

CLIMATE CHANGE ADAPTATION IN THE DNIESTER RIVER BASIN

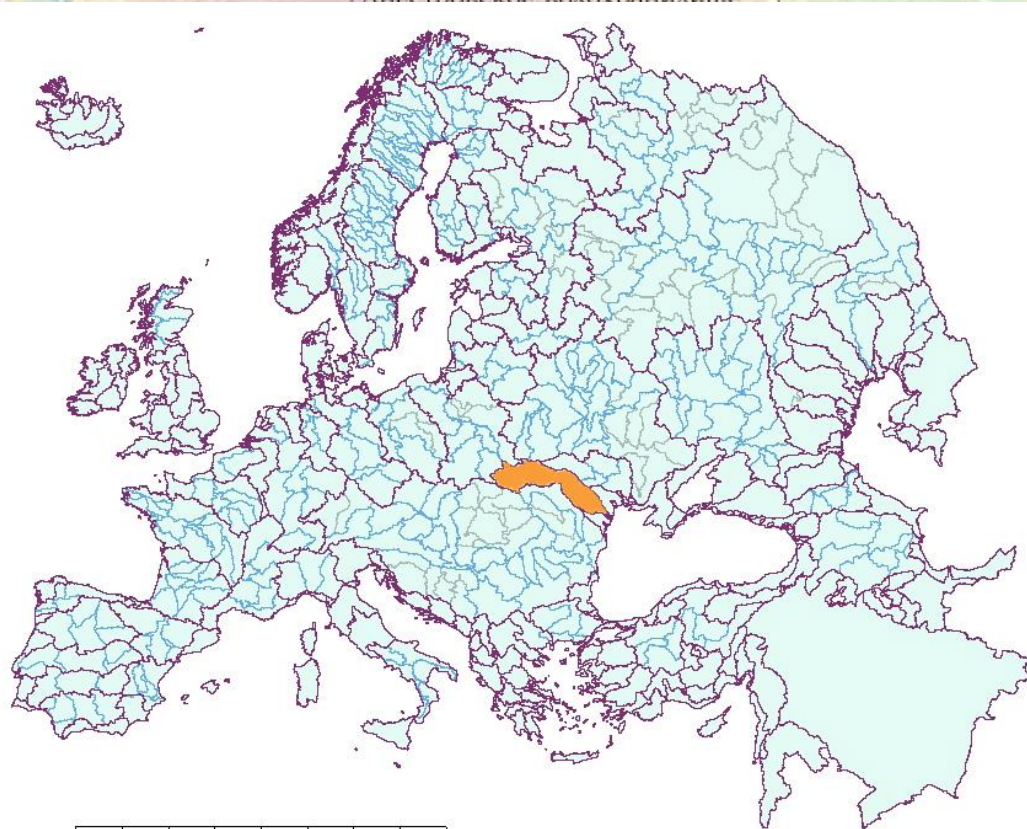
Sonja Koeppel, UNECE Water Convention secretariat,



Bridging boundaries

Why basin-wide cooperation in adaptation?

- Prevent negative impacts of unilateral adaptation measures in riparian countries, thereby preventing potential conflict
 - Enable more effective and efficient adaptation through:
 - Wider knowledge base
 - Larger planning space: take measures in the basin where they have optimum effect
 - Possibility to share costs and benefits
- Transboundary/ basin-wide cooperation reduces uncertainty and costs!
- However, very few NDCs mention transboundary cooperation



Составление: ЮНЕП/ГРИД-Арендс и Zoi Environment.

Dniester basin vulnerability to climate change

-  Dniester delta wetlands, river-bank meadows and forests
-  Impact on fish and wildlife populations and habitats, invasive species
-  Risks to water supply
-  Impacts of increased average temperature and summer heat waves on ecosystems



Increased floods 2021-2050



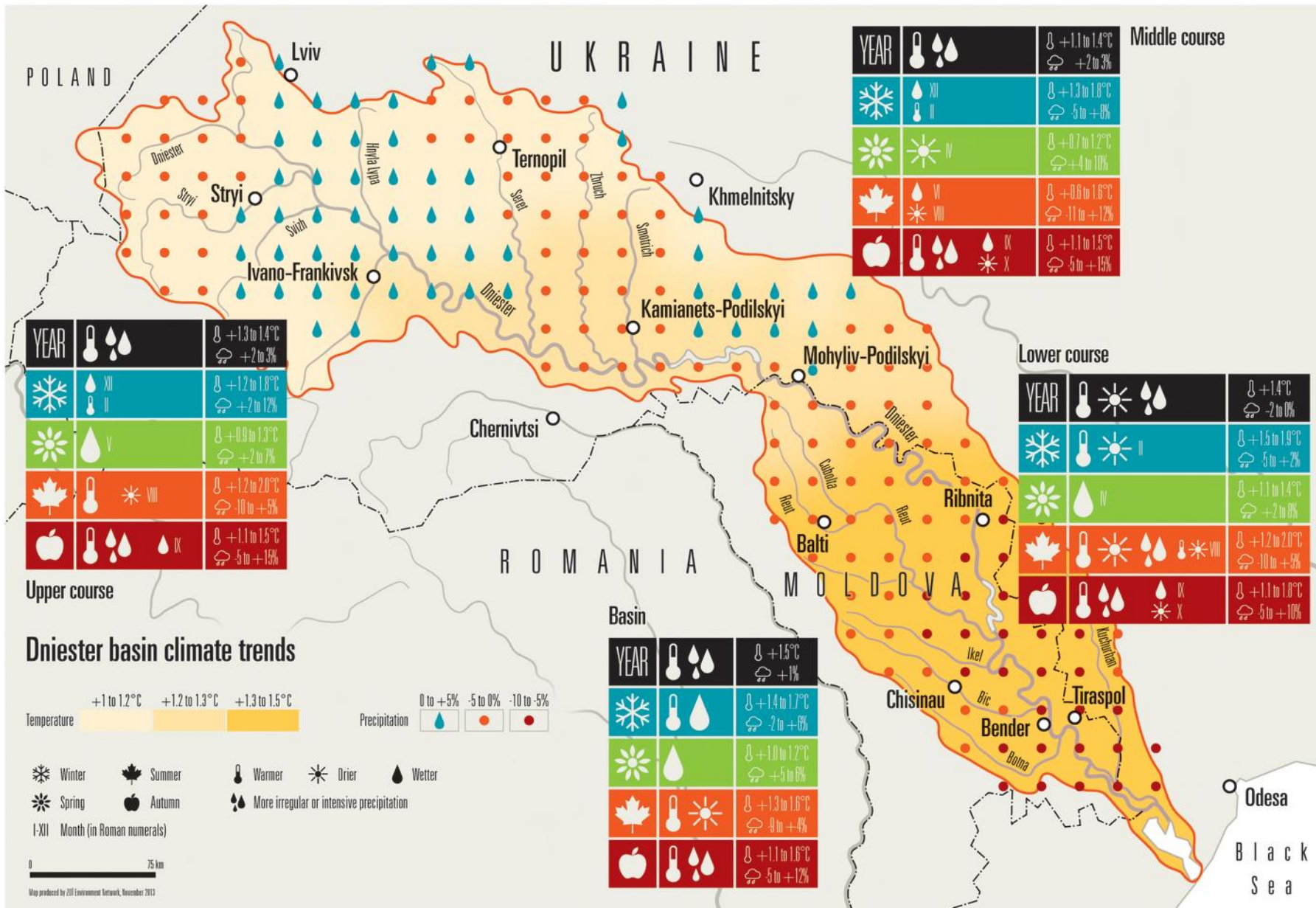
 Areas currently most vulnerable to floods

Anticipated water deficit 2021 - 2050



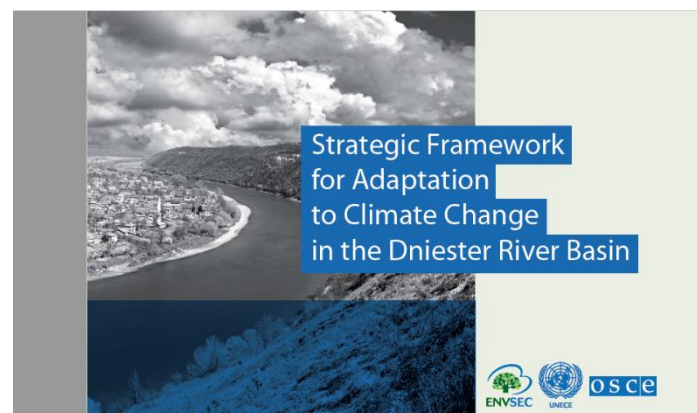
0 75 km

Map produced by ZOO Environment Network, November 2012



Strategic framework for basin adaptation

- Aims to increase effectiveness of adaptation by locating measures where they have the optimum effect
- Promotes a common understanding on climate change impacts and adaptation measures from the basin perspective
- Prepared in a consultative process with stakeholders, sectors
- Includes sections on
 - Dniester,
 - climate change impacts, impacts on water, environment, population,
 - Vulnerability and adaptation potential,
 - basin-wide adaptation priorities





Implementation plan

- Presents all adaptation measures from the basin perspective
- Measures for floods, water scarcity, water quality, ecosystems, basin cooperation
- Shows for each measure links with national activities, plans, strategies, projects, as well as possible funding sources
- Gives an estimate of costs for measures

Adaptation measures implemented

- Monitoring and information exchange
 - Installation of 4-5 automatic monitoring stations
 - Creation of common information platform
 - Finalization of delta flood modelling
 - Water balance calculation
 - Improving hydrological forecasting of inflow to Dniester reservoir
 - Dniester reservoir modelling (by USACE- AGWA)
- Ecosystem restoration/ nature-based solutions
 - Restoration of water exchange between Dniester and floodplain meadows
 - Feasibility study for one wetland to be inundated during floods
 - Creation of forest margins at one location
 - Afforestation
- Awareness-raising activities



Lessons learned and links to NDCs

- Importance of joint scenarios, models and vulnerability assessment
- Crucial to link political and experts' level, e.g. through creation of a working group and regular meetings
- Importance of concrete activities (implementation of some measures) and involving population
- Link to NDCs and other national level strategies: Transboundary cooperation mentioned in Moldova's NDC, Ukrainian climate change strategy uses conclusions of Dniester project
- Cooperation in technical fields such as climate change adaptation can be a driver for transboundary cooperation in general: Dniester basin treaty was developed, signed in 2012 and ratified in 2017





THANK YOU



Sonja.koeppel@unece.org

<https://www2.unece.org/ehlm/platform/display/ClimateChange/Dniester>

Example: Dniester river basin

- Dniester basin shared by Ukraine and Moldova,
- ENVSEC supported the transboundary cooperation in the basin since 2004
- Resulted in the Dniester treaty signed by the riparian countries in November 2012
- Project: Climate change and security in the Dniester basin
 - Implemented in 2013-2015 by UNECE and OSCE in Ukraine and Moldova with funding from EU and ADA as part of EC/ IfS project
 - Aims to increase adaptive capacity of riparian countries by promoting transboundary cooperation

Activities in the pilot project

- Develop a strategic framework for basin adaptation , discuss and promote it
- Develop an implementation plan and resource mobilization strategy
- Select a few priority measures and implement them
- Share the Dniester strategic adaptation framework and lessons learnt with others
- Support establishment of permanent institutions for transboundary cooperation (river basin commission)

WHAT FOR?

management as a single (eco) system

- in coordinating the various adaptation plans and IWRM and preventing «one-sided adaptation» of the investment rationalization

WHAT?

- Brief illustrated document in the languages of basin
 - Adaptation context, other programs and plans
- Trends and impacts of climate change, basin vulnerability
- Proposed measures, priorities, costs and turning points

HOW?

- Analysis of climate change and basin vulnerability
 - Consultations with countries, regions, sectors
- Coordination with other processes and programmes
- Principal approval by the Parties and wide dissemination