

Abstract

The implications of global climatic change on water resource development and management in Kenya was examined. The extent to which the water resources of the various regions of Kenya will be affected and the effects on streamflow regimes, rainfall amount, frequency and distribution patterns and the overall effects of these on socio-economic development are discussed. It is suggested that increased drought could occur in low-potential regions of Eastern, Rift valley and North Eastern Provinces, whilst regions that already receive a favourable amount of rainfall could have even higher amounts. Changes in rainfall patterns and stream discharge may require translocation of current water development projects with possible high costs and dire consequences for those dependent upon such projects. The increases aridity in the arid and semi-arid lands may lead to increased salinity of groundwater, limiting it's use.

Recommendations include water conservation strategies, groundwater basin recharge, inter-basin water transfer from high to low potential zones, cloud seeding above arid and semi-arid areas, better soil and water conservation strategies, and controlling the use of products contributing to global warming.