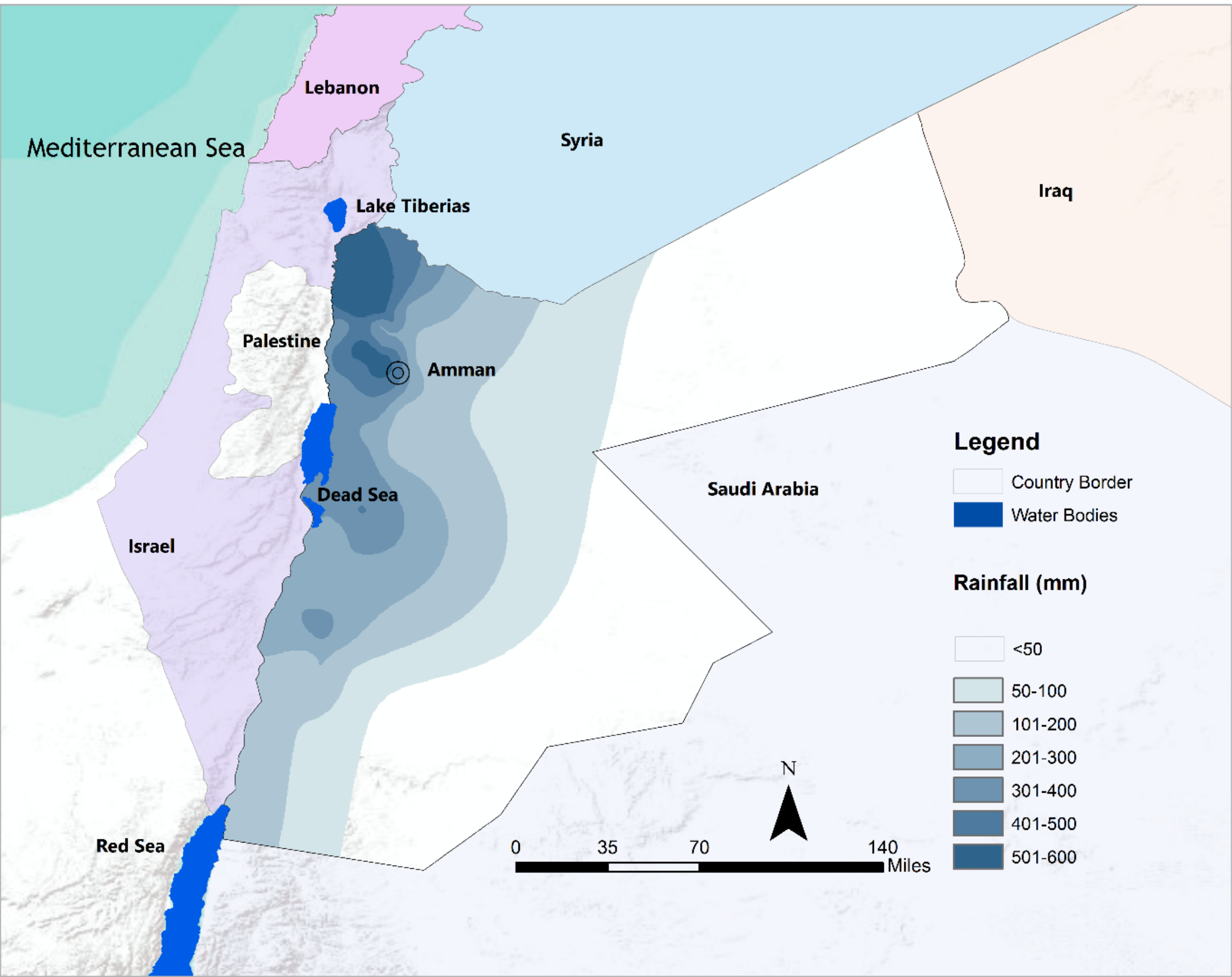


GC13F-0714 Formulation of an Integrated Model for Freshwater Resources Policy Evaluation in Jordan

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Jordan



- The 4th water-poorest country
- Transboundary water problems
- Influx of refugees

Research Goals

This effort focuses on development of an integrated framework to evaluate water policy interventions in water-stressed countries using Jordan as a model system. Jordan is representative of many arid regions where future natural and social changes set the stage for nationwide water supply failures.

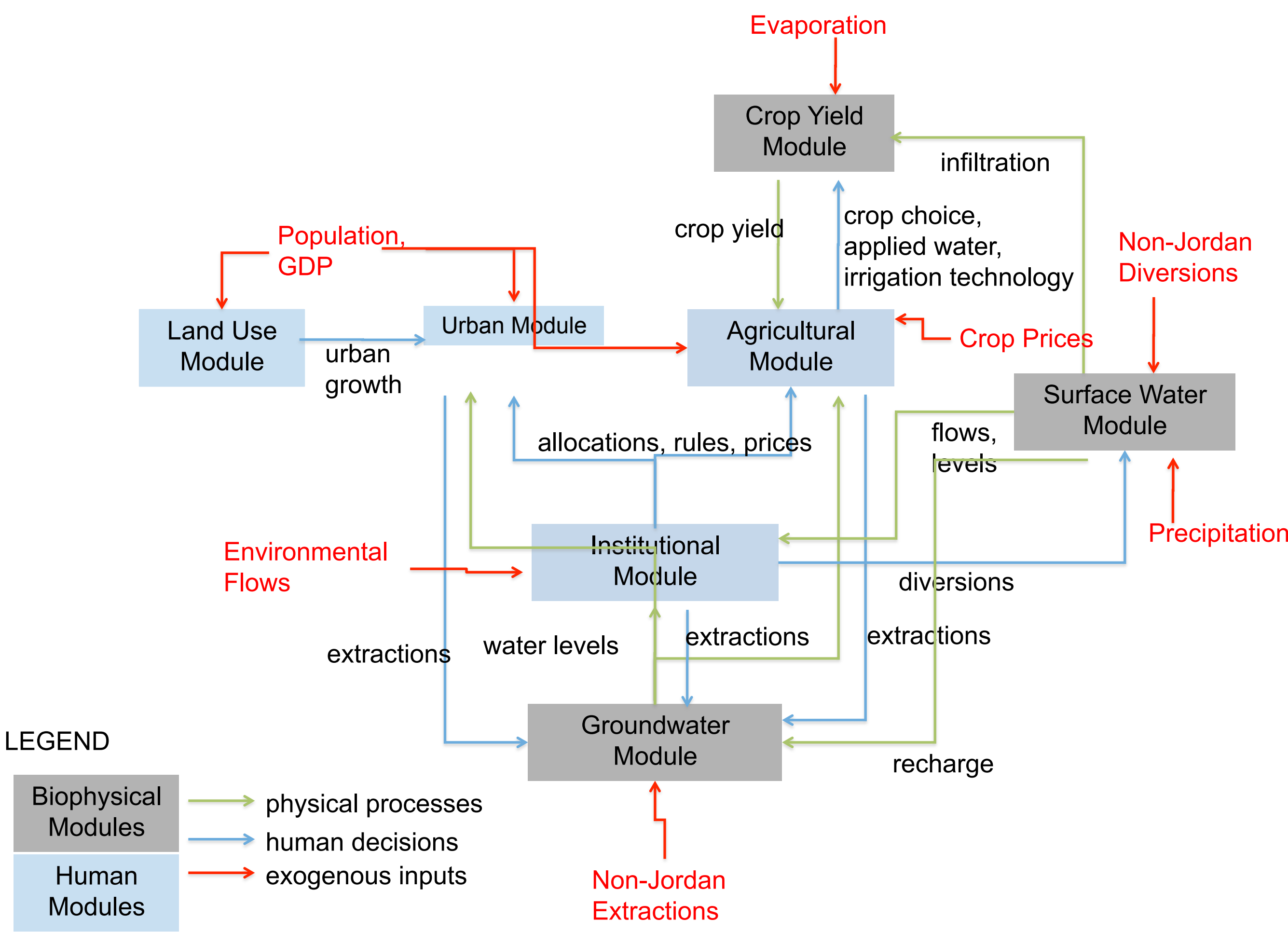
To advance the field of economic-hydrologic modeling for water planning and allocation evaluation by building a new generation of water resources models.

To understand future freshwater provision in an arid region.

To provide a useful tool for Jordan’s water managers and policy-makers that can assist in evaluating future scenarios affecting water security and sustainability.

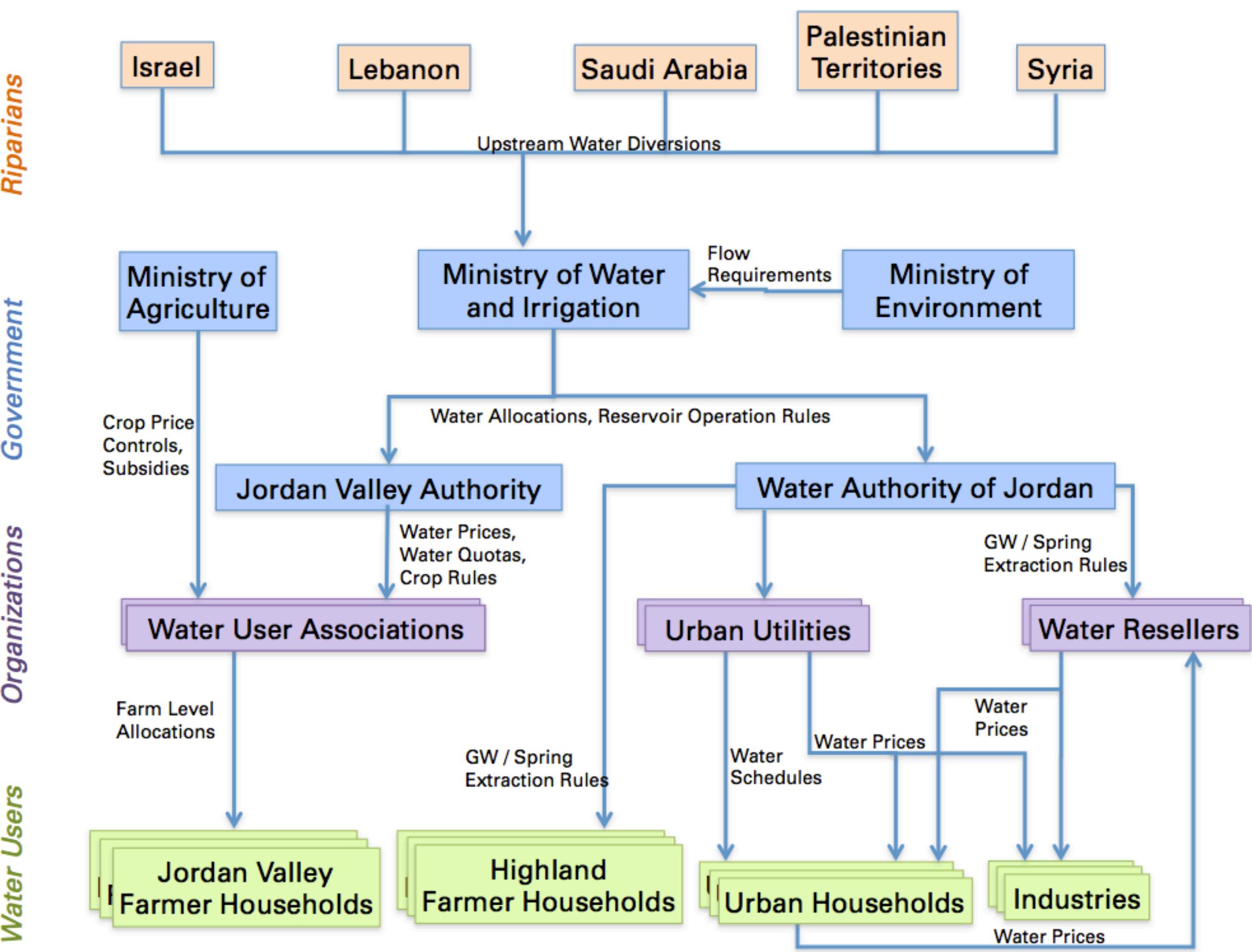
To explore, quantify, and compare a suite of solutions in Jordan that have the potential to enhance freshwater sustainability.

Integrated Modeling Framework



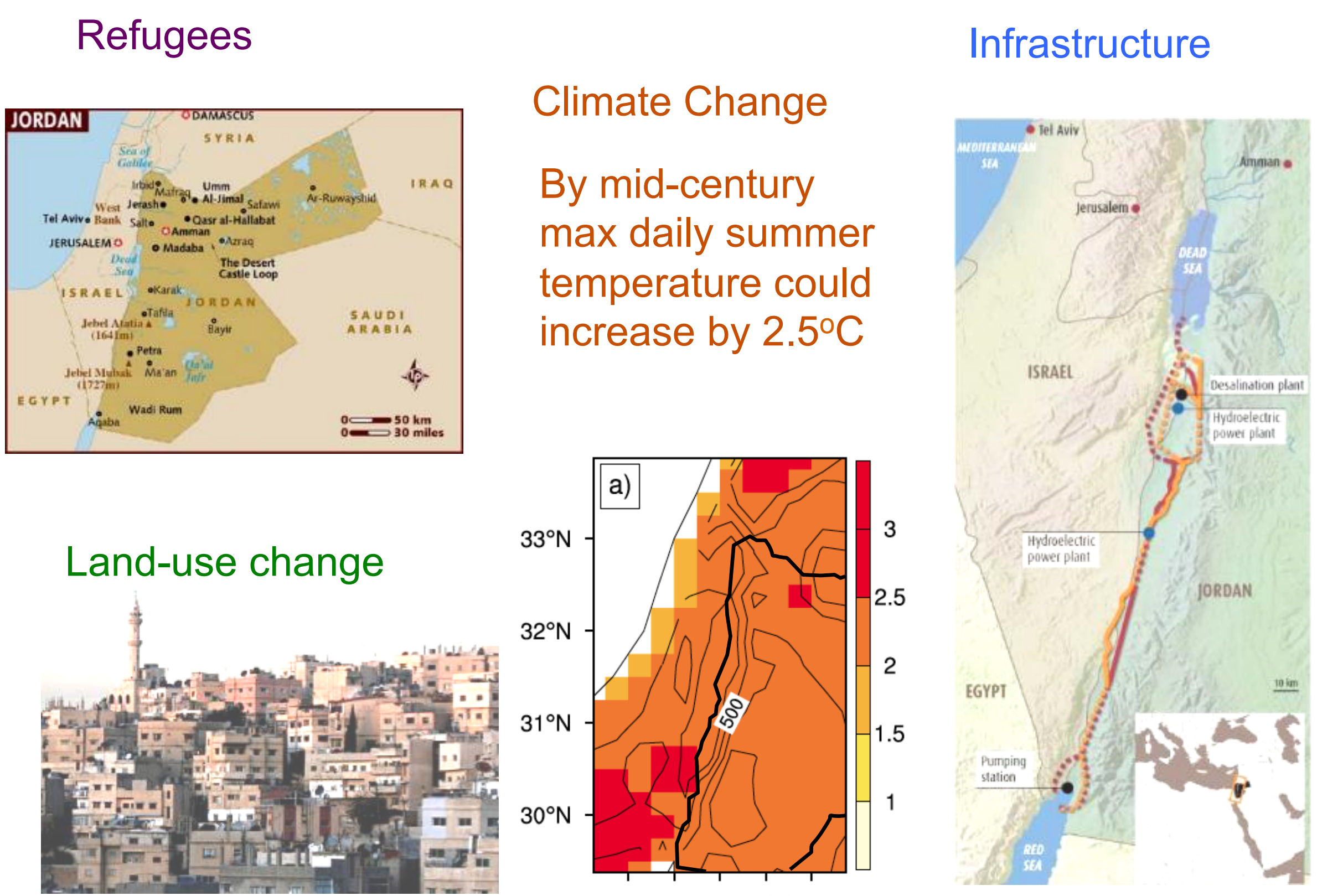
Our model uses a modular approach, integrating biophysical modules that simulate natural and engineered phenomena with human modules that represent behavior.

Multiple Agents



Our work adopts a multi-agent modeling framework that incorporates institutional complexity to evaluate policy instruments for improving water security in Jordan.

Scenarios



Our goal is to develop a suite of policy intervention scenarios that will form the basis for analysis of freshwater sustainability.

Acknowledgments



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