

Abstract

Africa's population is expected to rise to 1.8 billion by 2050 (Gregory 2009). In Kenya the population was 15.3 million in 1979 and by 2009 it had grown by 23.3 million to reach 38.6 million (MOP 2009) population and housing census results. Projections indicate that the country's population will stand at 51.3 million by 2025 representing a growth rate of 1 million people per year (1.45 %) (UNFPA 2011). This increase is due to enhanced fertility rate, poverty and high illiteracy levels (Masci 2007). The population increase has already amounted to unprecedented pressure on land, environmental degradation and strained water resources. The situation has been aggravated by effects of global warming. The circumstances have made the people poorer. There is a correlation between environmental degradation and poverty (Ramshackle 2010) resulting into many poor people engaging in environmentally destructive practices which only lessens survival chances. The arid and semi arid environments are particularly vulnerable by virtue of their ecological conditions and neglect by the government development systems. This chapter analyses the role of the South Eastern University College (SEUCO), a constituent college of The University of Nairobi, Kenya in acting in response to the challenges of food production at the community level in light of global warming. The institution has made major strides in developing technologies and measures that are adaptable by local communities as well as raise community awareness and community participation in living with climate change. Knowledge on sustainable improvement in water availability through rainwater harvesting, soil and water conservation measures, harnessing the use of drought-tolerant crops and adopting crop diversification have been found to be important adaptation strategies for the people in the arid and semi-arid environments. The results of the interventions by the university in the local environment reveal a need to increase the use of emerging technologies and the enactment of appropriate policies on climate change by all stakeholders.