

ECONOMIC ANALYSIS OF LOWER VISTULA WATER DISTRICT

Draft report on Step I

Halina Burakowska , RZGW Gdańsk
Ryszard Kościacz, IMS Wrocław



Introduction

- ***Economic analysis of Lower Vistula water district has been done from May till August 2004***
- ***Analysis was performed acc. to Guidance of Ministry of Environment from March 2004 and recommendations of the Consultative Group on Economic Analysis***
- ***Analysis was based on data from 2002***
- ***Analysis forms an integral part of Water Management Plan for River Vistula Basin acc. to WFD***

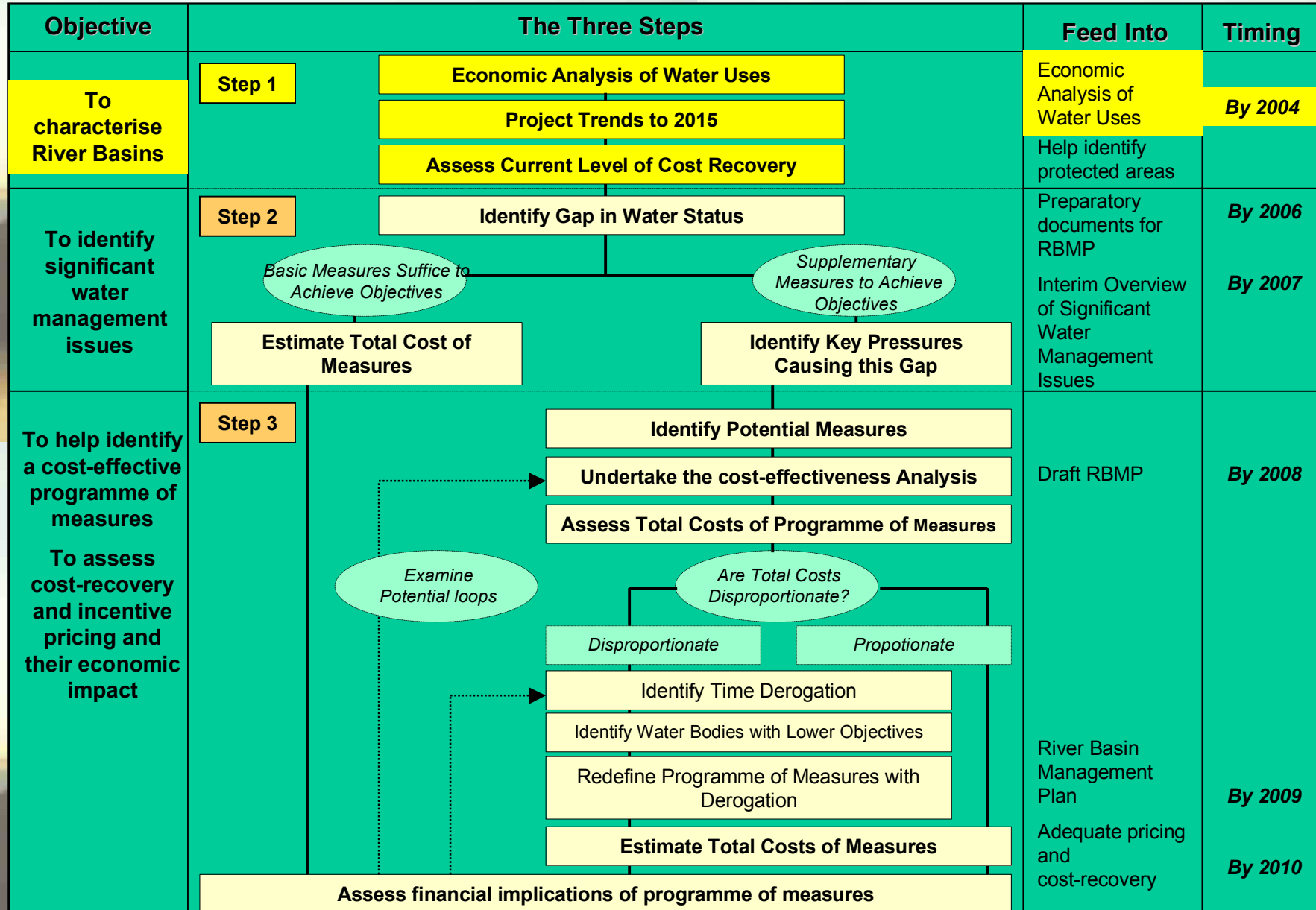
Targets of Step I

- ***Economic significance of water uses***
- ***Assessment of trends till year 2015***
- ***Assessment of current cost recovery level***

Regional Boards of Water Management



Economic analysis - the three-step approach



Main results of I step of economic analysis

- ***Identification of sources and availability of economic information***
- ***Key indicators of economic significance of different water uses***
- ***Development of baseline scenario and forecast for year 2015***
- ***Assessment of current cost recovery level***
- ***Valuation of current pricing policy***



General conclusions

- **Organisational and legal system of water management in Poland comply fully with Acquis Communautaire**
- **System of fees and penalties is formulated on central level**
- **Water pricing rules are set on central level in accordance with full cost recovery principle**
- **Prices of water services are updated yearly by local governments (gminas) in compliance with pricing rules set on central level**
- **Pragmatic system of financing of water sector enabled its steady and significant development during last 15 years**



Lower Vistula Water District

- **Area - 34 466,1 sq.km (11% of territory of Poland)**
- **Population – 4 039,9 thousand (10,5% of population of Poland)**
- **Total water use – 463,7 mln cub.m/year (4.3% of water use in Poland)**
- **Surface water resources – 10 970 cub.m/year/person
(Poland – 1900 cub.m/year/person)**
- **Land use similar to country's average:**
 - **arable land 62,1%**
 - **forests 31,5%**
 - **urban areas 2,3%**
 - **other, incl. waters 4,1%**



Areas of economic analysis

Lower Vistula water district was divided into four areas:

- **DW-1** - *Lower Vistula to mouth of Osa and Wda Rivers*
- **DW-2** - *Lower Vistula to Baltic Sea*
- **DW-3** - *rivers flowing into Vistula Estuary*
- **DW-4** - *coastal rivers*



jednostkibilansowe.jpg



Areas of economic analysis – designation criteria

- **Hydrography** – group of catchments
- **Economy** – taking into account:
 - structure of economy (GDP per sector)
 - development level (GDP per capita)
 - social development (unemployment level, personal income)

Conclusions:

- Areas are relatively homogenous
- Water use and wastewater generation correspond to economic development level
- In the next step the number of areas should be reduced to two: 1. Lower Vistula River with Gdańsk, Gdynia, Sopot and Elbląg cities.
- 2. The remaining part of Lower Vistula water district

Source of information and its availability

Water services

- **Regional Data Bank of Central Office for Statistics (GUS)**
 - quantities (paid, direct access)
- **Provincial Offices - fees (free of charge, limited access)**
- **Water service providers – prices and costs (restricted access)**

Recommendations

- **The RZGW module should be added to Regional Data Bank of Central Office for Statistics**
- **Geographical Information System for Vistula River Basin should be developed**



Water use in Lower Vistula Water region

Water use per sector in mln cub.m/year

- **communal** - **181 (45%)**
 - incl. service sector* - **38 (9%)**
- **industry** - **166 (41%)**
- **agriculture and forestry** - **54 (14%)**

Gross Added Value per sector in mln PLN

- **Services** - **42 189 (65%)**
- **Industry** - **20 968 (32%)**
- **Agriculture and forestry** . **2 278 (3%)**

Lower Vistula region share in national GDP amounts to 9,9%



Projection of trends 2002 - 2015

Water use per sector in year 2015 in mln cub.m

• Total	484 (+ 21%)
• Households	162 (+ 10%)
• Services	75 (+100%)
• Industry	166 (0%)
• Agriculture	81 (+50%)

Water use per capita

Year 1990	- 68.5 cub.m/year
Year 2002	- 35,6 cub.m/year
Year 2015	- 41,0 cub.m/year



Current pricing policy in Lower Vistula region

- **Price for water services are set according to Act on public water supply and wastewater discharge dated June 7th 2001**
- **Price for water: 1,60 – 1,70 PLN per cub.m (87% of national average)**
- **Price for wastewater: 2,00 – 2,20 PLN per cub.m (117% of national average)**
- **Loss on water services amounts to 2% (total for Lower Vistula region)**
- **Only 40% of water services providers are profitable**
- **During last 5 years a steady increase of price in water services sector is observed amounting to 10-15% above inflation level**



Condition for implementation of full recovery costs principle

- *Conformity of pricing procedure with Act on public water supply and wastewater discharge from June 7th 2001*
- *Continuation and improvement of pricing policy at central level*
- *Reintroduction of fees for irrigation water use*
- *Effective monitoring of water permit's compliance and functioning of fees collection system*
- *Gradual elimination of communal subsidies for water and wastewater services*
- *Consolidation of water services sector*

