

GROUNDWATER RESOURCES MANAGEMENT IN VOJVODINA PROVINCE, YUGOSLAVIA

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For decades groundwater resources of the Vojvodina Province (Yugoslavia) has been investigated by use of different computerized techniques and models. Dominant approaches may be recognized as extensive regional simulation and statistical analysis. Systems approach with related optimization techniques and models has been applied to a very limited extent.

This is particularly true as far regional planning and management is considered. Even significant long-term depletion of groundwater level has been encountered and surface water alternative sources identified, an assessment of global water management issues has not been seriously investigated. Systems techniques' use in projects and studies has been dependent on particular in-field needs and rarely on clearly stated global national interests. Consequently, only local and regional evaluation of groundwater potential has been performed. Global nationwide problems has been left to scientists to work on due to their subjective awareness for a future and interest to share scientific challenges with surrounding world.

A brief overview of the methods and software used in evaluation and management of groundwater resources in Vojvodina Province is given. Selected examples indicate the extent of assessment and problems identified and solved. Certain problems, not resolved yet, are noted for two typical groundwater regimes in the Province, (1) hydrodynamical in alluvial basins, and (2) climatological in neighboring areas. Systems approach is also suggested to improve planning of conjunctive exploitation of ground and surface waters.