

## Use of UN Framework for Classification (UNFC) for Groundwater Resources

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There is an urgent need to support sustainable development of groundwater resources, which are under increasing pressure from competing uses of subsurface geo-resources, compounded by land-use and climate change impacts. Management of groundwater resources is crucial for enabling the green transition and attainment of the Sustainable Development Goals. The United Nations Framework Classification for Resources (UNFC) is a project-based classification system for defining the environmental-socio-economic viability and technical feasibility of projects to develop resources and has been recently extended for groundwater. UNFC provides a consistent framework to describe the level of confidence of groundwater resources by the project and has been designed to meet the needs of applications pertaining to: (i) Policy formulation based on geo-resource studies; (ii) Geo-resource-management functions; (iii) Corporate business processes; and (iv) Financial capital allocation. To extend use in groundwater resources management, supplemental specifications have been developed for the UNFC that provide technical guidance to the community of groundwater professionals to enhance sustainable resource management based on improved decision making. This includes addressing barriers to sustainably exploiting groundwater resources, avoiding lack of access to water and also related to ‘common pool resources’ in which multiple allocations are competing with domestic water supply (e.g. geo-energy, minerals, agriculture and ecosystems, and transboundary allocation of natural resources). UNFC for groundwater resources is designed to enhance governance to protect the environment and traditional users while ensuring socio-economic benefits to society. Consequently, it is a valid and promising tool for assessing both sustainability and feasibility of groundwater management at local, national and international levels