Adaptation to Environmental Change: Contributions of a Resilience Framework

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Abstract

Adaptation is a process of deliberate change in anticipation of or in reaction to external stimuli and stress. The dominant research tradition on adaptation to environmental change primarily takes an actor-centered view, focusing on the agency of social actors to respond to specific environmental stimuli and emphasizing the reduction of vulnerabilities. The resilience approach is systems orientated, takes a more dynamic view, and sees adaptive capacity as a core feature of resilient social-ecological systems. The two approaches converge in identifying necessary components of adaptation. We argue that resilience provides a useful framework to analyze adaptation processes and to identify appropriate policy responses. We distinguish between incremental adjustments and transformative action and demonstrate that the sources of resilience for taking adaptive action are common across scales. These are the inherent system characteristics that absorb perturbations without losing function, networks and social capital that allow autonomous action, and resources that promote institutional learning.