USE OF GIS FOR INDEXING URBAN HIERARCHY

A PROJECT REPORT PRESENTED BY

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To the Board of Study in Earth Sciences of the

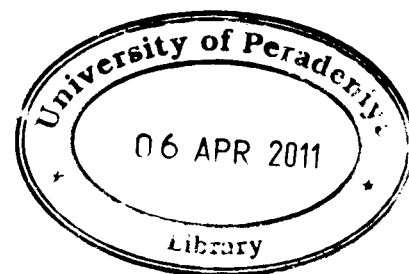**POSTGRADUATE INSTITUTE OF SCIENCE**

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ABSTRACT

As a developing country in the third world, there is a rapid increase in the population of Sri Lanka, coupled with a high state of open economy policies, higher information technology studies and developing infrastructure facilities causing a rapid exodus towards urban areas. We as people are unable to control the spread of population as well as the corresponding land area required. The population 7,156,780 in 1871 rose to 20,456,730. But the land area suitable for use remains unchanged or faces a possibility of shrinking. Therefore we are forced to seek other alternative means to create settlements. Establishing high density urban centers is one norm.

The people are drawn towards urban areas because of their desire to enjoy the services benefits and sufficient infrastructure facilities. Therefore the services offered and infrastructure facilities must be in a developed state for the people of urban areas. But the factors which should be considered are whether the services and the infrastructure facilities are actually on the increase and which factor or factors depict a urban with infrastructure facilities and other services and the potentials and barriers linked to these facilities.

While there are accepted qualities as well as other various aspects exist in social level and the global level, urban areas could be categorized in hierarchical order in accordance .with qualitative and quantitative connotations. This process will help us to identify the urban areas with productive services and infrastructure facilities and also it is possible to identify less developed urban areas and thereby take steps to utilize this process to develop the country. While there is a marked improvement in the GIS technology parallel to computer technology, a correct and successful

analysis could be obtained from collection of existing data and information. Therefore in urban planning and providing infrastructure facilities this technology could be need to identify productive urban areas where provide necessary services and infrastructure facilities continuously and successfully.