

EVALUATING SOIL AND GROUNDWATER SALINITY IN TALUKA TANDO BAGO, SINDH

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ABSTRACT

A research survey on the current status of soil and groundwater salinity problem in taluka Tando Bago, district Badin, Sindh is reported in this paper. Ten different salt-affected sites were selected in the study area. At each site, a pit of approximately 1m x 1m and 1m deep was opened for detailed examination and sampling. Bulk soil sample was taken from each marked layer of the opened profile. Groundwater sampling was done by boring the centre of each profile. The results of analysis indicated that the soils were slightly alkaline in reaction, variable in texture, poor in organic matter and calcareous in nature. The surface and top layers contained more salts than sub-surface and deeper layers. The groundwater level in the area was very shallow and salty in nature. Compared to the other ions, the presence of higher concentration of Na⁺ and Cl⁻ in groundwater and in surface and subsurface layers indicate upward/capillary rise of salty groundwater to the surface.

Keywords: Capillary rise, profile salinity, salts, Na⁺, Cl⁻