#### NUTRIENT REDUCTION / BEST MANAGEMENT PRACTICE



# **MOLDOVA** Agricultural Pollution Control Project

## **Project Summary and Scope**

The overall objective of the Agricultural Pollution Control Project in Moldova was to reduce nutrient (nitrogen and phosphorous) pollution from agricultural sources in the river Danube and the Black Sea. The project assisted the Government of Moldova to: (i) promote the adoption of environment-friendly practices in crop and livestock production and in rural agro-industries that contribute to nutrient pollution, including wetland and integrated watershed management; (ii) strengthen national policy, regulatory and institutional capacity for agricultural nutrient pollution control; and (iii) promote a broad public awareness campaign and replication strategy. The project is a component of a USD 30 million rural investment and services project funded by the International Development Association and mainstreams environmental concerns into agricultural practices. The proposed project also assists the Government of Moldova to harmonise its legislative framework with relevant EU directives and to honour its international commitments to reduce nutrient loads in the river Danube and the Black Sea.

**Component 1**: Promoting environmentally friendly agricultural practices. Activities under this component included crop rotation, conservation tillage, efficient manure management practices, the promotion of organic farming, nutrient management, the creation of buffer strips along rivers, and soil and water quality monitoring. Farmers were offered training in these techniques.

**Component 2:** Strengthening national policy, regulatory and institutional capacities. This component focuses on strengthening the capacities of the Government of Moldova to achieve conformity with EU requirements in agricultural pollution control.

**Component 3:** Public awareness-raising activities and replication strategy. A broad local and nationwide campaign was undertaken to disseminate information about the benefits of proposed project activities and to achieve replicability. At the local level, the main target group were the direct stakeholders (local and county officials, farmers, community groups and NGOs). The aim was to familiarise the population with the concepts and to help bring about the behavioural changes necessary to the success of the project (the prevention of soil erosion, the use of manure management practices, and respecting the Code of Good Agricultural Practices etc.).

**Component 4:** The establishment of a project management unit under the Rural Investment and Services Project.

# INVESTMENT

Total USD 10.74 million

## PROJECT DURATION 2004–2009

#### **NUTRIENT CHALLENGES**

- Inappropriate storage and use of livestock manure, inappropriate agricultural practices (e.g. ploughing across the contour lines, which encourages soil erosion), and the direct discharge of untreated wastewater from agro-processors into water bodies
- The eutrophication of water reservoirs
- Contaminated drinking-water wells

#### **EARLY NUTRIENT BMP "WINS"**

 The high rate of adoption of the demonstrated practices by farmers and agro-processors is evidence of the project's success. Water quality improved as a result of the reduction in nutrient discharges



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# **Best Practices**

- Nutrient management Crop rotation, crop nutrient management with soil testing, the use
  of organic fertiliser and livestock grazing practices.
- Manure management and storage Centralised and household manure storage and management practices.
- **Production efficiency measures** Improved production efficiency through cost-effective inputs and better farm management, including selected seed usage.
- Sanitation and hygiene Improved health and sanitation as a result of better drinking-water quality and better general hygiene in the villages.

#### **Additional Benefits**

Nationally, the country will benefit through:

- Improved quality of surface waters and groundwater in the watershed pilot area and consequently in the river Prut.
- Improved agricultural productivity through better agricultural practices.
- Progress towards compliance with EU directives.
- Increased capacity building of local institutions such as the State Ecological Inspectorate and the Ministry of Public Health.
- Sustainable rural growth and development through environmentally sound agricultural practices.

Internationally, benefits will accrue through:

- Continual reduction in the discharge of nutrients and sediments into the river Danube and the Black Sea and accompanying improvements in the quality of local and Black Sea water.
- Improving habitats for migratory waterfowl and a variety of endangered species.
- Carbon sequestration in grasslands, arable land and forests.

# **Key BMP Indicators**

- Improved water quality as a result of reduced nutrient discharges.
- Reduced nutrient loads by 102.5 tons of nitrogen and 78.9 tons of phosphorus in 2008.
- Measurements taken in the demonstration areas showed that soil erosion can be reduced by as much as 35 to 64 percent, depending on the environment-friendly practice applied.
   Environment-friendly practices were adopted on about 3,000 hectares in the project area.
- An increase in the income of small farmers of up to USD 167/ha due to the adoption of manure management practices. The same practices applied on medium-sized farms contributes to a reduction in nutrient discharges into water bodies of up to 40 kg N/ha/year and 36 kg P/ha/year.

### **Further Information**

#### http://www.capmu.md/?a=1&id=60







#### 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://nutrientbestpractices.iwlearn.org/ or email Chuck Chaitovitz chuck@getf.org

