

**ECOLOGICAL FOOTPRINT OF RURAL COMMUNITIES IN HOMA BAY COUNTY,  
KENYA**

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## ABSTRACT

Environmental sustainability of a nation or region is a major concern to governments, industrialists, academicians, environmental practitioners and even ordinary individuals living on planet earth. The rate of exploitation of natural resources is not matched by the regenerative capacity of these resources for sustainable existence. There are several methods of quantifying the earth's natural resources as well as sustainability. Natural capital accounting with the ecological footprint is one method of auditing our relation with nature. Ecological Footprint analysis was pioneered by Dr.Rees and Dr.Mathis Wackernagel in 1999 and has since been modified and is in use all over the world. This research aims to assess the sustainability of the rural communities in Homa Bay District in Homa Bay County of the Republic of Kenya. It will seek to answer questions as to whether the natural wealth available in the district is enough to sustain the resident population, what is the technological level of exploitation of the natural resources, means of waste disposal. The final determination is the Ecological Footprint, or natural resource demand, imposed on the region. The study will also seek to establish the biocapacity or the natural resource supply available. The research design will use structured questionnaires administered at household level to capture the six parameters of Ecological Footprint analysis, that is, crop land area, grazing land, forest land, fishing grounds, built-up land as well as fossil energy land. The individual component areas will be converted into global hectares using weighting factors. The sampling frame is based on the 2009 National population census. The data generated will be analyzed using the Statistical Package for the Social Sciences (SPSS) software and Microsoft excel. The Ecological Footprint will be determined using National Footprint Account developed by the Global Footprint Network. Visual presentation will include bar charts, pie charts frequencies amongst other descriptive statistics.