

## **Analysis of Hambanthota Coastal Zone Infringements Enforced by Coast Conservation and Coastal Resource Management Using Remote Sensing**

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### **Abstract**

Sri Lanka is still a developing country. Therefore, various changes are taking place in the construction sector, both legally and illegally. Such illegal constructions are common in developing countries. With the development of the country, the numbers of illegal settlements are increasing along the coastal zone of Sri Lanka. This process is harmful to the coastal conservation of the country. Therefore, Coast Conservation Act 1981, 1988, 2011 (Amendment) was implemented by Coast Conservation and Coastal Resource Management department to protect coastal zone and reduce unauthorized constructions but there is a problem whether the regulations of the Coast Conservation Act are properly followed or not at the coastal management zone. So, the main objective of this study was to identify the infringements in the coastal zone. Locations were selected by the experts of this field, and they were from Kudawella west to Mawella south and from Unakoratuwa west to Medaketiya in the Hambanthota district because those areas were the highly affected locations through the district. To fulfill the main objective of the study, the proposed methodology was to create normalized difference build-up index maps using Landsat satellite images and final vegetation line coordinates. As the final result, this study gained reclassified building index map for the selected locations and this study depicts the role of remote sensing and geographic information systems to identify the sustainable development growth of the area.

**Keywords:** *Coastal zone, Coast Conservation Act, Normalized Build-up Index*