
Journal of Environmental Hydrology

ISSN 1058-3912

Electronic journal of the International Association for Environmental Hydrology

On the World Wide Web at <http://www.hydroweb.com>

JEH Volume 7 (1999), Paper 15, September 1999

Posted September 30, 1999

HYDROGEOLOGICAL PERFORMANCE ASSESSMENT OF AGROWELLS, SRI LANKA

H. U. S. Wickramaratne, Institute of Fundamental Studies, Kandy, Sri Lanka

A. I. Adhikari, Groundwater Section, National Water Supply and Drainage Board, Anuradhapura, Sri Lanka

H. A. Dharmagunawardhane, Department of Geology, University of Peradeniya, Sri Lanka

ABSTRACT

The hydrogeological parameters of large diameter dugwells that are used for agricultural purposes, called agrowells, were studied. All agrowells investigated in the drainage basin can be categorized into four major regions (namely upper, middle, lower catchment and close to irrigation reservoirs). Except for agrowells close to irrigation reservoirs, the other three categories can be grouped into small units with respect to geology. The hydrogeological performance is different depending on region and geology. The study results show that (1) water levels in the upper and middle regions has gradually declined since construction, (2) the lateral influence of water levels in the agrowells is limited (i.e. 300 m), (3) the water level of agrowells has been maintained by irrigation reservoirs, and (4) recharge and drawdown has been maintained by the design of agrowell lining walls.

Reference: Wickramaratne, H. U. S., A. I. Adhikari, and H. A. Dharmagunawardhane; Hydrogeological Performance Assessment of Agrowells, Sri Lanka, Journal of Environmental Hydrology, Vol. 7, Paper 15, September 1999.

CONTACT:

H. U. S. Wickramaratne
Environmental Modeling Program
Department of Earth Sciences
Institute of Fundamental Studies
Hantana Road
Kandy
Sri Lanka



[Return to HydroWeb Homepage](#)