

OUTPUT FACT SHEET

Pilot actions (including investment, if applicable)

Version 2

Project index number and acronym	CE983 FramWat
Lead partner	WULS
Output number and title	OT3.5 - Action plans for implementing N(S)WRM into the RBMPs; D.T3.5.4 - Action plan for Kamienna (PL)
Investment number and title (if applicable)	-
Responsible partner (PP name and number)	1. WULS
Project website	https://www.interreg-central.eu/Content.Node/FramWat.html
Delivery date	06.2020

Summary description of the pilot action (including investment, if applicable) explaining its experimental nature and demonstration character

The overall aim of the Action Plan (AP) is to support sustainable water management in the catchments. The AP is an implementation document. It provides clear steps, financial resources needed and responsible actors for integrating N(S)WRMs into river basin management plans. The Kamienna AP summarizes the work carried out during the FramWat project development, the obtained results and formulates a proposal for the range of possible developments in the area that mitigate the effects of drought, flood and pollution by nutrients. Structure and content of AP includes:

- Introduction, description of the catchment, main problems,
- Selection of N(S)WRMs for the catchment - describing the process (modelling results, effectiveness, stakeholder input),
- N(S)WRMs legislation and financing - identifying existing national legislation supporting N(S)WRMs implementation and possible financing sources,
- Monitoring - describing the monitoring of the implementation of the AP and the measures.

The document was created on the basis of 7 deliverables, the location of which was given in the Concept Plan (D.T2.3.1), the efficiency evaluation was carried out in D.T2.2.2 and D.T2.4.1, and the cost analysis in D.T3.3.1. Ultimately, 17 types of measures, spread over more than 2,104 locations, were selected for the AP. A dynamic analysis of their effectiveness carried out with the SWAT model showed a change in low flows (in the range -5 to 50%); reduction of high flows in the range of -65% to -5%; reduction of suspended solids, phosphorus and nitrogen load in the range from -60 to 0%. The spatial differentiation of changes depended on the location of activities and their intensity. At the outlet from the basin, the cumulative effect was mild and amounted to, respectively: 5; -16; 35; 12; 20%. There was a separate ranking for each goal which was ranked from the best to the worst.

The ranking process consisted of a multi-criteria analysis based on the following indicators:

- Needs and potential for water retention
- Effectiveness in subbasin or SPU
- Potential land requirement (the need to purchase parcels)
- Maintenance complexity

The program also includes a risk analysis based on an analysis of land ownership, surface water body status and the location of activities in protected areas. Additionally, a legal analysis of the implementation process was conducted and their costs were estimated. The total cost of the program was 68 million EUR, the largest of which was related to the construction of small reservoirs and continuous forest cover. The Action Plans has received the support of National Water Management Authority in Poland (Państwowe Gospodarstwo Wodne Wody Polskie). The NSWRMs selected in the Action Plans can be included in the 2nd update of the Water Management Plans (IIaPGW) in the individual areas of the project partners (especially for water bodies with bad water status).

NUTS region(s) concerned by the pilot action (relevant NUTS level)

Pilot action was carried out in the Central Macroregion of Poland, Świętokrzyskie voivodeship, Kamienna pilot catchment (PL721). The total implementation area was 2020 km².

Investment costs (EUR), if applicable

not applicable

Expected impact and benefits of the pilot action for the concerned territory and target groups and leverage of additional funds (if applicable)

Increasing landscape buffer and water retention capacity by using small water retention measures:

- Attention drawn to using more applicable agricultural cultivation techniques,
- Establishing long-term sustainable water balance in the river basins,
- Nature conservation benefits,
- Economic benefits from tourism, agriculture and forestry,
- Achieve a better ecological status of surface water bodies, support the updating process of the River Basin Management Plans,
- In addition to reducing ecological pressures, more appropriate water management conditions in river basins will help to improve flood safety in the pilot area and mitigate damages caused by drought.

Sustainability of the pilot action results and transferability to other territories and stakeholders.

The Action Plan for the pilot catchment in Poland - summarizing all main outcomes for the FramWat project - can serve as a long-term guidance document for water management and nature protection in the region and can support other stakeholder groups within the catchment region and in other territories by:

- Giving insight into the Kamienna pilot catchment, the catchment characteristics and the main environmental problems.
- Highlighting the potential of NSWRM to address the problem of drought, flood and nutrients load by showing the results of an effectiveness assessment of a set of selected NSWRM with the use of a cascade of dynamic models;
- Presenting an overview on policies and funding schemes to support NSWRM implementation in Poland;
- Raise the awareness of documented monitoring strategies to sustainably generate knowledge on single and cumulative measure effectiveness.

The implementation of the Plan involved water management staff from different regions of each country, which will contribute to the transfer of the developed approach to planning small water retention activities in other regions.

All results and outputs regarding Kamienna pilot action will be maintained by PP1 WULS. Together with Polish Water organization (AP3) and institutions responsible for the implementation of activities (listed in Action Plans) will be responsible for their further sustaining and implementation.

Lessons learned and added value of transnational cooperation of the pilot action implementation (including investment, if applicable)

In each country, the Action Plan was developed on the basis of local guidelines/rights/preferences, which means that it has a different format and focuses attention on different elements. Therefore the analysis of these plans allows to check the possibilities of implementing them in different regions/countries.

Additionally transnational cooperation allowed to:

- learn about different catchments showing specific characteristics and problems,
- learn about different legal background and financing approaches for NSWRM,
- benefit from other partners experience and expertise and exchange knowledge in the field of NSWRM and modeling,
- establish cooperation and networks between partners, also for future projects,
- see the strengths and weaknesses of the different country approaches,
- compare and evaluate the possibilities and problems of NSWRM implementation in different countries.

Contribution to/ compliance with:

- relevant regulatory requirements
- sustainable development - environmental effects. In case of risk of negative effects, mitigation measures introduced
- horizontal principles such as equal opportunities and non-discrimination

The action plans for pilot actions take into account the needs and possibilities of the natural environment for water retention. This will allow facilitating sustainable development. In addition, the activities planned on their basis will help in a semi-natural way to avoid negative effects such as drought, flooding, water pollution and the increase of sediment transport. In the course of analyzes, the potential restrictions associated with environmental protection were taken into account during the development of action plans.

References to relevant deliverables (e.g. pilot action report, studies), investment factsheet and web-links

If applicable, additional documentation, pictures or images to be provided as annex

Relevant deliverables regarding Kamienna pilot catchment (Poland) are:

- [D.T2.2.2 Reports from testing the static method to assess cumulative effect of N\(S\)WRM on Kamienna PA](#)
- [D.T2.3.1 Developing the concept plan for NSWRM for Kamienna PA](#)
- [D.T2.4.1 Reports from testing the dynamic models to assess cumulative effect of N\(S\)WRM in Kamienna AP](#)
- [D.T2.5.1 National Trainings how to assess effectiveness NSWRM on Kamienna PA](#)
- [D.T3.3.1 Reports from the pilot action on cost assessment on Kamienna PA](#)
- [D.T3.5.2 Report National Policy Dialogue \(PL\)](#)
- [D.T3.5.4 Action plan for Kamienna PA](#)

Other Action plans are available on this website:

[https://www.interreg-central.eu/Content.Node/OT3.5---Action-plans-for-implementing-N\(S\)WRM-into-the-RB.html](https://www.interreg-central.eu/Content.Node/OT3.5---Action-plans-for-implementing-N(S)WRM-into-the-RB.html)