

## Abstract

The weather and climate of any given place is an environmental resource, it greatly determines the socio-economic and political life of humans and other living things. The packaging of weather information especially the forecast into a way that can easily be interpreted and understood by end users is of very important. Temperature is one of the weather parameters that have significant impact of human comfort and the wellbeing of other living things. Thermal stress is an important factor in many industrial situations, games and military operations among others. It therefore calls for accurate and timely forecast of the same and dissemination to the public for human safety and comfort. There exist three types of heat strain indices: rational, empirical and direct indices. The study tested the applicability of Discomfort Index (DI) in Kenyan daily weather forecast using both observed and forecast data from Consortium for Small-Scale Modelling (COSMO) model used by Kenya Meteorological Department (KMD). The discomfort index (DI) forecasted by the Small-Scale Modelling (COSMO) model gives a relatively good representation of the observed and the study thus recommends that KMD adopt it in its forecast.