



RUSSIA AND ESTONIA

Development and Implementation of the Lake Peipsi/Chudskoe Basin Management Programme

Project Summary and Scope

The overall objective of the project was to develop and start implementation of the Lake Peipsi/Chudskoe Basin Management Programme. This effort included practical recommendations for nutrient load reduction and prevention and the sustainable conservation of habitats and ecosystems in the cross-border region. The project ensured strengthening capacity of all stakeholders groups as well as active involvement for management programme preparation. The project substituted for uncoordinated, small-scale projects that would have been otherwise implemented separately on the Estonian and Russian sides without sufficient coordination, education or public information and without consulting local stakeholders and the wider public.

Lake Peipsi/Chudskoe-Pskovskoe (referred to here as Lake Peipsi) is the fourth largest and biggest transboundary lake in Europe. Lake Peipsi's drainage basin covers 45,000 km², approximately 12 times larger than the lake surface itself. The basin is shared by Russia (59 percent), Estonia (33 percent) and Latvia (8 percent).

The most serious environmental challenge of Lake Peipsi/Chudskoe is eutrophication, primarily caused by increased levels of phosphorus. Blue-green algal blooms have also reappeared in the lake in recent years causing summer fish-kills. The priority is to reduce phosphorus concentrations in lake. Connection to wastewater treatment plants (WWTP) and/or improved phosphorus removal at existing WWTPs would offer an immediate decrease, especially for point sources close to the lake (e.g. Pskov city), and address hygienic problems locally.

A transboundary diagnostic analysis was conducted in 2004, outlining challenges that need to be addressed. A Management Programme was developed between Russia and Estonia. The programme completed in 2006, proposed to address nutrient pollution by working to improve wastewater treatment facilities by the lake and create "buffer" zones where industrial activities cannot be conducted by the shore.

INVESTMENT

Global Environment Fund	USD 1 million
EU-TACIS	USD 1.82 million
MANTRA 1	USD 440,000
Danish EPA	USD 665,000
EU-LIFE	USD 175,000
NGOs	USD 30,000
Total	USD 4.775 million

PROJECT DURATION

January 2003 to January 2006

NUTRIENT CHALLENGES

- Eutrophication is the most serious environmental problem of Lake Peipsi/Chudskoe. Blue-green algal blooms have reappeared in the lake in recent years, causing summer fish-kills.

EARLY NUTRIENT BMP "WINS"

- Nutrient load reduction and prevention in cross border context through waste water treatment, phosphorus removal, animal husbandry and crop production improvements



The measures to reduce nutrient loading to Lake Peipsi, include:

- short-term measures related to the reduction of emissions from municipal wastewater discharges through the construction, upgrade and maintenance of wastewater treatment and sewerage facilities and the creation of "buffer" zones where industrial activities cannot be conducted by the shore; and
- long-term measures are targeted at the development of eco-farming in the region to reduce nutrient loads from animal husbandry and crop production.

Best Practices

Measures to control pollution from animal husbandry included:

- manure storage and silos are better isolated to avoid leakage;
- approximation of manure storages with EU legislation and other water protection requirements should be achieved;
- application of manure to frozen fields is prohibited;
- environmental restrictions for concentration of animal husbandry and regulation via financial support schemes were put in place; and
- in dairies, phosphorus-free detergents, sludge separation and other BATs are promoted.

Measures to control pollution from crop production

The programme strategy focuses on the prevention of nutrient pollution by encouraging best agricultural practices and management of on-farm nutrient losses, including:

- prohibiting application of mineral fertilisers to snow cover and frozen soil;
- prohibiting the use of herbicides and arboricides for ditch maintenance of drainage systems;
- Controlling the application, transport and storage of mineral fertilisers and pesticides;
- promoting reductions in fertiliser and pesticide application;
- supporting BATs in agriculture and eco-farming.
- establishing buffer vegetation strips between water bodies (streams and ditches) and agricultural areas.
- devising strategies for and carrying out assessments of designing new drainage systems or restoring old drainage systems (drainage flow regulation, artificial wetlands, etc.) in order to maintain the apparent high nutrient retention capacity in the drainage basin

Additional Benefits

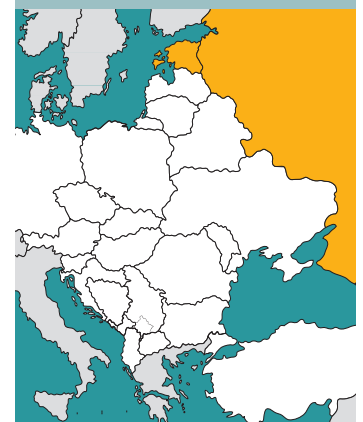
- Several international and national projects and programmes have been launched to preserve the biodiversity of the lake and its protected areas.
- Promotion of regional ecotourism is also considered as a way to improve the regional economy while contributing to current reclamation efforts in the lake.

Other Key Successes

- A sound scientific base for the long-term water management is in place.
- Joint monitoring activities have been supported and carried out.
- Joint data processing and databases have been established.
- Information exchange and networking is fully operational.
- Public/local stakeholders have been actively engaged into the programme implementation.

For More 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