

6540
J&Y

**ASSESSING SALINITY LEVEL OF SOILS IN
AREA NEAR THE BATTICALOA LAGOON**

PERMANENT REFERENCE
FOR USE IN THE
LIBRARY ONLY

A PROJECT REPORT PRESENTED BY

JEYAPATHY JEYATHEEPAN

✓

to the Board of study in Chemical Sciences of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY

of the

**UNIVERSITY OF PERADENIYA
SRI LANKA
2004**

573491

ASSESSING SALINITY LEVEL OF SOILS IN AREA NEAR THE BATTICALOA LAGOON

Jeyapathy Jeyatheepan,

Soil salinity is a major environmental crisis in the world; Sri Lanka also faces the problem. This project was carried out to assess the soil salinity level of paddy fields and adjacent lands near to the Batticaloa lagoon. The samples collection period was 6th August 2002 to 6th November 2002 (in dry season). Samples were taken three times monthly and altogether 1,080 (360 x 3) soil samples were analysed from ten sampling points using microprocessor conductivity meter LF 196 model (the probe model is Tetra Con 96- 1.5),

In location L₈, salinity level was abnormally high up to 100 m distance from bank of the lagoon and this also influences the adjacent paddy land in L₈. Mean salinity was 6.73 ppt and mean conductivity was 12.48 mS/cm; this salinity level may not be suitable for cultivation. Other the locations (L₁, 0.62 ± 0.34 ppt; L₂, 0.25 ± 0.14 ppt; L₃, 0.06 ± 0.05 ppt; L₄, 0.24 ± 0.10 ppt; L₅, 0.13 ± 0.11 ppt; L₆, 0.60 ± 0.43 ppt; L₇, 0.27 ± 0.14 ppt; L₉, 0.24 ± 0.22 ppt; and L₁₀, 0.15 ± 0.21 ppt) are not fully affected by salinity problem, and the recommended paddy varieties can be cultivated in these areas.