

1027. **Jayakumar, M., Poornachandran, G. and Padmanabhan, M.V. 1980.** Case study on water harvesting feasibility in the hilly areas of Western Ghats. Abst. 93, National Symp. on "Soil Conservation and Water Management in 1980's", Dehradun, March 12-13, 1980: 64.

The studies were conducted to assess the potential of developing water harvesting techniques for increasing overall production from the hilly areas of Nilgiris. To induce more runoff for harvesting, different surface drainage methods on bench terraces were tried to assess their runoff inducing capability without causing excessive soil losses. A surface treatment of ridges and furrows pointing inwards to the toe drain proved most effective in producing more runoff. This opened the feasibility of harvesting sufficient water for storage and re-use. The steep terrain of the Nilgiris with hills and folds give opportunities for construction of both embankment type ponds with their characteristic high S/EW ratios as well as construction of dugouts with high or comparable S/EW ratios following the turkish nest type construction which can irrigate lower terraces under gravity. Experiments on effectiveness of different sealant materials have proved that application of asphalt to a thickness of 3 mm reduces the seepage to an economic storage level.