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**Comparison of Household Carbon Footprint between Two Grama Niladhari Divisions in Sri Lanka**

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**Abstract**

The Carbon Footprint (CF) calculates the amount of greenhouse gases, primarily carbon dioxide released into the atmosphere by direct and indirect human activities in a certain time frame. CF provides a measure of effect of human activity on the earth's climate and provides guidance on mitigation potential. This study aims to measure the carbon footprint per household in two Grama Niladhari (GN) divisions and aims to establish relationship between the CF and socioeconomic parameters of the households. Primary data were collected from a survey carried out in Gangodawila South GN division of Colombo District and Galbada GN division of Galle District. Households were selected using random sampling technique and data on activities that emit greenhouse gases including energy use, transport were collected. In addition, secondary data was collected from various sources. Carbon footprint was calculated by using emission factors obtained from 2006 IPCC guidelines for National Greenhouse Gas Inventories. Most relevant and appropriate emission factors for Sri Lankan conditions were selected to increase the accuracy of the study. Results indicate that the CF estimated for Galbada is lower than that of Gangodawila GN division. CF is significantly influenced by income in both locations. Carbon foot print estimations are useful in guiding households towards the choice of options with lesser emissions.

**Keywords:** Carbon footprint, Greenhouse gas, Ecological footprint, Emission factors