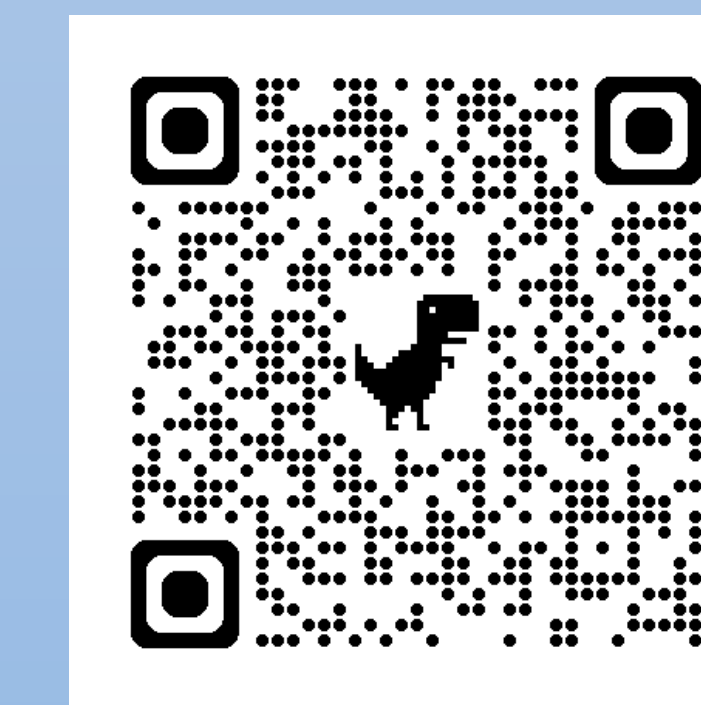




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Climate drivers, agriculture and water pollution in Ukraine, and implications of the Russian-Ukrainian war



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- Agricultural land covers around 69% of the national land;
- Ukraine exports around 10% of the global cereals;
- Crop production is dominated by grains (wheat, barley, corn), technical crops (sunflowers, sugar beets), and potatoes;
- Livestock production is dominated by poultry, pigs, and cows;
- However, agricultural activities have been under threat for two main reasons: climate change and the Russian-Ukrainian war;
- Water pollution have been under threat for three main reasons: climate change, human activities and the Russian-Ukrainian war.

- Global warming scenario
- Northern Ukraine: more precipitation and risk for floods
- Southern Ukraine: less precipitation and risk for droughts

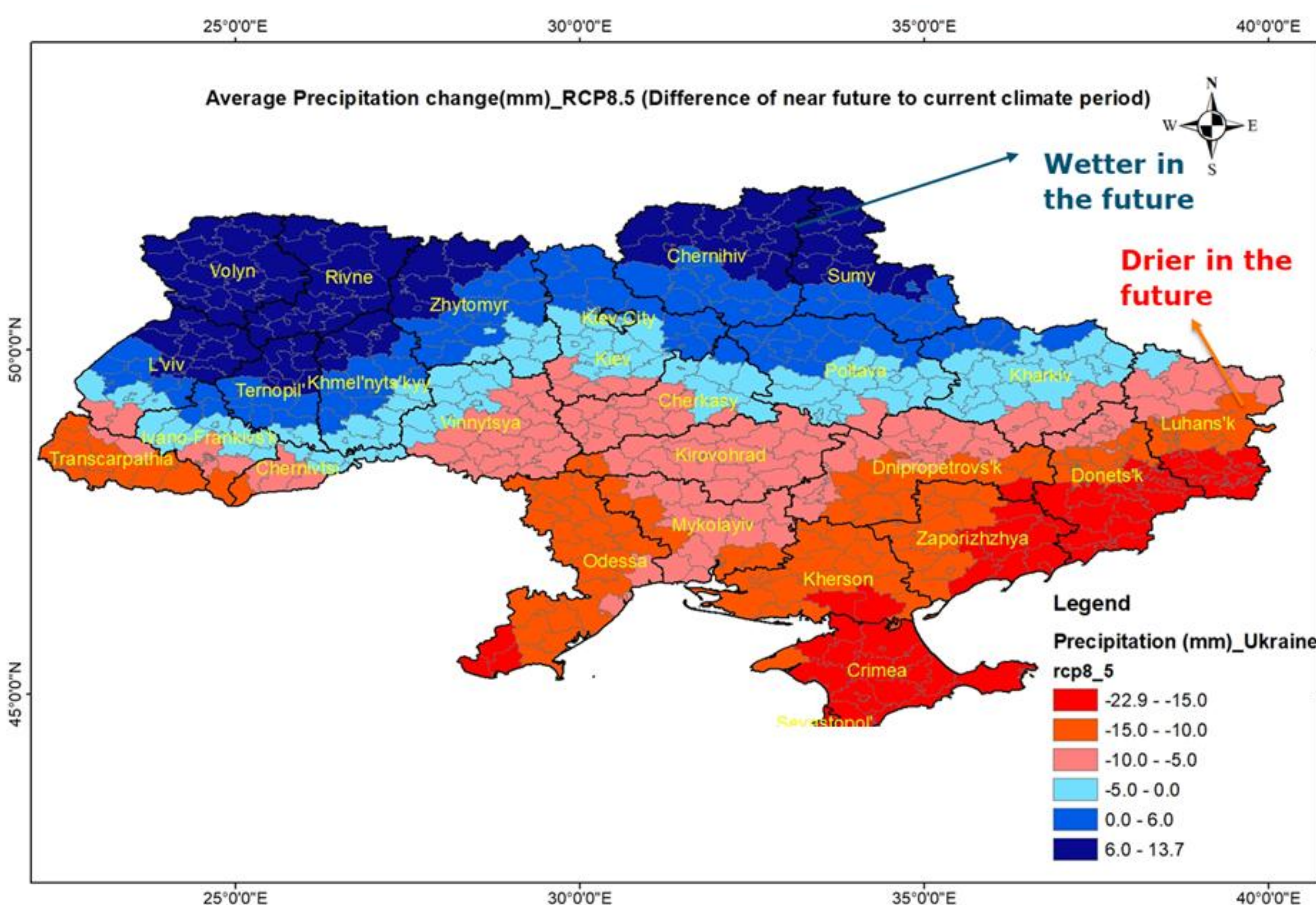


Fig. 1. Annual precipitation change (difference of near future to current climate period) based on Representative Concentrative Pathway 8.5 (RCP8.5). Source: the preliminary results from Copernicus datasets, provided by Iwan Supit, Jan Bierman, and Lianne Nauta from Wageningen University

- To assess the relationship between climate drivers, agriculture, and water pollution in Ukraine and discuss the potential implications of the Russian-Ukrainian war as an additional (unexpected) threat.

Agriculture and water pollution (Fig.2):

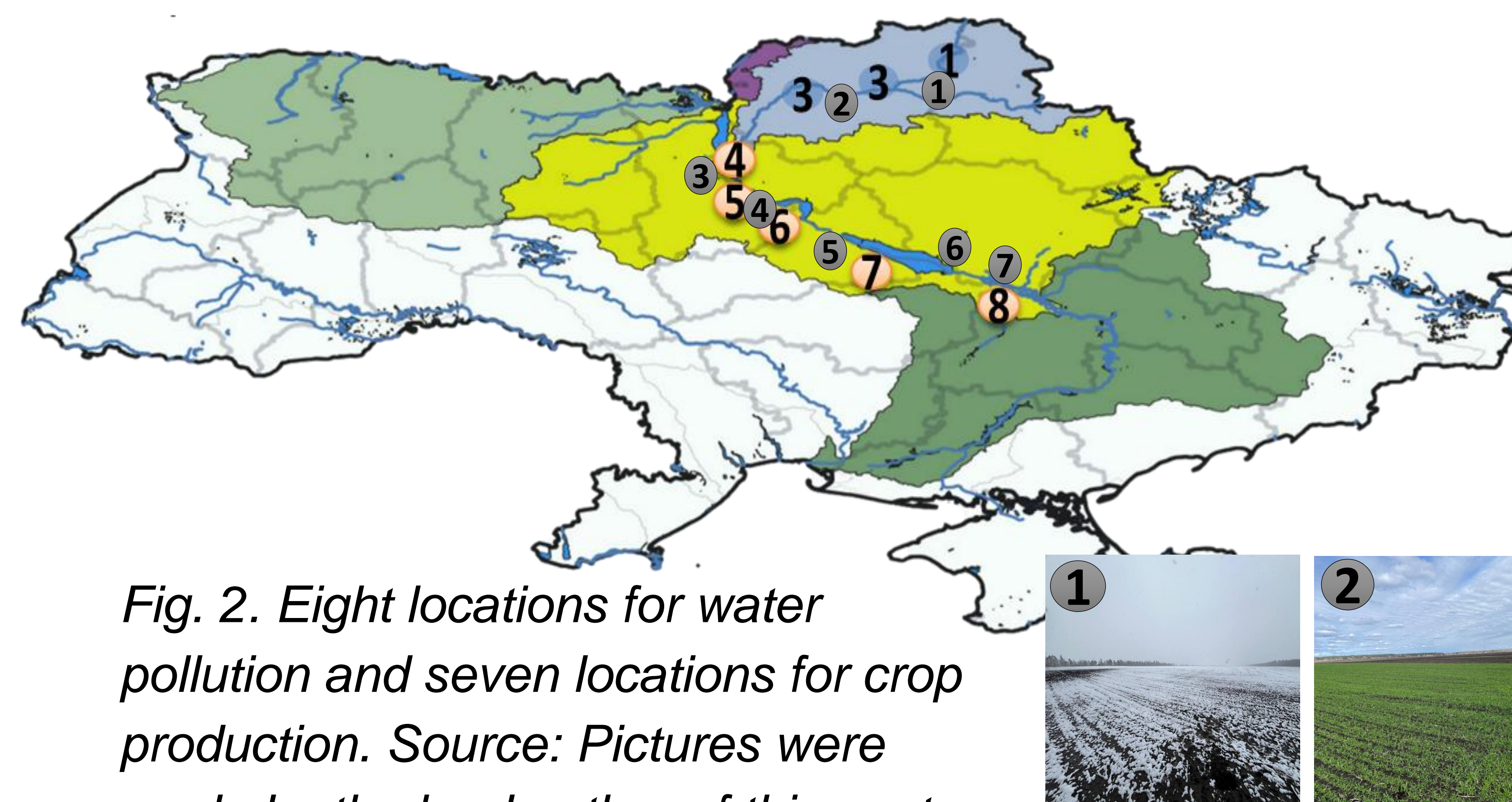


Fig. 2. Eight locations for water pollution and seven locations for crop production. Source: Pictures were made by the lead author of this poster in 2024-2025.

Russian-Ukrainian war impacts (Fig.3):



Fig. 3. Impacts of the Russian-Ukrainian war.
Source: Strokai et al. (2023) Monography

