An Approach to Spatial Planning for Water Conservation: The Case of Kovada Sub-Watershed (Turkey)

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Abstract : Today, the amount of water available is decreasing day by day due to global warming, environmental problems and population increase. To protect water resources, it is necessary to take a lot of measures from the global scale to the local scale. Some of these measures are related to spatial planning studies. In this study, the impact of water process analysis was assessed in the development of spatial planning for water conservation. The study was conducted in the Kovada sub-watershed (Isparta, Turkey). By means of water process analysis, the way to reach underground water of surface water in the study area is mapped. In this context, plant cover, soil and rock permeability were evaluated holistically with geographic information systems technologies. Then, on the map, water permeability is classified and this is spatially expressed. The findings show that the permeability of the water is different in the study case. As a result, the water permeability map needs to be included in the planning for water conservation planning.

Keywords : water, conservation, spatial planning, water process analysis

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