

Deterioration of Groundwater Quality in the Southern Districts of Karnataka, India.

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The provision of water supply, sanitation and drainage are the key elements of urbanization process. Sanitation and drainage arrangements are the fundamental aspects for consideration of the urban hydrologic cycle. They generally evolve with time, but vary widely with differing patterns of urban development. In most developing towns and cities installation of sewerage systems lag considerably behind population growth and water supply provision. Concomitantly groundwater quality degradation is reported from a wide range of geographical locations, both within the urban area itself and in downstream aquifers.

The study is carried out in southern districts of Karnataka falling under semi-arid climate. The study spots are covered by medium grained loamy soils and underlying the gneissic rocks.

The three years study reveals elevated levels of chlorides and nitrates and indicative of faecal origin. Their severity varies considerably with hydrogeological environment. As such it is an issue that urgently needs to be addressed.

The results of study and methods to mitigate the hazards are presented in the full length paper.