

BUG SURVEYS:



An Initiation of Transboundary Co-operation

Małgorzata Landsberg-Uzciwek

Voivodeship Inspectorate of Environmental Protection in Szczecin

Teresa Zań

Regional Water Management Board in Warsaw



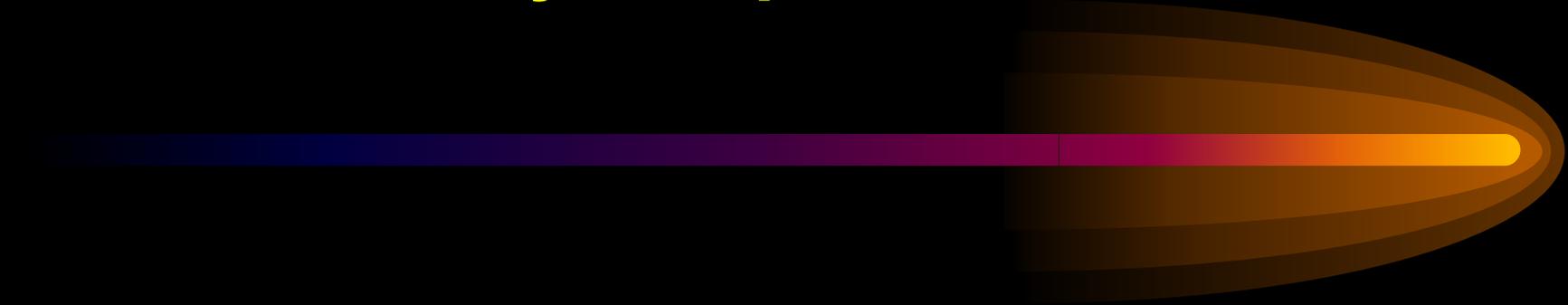
The Bug River basin is situated in the north-west part of Ukraine, south-western Belarus and the central-eastern part of Poland and is within the Baltic Sea catchment area. The total area of the Bug basin is 39.4 thousand km², which is 19.3% of the Vistula basin.

The area of the basin belongs to the different administrative regions in each country.

Ukraine – 27.4%,
Belarus – 23.4%,
Poland – 49.2 %
of total area.



Transboundary co-operation in the basin



Before 1992

In the agreement between Poland and the USSR on co-operation in water management (1964), the countries established monitoring networks on the bordering part of the river Bug.

After 1992

Ukraine

The agreement between the Governments of the Republic of Poland and Ukraine on co-operation in the field of water management on rivers crossing their mutual border (Kiev, October 10, 1996).

Belarus

The agreement between the Ministry of Environmental Protection, Natural Resources and Forestry of Poland, and the State Committee of the Belarus Republic for Ecology, on co-operation in the field of environmental protection (May 20, 1992).



Polish-Ukrainian Committee for Co-operation in the Field of Boundary Waters :

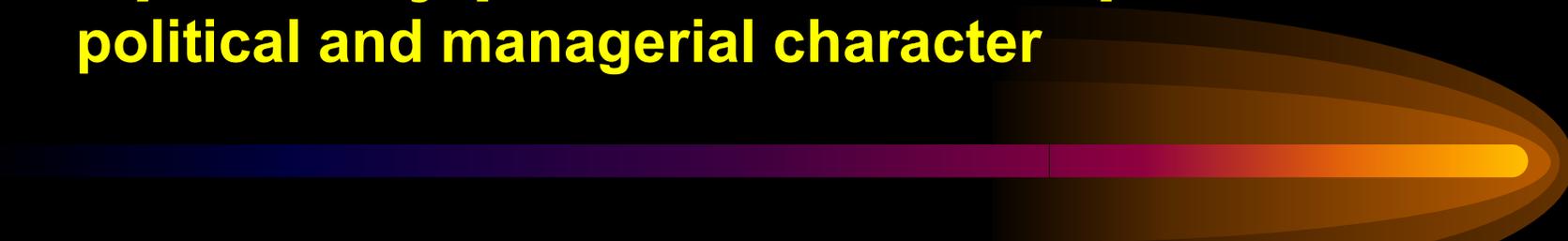
- a working group for planning,
- a working group for protection against pollution,
- a working group for flood protection, river regulation and land melioration,
- a working group for hydro-meteorology and hydro-geology,
- a working group for accidental pollution control.

Pilot Project



- **The Pilot Project under the UNECE Water Convention started in January 1997.**
- **The Memorandum of Understanding (MoU) was signed in 1997.**

Preparatory phase – the inception: **political and managerial character**



- **the preparation of project proposal and funding of the project,**
- **the establishment of project organisation,**
- **the inception report, including a description of the river-basin, current monitoring and assessment practices, responsible institutions, project organisation; resulting in a project plan for each river-basin,**
- **the conclusion of the overall project plan for the pilot-project programme.**

Preparatory phase – monitoring and assessment needs analysis – experts involvement:



- **an inventory of available information,**
- **legislation,**
- **surveys to obtain an insight into the omission of information,**
- **a specification of information needs,**
- **the development of strategies for the monitoring and assessment,**
- **recommendations for improvement.**

Survey targets



- **occurrence or non-occurrence of substances,**
- **potential toxicity of water or sediments,**
- **distribution of aquatic species or communities,**
- **homogeneity of water quality over a river cross section,**
- **variability of water quality in time and space.**

Common sampling targets



- to understand the physical condition of the river system,
- assessment the current sampling points,
- joint sampling, analyses, and evaluation,
- involvement of different laboratories in a combined, joint initiative.

New information after survey



Common sampling

- **Significant differences were recorded in many of the results (including traditional parameters) even though each national laboratory used accredited methods.**
- **The need for good interlaboratory comparability has become both a national and international issue.**

New information after survey

Organic micropollutants

- **Stress for pollution of these substances is rather low (PAHs were found in sediments).**
- **Most of the findings for organic micropollutants are first-time-results.**
- **It is strongly recommended that investigations and laboratory analyses for confirmation of the results should continue.**

Heavy metals

- **The methodology and comparability of these analyses need to be improved and adjusted to one system of environmental criteria.**

New information after survey

Toxicity tests

- **Chronic toxicity based on various biological tests of water and sediments was evident in a number of samples in the Ukrainian, Belarusian and Polish part.**
- **The toxicity discovered was not always consistent with chemistry. Such cases need to be investigated further.**
- **A set of tests can be chosen as very convenient tool to determine the level of chemical contamination of water.**

Hydrobiology

- **The whole study showed that the river Bug is potentially capable of recovery to ‘good’ ecological status.**

Sampling points for transboundary monitoring



Parameters which should be included in transboundary monitoring

- basic parameters,
- oxygen regime,
- nitrogen and phosphorus compounds,
- heavy metals in water and sediments: *to be decided after laboratory analysis issues are solved,*
- organic micropollutants in sediments: PAHs,
- hydrobiological parameters,
- polar pesticides in water (target analysis), screening in water LC/MS and screening in water and sediments GC/MS - not more than once a year.

Experiences on working together

How to organise co-operation practically

- **Respect the differences in legislative systems and levels of making particular decisions.**
- **Realities which limit co-operation between countries.**

Unexpected situations

- **When planning future activities, delays in making decisions should be considered, and emergency procedures in the event of accidents formulated.**

Experiences on working together



Financial aspect

- **The planned continuity of activities appropriate to the financial condition provides the chance to strengthen the transboundary co-operation.**

Exchange of data

- **The first data exchange between Poland, Ukraine and Belarus conceived on such a large scale which also includes data relevant for water management analysis.**

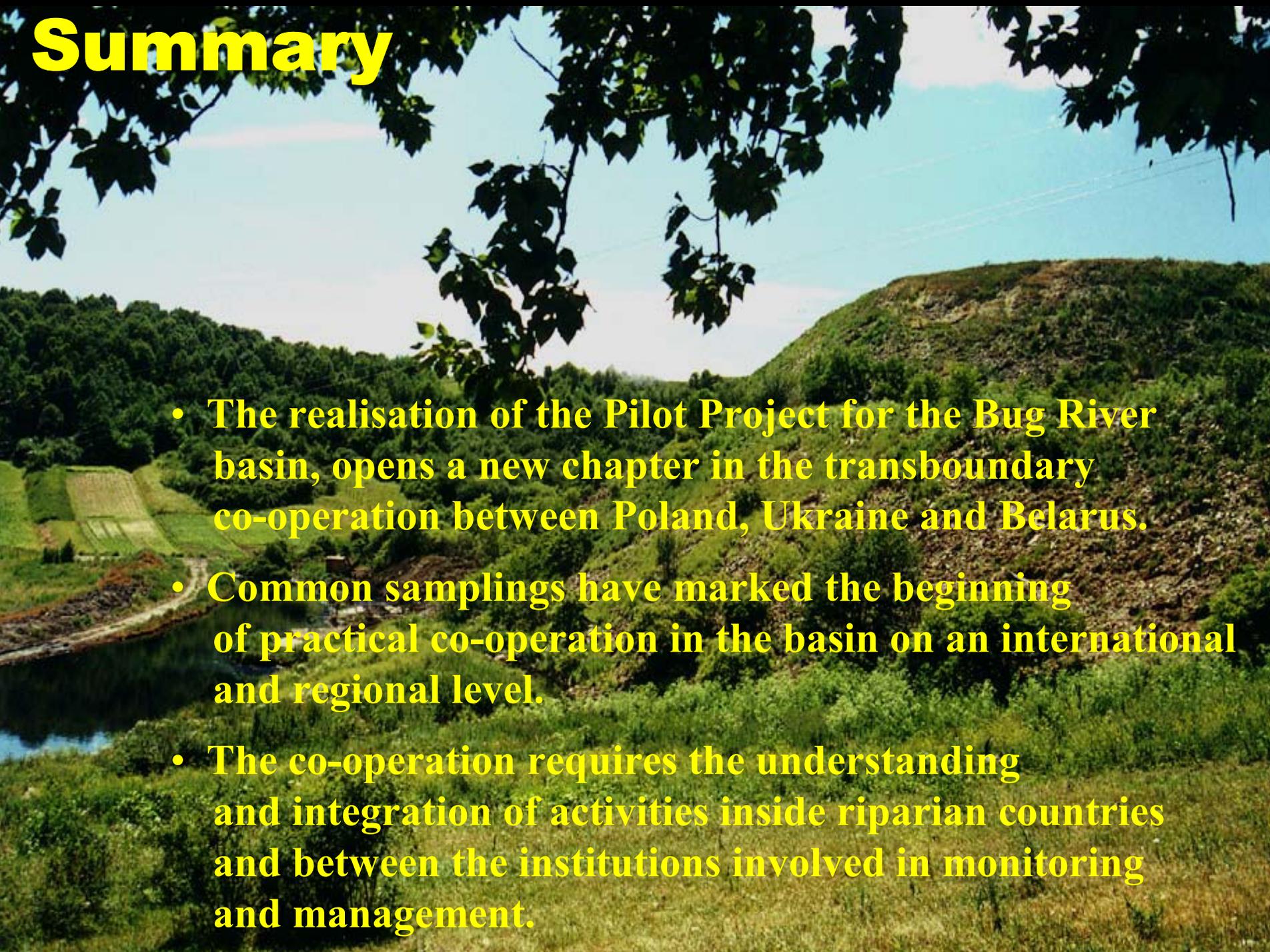
Experiences on working together



Involving experts and knowing each other

- **Growing mutual trust and the interest of experts from different countries, were both noticeable (e.g. sources of pollution, ‘hot spots’).**

Summary

A scenic landscape featuring a river winding through a valley. The hills are covered in lush green vegetation, and the sky is a clear, bright blue. In the foreground, the dark silhouettes of tree branches frame the top and right sides of the image.

- **The realisation of the Pilot Project for the Bug River basin, opens a new chapter in the transboundary co-operation between Poland, Ukraine and Belarus.**
- **Common samplings have marked the beginning of practical co-operation in the basin on an international and regional level.**
- **The co-operation requires the understanding and integration of activities inside riparian countries and between the institutions involved in monitoring and management.**