

# POLAND

## Rural Environmental Protection Project

### Project Summary and Scope

The Baltic Sea Strategic Action Plan estimates that 30 to 40 percent of the nitrogen and 10 percent of the phosphorous entering the sea come from agriculture, and the eutrophic conditions they cause is the top priority transboundary water challenge. The Rural Environmental Protection Project for Poland aimed to significantly increase the prevalence of environmentally responsible practices among eligible farms to reduce nutrient discharges.

The project had two main components:

- farm environmental improvements facilitated by specially trained agri-environmental advisors who will work with eligible farmers to develop farm-management plans to reduce non-point source pollution, including options for cropping, tilling, manure spreading, fertiliser application practices, and constructed wetlands, as well as investments such as manure storage facilities, buffer strips, etc; and
- public awareness programmes, project monitoring and management and a replication strategy.

### Best Practices

The project utilised a wide range of BAPs (manure handling, tillage, etc.) and worked with small farmers to identify the following practices:

- Improvement of extension services in Poland to advise farmers and help propagate the successes of the project beyond local pilot demonstrations. However, it was recognised that more effort had to be directed towards the Ministry to raise interest in the benefits and importance of the extension/advisory services.
- Privately managed advisory firms are more effective than state organisations.
- Convincing farmers about the necessity of certain technological solutions by displaying a demonstration farm on the local scale.
- Encouraging farmers to gather in groups to lower costs through joint tender procedures.
- Gathering farmers into groups of producers and equipment users is financially advantageous.

#### INVESTMENT

Global Environment Fund	USD 3 million
World Bank loan	USD 2 million
Country co-financing	USD 3.5 million
European Union co-financing	USD 2 million
Nordic Environment Finance Corp	USD 1 million
<b>Total</b>	<b>USD 14.4 million</b>

#### PROJECT DURATION

1999 to 2004

#### NUTRIENT CHALLENGES

- Excess nutrients from agriculture causing eutrophic conditions in the Baltic Sea

#### EARLY NUTRIENT BMP "WINS"

- Provision of agri-environment advisors
- Promotion of good practices in cropping, tilling, manure handling and fertiliser application
- The use of constructed wetlands



## Key BMP Indicators

- Manure tanks and manure pads were useful in showing farmers how much of their manure had previously been wasted (a valuable source of nutrients) resulting in pollution. Training and the use of agricultural advisory services, planting of buffer strips (500,000 trees/shrubs planted), publicity material for farmers, 25 monitoring sites to quantify benefits (in the longer term of 5-10 years)
- 28,000 family farms involved, 952 manure tanks constructed, and 655 manure pads built. Nutrient management plans were introduced on 893 farms covering 23,295 hectares with an estimated nutrient reduction of 800 tonnes/year
- Seventy-three percent of farmers participating saw the benefits and cost savings from the reduced use of mineral fertilisers

### Nitrogen loss reductions (kg N/farm/year)

Farm Type	Loss reduction due to proper manure storage	Loss reduction due to better timing of slurry spreading	Total
on mineral soil			
cattle, manure	86.1	0.0	86.1
cattle slurry	0.0	94.8	94.8
cattle, manure + slurry	38.5	39.1	77.6
pigs, manure	49.5	0.0	49.5
pigs, slurry	0.0	60.1	60.1
pigs, manure + slurry	32.8	37.6	70.4
cattle + pigs, manure	61.0	0.0	61.0
cattle + pigs, slurry	0.0	68.2	68.2
cattle + pigs, manure + slurry	36.6	49.0	85.6
on organic soil			
cattle	544.0		544.0
pigs	257.0		257.0
cattle and pigs	363.0		363.0

### Nitrogen loss reductions by region during the project period (kg N)

Year	2002	2003	2004	.....	2011
Lomza/Ostroleka	14,462	28,837	28,837		28,837
Torun	12,826	25,738	25,738		25,738
Elblag	9,038	18,249	18,249		18,249
Bug River Catchment	0	0	9,038		9,038
Total	36,326	72,824	81,862		81,862

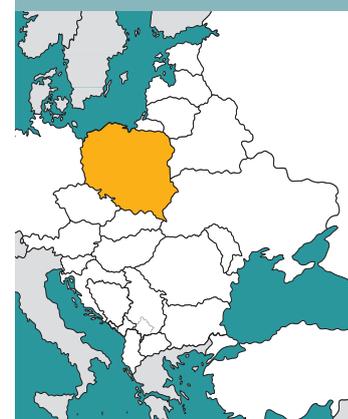
## Replication approach

The project developed a replication strategy for encouraging the lessons learned more widely within the region.

## For more information

Visit the following webpage:

<http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P050660>



### 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](mailto:chuck@gef.org)