Comparison of Individual Carbon Footprint in Semi-Urban areas. A Case Study of two Grama Niladari Divisions in Galewela Divisional Secretariat in Matale District of Sri Lanka

Disanayaka D. M. M. G. J .M[1]✉, Rajapakshe P. S. K

Abstract

Individual carbon footprint (CFp) is a measure of the total amount of carbon dioxide emitted to the atmosphere from our daily activities. Mainly, household energy consumption, transportation, dietary pattern, and secondary consumption of the individuals. Therefore, this study aimed to compare the individual CFp in Pathkolagolla and Pattiwela Grama Niladhari Division in the Galewela Divisional Secretariat in Matale District of Sri Lanka. The specific objectives of this study are to measure the individual CFp, measure the per capita CFp, and identify the respondent's knowledge and attitude about CFp and its adverse impacts. To achieve these objectives, data were collected from 60 respondents in both Pathkolagolla and Pattiwela GN Division by using a Convenience sampling method. The primary data were collected from the questionnaire survey and secondary data was collected from journal articles, reports, and websites. https://www.carbonfootprint.com standard online carbon footprint calculator was utilized to calculate the individual CFp in this study area. Data were analyzed by using SPSS 10.1 software. Descriptive statistics analysis (mean, percentage, frequencies) were employed for the data analyzed. According to the study findings, the total individual CFp of the Pathkolagolla GN Division is 7.2 tons and Pattiwela GN Division produces 5.93 tons per month. Further, the total per capita CFp of the Pathkolagolla GN Division is 0.12 tons and Pattiwela GN Division produces 0.09 tons per month. The highest amount of CFp is produced by the respondent's secondary consumptions in both areas. Male respondents produced 4.72 tons of CFp and female respondents produced 2.57 tons of CFp in Pathkolagolla GN Division. And also, male respondents in Pattiwela GN Division produce 3.6 tons of CFp, and female respondents are responsible for 2.3 tons of CFp. The majority of the respondents weren't aware of the CFp and its adverse impacts in both study areas. Similarly, most of the respondents are moderately educated of climate change in both study areas, However, the total individual CFp of the Pathkolagolla GN Division is higher than the Pattiwela GN Division. According to the online CFp calculator, per capita, CFp in Sri Lanka is 0.89. Therefore, the individual per CFp in both study areas is lower than Sri Lanka designated target level.

Keywords: *Carbon footprint, consumption, household, individual, per capita*

[1]Department of Environmental Management, Faculty of Social Sciences and Humanities, Rajarata University of Sri Lanka, Sri Lanka
✉ Corresponding author: janakimanjula1994@gmail.com