Geophysical Research Abstracts
Vol. 14, EGU2012-3680, 2012
EGU General Assembly 2012


# Rainfall Climatology over Asir Region, Saudi Arabia

H. Sharif (1), C Furl (1), and M Al-Zahrani (2)

(1) University of Texas, San Antonio, United States (hatim.sharif@utsa.edu), (2) King Fahd University for Petroleum and Minerals

Arid and semi-arid lands occupy about one-third of the land surface of the earth and support about one-fifth of the world population. The Asir area in Saudi Arabia is an example of these areas faced with the problem of maintaining sustainable water resources. This problem is exacerbated by the high levels of population growth, land use changes, increasing water demand, and climate variability. In this study, the characteristics of decade-scale variations in precipitation are examined in more detail for Asir region. The spatio-temporal distributions of rainfall over the region are analyzed. The objectives are to identify the sensitivity, magnitude, and range of changes in annual and seasonal evapotranspiration resulting from observed decade-scale precipitation variations. An additional objective is to characterize orographic controls on the space-time variability of rainfall. The rainfall data is obtained from more than 30 rain gauges spread over the region.