EURO-RIOB 2018

EUROPE-INBO 2018

INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS

Action funded by the EUROPEAN UNION

European Union Water Initiative *plus* for Eastern Partnership

EaP Eastern Partnership

EUWI+ EU WATER INITIATIVE FOR EASTERN PARTNERSHIP

Water Framework Directive implementation in Belarus with account to climate change adaptation

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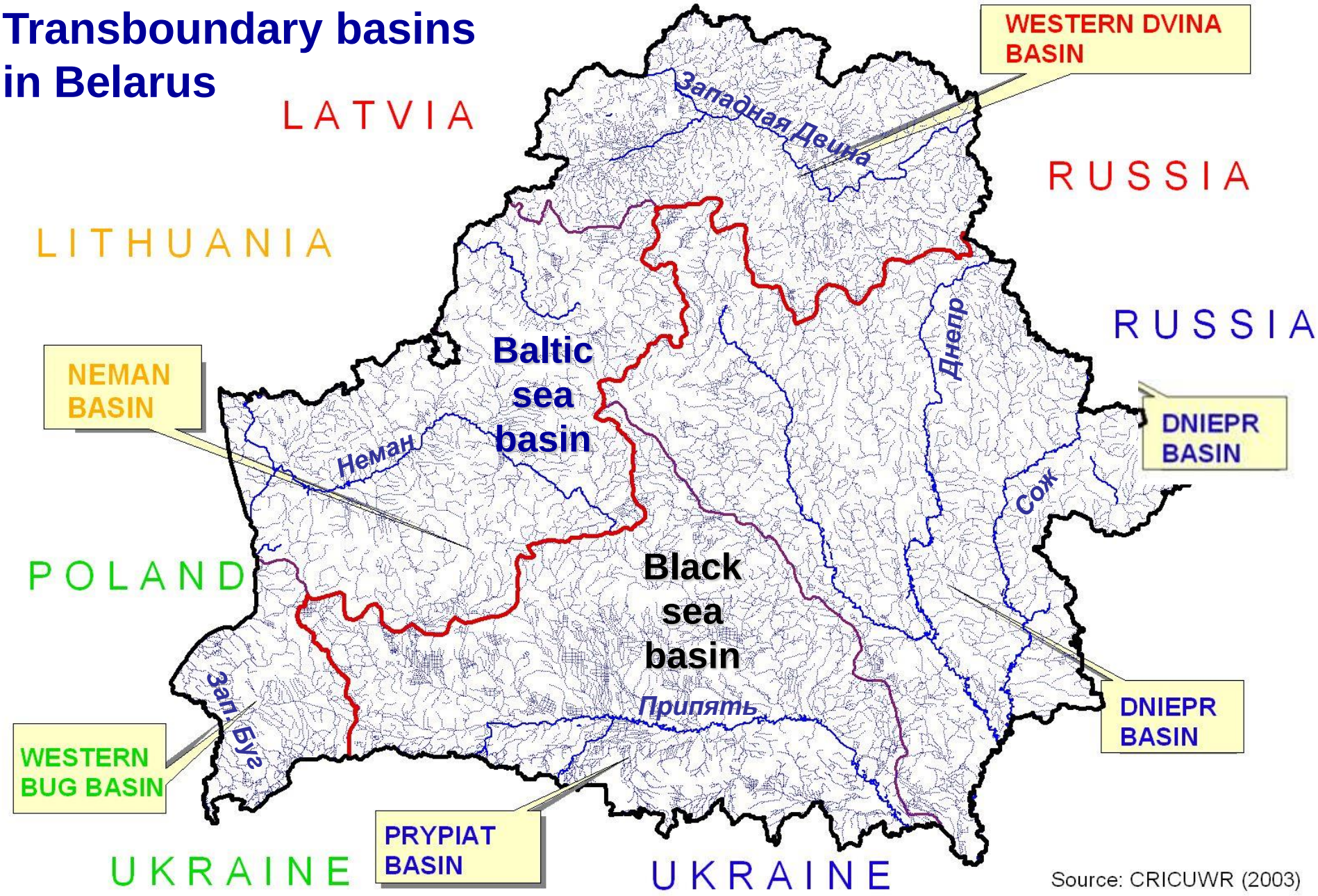
Transboundary basins in Belarus



Source: CRICUWR (2003)

The implementation of the EU water framework directive is implemented in Belarus through the development and implementation of river basin management plans.

In accordance with new Water Code of the Republic of Belarus (entered into force on May 21, 2015) the basin principle of management is introduced and river basin management plans (RBMP) are developed.

The draft river basin management plans (RBMP) of the Pripyat RB and the Western Bug RB are developed within the framework of activity of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus (2015-2017).

It is planned to improve the Western Bug RBMP and develop the Neman RBMP with the support of the new GEF-project and planned for implementation starting from 2019. Western Dvina RBMP also planned to develop with support from GEF.

Draft Dnieper RBMP was developed under Environmental Protection of International River Basin Project –EUWI (2014-2016)

EUROPEAN UNION WATER INITIATIVE PLUS FOR THE EASTERN PARTNERSHIP

Dnieper and Pripyat river basins management plans are being improved in the framework of the new EUWI+ project (2018-2020)

Global map of Dnieper river basin

Dnieper RB in Belarus without Pripyat RB

Administrative-territorial map of the Dnieper river basin

63,720 km²
4,692,261 inhabitants
4 Oblasts & 46 raions concerned
Agricultural land: 64% of river basin area

Main tributaries: Sozh, Berezina
Average flow at Ukrainian border: 641 m^3/s
Dryer month average flow at Ukrainian border: 241 m^3/s

Thematic symbology

Regions
- City of Minsk
- Homel region
- Minsk region
- Mogilev region
- Vitebsk region

Towns
District borders

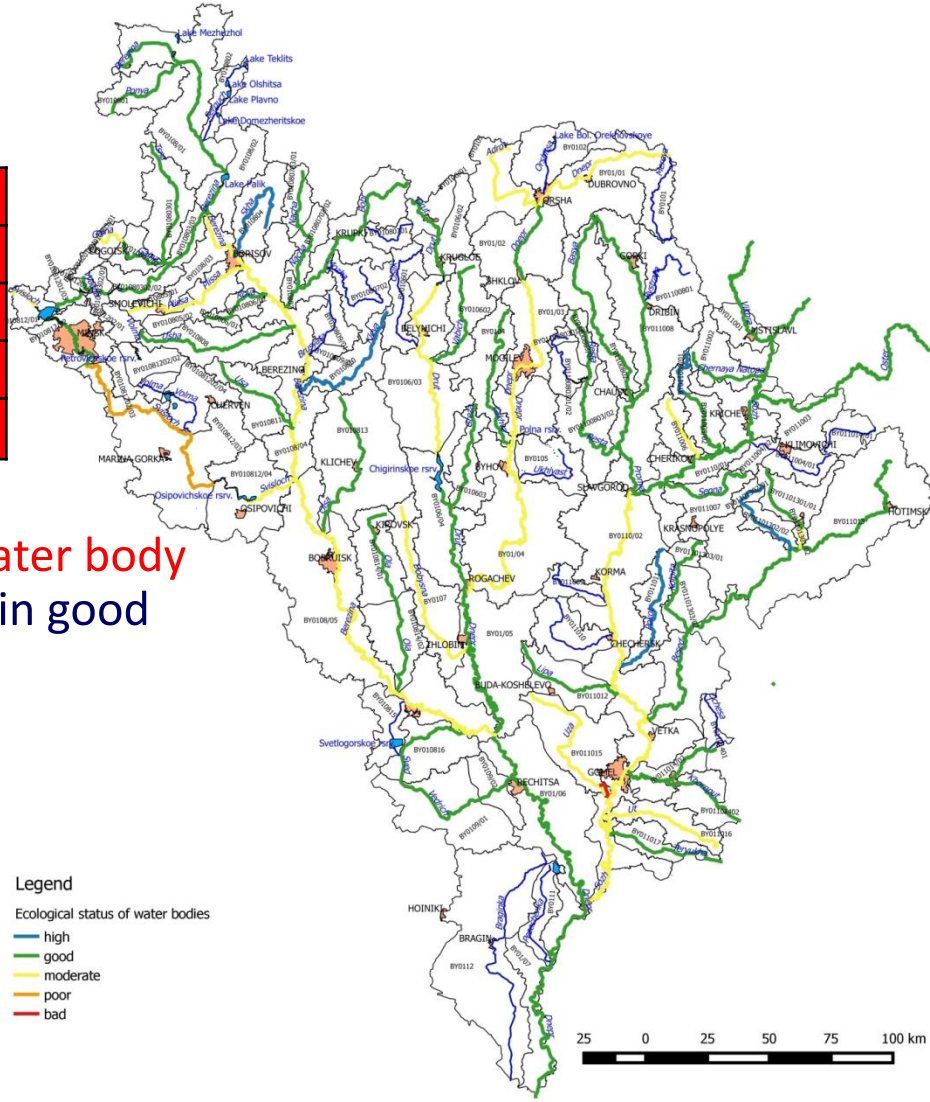
Background layer legend

- Rivers
- Lakes and reservoirs
- State boundaries
- Dnieper river basin

108 surface water bodies and 7 ground water bodies were identidied.
1130 water users are located.
Among them 169 water users have waste water discharges.
The number of wastewater discharges reaches 308.
15 enterprises contribute more than 90% of the total volume of the discharged waste water.

Water bodies status
(for 84 WB, reference period 2012-2017)

	High	Good	Moderate	Bad	Very Bad
Hydrobiology	17	48	17	1	1
Hydrochemistry	10	62	12	-	-
Hydromorphology	14	42	14	12	2
Ecological status	***3***	***59***	***20***	***1***	***1***



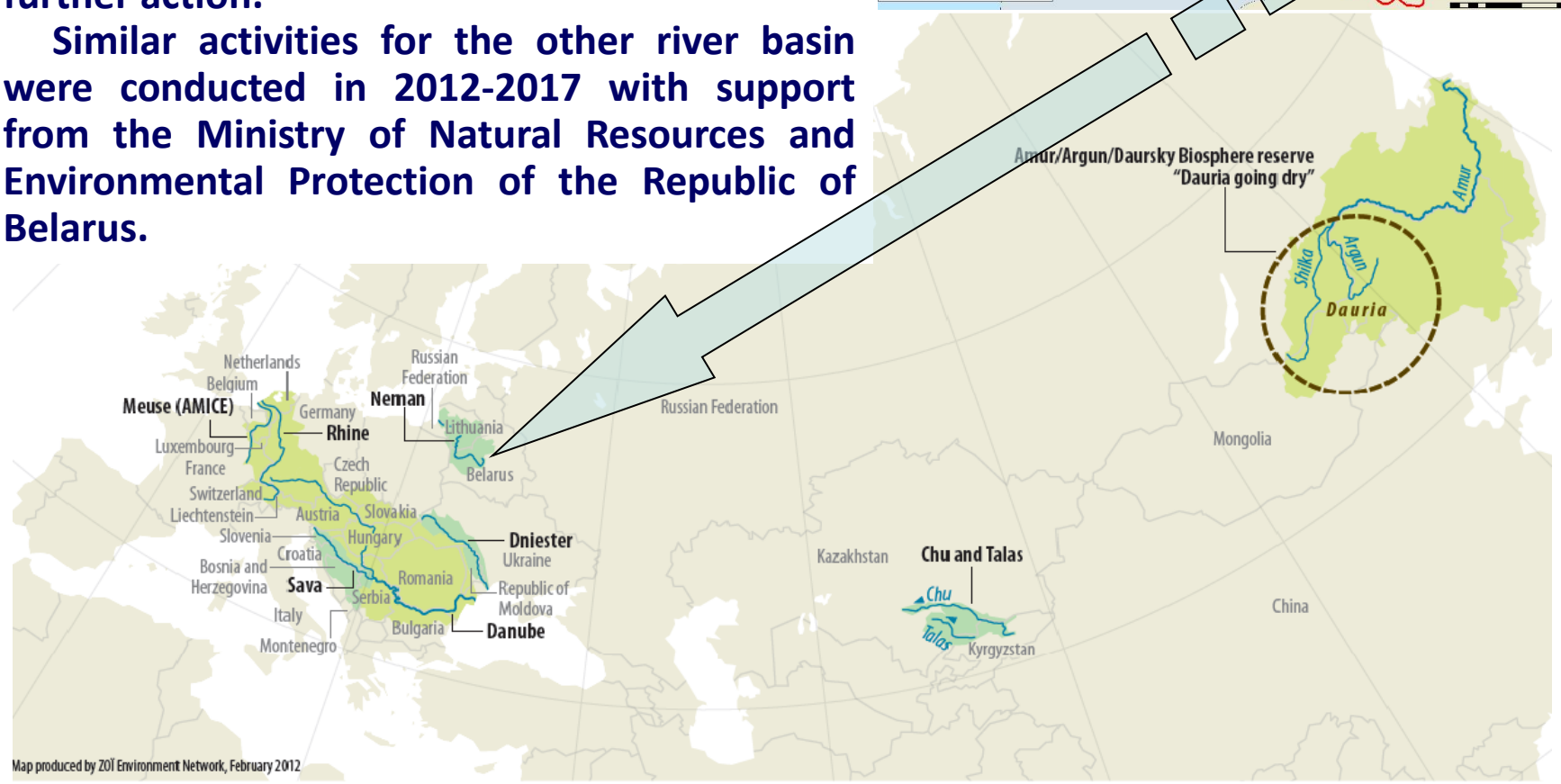
12 surface water bodies at risk and 1 ground water body

- 36 measures to improve waterbodies not in good status (cycle 2019-2024);
- 27 measures (cycle 2025-2030)

RBMPs development activities are carried out in parallel and take into account the results of research on climate change adaptation

The programme of pilot projects on adaptation to climate change in transboundary basins under the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) was implemented in 2011-2015 with assessment and forecast of surface runoff in the Neman River Basin. The pilot project on NRB mainly focused on developing adaptation strategies which lay the ground for further action.

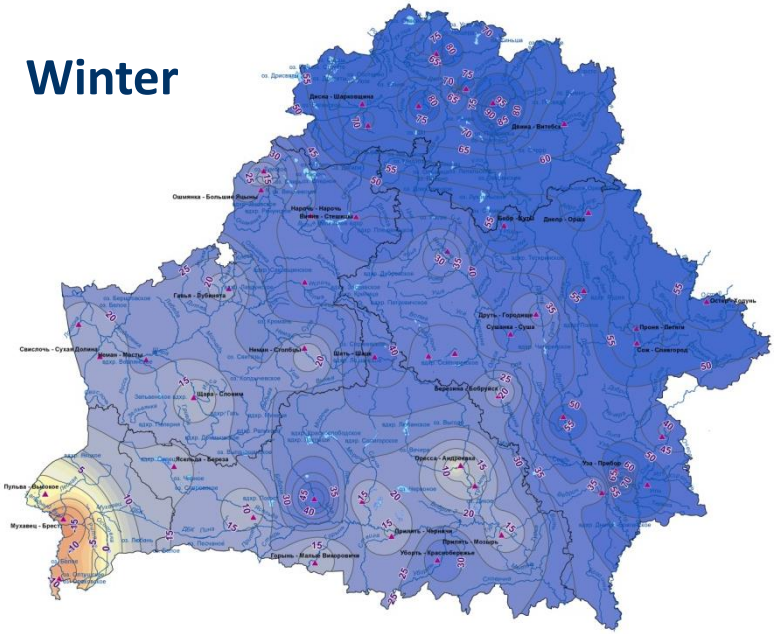
Similar activities for the other river basin were conducted in 2012-2017 with support from the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus.



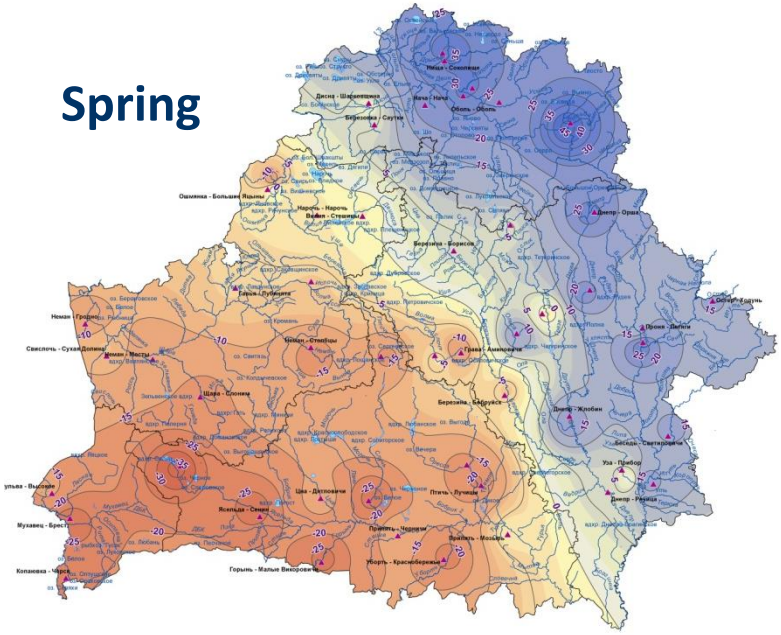
Change, %

- -100 - -75
- -75 - -50
- -50 - -40
- -40 - -30
- -30 - -25
- -25 - -20
- -20 - -15
- -15 - -10
- -10 - -8
- -8 - -6
- -6 - -4
- -4 - -2
- -2 - 0
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 40
- 40 - 50
- 50 - 75
- 75 - 100

Winter

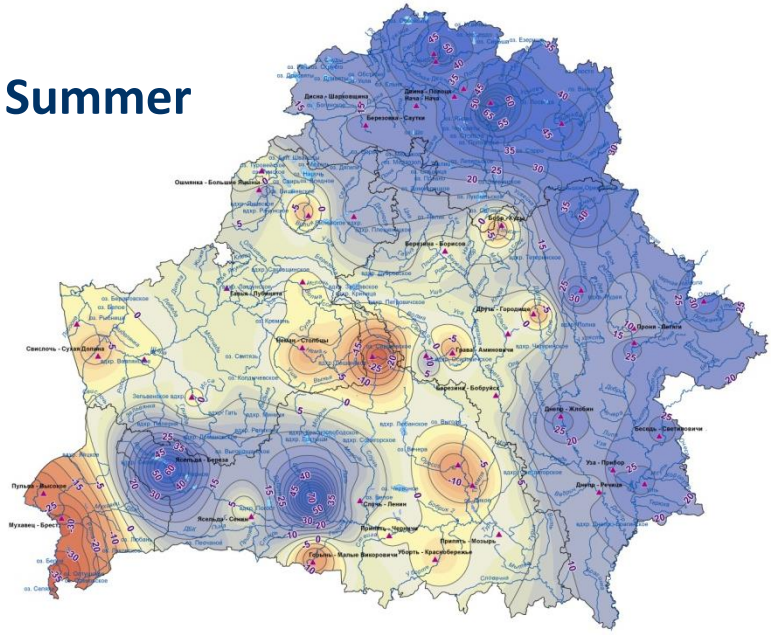


Spring

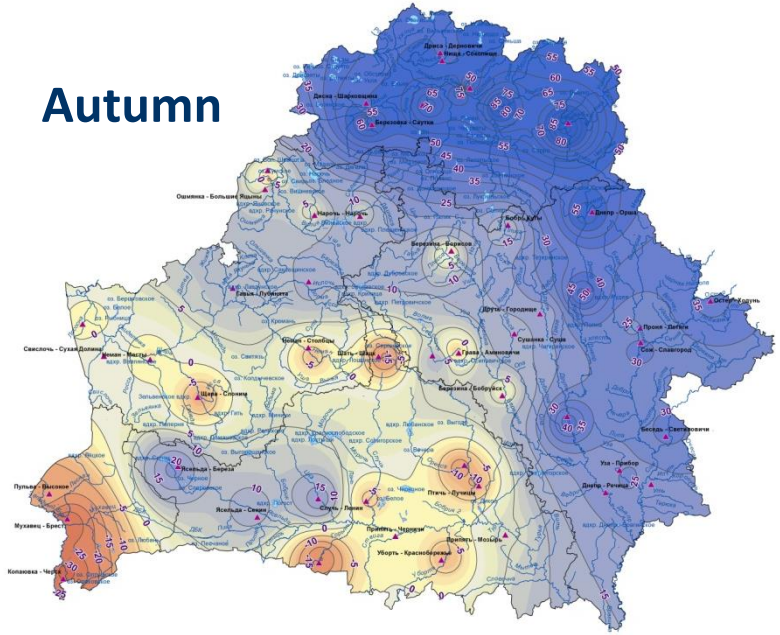


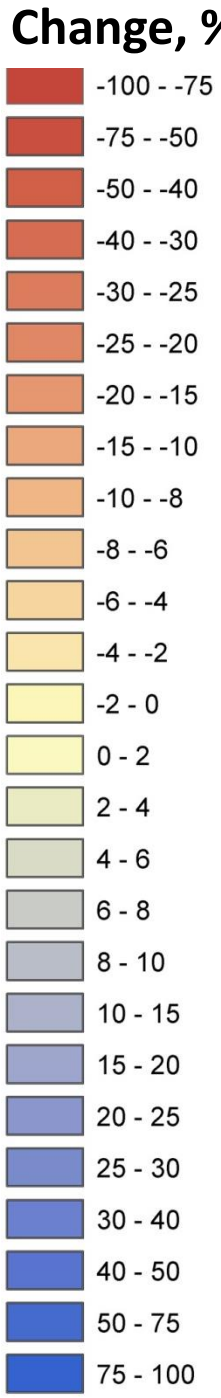
Surface runoff current status. Reference period 1961 – 2015.

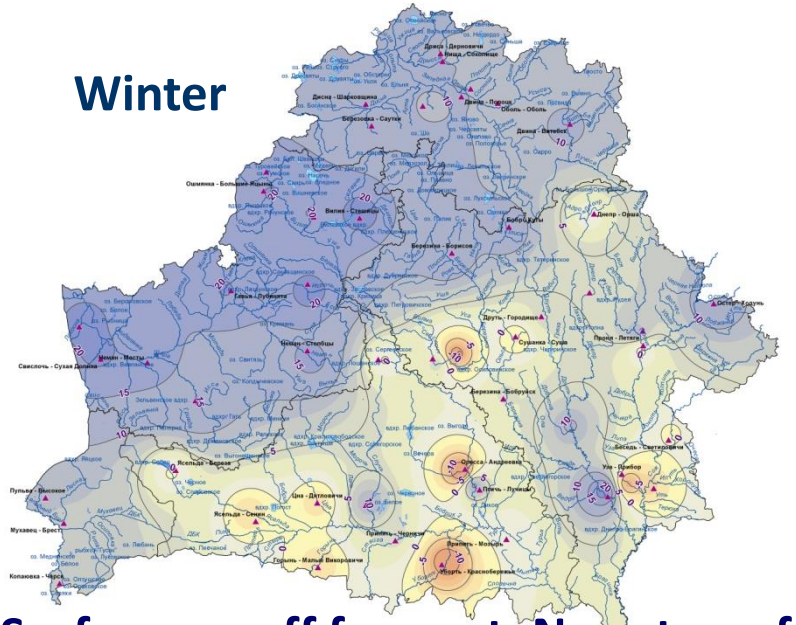
Summer

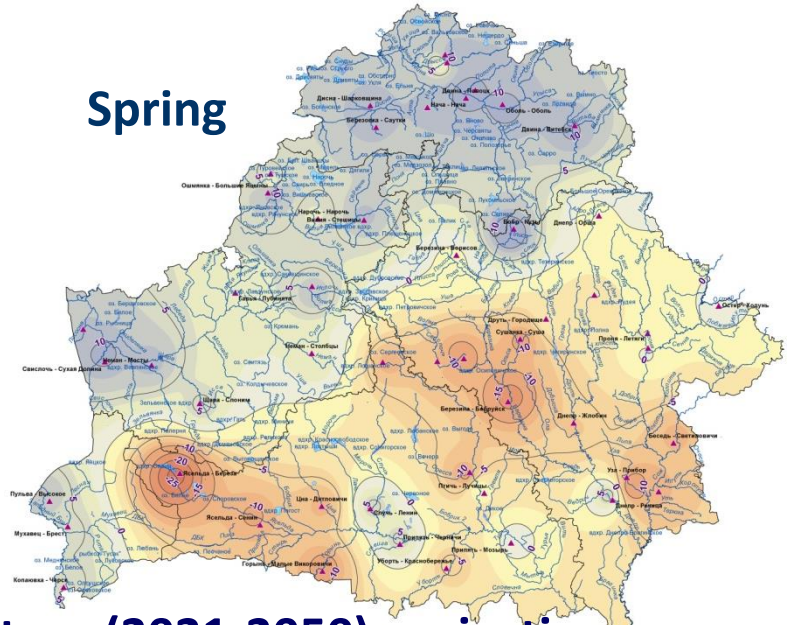


Autumn







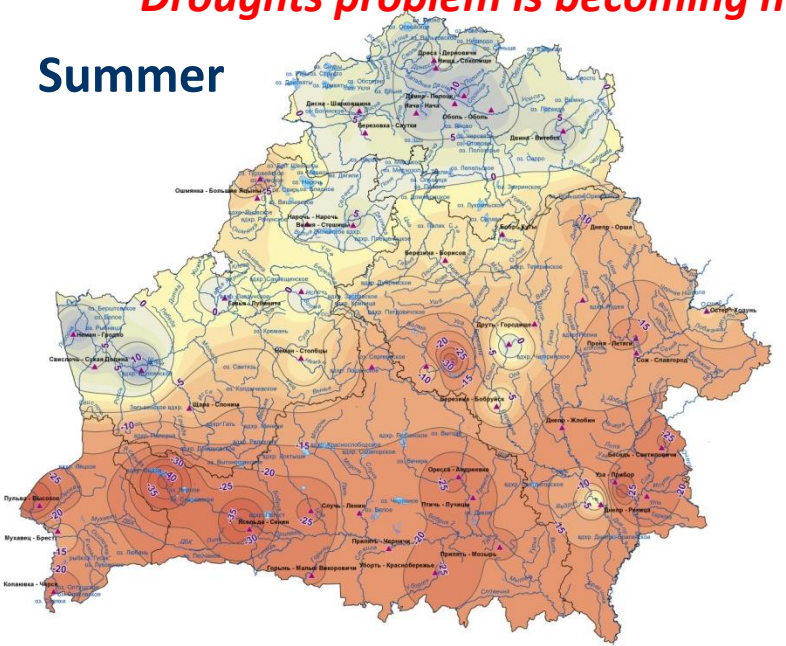


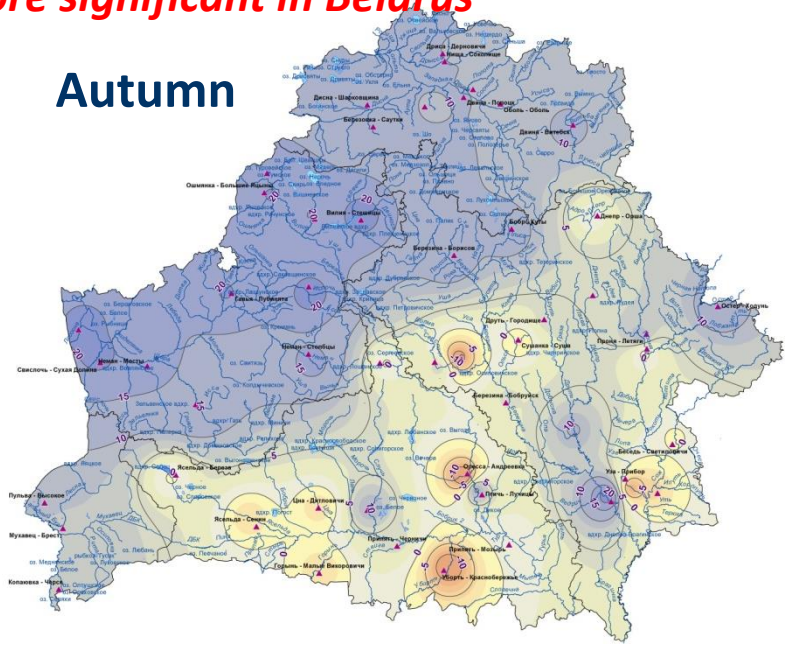
Surface runoff forecast. Near-term future (2021-2050) projections.

Starting with A1B and B1 scenarios (according to IPCC4 – 2007).

Update with using CMIP5 multi-model ensemble (according to IPCC5 – 2013).

Droughts problem is becoming more significant in Belarus





Droughts problem in Belarus

Water levels and water discharge were close to the minimum in the rivers of Belarus for the entire observation period, and they were less than the minimum in the lower course In especially low-water periods ("summer-autumn" of 2015,2016 and 2018).

Problems with: ecological functioning of water bodies, their riverbank territories and valleys; navigation; recreation; fish farming; tourism.

This bridge pillar was in the water earlier (River Soj, Gomel)

River Dobysna before shallowing (Dnieper RB)

…and after

Thank you for attention

River Dnieper downstream Orsha