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# Critical Emerging Issues in Land Use and Agriculture

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## About LPI

- MSU's signature program in land and strategic growth policy (founded in 2006).
- University-wide leadership for research, outreach and community engagement in land policy at MSU.
- Unique land grant frameworks for addressing policy issues through partnership with stakeholders.
- Home of HPP, MIHELP, PZC, CPP, PMT, PAL and other programs targeting strategic growth and land use policy.
- Target critical policy issues that need science-based information/analysis and develop solutions.



# Presentation Outline

- Background on Land Use and Agriculture.
- US Metropolitan Growth Patterns & Consequences for Farmers and Agriculture.
- Drivers and Dynamics of Land Use Change.
- Policy Innovations to Date and their Limitations.
- Land Use in the New Economy.
- Emerging Trends and Implications for Farm Policy.
- Land Use Response Infrastructure.
- Emerging Issues in Land Use and Implications for Farm Policy.
- Conclusion.



# Background on Land Use & Agriculture

- Agriculture powered America's transformation and industrialization.
  - Mechanization, mass production, industrial organization, market infrastructure.
- Federal out-sourcing of land use responsibilities to the states, and states passed on powers to local units of government.
- Farmers controlled land use where agriculture dominated.
- With suburbanization came changes in decision making. By citizens who:
  - Are not always well trained to make the decisions of such important magnitude.
  - Response to private choices by consumers, developers and realtors with a “Yes or No” position with respect to growth.
  - Limited experience and expertise in place-making and managing growth for prosperity.
  - Limited strategy & global vision of future of agriculture, communities and regions.
  - Little intergovernmental coordination or cooperation.
- Fragmented decision-making with regional/state/national impacts.
  - Staggering cumulative national cost.
- Most important domestic issues:
  - Our future sustainability depends on wise land use choices today.

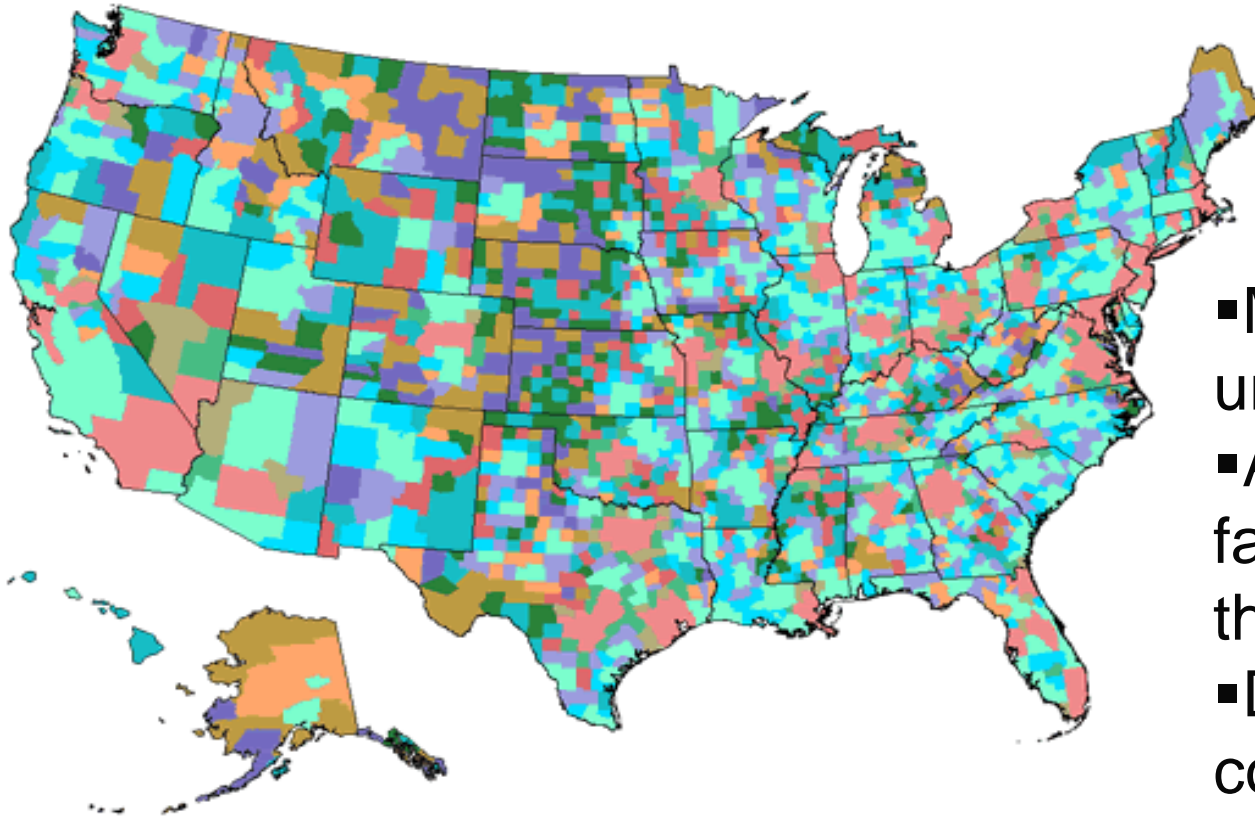
# US Metropolitan Growth Patterns & Consequences for Agriculture.

- Organization of agriculture around cities & industrial hubs.
- Post-war suburbanization of America put agriculture in the path of development.
- Dramatic impacts of people sprawl on agriculture:
  - Erosion of farmland base and high land values.
  - Speculative behavior & impermanence syndrome.
  - Parcelization & fragmentation.
  - Erosion of agglomeration economies.
  - Right to farm issues & reduced political clout.
  - Changing regulatory climate of agriculture.
  - Wildlife and other issues.
  - Product mix changes.
- Clear evidence of erosion of profitability/viability.



# US Metropolitan Growth Patterns & Consequences for Agriculture.

2003 Urban influence codes



- |             |                 |                           |
|-------------|-----------------|---------------------------|
| Large metro | Micro adj large | Noncore adj large         |
| Small metro | Micro adj small | Noncore adj small w/ town |
|             | Micro nonadj    | Noncore adj small no town |
|             |                 | Noncore adj micro w/ town |
|             |                 | Noncore adj micro no town |
|             |                 | Noncore nonadj w/ town    |
|             |                 | Noncore nonadj no town    |

Source: USDA, Economic Research Service.

- Much of US ag. is urban influenced.
- Also, the best farmland is the most threatened.
- Development component up to 82% of farmland values in NJ and over 50% in many areas.



- Suburbanization hurt cities, suburbs and metropolitan areas too.
  - Dilapidated cities and eroded regional power.
  - Infrastructure duplication & increase property taxes.
  - Unaffordable housing and concentrated poverty.
  - Job sprawl, auto-dependence, traffic congestion, energy-dependence and pollution.
  - Increased stress, reduced walkability, obesity and reduced quality of life.
  - Dysfunctional regions and reduced national competitiveness.
- Our land-use decision-making framework did not help our nation (from farmers to even developers).



## ■ Push Factors

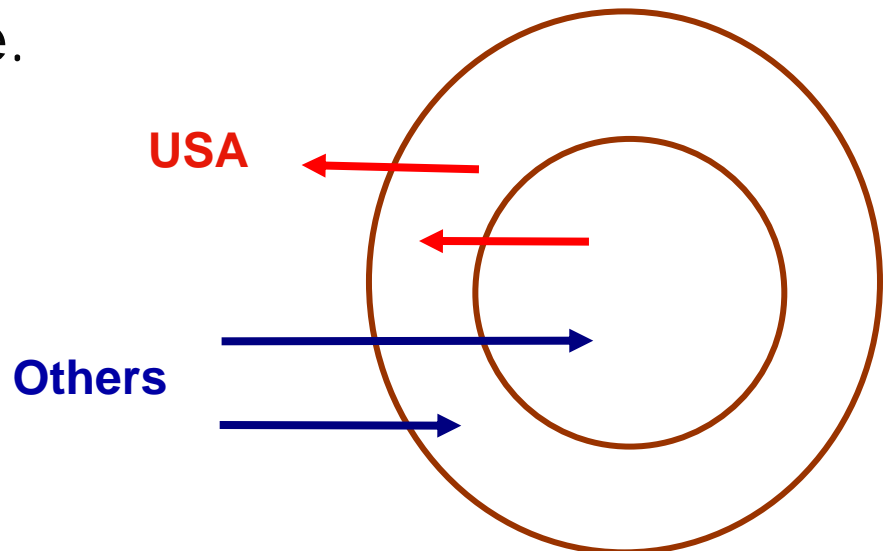
- Crime.
- School quality.
- Income decline.
- Concentrated poverty.
- Old housing stock.
- Job decline.
- Urban riots.
- Preferences.
- Recreation & Lifestyle.
- Racism.
- **Affordability.**
- Families with children.
- Consumption culture.

## ■ Pull Factors

- Large homes.
- School quality.
- Property ownership.
- Open space.
- Job opportunities.
- Income opportunities.
- Lifestyle.
- Safety.
- Jobs.

## ■ Others

- Divorce.
- Second homes.





# Policy Innovations

- Feds do not really understand the magnitude of the problem and largely treat land use as a state/local problem.
  - National policy literally silent on land use and strategic growth.
- States seeking more control (NJ, MD, PA, OR), but power already vested and entrenched in local officials.
- Expensive tools, but not sufficient to deal with the problem:
  - PDR, TDR, FTA, RTF, and viability have not fully addressed the issue.
  - Long-term viability of tools questionable -- public support will continue to erode as interests of farmers and public become more divergent.
  - Expect major shift in public interest due to globalization and the transformation to the new economy.
  - Communities increasingly resorting to Down-Zoning.
- Existing tools based on old paradigm of “Stopping Growth”, not “Managing Growth for Prosperity”
- Farm community needs new strategy for the new economy.



# Land Use Paradigm in the New Economy

- Sprawl is a lead indicator of the shift from the “Old Economy” to the “New Economy”.
  - In the “Old Economy”, industrial manufacturing capacity determined the success of a community and people chased jobs which cities had. This held cities together.
  - In the “New Economy”, amenities and quality of life determines success and knowledge-based workers who define our economy will chase quality of life and will continue to move to places with allure, gravitas, and amenities.
- Quality of life means more than suburbs and scenery offered by farmland.
- People will chase distinctive places with allure, convenience, trails, bike paths, walkable communities, entertainment, diversity, tolerance, energy independence, green infrastructure, 24 hour buzz, .....
- Experiencing a shifting paradigm where regional re-distribution of population will replace within-metro re-distribution, with many metros losing out wholesale on business, markets and growth opportunities.
- Agriculture’s success will depend more on regional performance/success as consumer choices target sustainable agriculture products more and local food systems replace mass shipment based agriculture.
- Global competition and globalization is forcing more localized food systems.
- The “End of Sprawl” as we know it.

# Emerging Problems in Land Use

- Federal role is declining and state support for agriculture will likely decline.
- Regional economic challenges will mount and drive public policy toward agriculture, but the play will be at the local level.
- Erosion of public support for farmland preservation and other programs to strengthen farm viability, as communities make tougher choices.
- Interest in agriculture will grow, but only in places where farming is seen as part of an overall green infrastructure strategy and only in regions where agriculture's role is deemed integral to regional performance.
- Farmers must evolve more integrative regional strategies that provide more amenity value and serve the public interest beyond food production.
- Expanded opportunities for agriculture, but only in areas where agriculture is valued for its contributions to the region and where regional strategies exist that incorporate agriculture in regional strategic growth plan.
- Current generation of local land use decision makers not well educated to effectively plan for and support agriculture, let alone the integrative "new economy" strategies needed to help agriculture succeed in the new economy.
- Challenge in educating local decision-makers and the public about agriculture's role in the new economy.



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# Issues to Watch



- Agriculture is a treasure trough of value:
  - Carbon credits, non-renewable land base, land appreciation, green infrastructure.
- How does agriculture tap these values, unleash the underlying value.
- Agriculture needs to capitalize itself for economic transformation.
- Absence of venture capital and conservative lending and investment infrastructure in agriculture now.
- Need to evolve more market based strategies.
  - Carbon credits, green payments and stewardship \$.
  - Land appreciation and land banking (market may be there).
  - Tax Increment Financing (TIF) for farmland preservation based on future value enhancement due to green infrastructure contributions.
  - Private market land trusts.
  - Equity insurance, equity mortgage and other tools.



# Agriculture's Role in Green Infrastructure Development

- American communities and regions will compete for sustainable growth using green infrastructure development strategies.
- Cultivating regions that value agriculture as part of their new economy strategy.
- Working with planners to leverage agricultural development as an anchor of their growth strategy.
- Integration of agricultural planning and overall land use planning for the new economy.
- Agriculture is an industry. It too can grow.
- Planning for the type of agriculture a region needs.
- Planning for the city and the suburbs – regional planning for prosperity.
- Agricultural leadership's role.



- Regions will be looking for new growth opportunities that are more sustainable and strategic.
- Agriculture as Plan B for regions needing new economic opportunities.
- Organic growth versus chasing of manufacturing jobs.
- Bio-composites, fine chemicals, phyto-pharmaceuticals, nutraceuticals, agro-tourism and other new industries that leverage past industrial capacity for new growth tied to agriculture.
- Strategy versus “old politics”.



- Many renewable energy sources require land (large scale wind and solar systems).
- RPS adoption and opportunities to connect agriculture with future wind installations.
- Wind is ultimate alternative income opportunity in windy areas – Productive use of land with added revenues.
- Managing nymbyism and wind restrictive ordinances of communities.
- Small scale wind systems and energy independence in agriculture.
- Net metering and taxation constraints.



# Water Availability

- Water will restrict the agricultural capacity of regions and offer others an advantage.
- Securing adequate water for agriculture requires local understanding of the value of agriculture.
- Position of water rich states (Great Lakes).
- Value of Great Lakes water.



# Down-zoning

- Public is increasingly substituting down-zoning for market-based preservation tools.
- Growing down-zoning in communities with huge land to preserve, no public will to pay for market approaches, declining political clout of farmers, and residents with green interests.
- Can agriculture afford being stripped of its wealth base and still be successful.

- Need for citizen education, especially city folks.
- Going through process from where they are to where they need to be.
- Requires steps farmers are not good at and nobody has patience anymore.
- Leadership development in agriculture.
- Convincing people is a science in itself which the land grants have not caught on to.



# Conclusions

- Sprawl created many problems for farmers that agriculture has spent several decades dealing with.
- Existing tools designed to fight growth, but paradigm shift needed to plan for regional prosperity.
- Opportunity to define new economic development strategy that leverages agriculture's inherent assets and full scope of value, while maintaining stewardship.
- Existing decision makers are not well trained to make strategic decisions.
- Infrastructure of the land grant system needed to handle the huge educational task.
- Sprawl has changed its tune.





**Thank you!**

