

How Vulnerable/Resilient Is the Land-Use Decision-Making Apparatus Across the United States?

Conditions

- 99% of US cropland, 61% of grassland pasture and range, and 56% of forest land is privately owned.
- Land-use planning is intensely decentralized and embedded in property rights and local control.
- There are multiple uncoordinated actors engaged in land-use planning and many gaps in responsibility.
- Local governments have few incentives to preserve agricultural lands.
- Scientists predict that climate change will alter the distribution of crops and yields through increased heat and changed precipitation patterns, injecting even more complexity into land-use decision-making.

Trends

- Loss of prime farmland continues in peri-urban areas.
- In many regions there is a good deal of "leapfrog" development.
- Counties are experiencing mixed success with land-use policy instruments.
- Farm and forest lands are now being used to produce feedstocks for fuels.
- There is growing interest in reestablishing regional food systems that will depend on minimal loss of the most productive farm and grazing land in an area.
- Some researchers and officials now understand that land-use is related to water supply and quality, climate change, energy use, and development.
- There are a few new policies/policy instruments that recognize the systems aspect of land-use, and more calls for land-use planning at State and regional levels.
- Some farmers say they are already experiencing the effects of climate change on crop production.

Information Needs

- There are thousands of descriptive studies, some critical analyses, and few systems analyses of land-use and food production in the US.
- There appear to be few indicators that describe/denote the resiliency of institutions engaged with land-use policy and the social processes they utilize. Such indicators need to be developed.
- Studies on the effects of the decentralization of land-use decision-making on the vulnerability or resilience of national food production systems could be useful in many ways. Research could answer questions such as:
 - 1) Since resilience in a system is embedded at the levels below and above, how vulnerable to various stressors is the present agricultural land base in different parts of the United States?
 - 2) How does the scale at which communities make land-use decisions affect the pattern of development and the environment?
 - 3) Have newer policies that put more power into State or regional hands been more effective?
 - 4) Are there communities/regions that are successfully using adaptive management processes to make decisions about agricultural lands?