IDENTIFICATION OF POTENTIAL AREAS FOR FRUIT CROP CULTIVATION IN THE LOW COUNTR Y INTERMEDIA TE ZONE (IL2

P.V. Ekanayaka [1], W.M.A.D.B. Wickramasinghe, B.V.R. Punyawardena [2], D.M [1] Jinadasa

[1]*Department of Soil and W ater Resour ces Management, Faculty of Agriculture,
Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka.*
[2]*Natural Resour ces Management Center , Department of Agriculture, Peradeniya
Sri Lanka.*

Research was conducted with the objective of identifying potential areas for pineapple, rambutan, banana, orange and lime fruit crops in the Intermediate zone Low country 2 Agro-Ecological Region (IL 2 AER) in Sri Lanka. Vast of arable lands without economic production are available in the IL2 AER. Existing land use systems suggest that it is a promising area to popularize fruit crops. Suitability assessment was carried out by using Geographical Information Systems (GIS). Spatial and non spatial data were obtained through secondary data and informal discussions with experts. Geo-spatial input data, climatic and soil series level data were used to identify land related potential and limitations within IL2 AER. Spatial variability of rainfall regime within IL2 region was not considered, because spatial and temporal variability of rainfall within a given AER remains homogeneous as an AER concept. Fundamental nature of land suitability evaluation research was compared or match crop requirements with characteristics of of land units and climatic factors. Spatial and non special data of mentioned layers were encoded in a GIS database to generate thematic layers. Land unit was obtained by overlaying of selected theme layers, which were the unique information of land suitability classes for each crop. Study revealed that agrarian service divisions of Alugolla, Kotagama, western part of Neliyadda, south western part of Dambagalla, western part of Medagama, southern part of Padiyatalawa, northern part of Kongahawela and northern part of Bakamuna in IL2 AER were suitable for selected fruit crops. In addition, information on soils and temperature were adequate to carry out a regional level fruit crop suitability mapping.

Key words: Fruit crops, IL2Agro-Ecological Region, Suitability mapping