STUDIES ON SALINE AND ALKALI RICE SOILS

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Soil samples collected from farmers' fields in 11 districts of the dry zone and 9 districts of the wet-zone were analysed for salinity and alkalinity. Fields that were known to saline or alkali from previous experience were left out, because this study was concentrated on hitherto undetected problem lands.

A 1 : 5 soil to water paste was used to determine salinity and pH (1 : 10—soil: water) was used for alkalinity. If the conductivity value of the paste was between 0.8 and 1.9 it was taken to be saline with a value of 2.0 and above was considered very high. A soil with a pH value of 7.9 or over was considered to be alkali in contrast to the usual value of 8.5 used for soils in general, because soils with the former characteristics displayed symptoms associated with alkali problems on rice.

Saline soils were encountered mostly in the Vavuniya District, while alkali soils were found in the Vavuniya, Mannar, Trincomalee, Anuradhapura, Polonnaruwa and Hambantota Districts. In the wet zone salinity was a problem on lands close to the coast and on others which were affected by intrusion of sea water; like at Muturajawela, certain areas around Bolgoda Lake and the fields close to some rivers like the Bentota and Nilwala.