



MEDURABLE
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INTERNATIONAL CONFERENCE

Hydrodiplomacy and Climate Change

for Peace in Mesopotamia:

"Case of the basin of the Tigris and Euphrates".

10th of December 2018

French Senate- Luxembourg Palace-Paris



Prof. Dr. Mc Kinney : Transboundary Water agreement must be flexible



Climate Change – Jordan Basin

- Temperature:
 - Increase 1.5 – 3.0 °C
- Streamflow
 - Decrease 18-40%
- Impact
 - Decrease total water availability
 - Less reliable seasonal patterns
 - Increased intensity of droughts
 - Decrease groundwater recharge
 - Increased intensity of floods



Climate Change – Nile Basin

- Temperature
 - Increase, 3.4 - 5.9 °C
- Precipitation
 - Increases early in the century and declines late over most of the basin
- Streamflow
 - Long-term *mean* flow may increase over 21st century
 - High flow events more frequent
 - Variability increase, reliability decreasing





More Comments

- Currently no basin wide hydrologic modeling studies exist except on the Nile
- In transboundary basins, the problem of access to data is very troubling
- Countries link water data to national security and are not willing to share this information with other basin countries
- Satellite data is very useful
- DSSs are important for data collection, data integration, modeling analysis, and supporting negotiations
- Nile Basin DSS has been developed – can use it as model for other basins
- DSSs should rely on open source data sets and hydrologic models as much as possible

Even More Comments

- Climate change adaptation in transboundary basins can help prevent negative impacts of unilateral adaptation measures
- Transboundary agreements must be flexible
- Agreements based on absolute water volumes become very difficult in times of drought