

6.5 Recommendations

6.5.1 Recommendations for Future Work

This study employed mainly Landsat and ASTER data, which have medium to fairly high resolution (30x30 m and 15x15 m respectively). The salt-affected area maps resulting from land use classification, both unsupervised and supervised classification, and band math seem to have fairly to good reliability, especially results from ASTER data. Because remote sensing can provide information on large areas, and in a relatively short time, these mapping techniques, together with intensive ground truth investigation, should be applied and explain the salt-affected areas of the whole Khorat Plateau.

However, other higher resolution data should be adopted for the further study as it can give more accurate land use classification results and more variety for band math operation to detect salinity in the study area. HyMap Hyperspectral data might be another good option for future work. Spectral measurement and analysis are the great tools to detect saline soil as it is shown in the study of Dehann & Taylor (2001).

6.5.2 Recommendations for Salinity Problems Management

To manage and to combat the salinity problems, a thorough knowledge of the salinity mechanism, its distribution and the severity level of salinity of the target area is required. The socio-economic conditions of the local people who suffer from poverty must be taken into account to address effective management options in this region. Presently, reforestation of the recharge areas with trees to lower the water table in lowlands and to reduce the pressure of artesian aquifers (as in the case of the Tung Kula Ronghai area) is the major thrust of the salinity control program of the Land Development Department (LDD).

However, the ability of trees to reduce salinization is still not fully known, although they have been planted to lower water tables in some areas. For revegetation of the severely salt-affected lands considered as wasteland, halophytes are introduced as forage crops. In slightly or moderately salt-affected areas, land is normally used for rice production. Tolerant varieties of rice have been screened and recommended to farmers. Alternatively, salt itself is a potentially valuable product. The salt harvested from salt farming can be sold as a raw material in the production of important chemicals such as sodium carbonate and sodium hydroxide, or as table salt alternatively. Moreover, in the severe saline areas that can not be improved anymore, shrimp farming under intensive care of environmental subjects could be another choice for the local population.

