Abstract

Drought is one of the hydro-meteorological disasters causing human loss, decrease in agricultural production, loss of soil moisture and ground water table in Balochistan. The daunting havoc in Baluchistan led by drought not only experienced by agriculture or farmers, but it greatly destroyed the food production, fruits and many other gradients. Balochistan has been the pivot of drought. Due to lack of rainfall the ground water decreased which has immensely debilitated water in tube wells and springs. The aims of the research are to evaluate the spatial and temporal variability of precipitation and temperature in Balochistan. To analyse Spatio-temporal pattern of drought in Balochistan using GIS and Remote Sensing techniques. To detect the impact of drought on agriculture, livestock and water resources. Therefore field survey data is assessed to know awareness of the local people and recognized their adaptation during drought period. Climatic data is processed for identification of rainfall and temperature variability. Rain Use efficiency model applied for current drought status and Markov Model has been applied for the future forecasting, based on change detection, Ground water table, temperature, precipitation and current drought status parameters. The Result shows that drought has physical, economical and environment impacts, the declining in groundwater level, the drying up of well, reservoirs, lakes and springs were terribly observed in Balochistan. Drought has demolished historical fruit like apricots which were being cultivated for last 30 to 40 years. The lowest mean annual rainfall is recorded in lasbela kharan and Panjgur districts While, mean maximum rainfall is recorded in Barkhan owing to its territories with Punjab. Annual mean temperature of washuk and Panjgur ranges from 14 to 17 Celsius. Thereafter, low temperature prevails in upland areas and few coastal areas.The water table has reached 320 feet where it was noted 160 in 2000. Chaghi district may be more vulnerable to drought in future, where chances of extreme draught occurrence is 20.15%. Second most prone region is Kharan where chances of drought is 11.35% and finally, the third region is Khuzdar where the probability of extreme drought is 8.90%. However, Awaran, Pajgur ,Kech Zhob and Sherani districts are also prone to moderate drought in future.