

# UC Irvine

## UC Irvine Previously Published Works

### Title

Review of Middle Eastern hydroclimatology and seasonal teleconnections

### Permalink

<https://escholarship.org/uc/item/18p761gm>

### Journal

IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY, 27(B1)

### ISSN

0360-1307

### Authors

Pagano, TC  
Mahani, S  
Nazemosadat, MJ  
[et al.](#)

### Publication Date

2003

### Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed



**10** : IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION B-ENGINEERING 2003; 27(B1):0-0.

### **REVIEW OF MIDDLE EASTERN HYDROCLIMATOLOGY AND SEASONAL TELECONNECTIONS**

PAGANO T.C., MAHANI S., SOROOSHIAN S., NAZEM ALSADAT S.M.J.\*

\* Shiraz, I. R. of Iran

Interannual hydroclimatic variability in the Middle East is explored. A review is done on studies linking local climate with large-scale teleconnections. These studies suggest that El Niño has a weak tendency of bringing wetter than normal conditions to the region during fall/winter. This signal is unstable in time and has considerable decadal variability. No consensus exists on the general start and end dates of various climate epochs, nor is there an explanation of the physical causes of the decadal variability, suggesting that the interannual signal of El Niño in the Middle East may be transient and difficult to predict. In contrast, the influence of the North Atlantic Oscillation (NAO) on temperature, precipitation and streamflow is strong, with high NAO winters favoring dry and cool conditions in the region. Recommendations are made on how to improve the ability to understand and forecast Middle Eastern interannual variability, namely, 1) improve access to instrumental data, 2) coordinate research, forecasts and user involvement through a regional forum and 3) further explore the impacts of NAO in the Middle East.

Keyword: CLIMATOLOGY, MIDDLE EAST, SEASONAL FORECASTING, EL NIÑO/SOUTHERN OSCILLATION, NORTH ATLANTIC

[Printable Version](#)