Geophysical Research Abstracts Vol. 18, EGU2016-18491, 2016 EGU General Assembly 2016 © Author(s) 2016. CC Attribution 3.0 License.



Groundwater sustainability and urban development - a major challenge for the 21st century

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Groundwater is a critical, but often under appreciated, resource for urban water supply, a serious and costly hazard to urban infrastructure, and the 'invisible link' between various facets of the urbanisation process. An overview is presented of the benefits of urban groundwater use, together with some insidious and persistent problems that groundwater can present (especially those related to groundwater pollution from inadequate sanitation) for urban development. Spontaneous piecemeal approaches invariably mean that 'one person's solution becomes another person's problem' – and there is a strong argument for groundwater considerations to be part of a more holistic approach to urban infrastructure planning and management. However this is not a simple task because of the widespread vacuum of institutional responsibility and accountability for groundwater in urban areas. The current state of urban groundwater management will be reviewed, and pragmatic solutions to strengthening various facets of urban groundwater governance and management presented, using examples from Latin America and South Asia.