

Comments on the “Draft UNCF Supplemental Specifications for Groundwater Resources”

Prepared by the Secretariat of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, serviced by UNECE

Background

These comments are submitted in response to the public consultation carried out by the UNECE Expert Group on Resource Management (EGRM), to review the draft document “Draft United Nations Framework Classification for Resources Supplemental Specifications for Groundwater Resources”¹ (from now on referred to as “Draft Specifications”). The Draft Specifications were prepared as an initiative led by the UNECE Sustainable Energy Division.

The United Nations Framework Classification for Resources (UNFC) is a generic framework aimed to standardize resource project reporting and quantity across diverse resource types. The Draft Specifications is intended to provide groundwater practitioners with technical guidance on how to apply UNFC to groundwater resource projects.

Given that the Specifications are supposed to serve “resource managers and groundwater professionals with appropriate expertise and relevant experience in groundwater project operations, as well as groundwater quantity and quality estimation”, UNECE EGRM has invited comments from groundwater experts.

The present document includes the comments of the Secretariat of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), which is serviced by UNECE.

The Water Convention and groundwater

The Water Convention is a unique legally binding instrument promoting the sustainable management of shared water resources - both surface and groundwater -, the implementation of the Sustainable Development Goals, the prevention of conflicts, and the promotion of peace and regional integration.

The scope of application of the Water Convention includes groundwaters which are intersected by State boundaries - whether in confined or unconfined aquifers - even if those groundwaters are not connected to international watercourses.

Groundwater management is high on the priorities of work under the Convention. The Water Convention’s programme of work has supported UN Member States, both Parties and non-Parties to the Convention, on a variety of activities related to groundwater, including²:

¹ <https://unece.org/draft-unfc-supplemental-specifications-groundwater-resources>

² <https://unece.org/environment-policy/water/areas-work-convention/management-transboundary-groundwaters>

- Governance and legal framework: in 2012, the Meeting of the Parties to the Convention adopted the “Model Provisions on Transboundary Groundwaters”³ to facilitate the application of the principles of the Convention to transboundary groundwaters and to improve transboundary cooperation in groundwater management. The Model Provisions build on experience worldwide, including the UN International Law Commission’s Draft Articles on the Law of Transboundary Aquifers⁴;
- Mapping, identification and assessment of transboundary groundwaters in the pan-European region⁵;
- Monitoring and assessment of transboundary groundwater, through the development of specific guidance documents, the exchange of experience and the support to countries in establishing joint or coordinated monitoring and assessment systems;
- Supporting the development of agreements and the establishment of joint bodies for transboundary groundwater management;
- Focus on groundwater under the reporting on Sustainable Development Goal indicator 6.5.2 “Proportion of transboundary basin area [within a country] with an operational arrangement for water cooperation”;
- Supporting intersectoral dialogues and assessments of sectoral interdependencies for transboundary groundwater management through the application of the water-food-energy-ecosystems nexus approach.

In line with the Convention’s principles (and more broadly with UN paradigm and modern approaches), all activities promote an integrated approach to water resources management and the conjunctive management of surface and groundwaters.

Work under the Water Convention is carried out in close cooperation with a broad network of international organizations with strong expertise on groundwater management, such as UNESCO, UNESCWA, IAEA, IGRAC, IAH, the Regional Centre for Groundwater Management in Latin America and the Caribbean (CeReGAS), the Sahara and Sahel Observatory (OSS), GEF, the World Bank and others. For example, on 16-17 October 2023, a global workshop on conjunctive management of surface and groundwaters (from the national to the transboundary level)⁶, was organized by the Convention in cooperation with many of the above partners.

The Water Convention’s secretariat was not involved in the process of preparation of the Draft Specifications. Moreover, it should be noted that in the process of preparation of the Draft Specifications, there has been only one interaction with the Water Convention’s intergovernmental framework, when, in October 2019, the Convention’s Working Group on Integrated Water Resources Management was informed of the efforts under the ECE Committee on Sustainable Energy Expert Group on Resource Management to extend the scope of application of the UNFC from mineral and energy resources to groundwater. In that occasion, the Working Group “*application of the Framework Classification to groundwater resources might be limited by the features that distinguished it from other natural resources, including: the coexistence of renewable resources and non-renewable resources; the transboundary nature of many groundwaters; the*

³ <https://unece.org/environment-policy/publications/model-provisions-transboundary-groundwaters>

⁴ https://legal.un.org/ilc/texts/instruments/english/commentaries/8_5_2008.pdf

⁵ See <https://unece.org/environment-policy/publications/second-assessment-transboundary-rivers-lakes-and-groundwaters>

⁶ <https://unece.org/info/events/event/374652>

*existence of groundwater-dependent ecosystems (for example, wetlands); and, most importantly, the fact that (ground)water, while being an economic good, was not a commodity and was vital for life”.*⁷

Comments

1. *The Draft Specifications do not adequately address the nature of water as a human right nor its key role for the environment and ecosystems.*

The UNCF is a system that was developed to classify energy, mineral, and raw material resources⁸. The main difference between these resources and water is that water is essential to all forms of life, and that access to water is a human right. For this reason, the possible adaptation of the UNCF to groundwater deserves a very careful consideration.

The Draft Specifications do acknowledge that groundwater resources are inherently different from energy and mineral resources “because they represent “common-pool resources” that can be accessed by all, with barriers to access that are costly and generally not enforceable. [...] Moreover, groundwater access can be viewed through the lens of human rights and be rooted in tradition and historical use, indigenous rights, property rights, and water law. [...] The environment itself becomes a stakeholder in groundwater projects.”.

To address this issue, the authors added one category of projects called “Socially Necessary Groundwater Projects”. However, this addition falls short from capturing and properly addressing the complexity of the issues related to groundwater. Many aspects are simplistically addressed or overlooked (from the significance of groundwater-dependent ecosystems to sustainability issues, the interlinkages between groundwater quantity and quality aspects, temporal aspects, different stakeholders interests). Moreover, lumping all these complex issues in one axis inevitably results in simplifications and reduction of their overall importance for decision-making.

Determining the “necessity” of a groundwater project is by itself an extremely difficult exercise, which outcome could be easily challenged. To give just one example, the case of a project aimed to abstract groundwater and transfer it to supply drinking water to a distant urban settlement that suffers water scarcity, could be considered socially necessary by the beneficiaries, and unnecessary by pre-existing, local users. The very categorization of projects in this category would require a separate, careful exercise.

Moreover, the language reflects a “commercial” perspective. For example, the authors refer to groundwater as “product”, which is not appropriate considering the nature of groundwater as a public good which use – depending on the legislation in place - might not even be subject to property rights.

2. *The Draft Specifications do not address the aquifer dimension of groundwater, nor the interlinkages with surface water.*

The UNCF approach aims to evaluate the sustainability of groundwater projects, however from a hydrological point of view, this can only be done looking at the overall aquifer and in many cases in connection with surface waters. The definitions and terminology used (which is not the one

⁷ See the report of the Working Group on Integrated Water Resources Management on its fourteenth meeting, available at https://unece.org/fileadmin/DAM/env/documents/2019/WAT/10Oct_22-24_IWRM/ECE_MP.WAT_WG.1_2019_2_ENG.pdf.

⁸ The UNCF is recently defined as a “universally acceptable and internationally applicable scheme for the sustainable management of all energy and mineral resources” <https://unece.org/sustainable-energy/sustainable-resource-management>

generally agreed by academia and internationally by hydrogeologists and is in some instances incorrect), as well as the overall approach promoted, don't seem to reflect the dynamic nature of aquifers, nor their complexity vis-a-vis the multiple uses of groundwater, their variety, the interaction with surface water, the cumulative impact of multiple small projects, nor the difficulty of monitoring that is typically associated to groundwater.

It is impossible to evaluate the sustainability of a groundwater project without considering the broader aquifer dynamics, their evolution, and the relationship with surface water.

3. *The Draft Specifications basically do not reflect transboundary implications.*

It is estimated that 60% of the freshwater available globally is transboundary. Like surface water, groundwater is often shared by two or more countries, and as such subject to a highly complex governance.

While the Draft Specifications refer to the possibility that the groundwater resource may be transboundary, they do not indicate how the project evaluators should address the potential implications of this instance, such as the presence of conflicting interests on the resource in case, obstacles to access information, inconsistency of data and information and incoherences in analytical methods, and other issues that are typical in transboundary settings.

Clear references to the principles of international law could serve to address this gap in the document, as well as a clarification of the relation between the UNCF as a technical framework for classifying resource management and the relevant UN legal instruments (notably, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, the Convention on the Law of the Non-navigational Uses of International Watercourses,⁹ and the Draft Articles on the Law of Transboundary Aquifers).

4. *The benefits, applicability, and usefulness of the expansion of UNCF to groundwater are unclear.*

The expansion of the UNCF beyond energy and mineral resources aims to combine *all* resources into one global classification system (with the aim of supporting countries delivering on the Sustainable Development Goals¹⁰). However, the expansion of UNCF to groundwater would require the consideration, and adaptation, of better-established definitions, common practices, and analytical tools available and in use by groundwater managers on the ground.

At least in their current form, the application of UNCF to groundwater seems to be challenging, as reported by the countries that experimented it so far¹¹. For instance, the case study from Kyrgyz Republic states that that *"the UNFC works well with solid minerals, but there are some difficulties (inconveniences) with the assessment of groundwater. So one deposit can fall into three areas with different degrees of readiness for development, with different geological, hydrogeological and specific knowledge."*

The Draft Specifications do not explain how the UNCF should adapt, combine, or add value to other systems of classification of groundwater (or if it should substitute them). A non-negligible risk is that the UNFC may compete with frameworks that are not only more widespread, but also much better suited to groundwater, spreading inconsistent information.

⁹ <https://unece.org/environment-policy/water/un-watercourses-convention>

¹⁰ https://unece.org/sites/default/files/2023-02/UNFC-Across-Resources_E.pdf

¹¹ <https://unece.org/groundwater-case-studies-0>

In fact, a problem consistently raised in the case studies so far¹² is the difficulty in aligning and harmonizing the UNCF framework to the frameworks currently in use at national and regional levels.

The ambiguity regarding the potential users of this framework, generally referred to as “UNFC project evaluators”, is perhaps even more problematic. It is unclear how evaluators should support the decision-making process behind specific groundwater projects in practice, and how the use of UNFC should relate to government-led assessments and policy making more broadly.

Finally, considering the importance of conjunctive surface and groundwater management, a system which aims to only address part of the resources - as application of UNFC to surface waters is absolutely not appropriate – seems of limited use.

Conclusions

The “Draft UNCF Supplemental Specifications for Groundwater Resources” do not address appropriately the specificities of groundwater resources. The reference to simplistic definitions of groundwater, the absence of a well-defined purpose for the application of UNCF to this particular resource, and the apparent difficulties in their use, all raise serious questions on their applicability and usefulness. Hence, their potential use as a decision-making support tool - notably in transboundary contexts - should be carefully considered before deciding if the UNCF should be promoted for groundwater at all.

Promoting the further application of UNCF to groundwater without a substantial revision of the Draft Specifications would be at odds with to the broader purpose of the United Nations to promote sustainable management of groundwater and water as a human right, as well as with other work of UNECE, which services the Water Convention and other Multilateral Environmental Agreements, and as such promotes different definitions, approaches, and instruments.

Given the relation between energy and mineral resources and the groundwater used to produce them, it would seem useful if the EGRM would continue discussing how UNFC project evaluators of energy resources could assess the impact on groundwater - thereby refining the E-Axis Score (“Environmental, Social, and Economic Viability”) when it comes to the specific consideration of water resources, ecosystems, governance, and law. In this case, it would be crucial to refer to well-established definitions and key principles of international law, ensuring consistency with the terminology promoted by the Water Convention.

Given the sensitivity of all issues related to water resources (increasing by the day both globally and locally due to increased demands, climate change, and environmental issues), the Water Convention Secretariat would like to stress the importance of consensus in the use of definitions, principles, and - to the extent possible – instruments such as classification frameworks. It must be acknowledged that, at the time of writing, the comments submitted in the public consultation by groundwater experts are rather negative, with some suggesting that the UNCF should not be applied to groundwater at all.

In case of future developments, the Secretariat suggests that the EGRM continues to engage as much as possible with the global water community, including through the established intergovernmental framework of the Water Convention and its broad network of partners, as well as within the UN through UN-Water.

¹² Ibid.

Lastly, it is important to anticipate potential challenges in applying the UNCF to hydropower as a renewable energy source, a consideration currently under review¹³. Adapting the UNCF framework to surface water, an inherently dynamic resource governed by upstream-downstream negotiations, would surely pose even more unsurmountable difficulties.

¹³ <https://unece.org/sustainable-energyunfc-and-sustainable-resource-management/unfc-and-hydropower>