

Comment to the Draft UNFC Supplemental Specifications for Groundwater Resources

**Patrick Lachassagne, Dr. HDR, Hydrogeologist,
Director of HydroSciences Montpellier (France)**

The United Nations Economic Commission for Europe (UNECE) Sustainable Energy Division has developed groundwater specifications for application to groundwater “projects”, as a supplement to the Mineral and Anthropogenic Resources (2022) Guidance. The present supplement purports to support Member States (Europe and beyond) in evaluating the viability and feasibility of groundwater “projects”. The specifications and approach documented in the draft Supplemental Groundwater Specifications have been issued by UNECE in a global call for comments and review until January 15th 2024.

The commentary includes two (2) pdf files:

- the first file (this file) contains **general comments about the Draft UNFC Supplemental Specifications for Groundwater Resources** (UNECE UNFC GW Supplement_LACHASSAGNE_240113.pdf);
- a second file contains the **annotated Draft UNFC Supplemental Specifications for Groundwater Resources**. This annotated document contains more than 100 annotations (UNFC-SupplementalSpecs-GroundwaterResources-public-comments_Lachassagne.pdf).

The draft Supplemental Specifications for Groundwater Resources contains numerous parts which would need to be completely redrafted if this project were to proceed (see my many comments in the annotated draft). It seems to omit most of hydrogeological technical terms which, of course, are technical and may be difficult for non-specialists to grasp, but should allow to be well and accurately understood. Like other technical areas, groundwater abstraction, management, protection, etc. is a matter for specialists, and documents dealing with these objectives need to be technically sound. If such a document were to be presented to non-specialists, it could, for example, be supplemented by an executive summary. The draft also contains many imprecise notions, such as scale, depth, salinity, etc.. They must be specified in quantitative terms. Moreover, consistency between the technical terms used must be maintained throughout the document; a same notion must not be expressed with different words. The proposed methodology is highly theoretical, and there is no evidence that it can be reasonably implemented in real cases. Before any proposal of this type is made, it should be tested on contrasting case studies. This should be done before the specifications are proposed.

As regards the content of the draft document, briefly, groundwater is intrinsically different from mineral and fossil fuels resources as it is a renewable and mobile water resource. The sustainability of groundwater abstraction cannot be evaluated at the project level. Groundwater has to be managed at the watershed scale that comprises both the aquifer in which groundwater is abstracted as well as the other aquifers in relationships with it, if any, and the surface watershed(s) interacting with them. Groundwater is intrinsically connected to surface water which are not included in the UNFC.

I acknowledge the efforts put into the development of the groundwater specifications. However, based on the above and the other joint document, I recommend to stop any further development of the methodology. As a member of the international groundwater community, I stand available to support UNECE in its efforts to support sustainable groundwater management in the pursuit of the Sustainable Development Goals.