



National University of Life and
Environmental Sciences of Ukraine

**EU Horizon Path4Med project
(101156867)**

**DG3
(Ukraine)**

Ukrainian demonstration site:

**“Future pathways for zero pollution in the
Dnipro Basin under emerging challenges
and threats”**



**Co-funded by
the European Union**



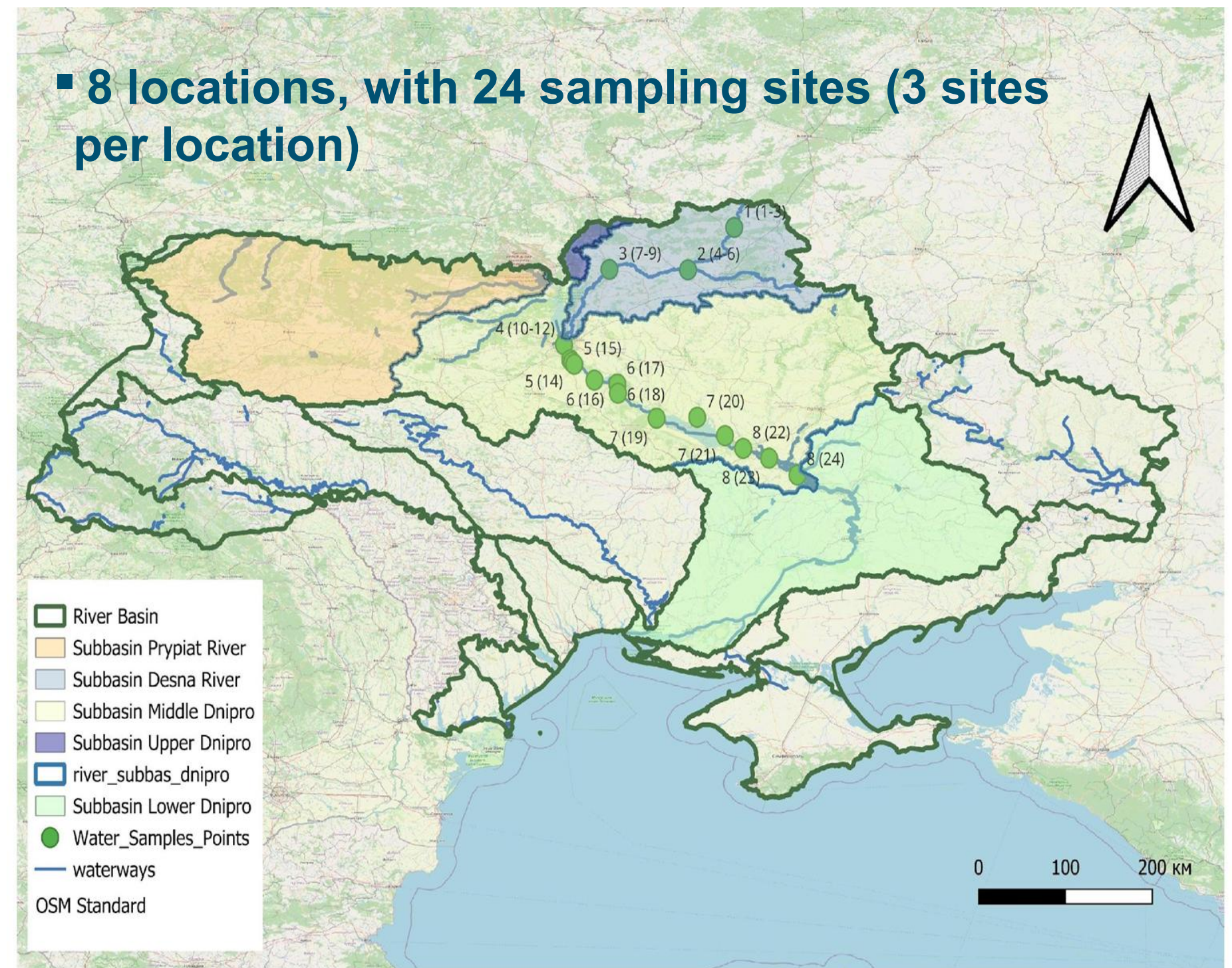


Achievements



Water sampling along the Dnipro River was conducted across all four seasons, marking a crucial milestone in understanding seasonal variations in water quality

| No | Examined parameters in Lab |
|--------------------------------|--|
| Physical | |
| 1 | pH |
| 2 | Water transparency |
| Chemical | |
| 3 | Ammonium nitrogen (N-NH_4^+), mg N/dm ³ |
| 4 | Nitrate nitrogen (N-NO_3^-), mg N/dm ³ |
| 5 | Nitrite nitrogen (N-NO_2^-), mg N/dm ³ |
| 6 | N total, mg N/dm ³ |
| 7 | Phosphates (P-PO_4^{3-}), mg P/dm ³ |
| 8 | P total, mg P/dm ³ |
| 9 | Copper (Cu), $\mu\text{g/dm}^3$ |
| 10 | Zinc (Zn), $\mu\text{g/dm}^3$ |
| 11 | Lead (Pb), $\mu\text{g/dm}^3$ |
| 12 | Cadmium (Cd), $\mu\text{g/dm}^3$ |
| 13 | Iron (Fe), $\mu\text{g/dm}^3$ |
| Microbiological | |
| 14 | Lactose-positive <i>Escherichia coli</i> index, CFU/100 dm ³ |
| Pesticide residue | |
| 16 | Glyphosate, $\mu\text{g/dm}^3$ |
| Pharmaceutical residues | |
| 17 | Lopinavir (COVID-19 drug), $\mu\text{g/dm}^3$ |
| 18 | Diclofenac (nonsteroidal anti-inflammatory drug (NSAID)), $\mu\text{g/dm}^3$ |





Achievements



Water sampling along the Dnipro River was conducted across all four seasons

■ Water parameters were measured at each sampling site using portable field devices.

■ Measured water parameters:



- Dissolved Oxygen (mg/dm^3)
- Electrical Conductivity ($\mu\text{S/cm}$)
- Total Dissolved Solids (ppm)
- Water Temperature ($^{\circ}\text{C}$)

■ Portable field devices:

- EZODO 8200M
pH/mV/Cond/TDS/Salt/Temp Meter



- PCT-407 Portable pH/
Conductivity/ TDS Meter





NATIONAL UNIVERSITY OF LIFE AND
ENVIRONMENTAL SCIENCES OF
UKRAINE

Achievements



**Water sampling along the Dnipro River was
conducted across all four seasons**

- Summer sampling fieldwork: conducted from 3-5 August 2024



Co-funded by
the European Union



NATIONAL UNIVERSITY OF LIFE AND
ENVIRONMENTAL SCIENCES OF
UKRAINE

Achievements



**Water sampling along the Dnipro River was
conducted across all four seasons**

- Autumn sampling fieldwork: from 18-20 October 2024



Co-funded by
the European Union



NATIONAL UNIVERSITY OF LIFE AND
ENVIRONMENTAL SCIENCES OF
UKRAINE

Achievements



**Water sampling along the Dnipro River was
conducted across all four seasons**

- Winter sampling fieldwork: from 14-16 February 2025



Co-funded by
the European Union



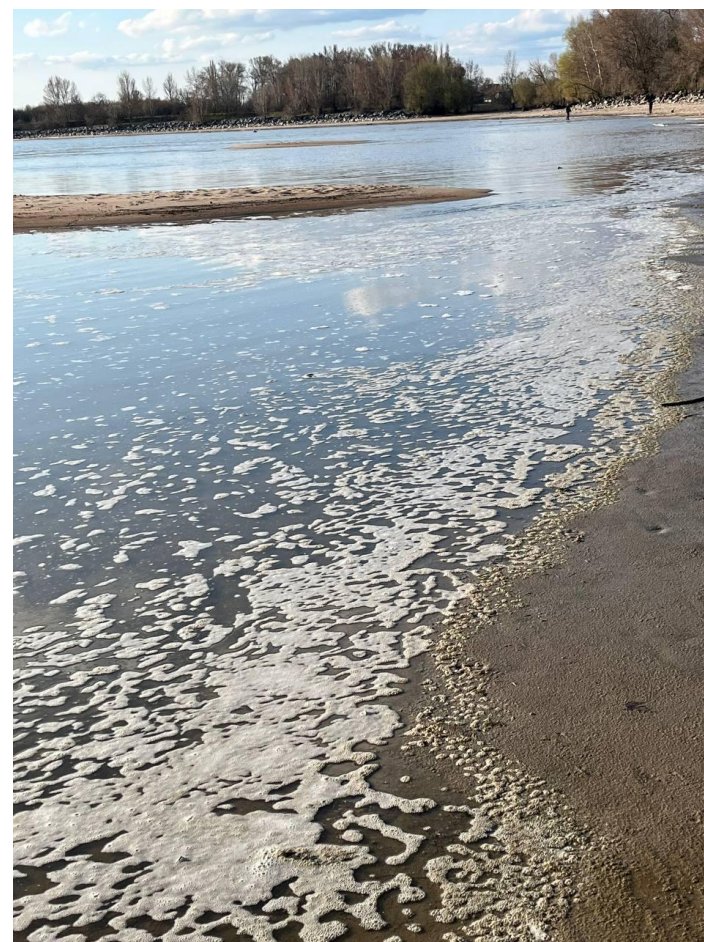
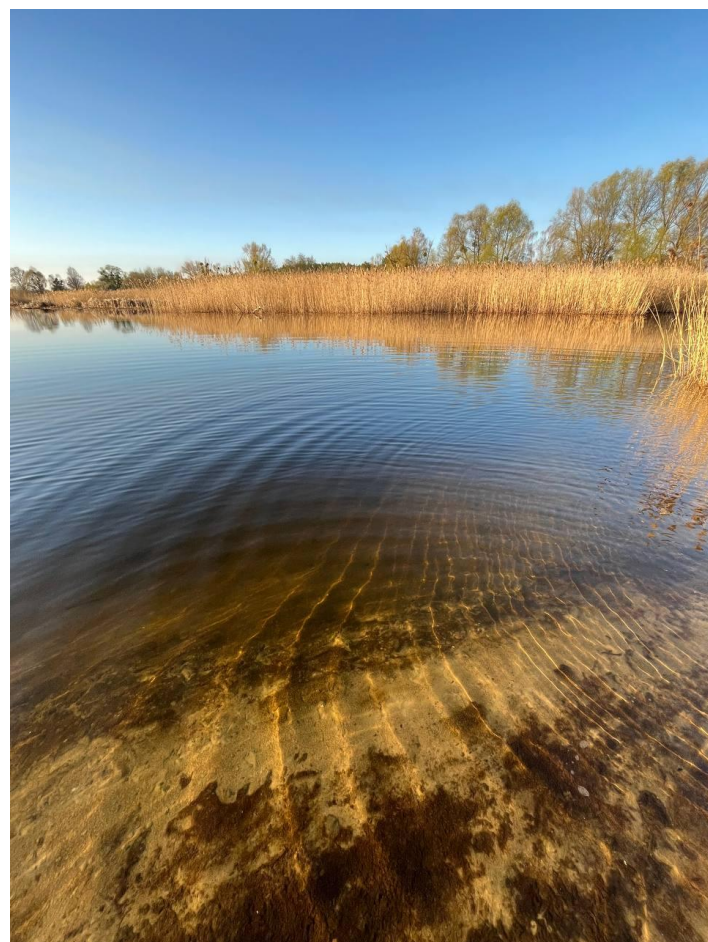
NATIONAL UNIVERSITY OF LIFE AND
ENVIRONMENTAL SCIENCES OF
UKRAINE

Achievements



**Water sampling along the Dnipro River was
conducted across all four seasons**

- Spring sampling fieldwork: from 11-13 April 2025



Co-funded by
the European Union