

Strategic framework for the Neman River Basin adaptation to climate change and its ensuring of implementation into river basin management plans and national adaptation activities

*Egidijus Rimkus and
Audrius Šepikas (Lithuania);
Vladimir Korneev and
Sergei Zavyalov (Belarus)
Nickolai Denisov
(ZOI Environmental Network)*

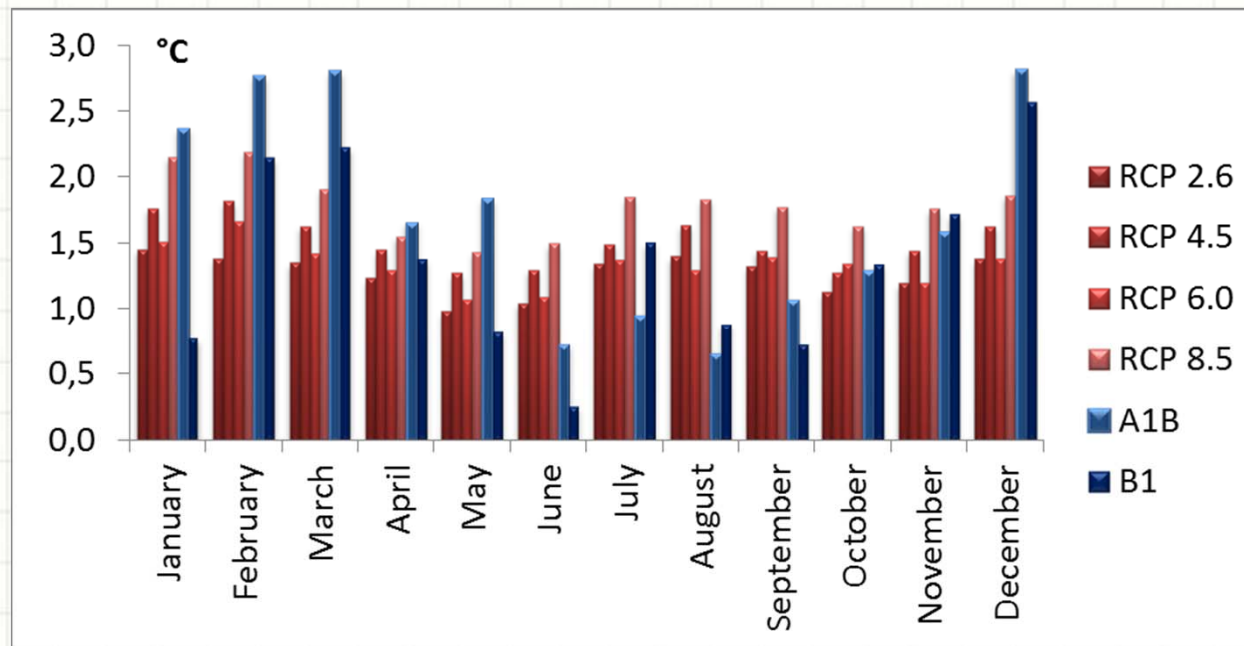
Second meeting of the
global network of basins
working on climate change
adaptation

Geneva,
13-14 February 2014



MOST IMPORTANT RESULTS ACHIEVED SINCE JUNE 2013 AND LESSONS LEARNED

- **Updating of climate change forecast for the Neman RB with using multi-model ensemble CMIP5 (based on the latest IPCC results of research – 2014) and comparison these results with A1B and B1 scenarios (were made earlier in the frame of the Neman-pilot project in 2012-2013):**
- **Development of the generalized multi-model maps with climate and runoff forecast;**
- **Development of the summary of the vulnerability assessment of the basin for different types of natural resources and for different sectors of economy based on project's results and on intersectoral cooperation;**
- **Development of maps illustrated of the vulnerability assessment results for the agriculture, forestry, industry and power engineering, population, natural resources (ecosystems) and integrated map;**
- **Improvement of the common information platform (Internet database) (www.cricuwr.by/neman);**
- **Development of the draft Strategic framework for Neman River Basin adaptation to climate change;**
- **Analyses of the pollution loads from point sources in the Neman RB (territory of Belarus) for input to the Lithuanian Nemunas RBMP.**



CMIP5

RCP 2.6

RCP 4.5

RCP 6.0

RCP 8.5

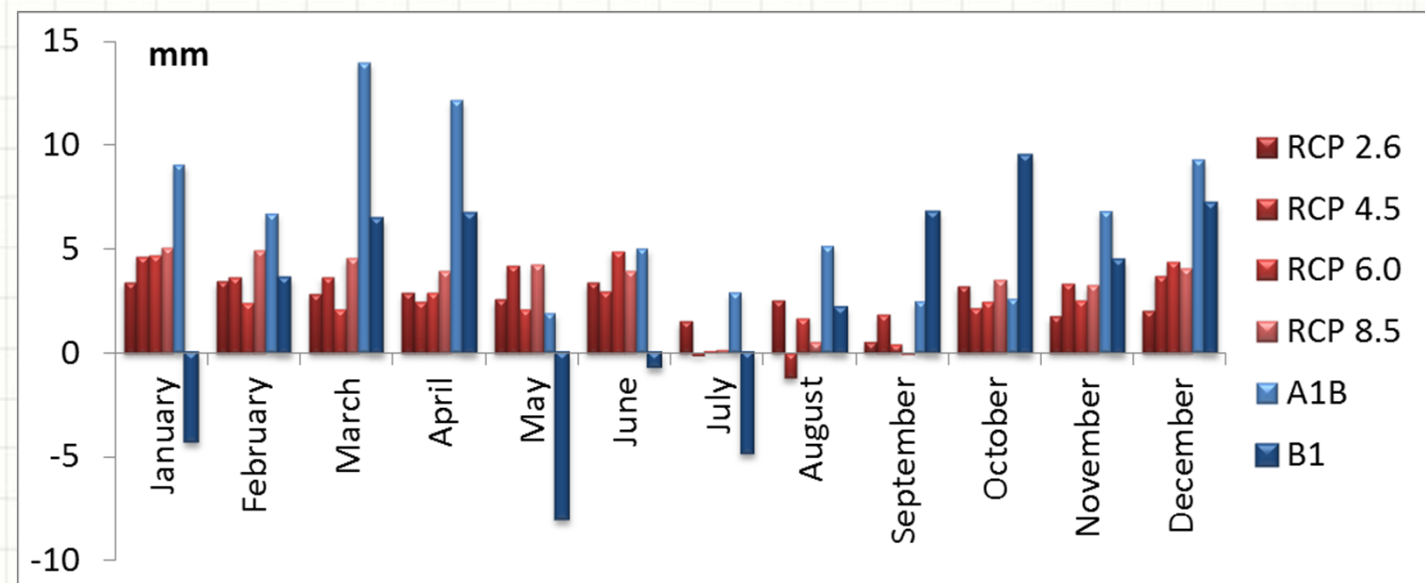
CCLM

A1B

B1

Temperature

Temperature and precipitation forecast (up to 2050)
in the Nemunas river basin



Precipitation

Multi-model maps with runoff forecast until 2050

Annual



Winter



Summer

INTERSECTORAL COOPERATION

- Multi-stakeholder seminar in Belarus, 19 March 2013, Minsk;
- Multi-stakeholder consultations and bilateral meetings in Lithuania, 15-17 May 2013, Vilnius;
- Multi-stakeholder seminar in Kaliningrad region in the framework of the projects: “River basin management and climate change adaptation in the Neman river basin (NEMAN)” and “Integrated water resources and coastal zone management in European lagoons in the context of climate change (LAGOONS)”, 21-22 January, 2014, Kaliningrad region, Russian Federation

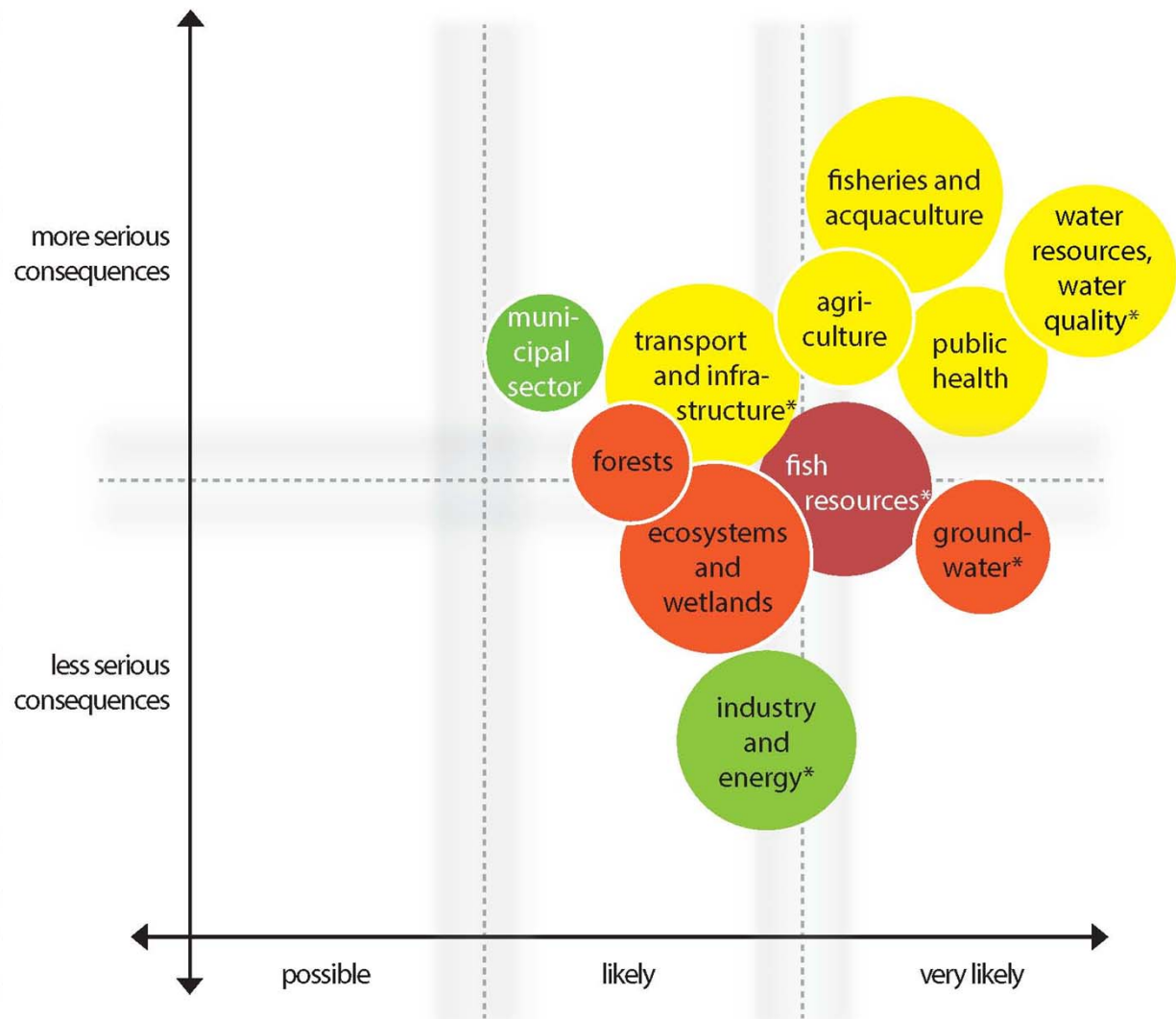
<https://www2.unece.org/ehlm/platform/display/ClimateChange/Neman+seminar+on+January+21-22+2014+in+Kaliningrad>



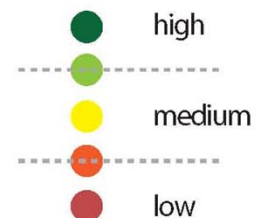
Most important results:

- ✓ Discussions about expected impacts of climate change in the Neman river basin and about potential and possible adaptation measures;
- ✓ Development of the draft Strategic framework for Neman RB adaptation to climate change

Possible impacts of climate change in the Neman river basin



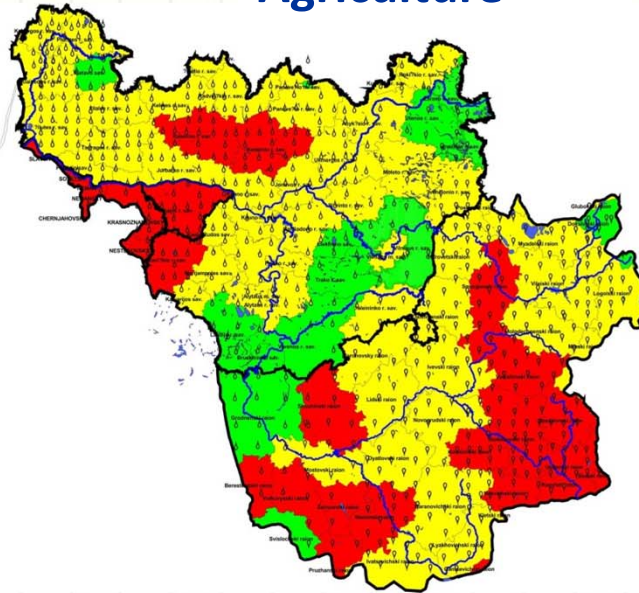
Current adaptation potential:



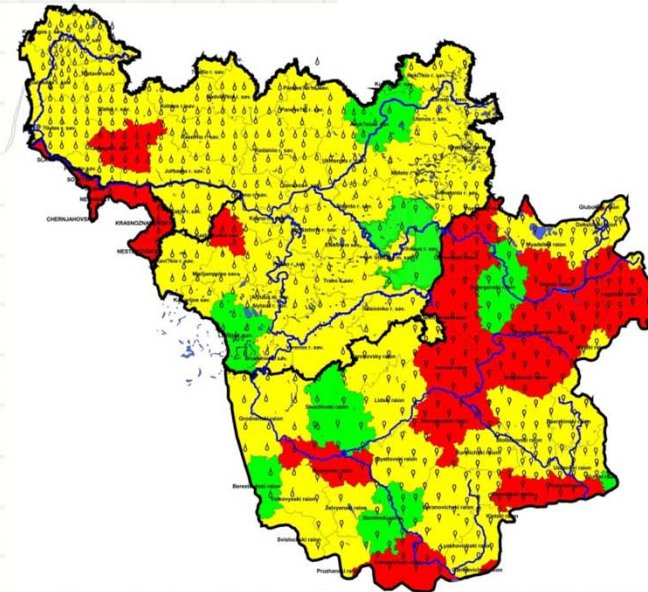
*(coordinated) basin-level actions are needed

SUMMARY OF VULNERABILITY ASSESSMENT

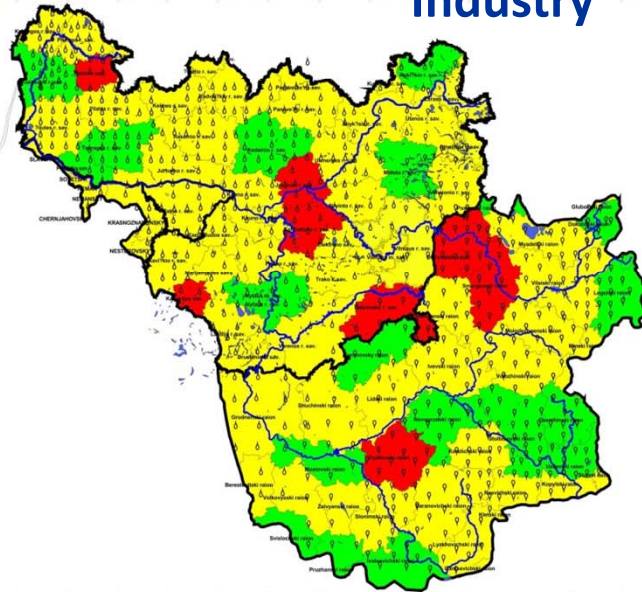
Agriculture



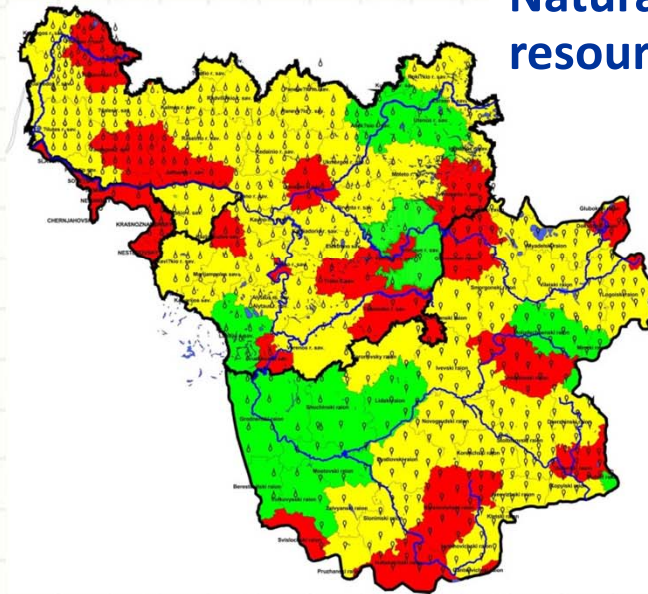
Forestry



Industry

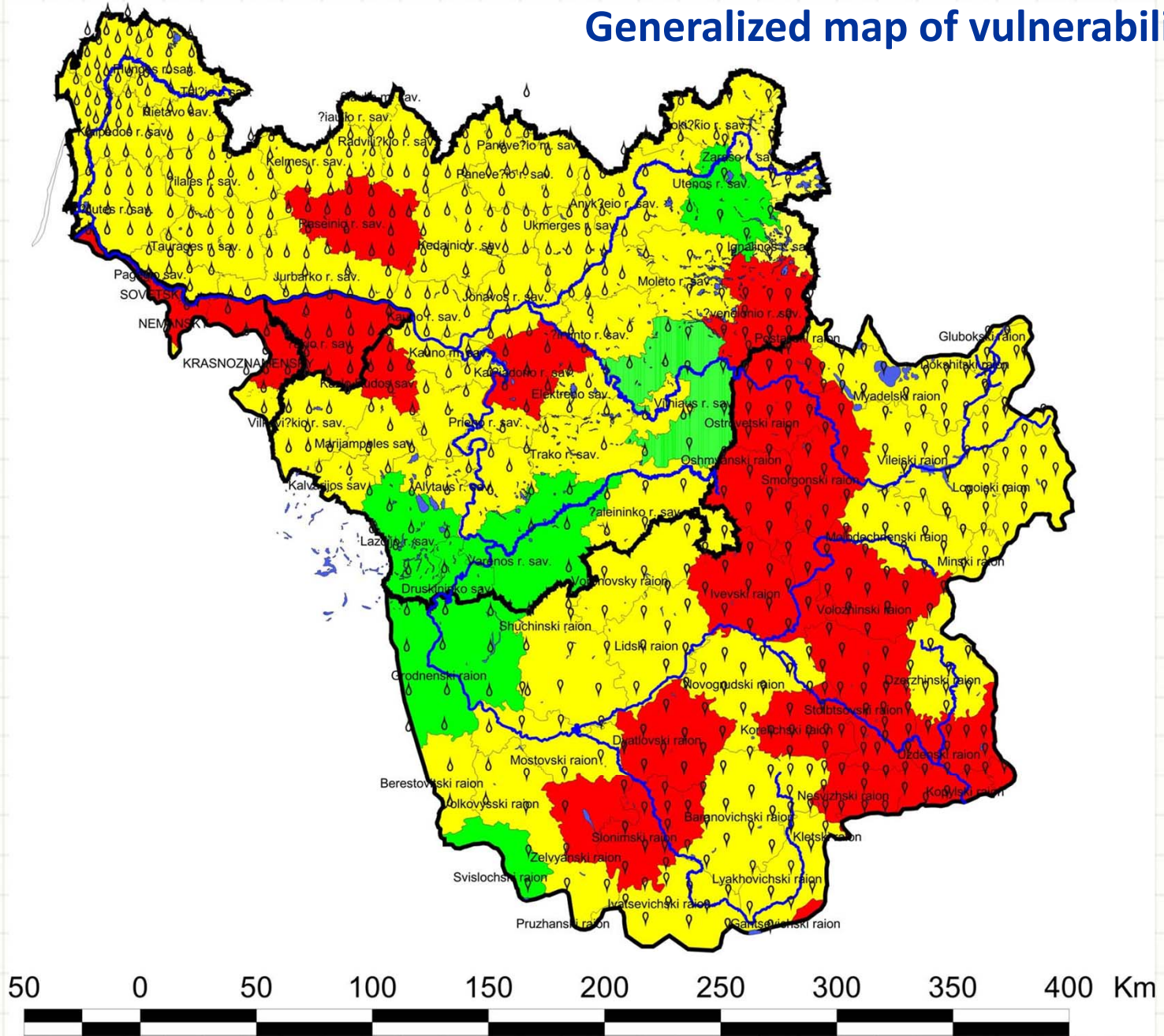


Natural resources



SUMMARY OF VULNERABILITY ASSESSMENT

Generalized map of vulnerability



STRATEGIC FRAMEWORK FOR THE NEMAN RIVER BASIN ADAPTATION TO CLIMATE CHANGE

1. General description of the Neman River Basin.
2. Summary of the climate and hydrological characteristics current status and forecast till 2050.
3. Summary of vulnerability assessment for different types of natural resources:
 - ✓Surface water resources;
 - ✓Ground waters;
 - ✓Forest resources;
 - ✓Other ecosystems and wetlands;
 - ✓Fish fauna;and for different sectors of economy:
 - ✓Industry;
 - ✓Energy;
 - ✓Housing and public utilities;
 - ✓Agriculture;
 - ✓Fish industry and fish-breeding;
 - ✓Legal and institutional aspects of water resources management;
 - ✓Transport infrastructure, including water transport;
 - ✓Health of population;
 - ✓Recreation.
4. List of short-term, medium-term and long-term adaptation measures.

Implementation of the Strategic framework for the Neman River Basin adaptation to climate change into river basin management plans and national adaptation activities

- **Continuation of updating and improvement of the Strategic framework take into account existing and planning national adaptation activities and vice versa;**
- **Publishing and dissemination of the Strategic framework;**
- **Updating of the Water Management Plan for the Neman River Basin (Lithuania) and Scheme of Complex Use of Water Resources of the Neman River Basin (Belarus, Kaliningrad Region) take into account main project's results and adaptation measures proposed in the Strategic framework;**
- **Improvement of the national adaptation activities (strategies, legislation, measures);**
- **Development of the Neman-RBMP- components (territory of Belarus), improvement of the Lithuanian NRBMP, possible creation of the RBMP for entire Neman River Basin.**

Thank you for attention

