



1918

TALLINNA TEHNIKAÜLIKOOL

TALLINN UNIVERSITY OF TECHNOLOGY

# Experience from Russian-Estonian cooperation in Lake Peipsi basin

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Status assessment of lakes ecosystems in the Central and  
Eastern Europe and experience from development of Lake  
Management Programme in EU-countries

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## River Narva drainage basin

- 56 200 km<sup>2</sup>
- Shared between Estonia and the Russian Federation
- Narva River Partial Basin
- Lake Peipsi/Chudskoe basin
- Lake Peipsi: 3550 km<sup>2</sup>, maximum depth 15 m



## Landcover

Dominated by forests and semi-natural areas

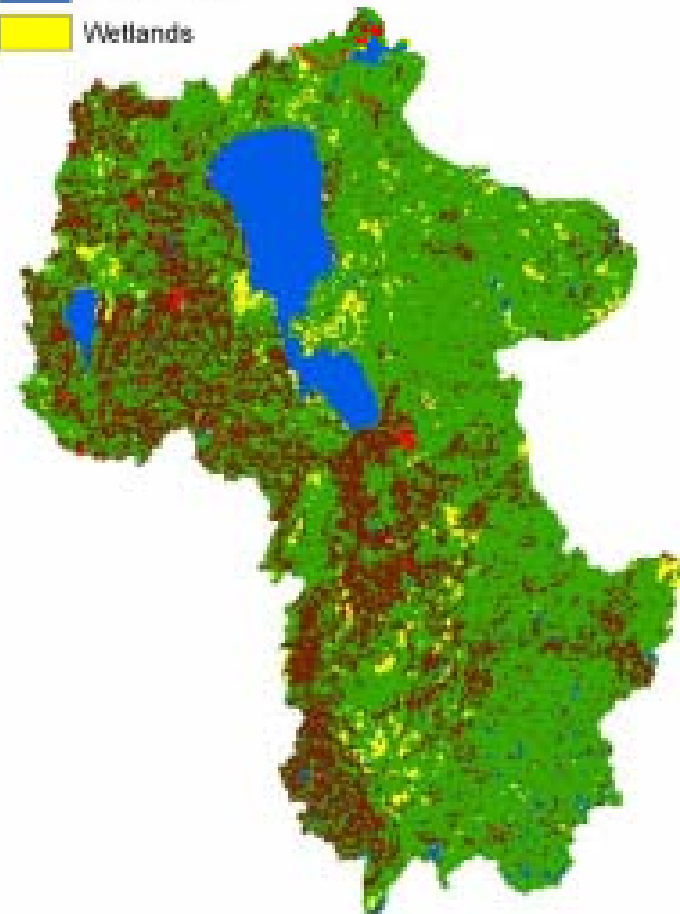
Agricultural area: 14%

1 100 000 inhabitants

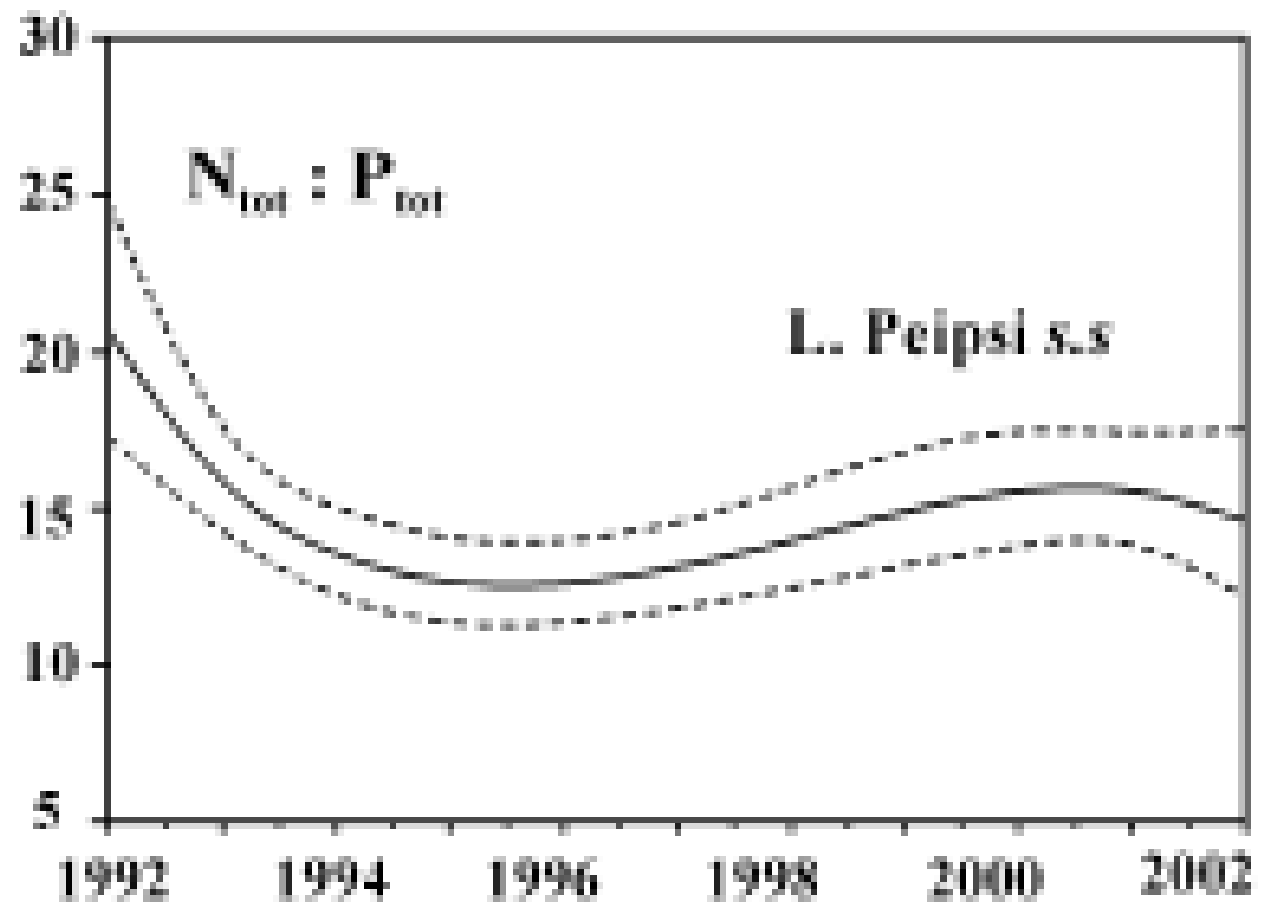
Pskov: 206 000

Tartu: 100 000

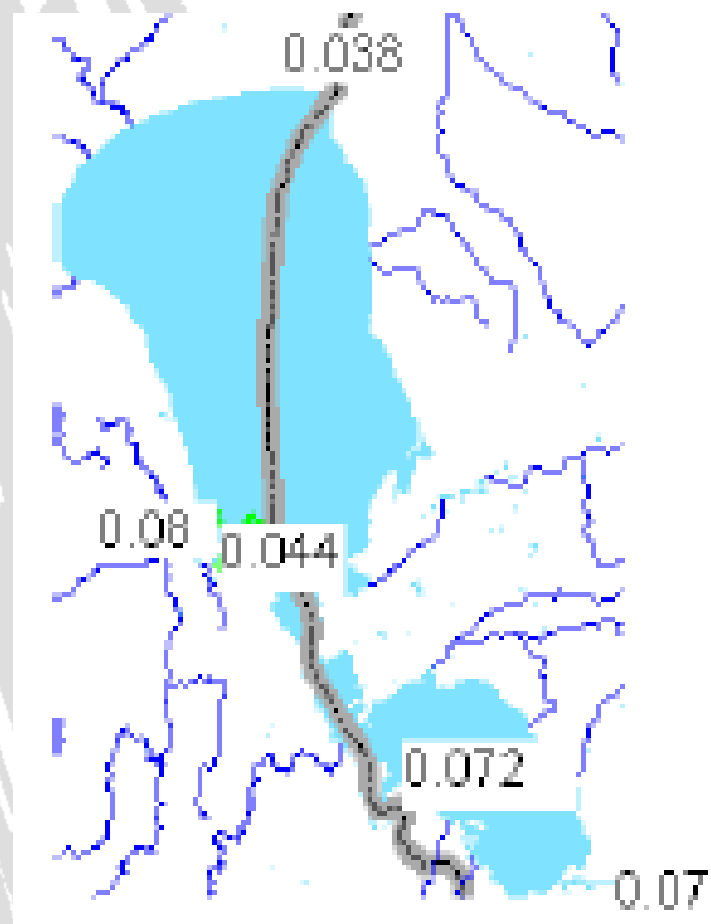
Highest point: 338 m



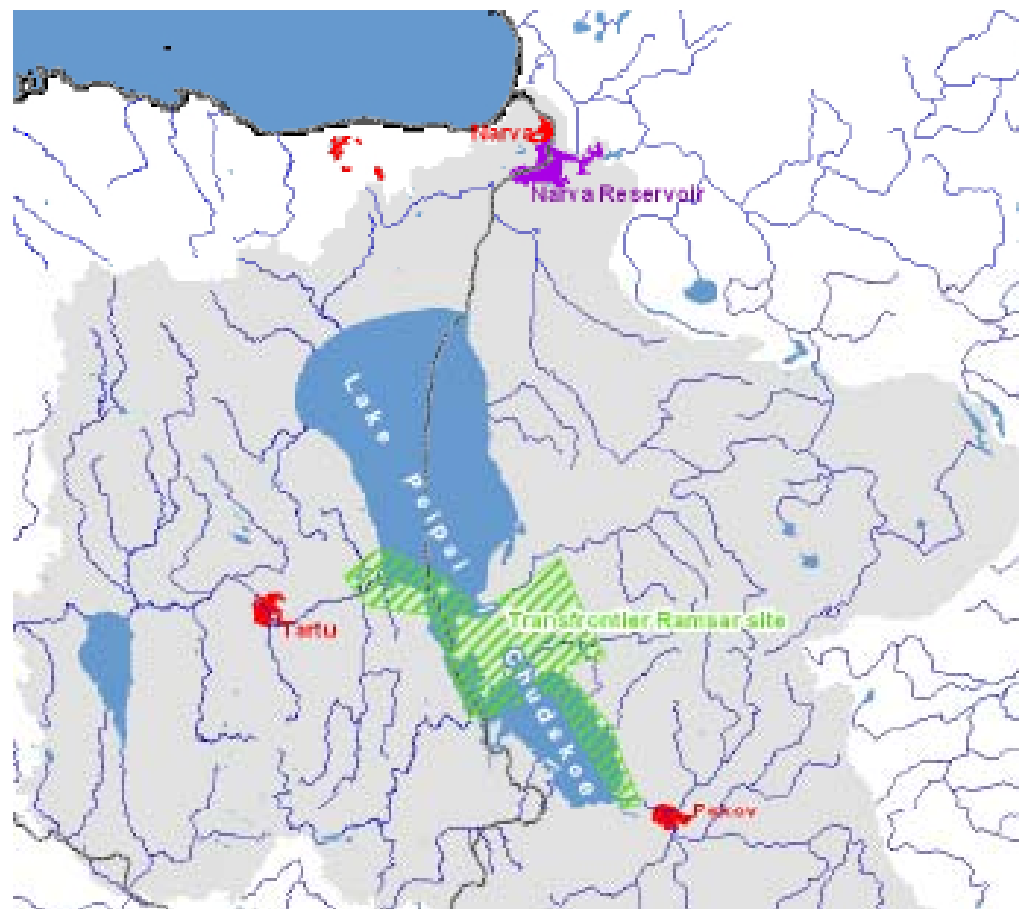
# N/P concentration ratio



## Concentration of Ptot



## Transboundary hot spots



# Academic response

- MANTRA-East - Integrated Strategies for the Management of Transboundary Waters on the European fringe – the pilot study of Lake Peipsi and its drainage basin 2001 – 2003
- TRABANT - Water Management and Assessment of Ecological Status in Transboundary River Basins 2005 – 2008
- SCENES - Water Scenarios for Europe and for Neighbouring States 2006 - 2011

# Policy documents

- UNECE Water Convention – calls for cooperation in the protection and use of international waters
- EU Water Framework Directive 2000/60/EC: For river basins extending beyond the boundaries of the Community, Member States should endeavour to ensure the appropriate coordination with the relevant non-member States.



# The *Estonian-Russian Joint Commission on the Protection and Sustainable Use of Transboundary Waters*

- Was established in 1997
- The Commission gathers once a year
- Two working groups



## **1. Working group on the complex management of water resources**

- safety of hydrotechnical installations,
- inventory of water pollution sources,
- cooperation instructions for emergency events,
- exchange of information,
- involvement of public and local authorities

## **2. Working group on monitoring, evaluation and applied studies**

- Coordination and harmonisation of monitoring programmes
- Coordination of the evaluation of pollution load, water quality and state of waterbodies
- Applied studies
- Joint data bases
- Dissemination of information to local inhabitants and local authorities
- Intercalibration of labs

# Main achievements

- Cooperation, harmonised approach to main problems
- Systematic information exchange about water management and water quality
- Approach towards common state evaluation principles and criteria
- Coordinated monitoring, including joint expeditions on Lake Peipsi and Narva Reservoir
- River basin management plans in both sides

# Joint study on R Narva





## Main problems:

- State of Lake Pskov
- Low rate of applied studies
- Harmonisation of monitoring programmes with international guidance and recommendations
- River basin management programmes
- Intercalibration of labs
- Exploitation of Narva reservoir



# Peipsi CTC

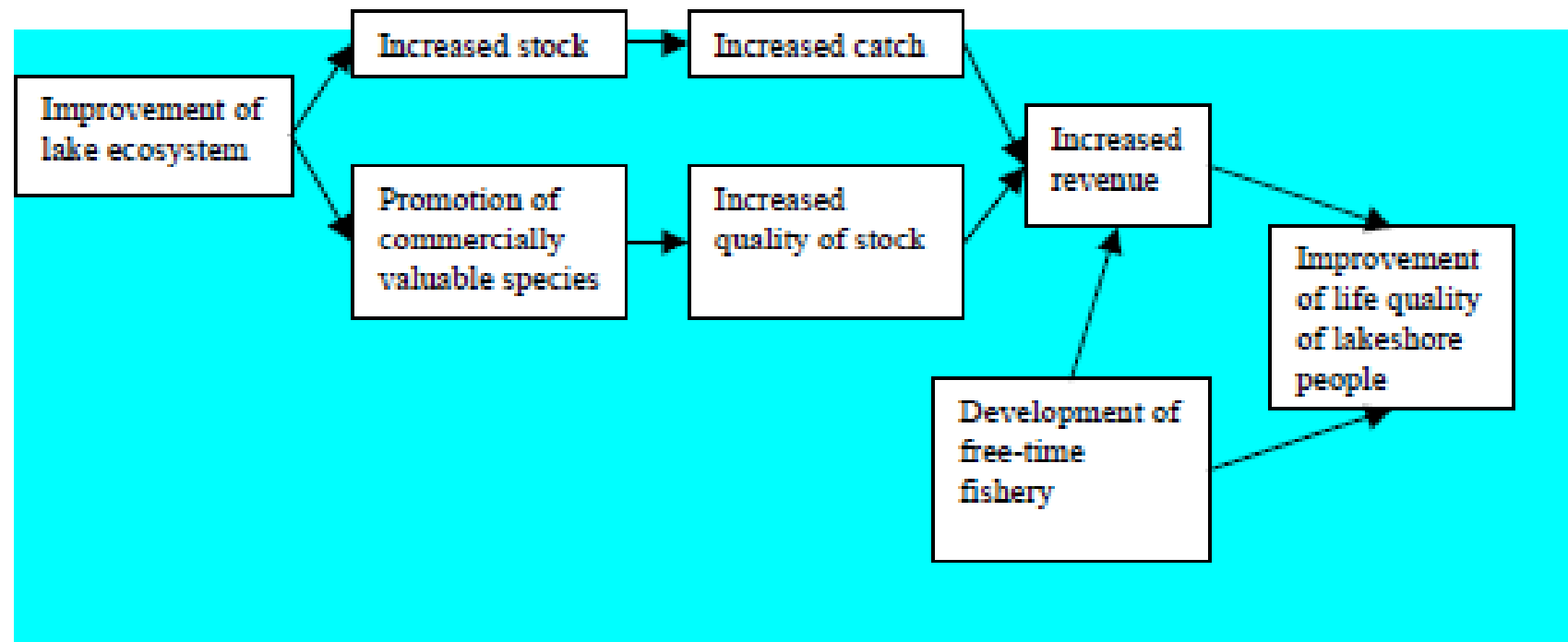
- Established in 1993 focusing on environmental research
- 2000 Focus moved to social actions
- 2010 Focus moved to communication tools
- PeipsiMAN INTERREG IIIA project 2007 – 2009
- UNDP/GEF project Development and Implementation of the Lake Peipsi / Chudskoe Basin Management Program 2003 - 2005



# Common water quality standards

	Estonia	Russia	Common standard
Concentration of P <sub>tot</sub> in transboundary rivers (Narva, Piusa), mg/l	0.08	0.2	0.08
Concentration of BOD in transboundary rivers (Narva, Piusa), mg/l	5	2	2
Concentration of P <sub>tot</sub> in Lake Peipsi/ Chudskoe, mg/l	0.06	0.2	0.06 (Good status, however, requires lower concentration)
Concentration of P <sub>tot</sub> in effluent wastewater discharging to the drainage basin, mg/l	1 (less than 10 000 PE – 1.5)	1.5 (Standard for P <sub>P204</sub> – 0.2)	1 (less than 10 000 PE – 1.5)

# Fishery subprogramme





**End**

