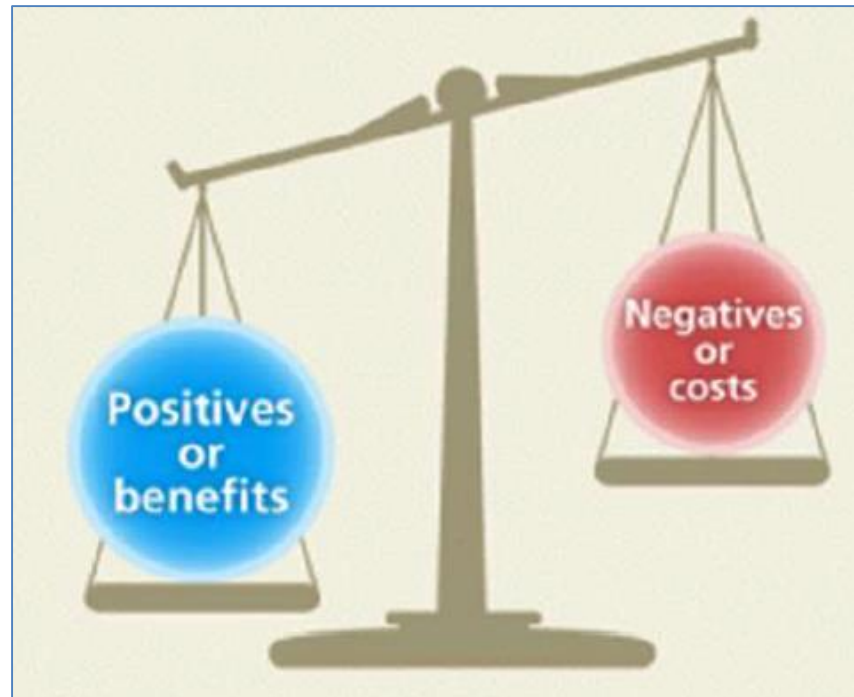
Current cost-recovery assessment in the river basin

Water Services: Designated Use #1
Financial Costs
Tariffs for water services
Recovery of financial costs
Environmental costs
Internalised environmental Costs
Recovery of environmental Costs
Overall Cost- recovery

Source: WATECO, 2003

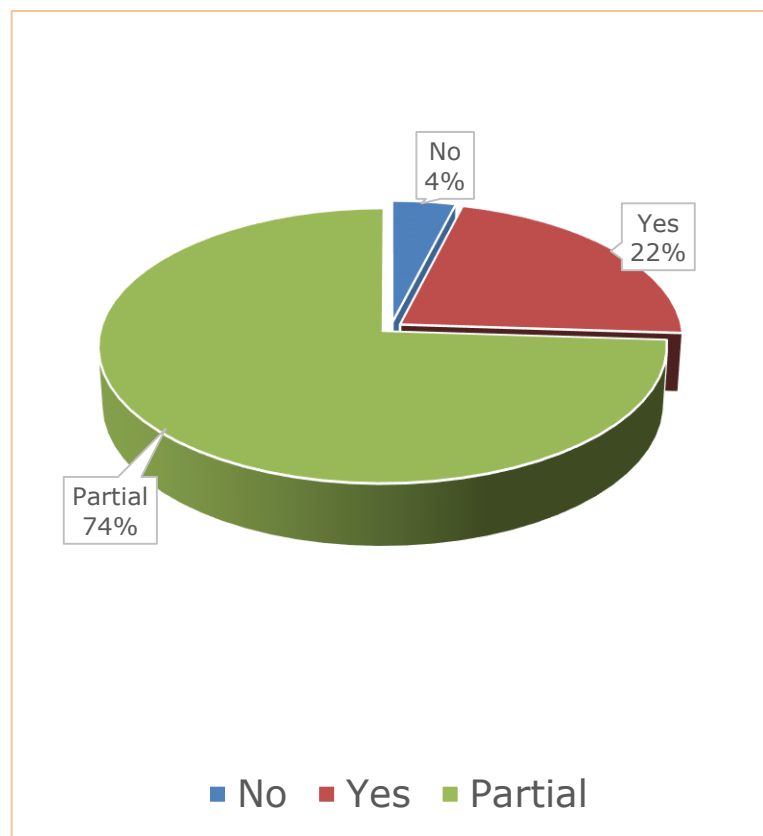
A BROADER INTERPRETATION

- WFD → go broad but only insofar as costs? Why not broader?
 - Can **unmonetized benefits** be considered as **countering unmonetized costs**, in the application of the principle of cost recovery? (Sapiano, 2020)
- ⇒ Positive & Negative Externalities

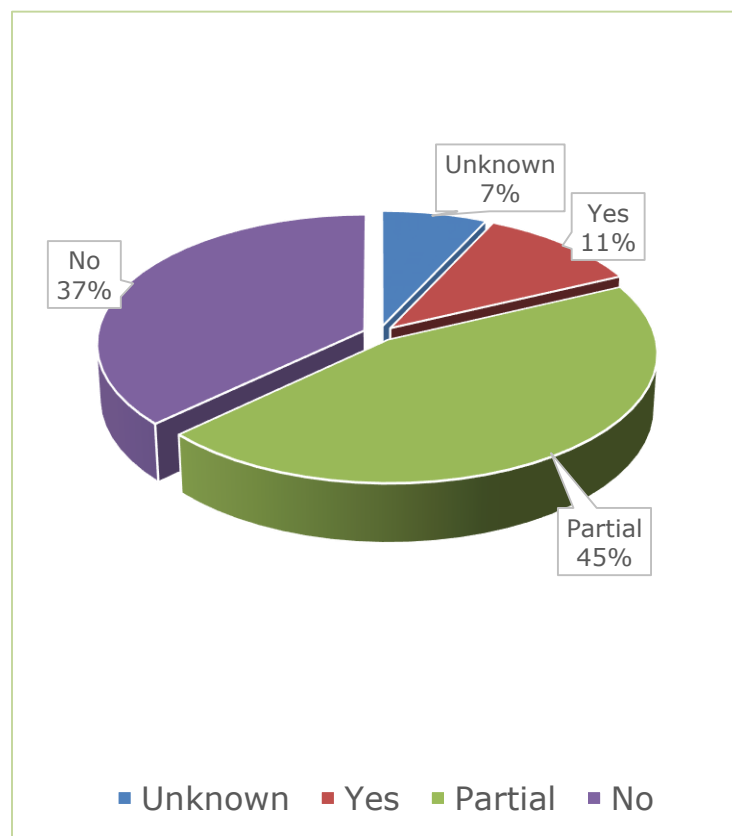


EVIDENCE SO FAR?

Number of countries using **Cost Effectiveness Analysis (CEA)** in the 2nd RBMPs



Number of countries using **Cost Benefit Analysis (CBA)** in the 2nd RBMPs



Source: Economic data related to the implementation of the WFD and the FD and the financing of measures; Directorate-General for Environment (CION), 2021

WATER SUSTAINABILITY IN MALTA

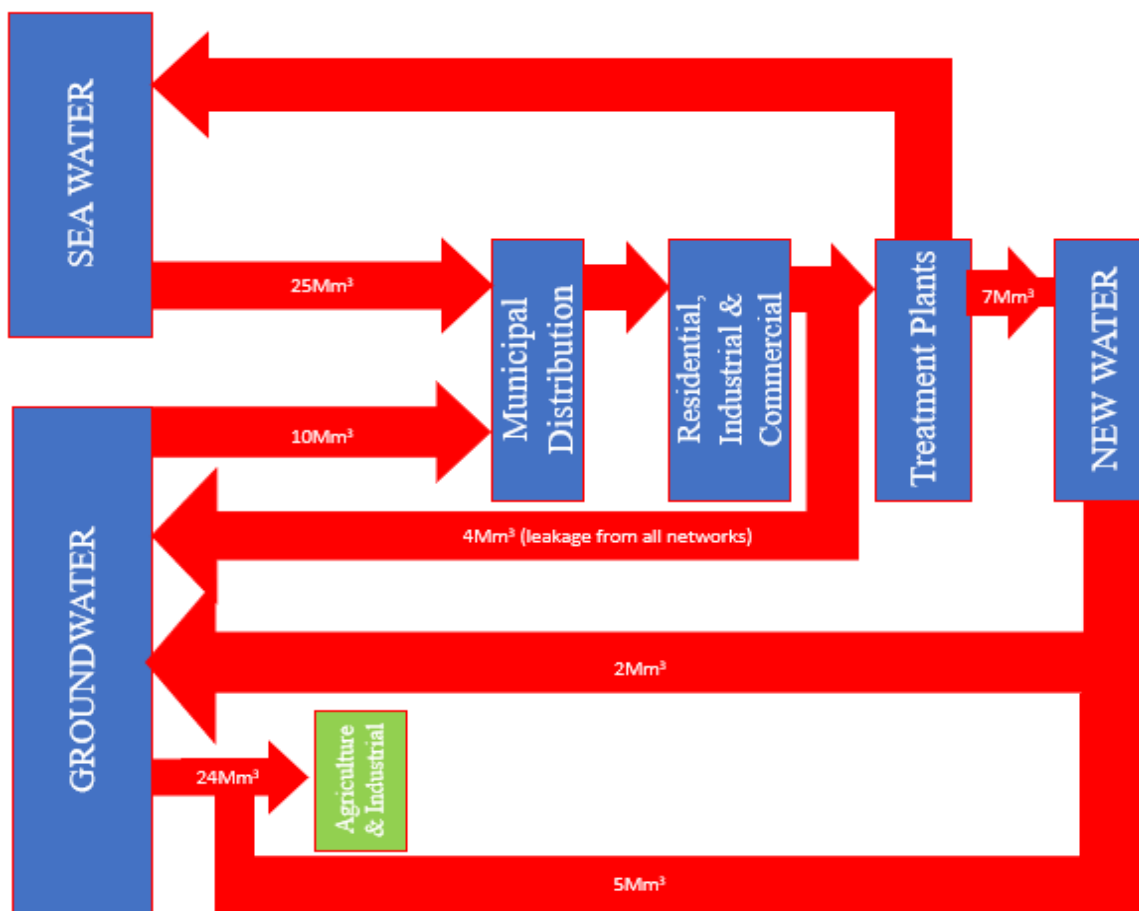
Towards a Net Zero Impact
Utility: Volumetric Approach

Financial Cost Recovery: 79%

Aggregate figure: incl. revenues from potable
water & wastewater treatment

Circular Water
Economy:
Volumetric
Approach

- Wastewater Polishing Plant: 7m³ p.a.
- -> reducing the quantitative pressures on the aquifer systems
- Development of an effective distribution capacity for New Water
- Increasing the capacity of the desalination plants



WAY FORWARD

Environmental & Resource Benefits

8. Rural Areas
aesthetic, recreation and eco-tourism value

4. Rural communities
(social capital)

7. Plants
Carbon Sequestration

2. Rubble walls
increased water catchment,
soil protection/regeneration

3. Biodiversity
Conservation Hubs
(in rubble walls
and other structures)

AGRICULTURE

FALLOW

GARIGUE

6. Agriculture
Food Security

1. Increased recharge compared to
wasteland/beaten earth

5. Uncontaminated
recharge

THE
ENERGY
& WATER
AGENCY

Environmental & Resource Costs

1. Groundwater
Abstraction

4. GHG
Emissions
from Manure

3. Impact from Agri-Pesticide-use
on Biodiversity

AGRICULTURE

FALLOW

GARIGUE

2. Leaching of nutrients

THE
ENERGY
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- Payments for Ecosystem Services (PES)/Remuneration for Positive Externalities
- CAP: Agri-environment-climate measures (AECMs)

THE
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THANK YOU!

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