

A study of screening the optimum sites for water storage at Dadu terrace using environmental index

Cheng-Yu Lin (1) and Chao-Yuan Lin (2)

(1) PhD Student, Department of Soil and Water Conservation, National Chung Hsing University, Taiwan, R.O.C.
(dgjkpsz@gmail.com), (2) Professor, Department of Soil and Water Conservation, National Chung Hsing University, Taiwan, R.O.C. (yuanlin@dragon.nchu.edu.tw)

Dadu Terrace in Taiwan is dominating with laterite area which having the characteristic of low soil infiltration rate. Large-scale development occurred rapidly due to urbanization at the top of the terrace. The increasing of impervious surface caused large amount of surface runoff during extreme rainfall event. Hence, the cities located at the skirts of the terrace are vulnerable to floods. It is important to find out the optimum sites for water storage to avoid debris and inundation related disasters. In this study, the suitable management units were delineated using the roads of Tai-No1, Tai-No1-2, County-125 and Taichung-77. The SCS Runoff Curve Number (CN) of pre- and post- development in the management units were also computed using maps of land use and soil. The spatial distribution of obvious difference in the potential maximum retention caused by the development could be easily filtered out. The hotspots can be delineated and employed as the depression sites for the multifunctional ponds construction.