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Geochemical Assessment of Soils of a Living Historical Site at *Nikasala Nuwara* Area in Sri Lanka

S.M. Young[1*], C.R. Withanachchi[2], B.A. Karunaratna[1], H. Ishiga[3] and G. Adikari[4]

[1]Department of Physical Sciences, Faculty of Applied Sciences, Rajarata University of Sri Lanka
[2]Department of Archaeology and Heritage Management, Rajarata University of Sri Lanka
[3]Department of Geosciences, Shimane University, 690-8504, Matsue, Japan
[4]Central Cultural Fund, Sri Lanka
*sansfica@sansfica.com

According to the historical records "*Nikasala Nuwara*" area in Sri Lanka has been initiated as a Buddhist "*Aramaya* (Monastery)", which was mainly a habitation site for spiritual purposes of "*Rahathan Wahanse's* (Arahath)". The historical records indicated that this monastery has continued under a number of Kings over a period of time. A geochemical study of soils was carried out with a view to evaluate the level of human activities at this archaeological site during the earliest 2-3 centuries A.D. Spatially distributed surface samples (n=10) and samples of a vertical profile (n=13) were collected from the site analyzed for 22 elements using XRF method. The surface samples of the site did not show a higher chemical variation within the samples and are somewhat similar to the vertical soil profile data, indicating undisturbed soils in the area. The vertical soil profile showed some interesting features especially for mafic elements such as Fe, Ti, Cu, Ni. From surface to bottom of the soil profile, increase in Fe related to the reduced soil conditions while steady decrease of Ti was due to the grain size variation of the soil. The other major oxides of Mn, Ca and P showed a marginal increase towards the surface samples of the soil profile. The increase of As, Zn, Pb, Cu, Ni and Cr towards the top soil layers may indicate a gradually increasing human activity in the area and that of V, Nb, Sr, Zr, Th and Sc may relate to gradually increasing weathering activities and grain size variation. Thus, the chemical data shows that anthropogenic activities have taken place in the area providing proof to being an ancient living site, which has not been environmentally threatening. However, for clear understanding of the historical evaluation, further studies with vertical and horizontal soil sampling of the wider area should be done and geo-chemically analyzed.

Keywords: *Nikasala Nuwara*, archeological, geochemical, soil