

T.2.4.2 Guide to a sustainable and efficient management of cross-border thermal water resources

This guideline summarizes the most important action steps and further tasks from the findings of the HTPO project (hydrothermal area potential) and serves as a condensed guide for other border regions that are striving for joint management concepts in the future.

The first most important action steps are shown embedded in the concept of an adaptive management strategy using the example of the Laa an der Thaya (AT) - Pásohlávky (CZE) region.

For further information we refer to our detailed outputs. You can find them on

https://www.at-cz.eu/at/ibox/pa-2-umwelt-und-ressourcen/atcz167_htpo/dokumente

HTPO

Task 1
Geoscientific model
the thermal water resources

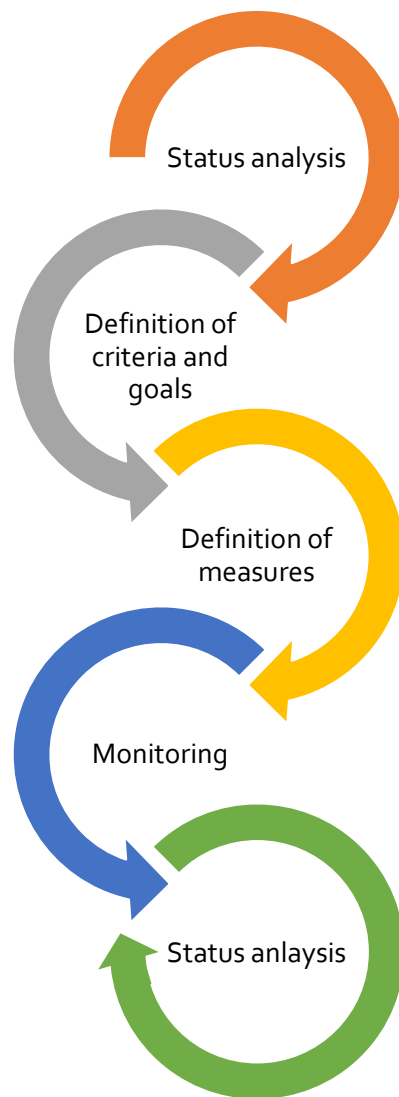
Task 2
Strategic measures for
sustainable and efficient
management and use of cross-
border thermal water resources

The HTPO Project
Duration: 09/2018 – 12/2021
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HTPO – condensed instructions for the joint management of thermal water bodies

The use of deep thermal waters requires knowledge of the nature of the aquifers and the composition of the waters to be used, but also a management concepts to safeguard this resource over several generations. The use of the subsoil and the water, whether for balneological or geothermal purposes, calls for sustainable and efficient solutions and management strategies. Especially in the case of cross-border uses, the existence of a cross-border concept is of enormous importance. At the basis of every strategy is first and foremost the implementation of information and exchange. Information about existing and planned systems on both sides of the border and exchange of data and knowledge gained. This is followed by the definition of goals, a usage strategy and criteria for their implementation. The definition of measures for implementation, both in the administrative area (common approval practice) and of technical measures (compliance with standards), together with measures for their monitoring, supplement the scope of such a strategy. The creation of an adaptive management strategy is not a linear process and must be designed dynamically. Goals, criteria and measures should be permanently adapted to the current level of knowledge.



Analysis of the region

- Data collection – existing systems, underground parameter, seismic inventory, water analysis
- Socio-economic characterization of the area - inhabitants, land use, infrastructure, industrial development
- Recording of the legal and administrative basis in the area of action
- Collection of technical standards, creation of work regulations
- Elaboration of responsibilities and communication mechanisms

Development of the region

- Calculation of a hydraulic balance
- Recording of the energy supply

Operation

- Communication and exchange of information, incorporation of new data
- Constant checking and evaluation of the measures taken

Scope of use

- Definition of the quality & quantity of the resource
- Definition of critical changes in state - like pressure and temperature

Terms of use

- Definition of usage goals - systematic area development

Base

- Joint resource models
- Joint database
- Establishing joint legal and administrative measures

Detail

- Definition of operating parameters (extraction, monitoring,)
- Elaboration of seismic monitoring

Operation

- Monitoring – control of operation and environment
- Joint reports of the monitoring
- Joint maintenance of data etc.