

Interdisciplinary studies on groundwater for global sustainability

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Interdisciplinary groundwater issues related to global environmental changes are, subsurface warming due to global warming and urbanization, global groundwater depression due to rapid increase in groundwater demand, submarine groundwater discharge which is one of the water cycle component but not globally evaluated yet, and groundwater footprint which is related to global sustainability. These issues have been studied not only in the area of groundwater hydrology but also in the multi-disciplines such as coastal oceanography for submarine groundwater discharge, geothermic for subsurface warming, and geodesy for global groundwater depression which was revealed by satellite GRACE. In this paper, interdisciplinary studies on groundwater and subsurface environmental changes for global sustainability have been reviewed with conjunction of oceanography, geothermic and geodesy.

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