

WHSS: A Platform for Designing Water Harvesting Systems for Multiple Purposes

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Abstract : Water harvesting systems (WHS) has become the unique alternative that farmers in dry areas accounts for surviving dry periods. Nevertheless, technicians, agronomists, and users, in general, have to cope with the difficulty of finding suitable technology for optimal design of WHS. In this paper, we describe a user-friendly computer program that uses readily available information for the design of multiple WHS depending upon the water final use (agriculture, household, conservation, etc). The application (APP) itself contains several links to help the user complete the input requirements. It is not a prerequisite to have any computer skills for the use of the APP. Outputs of the APP are the dimensions of the WHS named terraces, micro-catchments, cisterns, and small household cisterns for roof water catchment. The APP also provides guidance on crops for backyard agriculture. We believe that this tool may guide users to better optimize WHS for multiple purposes and to widen the possibility of coping with dry spells in arid lands.

Keywords : rainfall-catchment, models, computer aid, arid lands

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