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# Water Management in the Middle East and North Africa

-The effect of signed water treaties

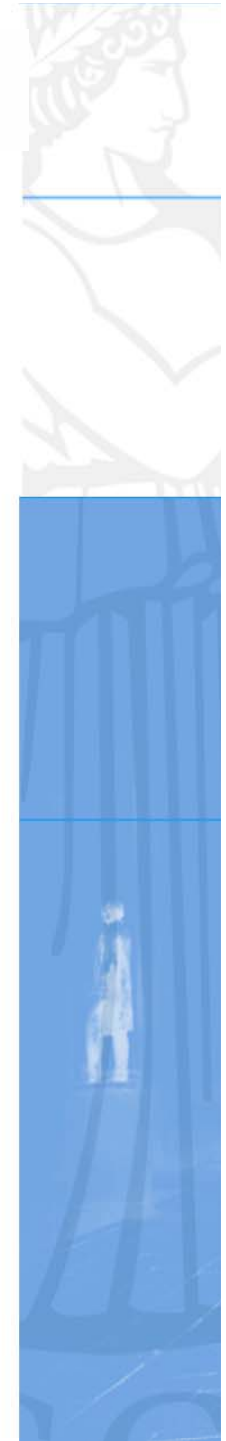
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# Contents

- Research Question
- Theoretical Background and Framework
- Previous Research
- Hypotheses
- Data and Variables
- Results
- Concluding Remarks





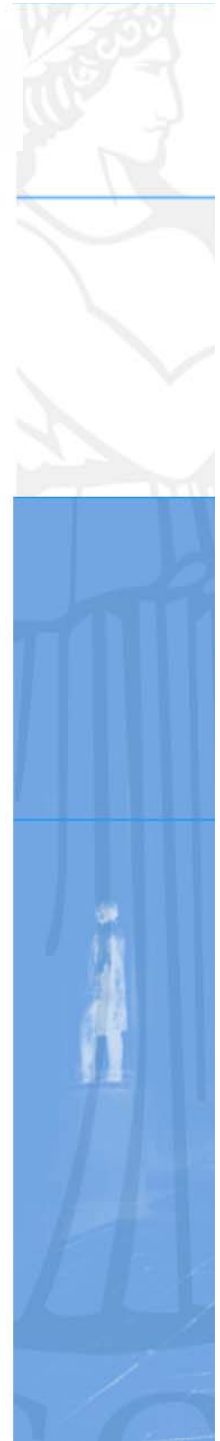
# Research Question

- What is the effect of signed treaties in the Middle East and North Africa (MENA) on later water specific conflict and cooperation?



# Theoretical Background and Framework

- Water conflict
  - Neomalthusians
- Water management and cooperation
  - Cornucopians
  - Liberal institutionalists
- Framework: Opportunity and willingness





# Previous Research

- Mostly qualitative case studies
- Focus on conflict
- Recent multivariate results: Cooperation over water more common than serious conflicts
- MENA most studied area
  - Regarded as most conflict prone
  - The effect of treaties on later water events never examined



# Hypotheses

- H1: Dyads that have recently signed a treaty and where at least one of the countries is located in the Middle East or North Africa will have more water cooperation
- H2: Dyads that have recently signed a treaty and where at least one of the countries is located in the Middle East or North Africa will not have a smaller risk of experiencing water conflicts



# Data and Variables

- Logistic regression analysis
- Dyad-years in MENA, 1948-1999
- $N = 1,679$
- Dependent variables: Conflictive water event and cooperative water event from TFDD
- Independent variable: Treaty signing from TFDD
- Control variables: Peace history, regime type, contiguity measures, GDP, alliance, two basin specific variables



# Results

- A treaty signed the previous year has a positive impact on both water cooperation and water conflict
- There are more severe water conflicts in MENA than globally
- There is less extensive water cooperation in MENA than globally
- Water cooperation does not seem to increase with time since the treaty signing

	Water cooperation	Water conflict
Treaty signing	1.989 (3.25) <sup>***</sup>	1.686 (2.53) <sup>***</sup>





# Concluding Remarks

- The results are alarming for the MENA region
- Treaties seem to increase the risk of both more conflict and more cooperation
- Further analyses needed

