# Sustainable management of natural resources: A GIS based framework applied in Anamaduwa divisional secretariate divition

P.H.M.P.K Senarathne
Postgraduate Institute of Science
University of Peradeniya

**Key words: GIS, natural resources and environmental management**

Planners, policy makers and general public are in need of an efficient, effective and user friendly strategy to manage natural resources and environment in sustainable manner. In this paper, we examine how Geographical Information Systems (GIS) can serve this necessity. The GIS is an automated and well developed computer based technology widely used in the world. GIS plays a major role in many fields such as water management, land use management and traffic management.

The livelihood of people in Anamaduwa DSD depends mainly on agriculture which is highly interdependent with its natural resources. Natural resources and environment should, therefore, be managed properly to maintain the economic development in the area. This study combined GIS technology with the factors that determine the livelihood in the area to create a database on natural resources and environment. GIS would help to maintain the database, analyze data and identify the problems and propose possible solutions to resolve those problems. GIS can display results effectively to understand even for an ordinary person.

The current study focuses to gather information on physical settings, socio- economic background, current status of the environment of the Anamaduwa DSD, and the general background on the natural resources and environmental management of Sri Lanka.

This study reveals that the inter relationship among relevant institutions is weak. This leads to reduce the speed of development process of the area. This situation causes badly on the livelihood of the area. Although the main economic activities are bound with the environment, the proper environment management or protection programs are not functioning in this area. This may create many environment and economic problems in the near future.

The findings of this study may also help to those who need variable and viable data on natural resources and environment of the study area.