Attention to: Groundwater Resources Working Group of the Expert Group on Resource Management, UNECE Sustainable Energy Division

Dear working group members,

The UNFC framework, like other resource guidelines, aims to enhance resource management, facilitate better decision-making, and contribute to sustainability. In this light, the objective aligns with past efforts to ensure sustainable groundwater use, both quantitatively and qualitatively, especially in regions grappling with over-exploitation or contamination.

Clear guidelines for decision-making in groundwater management could offer significant added value. While incorporating groundwater into the UNFC framework presents challenges due to its unique characteristics compared to other energy and mineral resources, the document commendably considers some of these specificities. It draws on recent research, acknowledges the connection of groundwater to the water cycle, and addresses issues like existing legal rights, traditional uses, and transboundary aspects. This approach is a welcome departure from outdated and overly simplistic perspectives on groundwater sustainability.

However, there are critical flaws in the document that warrant reconsideration before publication. The main concerns pertain to the document's practical applicability and the complexity of its concepts and terminology, which makes it difficult to follow.

The document's approach to assessing the sustainability of groundwater use is unclear, particularly in whether it addresses individual projects or broader planning and rights allocation by water authorities. Groundwater sustainability transcends single projects, necessitating a focus on comprehensive planning and the cumulative impact of multiple initiatives.

The use of the classification system, as outlined in the document, raises questions. The categories in various tables seem pre-assessed without clear criteria for such assessments. Defining these criteria is essential, as seen in the efforts of UNESCO IHP, the Water Convention, and other partners to formulate sustainability criteria at local, national and transboundary level. This regards statements like (E-axis):

“*There will be no harmful and irreversible impacts in general on society, the environment, or the economy because of project operations or because of any long-lasting hydraulic effects that may persist beyond the project’s end-of-life, either as a stand-alone project or in consideration of cumulative effects as noted above*.”

“*All necessary permits and approvals from regulating agencies are in place, or there are reasonable expectations that these will be in place in a reasonable timeframe. Transboundary groundwater sources and transboundary surface-water bodies in hydraulic communication with the groundwater source have an additional layer of political and legislative viability*.”

The question lies in how these aspects are evaluated. Concluding this might be overly ambitious or subjective, rendering the classification inapplicable.

The F-axis, focusing on the probability of success in investing in a well, exemplifies the document's theoretical approach that may not facilitate practical decision-making. The categories proposed are difficult to assess in real-world scenarios, resulting in a classification that is more theoretical than helpful. The dynamics of investment and technical execution of a well are based on criteria not clearly encompassed by this classification, raising questions about who benefits from such a system.

Several concepts in the document are difficult to comprehend, despite some valuable insights. For example, the definition of groundwater on page 8 is hard to follow based on the distinction between groundwater sources and products.

Last but not least, access to clean and safe water is not just a basic necessity. The United Nations recognizes water as a human right, emphasizing that everyone has the right to sufficient, safe, accessible, and affordable water. Recognizing water as a human right underscores the importance of equitable distribution, conservation, and sustainable management to safeguard this precious resource for current and future generations. As such, it seems difficult to compare groundwater to other natural resources and categorize it in a misleading way. Water is free, but the services using water as a “product” are to be paid.

In conclusion, while the document highlights important aspects of groundwater sustainability and differentiates it from other mineral and energy resources, its classification system may not be practical for groundwater practitioners. Classifying projects under each category seems too ambitious and misaligned with realistic processes for groundwater development, such as investing in a well or well field. In contrast, such detailed classifications may be more relevant for larger-scale mineral resource projects that require extensive feasibility studies.

To be truly effective, the document needs a clearer approach, better explanations, and simpler wording to avoid confusion and unnecessary complexity. This is crucial, as sustainable groundwater development is a major issue at multiple scales.

Best regards,

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