



SERBIA

Danube River Enterprise Pollution Reduction Project (DREPR)

Project Summary and Scope

The objective of this project is to reduce nutrient loads discharged into the Danube River and its tributaries from livestock farms (i.e., pig and cattle farms) as well as slaughterhouses.

- Component 1. Regulatory Reform and Capacity Building** — The project supports policy and legal reforms that target the reduction of enterprise nutrient pollution, and supports SAM in its goal to gradually harmonise environmental laws and regulations with those in the EU *aquis*. The project also builds technical capacity of the Ministry of Environment and Spatial Planning, Serbian Environmental Protection Agency (MESP and SEPA); the Ministry of Agriculture, Forestry and Water Management (MAFWM) and other institutions with legal mandates to enforce water-quality standards
- Component 2. Investment in Nutrient Reduction** — Investment support is provided for agricultural sector (i.e. pig and cattle farms, slaughterhouses, and the meat processing industry) that are significant sources of nutrient pollution. The project supports:
 - improved manure management on livestock farms;
 - slaughterhouse animal waste management;
 - the Training and Information Center (TIC) to update the knowledge and skills of agricultural advisors, trainers, staff of MAFWM and MESP, local authorities and enterprise managers; and
 - local advisory units (LAUs) to raise awareness among farmers and slaughterhouses on proper nutrient, manure and slaughterhouse animal waste management and assist enterprises participating in the project.
- Component 3. Water and Soil Quality Monitoring, Public Awareness Raising and Replication Strategy** — The project assesses the impact of the project investments on water and soil quality in the Serbian part of the Danube Basin and carries out public information campaigns at the national and local levels to raise awareness on nutrient manure management and water pollution, and their impact on public health, ecosystems and the economy, including piloting a “Public Environmental Information Sharing Scheme.” The pilots use public pressure to change behaviour of significant polluters to improve environmental performance and compliance with environmental regulations.

INVESTMENT

Global Environment Fund grant	USD 9.02 million
Country co-financing	USD 13.12 million
Total	USD 22.14 million

PROJECT DURATION

2005 to 2010

NUTRIENT CHALLENGES

Nutrient pollution of surface and ground waters with nitrogen and potassium coming from farms and agro-processing industries, especially large-scale livestock farms where liquid manure is transferred from lagoons into drainage canals connected to the Danube River or its tributaries, without any additional treatment. The main impacts, caused by nitrogen losses, mineral fertilisers and organic nitrogen (in manure) recycled to water and soils, lead to ground waters enrichment, eutrophication of surface waters and in synergy with phosphorus, are contributing to “acid rain” damages on terrestrial flora and soils.

EARLY NUTRIENT BMP “WINS”

- BAP information materials, capacity building among farmers and monitoring programme in place on demonstration farms to show a decrease of nitrogen and phosphorous pollution and improvement of ground and surface water status



Benefits/Best Practices

- Construction of manure storage facilities, improved slaughterhouse operations and waste water and animal waste management processes
- Implementation of a Code of Good Agricultural Practices; adoption of the law and sanctions against polluters; the draft Strategy and Action Plan for implementation of the EU Nitrate Directive, including a project replication strategy; introduction of environmental standards and methodologies required by EU directives and Serbian laws
- Introducing manure handling equipment, including proper nutrient manure management through three LAUs.
- Training and education to help farmers establish sustainable agricultural production compiling knowledge of Serbian technologies that meet both farmers' needs and EU requirements

Other Key Successes

- Improvement of environmental conditions throughout Serbia
- Improved access to EU export markets for Serbian meat and meat products
- Assistance in harmonisation with EU *acquis communautaire* and EU integration
- Honouring international Danube Basin and Black Sea protection conventions
- Improvement of knowledge and skills of the local agro-processing sector

Key Agricultural BMP Indicators

- 86 Nutrient management plans prepared.
- New procedures and activities developed and introduced, compiling knowledge on Serbian technologies meeting both farmers' needs and EU requirements.
- 64 farms received the grant support for manure storage and proper handling equipment.
- The TIC being a knowledge resource base for stakeholders; 570 participants trained on relevant EU legislation
- Number of farmers and slaughterhouses being assisted by the three LAUs.
- Construction works and equipment ongoing on 4 slaughterhouses and/or meat-processing industries, seven agricultural schools and three rendering plants.

Further information

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About the Living Water Exchange

The Living Water Exchange, a GEF/UNDP project promoting nutrient reduction best practices in Central and Eastern Europe, will share information and accelerate the replication of the most appropriate nutrient reduction practices developed from GEF and other investments in the region.

For more information, please visit <http://nutrient-bestpractices.iwlearn.org/> or email Chuck Chaitovitz chuck@gef.org