

# A river basin management system for the river Barta - LV

## 1. Policy Objective & Theme

- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space

## 2. Key Approaches

- Participation
- Technical

## 3. Experiences that can be exchanged

Development of a river basin management plan and the use of small scale eco-engineering techniques to reduce pollution from point sources of human faecal contamination

## 4. Overview of the case

A non-statutory management group for the river Barta was established which drew up a management plan for the river basin in Latvia and implemented several measures to improve the status of drinking water of small communities.

## 5. Context and Objectives

### a) Context

The River Barta, in southern Latvia, has its source in Lithuania and can thus be considered a trans-boundary river. It is home to a range of Salmonidae species (salmon and trout) but suffers from pollution threats from human waste. The use of eco-technologies for waste water and drinking water management to reduce the contamination had not previously been realised at the level of small rural municipalities in Latvia.

### b) Objectives

The overall objective was to reduce the pollution levels of the Barta River catchment area. It also planned to establish a new public institution for river basin management.

## 6. Implementation of the ICZM Approach (i.e. management, tools, resources)

### a) Management

An NGO, the Open Society Environment Management Centre Bartava, was responsible for the work.

### b) ICZM tools

A Water Basin Club, or “Barta Club”, was established and participated in the development of the River Barta management plan. The participants were the Ministry for Environment Protection and Regional Development, the Regional Environment

Management Agency, eight local governments (Barta, Dunika, Gramzda, Kaleti, Nica, Otanki, Rucava and Virga), the Micro-Euro-region Bartuva Association. This group would take into account the various interests of different local, national, international and cross-border and Baltic sea basin stakeholders. This new management system was to take over the wastewater and drinking water system management from eight local authorities. It served as a basis for the planning and implementation of activities aimed at improving the environmental quality of the river basin. A significant output was a number of Quality Objectives to accompany the river Barta management plan which were elaborated with extensive involvement of the local community. They were the first in Latvia to be so drawn up. Prior to this, similar objectives had only been elaborated by experts for larger rivers (e.g. Daugava). The Barta Club also suggested local restrictions on water management, the elaboration of a sustainable development indicators list and the elaboration and realisation of a local environmental quality monitoring system. Additionally, proposals for local restrictions on water quality and its management were drafted in accordance with the Water Framework Directive.

The partnership between the local authorities and stakeholders also developed an investment system and completed a prioritisation of pilot project places for alternative wastewater treatment and drinking water system reconstruction. Finally, three wastewater and drinking water demonstration projects were established in small communities of up to 2000 inhabitants. These were alternative eco-engineering projects such as the establishment of biological ponds, wetlands, and forests which affect the local drinking-water supply system. Other technologies deployed as part of the demonstration projects e.g. removing iron and wastewater treatment technologies - were successful. The iron content in drinking water has decreased considerably: the drinking water treatment results showed that for the Virga Community, there was a drop from 0.899 to 0.035 mg /l FeO<sub>3</sub>; in the Nica Community from 0.856 mg/l to 0.139 mg/l and in Otanki Community from 0.853 mg/l to 0.113 mg/l. The quality of the drinking water overall has increased and, according to data from the Environmental Health Centre, the results are much better than initially planned. With completion of the treatment stations, the inflow of untreated wastewaters into the Barta River basin were arrested and the possibility of such waters reaching the Baltic Sea basin therefore also decreased. Specifically, the per-day inflow of 112 m<sup>3</sup> of untreated wastewater to the Barta River and Dunika municipalities was stopped. The pilots were used to produce the sustainable development indicator list.

A single water operator allows the municipalities to meet the Water Framework Directive requirements and halts the need for subsidisation of a water management system from municipal budgets. Co-operation with local schools was also established and school pupils aged 12-18 participated in monitoring activities.

## 7. Cost and resources

The total budget was €514,900 of which there was a Life contribution of €203,150.

## 8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

The initiative illustrated the benefits for small municipalities of solving large-scale water management problems via a common structure. The quality of the drinking water has increased and according to the data of Environmental Health Centre the results are much better than planned initially.

## 9. Success and Fail factors

The establishment of the "Barta Club" consultative board, which was one of the main aims of the initiative was not established with a sound legal footing.

## 10. Unforeseen outcomes

This programme was continued after the end of the initiative with funding support from the National Support Programme of the Netherlands.

## 11. Prepared by

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## 12. Verified by

It has not been possible to verify this case.

## 13. Sources

- Project Barta Club LIFE 00 ENV/LV/000961. Layman's report. (2005) Open Society for Environment management "Bartava".



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