

**Economical mechanism in water management**  
**Cost recovery for water services**  
**(Case study)**

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# RECOVERY OF COSTS FOR WATER SERVICES

**Article 9  
WFD**



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

**Article 2  
#38**



*"Services for households, public institutions or any economic activity:*

- abstraction*
- impoundment, storage,*
- treatment and distribution*
- wastewater collection and treatment facilities which subsequently discharge into surface water"*

# RECOVERY OF COSTS FOR WATER SERVICES

COSTS FOR  
ASSURE  
WATER  
RESOURCES  
TO ALL  
END-USERS

+

COSTS FOR  
WATER SERVICE:  
-ABSTRACTION  
-STORAGE  
-TREATMENT  
-DISTRIBUTION  
-WASTE WATER  
COLLECTION  
-TREATMENT

+

ENVIRONMENTAL  
COSTS

# National Administration APELE ROMANE ECONOMICAL MECHANISM

present and future

**ECONOMICAL PRINCIPLES for water resources sustainable development:**

- **BENEFICIARY PAYS:**

- **System of payments for specifically water management services for all users**

***Tariffs* for achievement the specific water management services: divided by *source* (surface, groundwater and Danube) and by *user* (agricultural, industrial, population)**

***Tariffs* for quantitative and qualitative monitoring and improvement of pollutants from waste water discharge**

- **POLLUTER PAYS:**

**Penalties for exceeding the admitting maximum concentrations of pollutants from waste water discharge**

**Monitored indicators:**

*Chemical: general, specifically, toxic and very toxic*

*Bacteriological*

*Physical*

- **Beneficiary stimulation - bounties**

**For reducing the water quantity consumption**

**For improving the water quality**

# FUTURE POLICY IN WATER FIELD

- A **cost recovery policy** to stimulate the users for an efficient use of water resources
- Based on “**cost recovery for water services” principle** including environmental and resource cost and **polluter pays principle**
- **New economical mechanism** for quantitative and qualitative resource water management **involves**:
  - **system of contributions**;
  - payments, penalties and bounties

# FUTURE POLICY IN WATER FIELD

- It will assess appropriate **contributions** of different kind of users (industry, agriculture and domestic use - population)
- **Contributions** will be based on:
  - specific economical development of each RB
  - social effects in each RB
  - specific geographical and climatological conditions
- **Contributions** will be:
  - Using water resources divided by users (industry, agriculture, population) and resource (surface, groundwater and Danube)
  - for waste water discharging
  - for hidroenergetical potential

# FUTURE POLICY IN WATER FIELD

## ***Goals:***

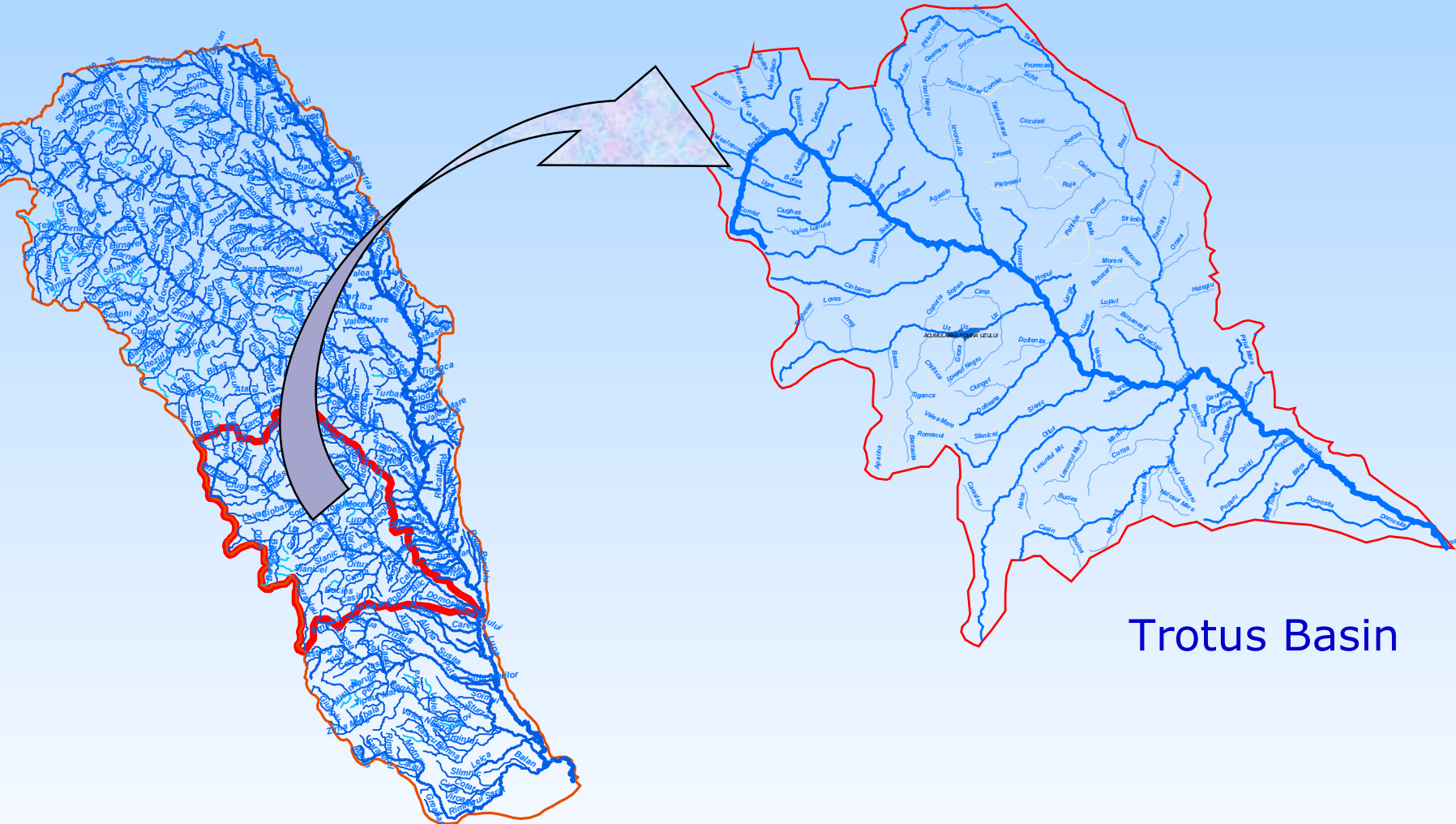
- recovering the operational and maintaining costs
- partial financing new investments from ANAR incomes
- Level of contributions and tariffs has to ensure partially financing to:
  - reduce the pollution;
  - implement other water directives
  - ensure funds for covering an amount of assessing costs
  - ensure funds for covering potential environmental damages



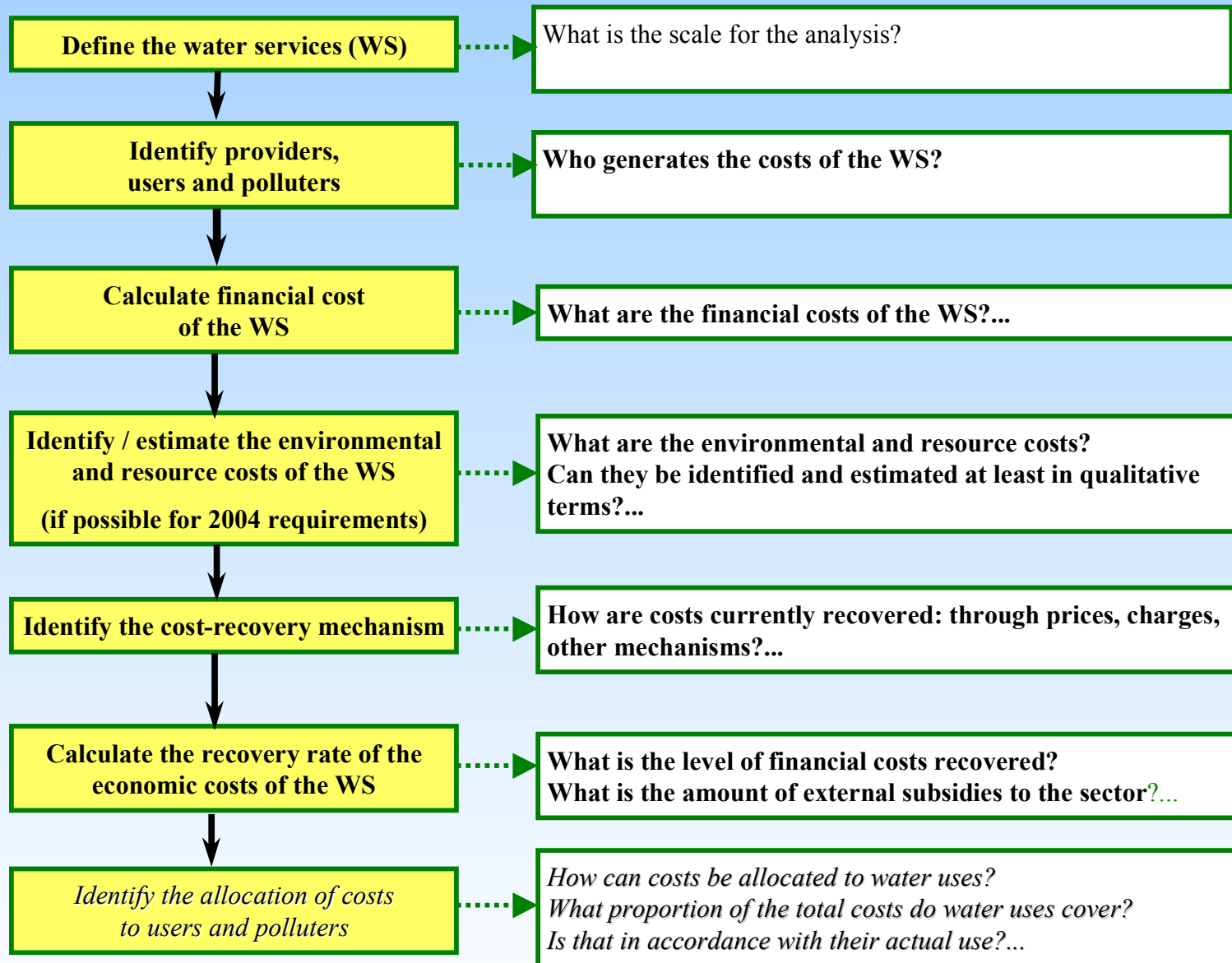
# **Cost recovery for water services**

## **CASE STUDY TROTUŞ RIVER BASIN**

# SIRET RIVER BASIN



# FLOW CHART FOR REPORTING ON COST RECOVERY



# 1. DEFINITION OF THE “WATER MANAGEMENT” SERVICES

## **ANALYSIS SCALE**

- Trotuș river basin

## **WATER SERVICES**

- “water management” services done by Siret Water Directorate (Siret WD)

## **WATER USES**

(main uses)

- water companies (households)  
- industry

## **SOURCE OF THE DATA**

- Siret WD database

## **ORIGIN OF WATER**

- surface water 99%  
- ground water < 1% (negligible for this first assessment)

## **VOLUMES ABSTRACTED**

(in 2002)

- households - 24 Mm<sup>3</sup>  
- industry - 91 Mm<sup>3</sup>

# IDENTIFICATION OF THE SERVICES

- **SPECIFIC SERVICES**

- assurance raw water to end-users
- monitoring of surface water quality and protection of water resources
- assurance the level in the reservoirs for energy production

- **COMMON SERVICES**

- treatment and distribution of drinking water
- transport drinking water to the user

- **OTHER SERVICES**

- monitoring and removal of accidental pollution
- water quality analysis

## 2. IDENTIFICATION OF PROVIDERS, USERS AND POLLUTERS

- **WATER MANAGEMENT SERVICE PROVIDER**
  - Siret Water Directorate
- **USERS**
  - 11 water companies (households and industry)
  - 4 individual households
  - 24 industrial users
  - 1 hydropower user
  - flood protected objectives :
    - 80 localities
    - lands 8100 ha
- **POLLUTERS**
  - 11 waste water discharges

# 3. FINANCIAL COSTS

## Resources

Types of financial costs	Description	Value (€)	Comments
Operating costs	- exploitation and maintenance of hydrolic works, maintenance of watercourses	1 296 199	- data come from Siret WD's database
	- exploitation and maintenance of the drinking water plant and pipes		
	- hydrology		
	- information system (dispatcher)		
	- monitoring, quality analysis		
Capital costs	- depreciation costs	-	- included in operating costs
<b>TOTAL</b>		<b>1 296 199</b>	

## 4. ENVIRONMENT COSTS

Environment costs	local monitoring of resouces and removal of accidental pollutions	169,000 EURO	- invoice sent by Siret WD to the polluter ( plus extra time of the employees extra fuel, materials used for the pollution effects removal)
	pressure and influence of end-users developmenting to water resouce		- not identified yet
<b>TOTAL</b>		<b>169 000</b>	



# 5. COST RECOVERY MECHANISM

## (2)

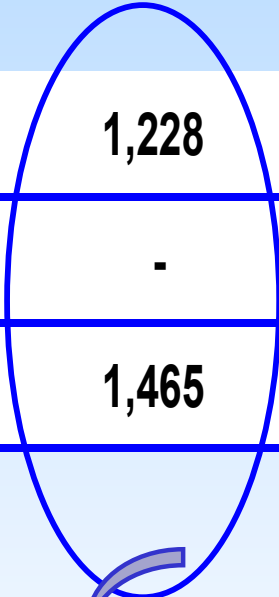
Financial costs	<b>Tarrifs for :</b>	
	- assurance raw water to end-users	
	- assurance the level in the reservoirs for energy production	different by source and by use
	- monitoring water quality and protection of water resources after discharging	different by type of substance
	- transportation drinking water to the user	negociation Siret WD - users
	<b>Prices for :</b>	
	- treatment and distribution of drinking water	approval-Office of Concurrence
Environmental costs	- issue of invoices based on the Water Law	the non real costs for monitoring and removal of accidental pollution
	pressure and influence of end-users development to water resouces	-

# 6. COST RECOVERY RATE

$$\text{Cost Recovery Rate} = \frac{\text{Total revenues} - \text{Subsidies}}{\text{Total costs}} \times 100$$

Source : WATECO Guidance

<b>Total revenues</b>	<b>1,228</b>	<b>services paid + environment</b>
<b>Subsidies</b>	<b>-</b>	<b>-</b>
<b>Total costs</b>	<b>1,465</b>	<b>financial + environment</b>



**cost recovery rate**  
**82,3%**

# 7. ALLOCATION OF COSTS TO USERS AND POLLUTERS

Types of costs	Allocation	Comments
Financial costs	totally to users	depreciation is not entirely included in the drinking water prices
Environment costs	totally to polluters	those environment costs represent a first assessment
Pressure and impact costs	-	-

total costs with entire depreciation = **1,596 M€**



**cost recovery rate**  
**76,9 %**

# WHAT TO DO NEXT REGARDING COST RECOVERY

## ENSURE

- that water-pricing policies provide adequate incentives to use water resources efficiently
- an adequate contribution of different water uses to the recovery of the cost of water services.....

Disaggregated into at least industry, households and agriculture



## ... having regard to

- the social, environmental and economic effects of the recovery
- the geographic and climatic conditions of the region