

THE GEOCHEMISTRY OF SOILS IN A HIGH ENDEMIC  
GOITRE AREA IN SRI LANKA

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Recent evidence indicating that goitre is a leading health problem in many developing countries including Sri Lanka. The influence of Geochemistry of soils on endemic goitre diseases was studied in known endemic goitre region in Kandy district. Based on the Chemistry on soil, the region (Angunawela, Daulagala) was divided into four clusters using "Ward's Error Sum of Square" cluster analysis. The area with the highest incidence of goitre coincide with one of the four clusters, indicating a clear Geochemical relationship. This cluster had the lowest content of alkali, alkali earth metals, Fe and Mn. The mean iodine content of the soils of study region was 1.9 mg/kg. as compared to 9.4 mg/kg iodine in Wariyapola, known to be a non-goitre region. South Canterbury region of New Zealand with a 63% of population having endemic goitre has a mean iodine soil content of only 0.3 mg/kg (Hercus et.al. 1931).

References: 1. Hercus C.E., Aitken H.A., Thompso H.M. and Cox G.H. (1931) Further Observations on the occurrence of iodine, J. of Hyg. 24, 321-402.