

Integrating Health Impacts and Policy Considerations into Food-Energy-Water Systems

Award Year:

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Principal Investigator:

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We propose to incorporate health outcomes into assessments of the food-energy-water nexus and to develop actionable resources that promote more effective decision-making. We will conduct a longitudinal analysis of a specific region—the Senegal River Basin—placing particular emphasis on trade-offs identified in policy documents and decisions affecting the food-energy-water (FEW) nexus during the planning and management phases of large dam projects. We will assess changes in social and environmental priorities using a historical analysis of environmental impact assessments (EIAs) and other published documents. We will identify what past assessment tools have (and have not) captured with respect to health goals and FEW management. Based on available data, we will assess tradeoffs among downstream water availability, hydropower production, agricultural productivity and public health outcomes using the Water Evaluation and Planning System (WEAP) model. Findings from the historical analysis and modeling will be translated into decision-making tools for water agencies.

Participants:

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