

Abstract

Climate change is the world's worst challenge of our time. Developing countries are experiencing the worst impact of this catastrophe. Over the past 50 years, the carbon dioxide concentration in the atmosphere has risen by over 35% raising the global mean temperatures by averagely 3°C. This rise has been significant over the increase in the number of hazards, weather extremes and weather related events. Most towns in the world are hard hit by the effects of climate change that concerted efforts must be directed to this end by all stakeholders. In line with this, the main objective of this study was to assess the occurrence and prevalence of hazards, the effects and adaptation strategies to climate change by the urban residents of Malindi Town. Climate change hazards, effects and adaptation have increasingly become urgent issues for planning in urban agglomerations. This challenge is aggravated by the increasing Green House Gases emissions to the atmosphere resulting in floods, infrastructural damage, water quality and quantity issues and diseases. The specific objectives of this study were: To find the climate change hazards prevalent in Malindi Town, To determine the effects of climate change and To identify the adaptation strategies to climate change in Malindi Town. The conceptual base of the study pulled together the parameters of the United Nations Framework Conference on Climate Change declarations, charters and the urban planning policies. Photography, structured item questionnaires and structured interviews were used to generate both qualitative and quantitative data. A total of 330 households were selected using stratified random sampling on the basis of location and 20 key informants were selected purposively on the basis of authority in matters climate change and urban ecosystems. Household survey and interview schedules data was coded and entered into computer systems using SPSS and Microsoft Excel for analysis. This was done using percentages, tables, bar graphs, averages and Chi-square test of significance. The study established that 63% percent of the respondents had indicated occurrence of hazards associated with climate change over the years. The most prevalent hazard was intense rainfall (96%) while the least prevalent hazards were cyclones, tornados, and hailstones (24%). Sixty-three percent of the respondents indicated that climate change had a great impact on all aspects on the urban establishments. The most severe effect was reduced water quantity (86%) that then compromised the water quality. The least effect was sea level rise (6%). Sixty-two percent of the respondents indicated that the adaptation strategies to climate change had been put in place. On average 61% of Malindi Town had adapted to climate change. The most effective strategy was use of mosquito nets (85%) while the least effective strategy was the establishment of green buildings (21%). The entities most involved in combating effects of climate change were NGOs (67%). Fifteen percent were very satisfied with their work while 67% of respondents were fairly satisfied that climate change hazards and impacts were being combated. In tandem with the findings, the study recommends that; because the hazards and effects of climate change are felt in Malindi Town effort must be put in place to implement all policies including KNAP, climate change Act and the Kenya National climate Change adaptation plan.