CHANGES OF POPULATION GRAVITY, WITH POPULATION DENSITY IN WESTERN PROVINCE, SRI LANKA

S.M.A.T. de S. Nandaseela*

Abstract: *Along with the rapid population growth, understanding demographic characteristics is highly important in planning and decision making. Concept of population gravity therefore is highly important in understanding the patterns of population distribution during a given time period. Main objective of this study is to identify the spatial patterns of population density and gravity center of population in Western province. The study is based on the secondary data obtained from the Department of Census and Statistics of Sri Lanka and spatial analytical methods were used along with Arc GIS 10.1 as the analytical tool. Gravity center is the geometric center of a feature and Grama Niladhari boundaries are weighted by the population to identify the gravity of the population in Western province of Sri Lanka. According to the analysis of the gravity center, population falls on Kaduwela DS Division in both years of 2001 and 2012. During the last decade or during the time period between the two census years, there is a small shift in gravity of the population towards the inlands. Highest agglomeration of people can be identified in the Colombo North area and Colombo Fort and the coastal belt up to Bambalapitiya South seem to have less agglomeration. Gravity center is located within the Malambe North Grama Niladhari Division. Although Malambe is not a highly populated area or a region, gravity falls on Malambe since surrounding areas of the Colombo district show more agglomerating patterns of population. It is important to study the patterns of population gravity to understand and forecast on how population distribution will be in Western province where decision makers can plan for the future activities of all sectors.*

Keywords*: Population Gravity, Population Density, Western Province*

Introduction

As human beings, it is our collective responsibility to pursue environmental sustainability in order to protect the planet's future and make it a better place for all living beings. Studying the issues related to population numbers can provide a solid foundation for decision making to work, in a framework adopting environmentally friendly concepts. Population is a dynamic feature in both global and regional contexts. The estimated population growth in Sri Lanka for 2014 is 0.86% and the fertility rate in 2012 is 2.35 births per woman, and there are over 20 million people in the country (Census and Statistics, 2012). Population is unevenly distributed in many parts of the country. Some areas like Colombo have a high agglomeration of people while other areas like Moneragala have a low agglomeration. In order to understand this spatial distribution of the population, the distribution of Population Density and

* S. M. A. T. de S. Nandaseela, Lecturer, Department of Geography, Faculty of Arts, University of Colombo. Sri Lanka. Email: smatdes@gmail.com