POLICY BRIEF on Natural (Small) Water Retention Measures suggested by the FramWat project for Central Europe

Introduction

It was recognised that the Central European Region is unsustainably using up its essential renewable water resources with the arising excessive usage resulting in natural heritage loss, habitat fragmentation and pollution problems. Nowadays the Central European countries are investing in efforts to restore and preserve three basic functions of every river basin: water retention, self-purification, and biodiversity.

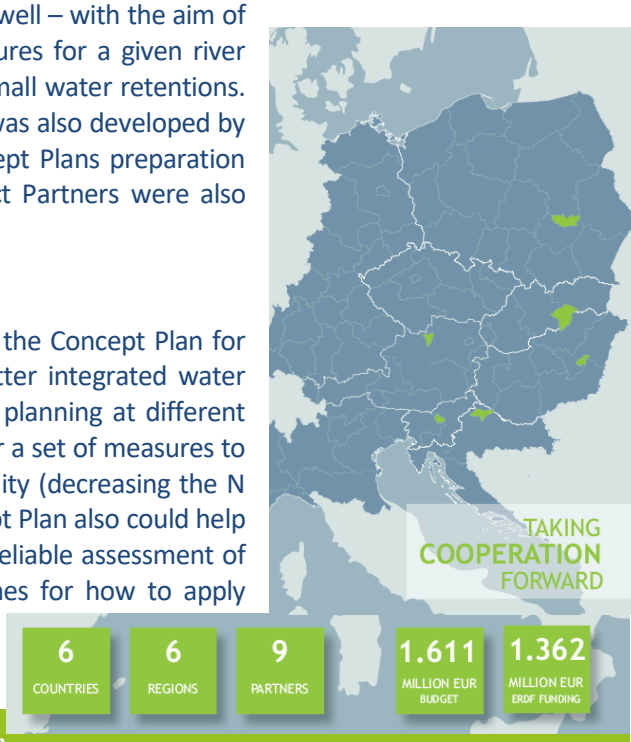
The FramWat "*Framework for improving water balance and nutrient mitigation by applying small water retention measures*" project supported by the Interreg Central Europe programme of the European Union aimed to strengthen the regional common framework for floods, droughts and pollution mitigation by increasing the buffer capacity of the landscape.

Empirical evidence, Methods and Analysis

The majority of water management and flood protection measures usually lack innovation and follow more traditional approaches without taking into account the valuable ecosystem services provided by nature in the landscape settings. The FramWat project supported the idea of using landscape features to help solving environmental problems of water bodies in a sustainable way and piloted natural (small) water retention measures (N(S)WRM) approach in a systematic way in selected pilot river basins. Partners developed innovative methods i) identifying locations in a river basin where N(S)WRM would be needed as a consequence of topological, hydrological, meteorological conditions, ii) supporting the evaluation of cumulative effectiveness of N(S)WRM at river basin scales, iii) providing guidelines for implementation of N(S)WRM with policy options and cost analysis to mitigate negative effects of floods and droughts and prevent water pollution to preserve natural heritage in Central Europe. This resulted in improving the water balance, decreasing sediment transport, and enhancing nutrients re-circulation. Moreover, the methodology provided decision makers with appropriate tools to incorporate N(S)WRM into the next cycle of River Basin Management Plans and gave guidance and raise awareness about the importance of horizontal integration of different planning frameworks.

Results

The FramWat project prepared Concept Plans for six pilot river basins as well – with the aim of giving information about the best possible locations and type of measures for a given river basin, together with their estimated cumulative effects of natural and small water retentions. The Concept Plans were prepared with the support of a GIS Tool which was also developed by the project as well as with selected mathematical models. In the Concept Plans preparation process inputs from national training courses organised by the Project Partners were also taken into consideration and utilized.



Conclusions and Policy recommendations

The FramWat project recommends the abovementioned new tools and the Concept Plan for decision makers and river basin management planners to facilitate better integrated water resources management as well as to improve river basin management planning at different scales. The Concept Plan could help them to choose the best locations for a set of measures to achieve the water quantity (mitigation of droughts and floods) and quality (decreasing the N and P loads) goals for the basin in concern. The new tools and the Concept Plan also could help the decision makers as well as river basin management planners to do reliable assessment of effectiveness of the selected measures and providing detailed guidelines for how to apply N(S)WRM in river basin management context.

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https://www.interreg-central.eu/Content.Node/FramWat.html

This Policy Brief has been elaborated under the CENTRAL EUROPE Programme supported by the European Union (European Regional Development Fund).