Groundwater Governance in Hungary and Regional Overview

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Institutions involved in groundwater governance

Main State Ministries
- Ministry of Rural Development
- Ministry of Interior
- Ministry of National Development
- Ministry of Foreign Affairs

Authorities, Background Institutes
- National Institute for Environment
- General Directorate of Water Management
- Nat. Inspectorate for Env. Nature and Water
- Hungarian Office for Mining and Geology

Research institute(s)
- Geological and Geophysical Institute of Hungary (MFGI)

Local Governments

Authorities
- Regional Branches of National Institute for Environment
- Regional Water Directorates
- Regional Inspectorates for Environment, Nature and Water
- Regional Mining Inspectorates

NGOs

Public consultations
**Why is state and international level governance important?**

**Main aquifers:**
Multilayered porous intergranular sediments;
Lime stones, dolomites.

Governance of transboundary aquifers and groundwater bodies is needed!
Groundwater governance at international level

- Hungary shares 7 out of the 11 aggregated transboundary groundwater bodies in the Danube River Basin; ICPDR Groundwater Task Group
- Secretariat for Environmental Affairs of the Rural Development Ministry
- Four (Hungarian-Slovakian, Hungarian-Romanian, Hungarian-Serbian, and Hungarian-Croatian) out of 7 bilateral water committees are active in transboundary groundwater governance
EU Danube Region Strategy (EUSDR)

4 pillars, 11 priority areas

Renewable energy → Geothermal energy → Groundwater → Long term sustainable management is needed

Water quality → Groundwater quality- Coordination through the ICPDR (WFD- DRBMP)

It is not about funding, it is about closer cooperation!

Common basis for governance at state levels
Groundwater poorly represented in EUSDR
Main legislation relevant for Hungary

Act LVII of 1995 on water management: priority list to satisfy water demands
1. drinking water and public health
2. medicinal purposes (balneology)
3. agriculture, livestock, and fish-farming
4. nature conservation
5. economic → energy use
6. other

Water Framework Directive, RBMPs: environmental objectives

Helsinki Convention: Transboundary groundwater


Amendments of the Act XLVIII of 1993 on Mining:
Concession; Geothermal Protection Zone

Government Decree 147/2010, Government Decision 1002/2012:
Re-injection
## Licensing for groundwater abstraction and heat production

Regulation is based on **depth and type of heat production**

<table>
<thead>
<tr>
<th>Depth below surface (m)</th>
<th>Type of production</th>
<th>Licensing Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-2500 Open for licensing</td>
<td>Closed loop, no water produced (GSHP)</td>
<td>Regional Mining Inspectorate</td>
</tr>
<tr>
<td>Below 2500 Closed for licensing</td>
<td>Abstraction of (thermal) water</td>
<td>Regional Inspectorates for Environment, Nature and Water (water permit, EIA)</td>
</tr>
<tr>
<td>Below 2500 Closed for licensing</td>
<td>Not relevant yet, Concession procedure</td>
<td>Hungarian Office for Mining and Geology; CVIA, Minister signs concession contract</td>
</tr>
</tbody>
</table>

**Different licensing procedures in the neighbouring countries!**
Example of providing the basis for a transboundary common thermal water governance

Critical groundwater level and water abstraction value

Proposed common monitoring system:
17 existing observation wells + 1 new well pair
Governance of transboundary aquifers and groundwater bodies

- **TransEnergy** project →
  four geological surveys; work to support a harmonized thermal water and geothermal energy utilization management and governance among Hungary, Slovenia, Austria and Slovakia.

- Good example for other regions in Europe sharing transboundary resources.
Practical application of COUNCIL DIRECTIVE 98/83/EC
on the quality of water intended for human consumption
to achieve low arsenic in drinking water

- **201/2001 Government Decree** on requirements and controlling the quality of drinking water
- **National Program on Improving Drinking water quality**
  - National Development Plan
  - New Hungary Development Plan
  - **New Széchenyi Plan** (Environment and Energy Operative Program)
- Last Derogation Deadline: 25th December 2012
- **1st of January 2013 Ministry of Defence**, Hungarian Defence Forces:
  123 settlements, about 340,000 people; mobile As removal systems until June
- **Romanian-Hungarian joint company**: water for human consumption in the Hungarian Békés County. Concession for 49 years. 30% extraction efficiency rise up to 60%.
Concluding remarks

- Adequate groundwater institutions exist at different government levels in Hungary.
- Groundwater policies and legislation do exist in Hungary and they are applied and enforced.
- Additional to national governance, sustainable long term management of transboundary aquifers and groundwater bodies is needed in the Pannonian Basin, which requires groundwater governance at international level, too.

Budapest World Water Summit – October 2013
Thank you for your attention!