

Author: Pranay Kumar, E J Bloustein School of Planning and Public Policy, Rutgers University

Presentation Title: Evaluation Of Spillovers From Behavioral Interventions In Food, Energy, And Water Conservation: A Systems Perspective

Abstract: Estimation of spillover effects is considered important in evaluating net impacts of behavioral interventions for food, energy, and water (FEW) conservation efforts for mitigating climate-change. Behavioral spillover is commonly understood as observable and causal effect that a change in one behavior has on a different, subsequent behavior. It is generally agreed that failure to account for all possible spillovers not only leaves out valuable information pertaining to dynamic interactions across domains but also results in biased and over/under estimates leading to inappropriate policy recommendations. In the recent past, a large number of studies have tried to explore the pro-environmental behavioral behavior spillovers from diverse academic disciplines and different theoretical perspectives. However, the current literature on pro-environmental behavioral spillover remains inconclusive, inconsistent lacking finality. In this paper, we review studies conducted to investigate the idea that performance of one pro-environmental behavior influences conduct of subsequent behaviors(s). We observe that a majority of studies aim to explore the nature and direction of causal relationships between behaviors from isolated viewpoints leaving out the big picture comprising of dynamic, interactive, and complex relationship in FEW consumption behaviors that might be too difficult to model, isolate, and measure in a noisy real-world setting. Further, monitoring only one resource domain might not capture changes or patterns developed within other domains. As such, we propose a framework for the evaluation of net impacts of behavioral spillovers from a systems perspective that not only takes into account the limitations of measuring causal relationships but also considers boundaries, dynamic interactions, and background contexts of such complex behaviors based on lifecycle impacts of GHG emissions. We believe that such an analysis will not only feed into the gaps in existing literature on pro-environmental behavioral spillover but will also provide a testable evaluation framework with implications for future sustainable growth policies.