

Green Transport Solutions for Developing Cities: A Case Study of Nairobi, Kenya

Authors : Benedict O. Muyale, Emmanuel S. Murunga

Abstract : Cities have always been the loci for nationals as well as growth of cultural fusion and innovation. Over 50% of global population dwells in cities and urban centers. This means that cities are prolific users of natural resources and generators of waste; hence they produce most of the greenhouse gases which are causing global climate change. The root cause of increase in the transport sector carbon curve is mainly the greater numbers of individually owned cars. Development in these cities is geared towards economic progress while environmental sustainability is ignored. Infrastructure projects focus on road expansion, electrification, and more parking spaces. These lead to more carbon emissions, traffic congestion, and air pollution. Recent development plans for Nairobi city are now on road expansion with little priority for electric train solutions. The Vision 2030, Kenya's development guide, has shed some light on the city with numerous road expansion projects. This chapter seeks to realize the following objectives; (1) to assess the current transport situation of Nairobi; (2) to review green transport solutions being undertaken in the city; (3) to give an overview of alternative green transportation solutions, and (4) to provide a green transportation framework matrix. This preliminary study will utilize primary and secondary data through mainly desktop research and analysis, literature, books, magazines and on-line information. This forms the basis for formulation of approaches for incorporation into the green transportation framework matrix of the main study report. The main goal is the achievement of a practical green transportation system for implementation by the City County of Nairobi to reduce carbon emissions and congestion and promote environmental sustainability.

Keywords : cities, transport, Nairobi, green technologies

Conference Title : ICEPRM 2015 : International Conference on Environmental Pollution, Restoration and Management

Conference Location : Barcelona, Spain

Conference Dates : August 17-18, 2015