

# **Emerging Multi-Disciplinary Research in Land Use: the Case of the Land Policy Institute**

**by:**

Soji Adelaja\*  
Melissa A. Gibson  
Mary Beth Lake  
Michigan State University

*Paper prepared for presentation at the EcoMod International Conference on Regional  
and Urban Modeling, Brussels, Belgium, June 1-2, 2007*

\*Soji Adelaja is the John A. Hannah Distinguished Professor in Land Policy and Director of the Land Policy Institute (LPI) at MSU, East Lansing, MI 48823. Melissa A. Gibson is a Visiting Specialist and Research Coordinator with LPI. Mary Beth Lake is the Associate Director of the LPI. This research is supported by funds from the John A. Hannah Endowment for Land Policy research. Soji Adelaja, the contact author, can be reached at Land Policy Institute, 317 Manly Miles Building, 1405 South Harrison Rd., East Lansing, MI 48823, USA. E-mail: [Adelaja@msu.edu](mailto:Adelaja@msu.edu); Tel: 517-432-8800; Fax: 517-432-8769.

# **Emerging Multi-Disciplinary Research in Land Use: the Case of the Land Policy Institute**

## **Abstract**

The land use framework in the U. S. differs from much of the rest of the world. Decision making is vested in local units of government, many of which do not coordinate their activities or cooperate with each other. Information, data, analysis, options and strategies are needed to support communities who often have limited capacity to resource themselves to be strategic in their land use decision making. Also, more states are demanding guidance with smart growth. Land grant universities, which were created to address problems facing individuals, communities and industries are increasingly being asked to play a greater role in filling the knowledge gap.

Providing mission oriented research is often a challenge for universities, especially given their nature and the complexity of land use problems. Academic research programs must meet the dual objectives of academic rigor and stakeholder relevance. The Land Policy Institute (LPI) at Michigan State University (MSU) was developed to address this complex set of challenges. By using a demand driven model, it implements innovative land use research to aid citizens, communities and policy makers in solving land use/policy problems. On the other hand, it incentivises faculty to pursue academic research, but uses a translational framework to make the output relevant to stakeholders.

This paper discuss the rationale for creating this boundary organization, challenges faced in the process, its various programs, and its impacts. LPI is a model for other institutions seeking to build institutional capacity to address land use problems.

# **Emerging Multi-Disciplinary Research in Land Use: the Case of the Land Policy Institute**

## **Introduction**

The U.S. is unique in its land use policies and strategies. The origin of her land use decision making framework is the 10<sup>th</sup> Amendment, which reserved some powers for the Federal Government and transferred unreserved powers to each of the states (Richardson et. al., 2003). In turn, each state reserved some powers and passed on unreserved powers to their local units of government. This is the origin of “Home Rule” or “Dillon’s Rule”. The former connotes constitutional transfer while the latter connotes Legislative transfer.<sup>1</sup> Congress ceded the power to regulate land use to states because of the local nature of land use activities. The states, in turn, ceded the responsibilities to local units of government for the same reasons. Today, there are approximately 87,800 local units of government across the country, which creates a checkered and disjointed pattern of land use decision making across the county (U.S. Census Bureau, 2002).

The current arrangement, may have been based on inadequate understanding of the future of land use and the role it would come to play in shaping the nation. Back then, Washington was very far from communities across the nation, and so were the state capitals. All politics was local, so was land use. The absence of regional thinking, well defined transportation systems, and connective infrastructure, made it difficult for states to envision planning at the county, regional, or state levels. Land was seen as a local public good, and regional and state public interests were less palpable.

Back then, few could envision the network of highways and roads that now connect our local communities, our vast network of telephones, or the internet (which creates a framework of

connectivity that transcends space). The old economy paradigm whereby a few key local employers (mostly manufacturers) provided the basic framework for the local economy held true. Today, it has been replaced by the new economy paradigm whereby talent, green infrastructure, and quality of life drive job creation and employment (Atkinson, 2005; and Progressive Policy Institute, 2002). As the population flocked to major employment centers, few could envision economic sprawl, job sprawl and the population sprawl that has now become a key feature in the dynamics and performance of regions and states (Soule, 2006). Finally, few could imagine that state governments would seek to achieve greater control over land use and promote regional and statewide strategic growth opportunities.

Today, land use is probably the most important and contentious domestic issue facing our nation. Municipalities are cooperating poorly, and the U.S. landscape is characterized by fragmented decision making, duplication of services, absence of coordination, all of which have been argued to lead to higher property taxes, and limits to quality of life (Soule, 2006). Today, society is realizing that labor markets are regional, that regions are what attract new business enterprises, and that to compete, greater cooperation is needed (Hershberg, 1996). Increasingly, county level planning, regional cooperation, regional planning authorities, and even statewide planning commissions are emerging (Dimand and Nunan, 1996). Non-local trends and factors (e.g. federal highway construction and low interest and mortgage rate policies), conditions of core cities and urban areas (crime, loss of jobs, low-quality schools, infrastructure deterioration, etc.), increased wealth (second homes and greater affordability), all impact on growth pressures at the local level (Frumkin et. al., 2004). Communities largely react to these extraneous factors rather than effectively anticipate them.

The U.S. and its communities struggle to be relevant in a global new economy. As the previously dominant industrial economies have waned in their contributions, the nation is looking for new strategies for economic development. Land is the basic asset that underlies all human activity (Barlowe, 1986). For example, one quarter of the wealth of Americans is in real estate (Hu and Pennington-Cross, 2000) and mortgage debt accounts for about 70% of U.S. Gross National Product (Foster, 2006). Important issues such as personal and community health, urban sprawl, rural and urban prosperity, urban revitalization, property tax burdens, traffic congestion, open space retention, food security, agricultural viability, performance of land based industries (including tourism, mining, forestry, and recreation), and economic stability are strongly shaped by land use dynamics (Voith, 2000). As show in Figure 1, the public is not only concerned about these issues, but exhibit varying degrees of interest, depending on their demographics.

The location of US strategic natural resource assets and the conservation of those assets are subject to land use changes. The sustainability of the Nation's resources and quality of life of its residents are therefore largely dependent on land use decisions made today. The result is that the very tools available that must be used in shaping the future well being and quality of life of states and the Nation are outside the control of those higher levels of government that are needed to help shape the future of the Nation. Increasingly, states are looking to deal with this issue. Some states have implemented state-wide land use strategies that seek to correct for this historical problem as they are realizing their lack of control in shaping the future of communities. The fact of the matter is land use issues will continue to grow in importance and urgency and a gap exists in the Nations capacity to advance new policy and tools for land use issues.

Opportunities will therefore grow for academic institutions to contribute the much needed policy science that will help this nation address this important problem of society.

### ***Possible Roles of Universities***

Considering the political and economic landscape for land use decision making in the U.S., individual communities often lack the very information, data, analysis, options and strategies needed to address land use issues. Indeed, many communities feel powerless, as unfettered growth has overwhelmed them. Many communities look to land grant universities for solutions, given their historical role in developing science-based solutions to problems facing land-based industries and communities. Increasingly, states are also looking towards their Land Grant Universities to help find solutions to their land use problems. Unfortunately, however, Universities have functional limitations that make it difficult to respond.

### ***Structural Issues Limiting Universities Involvement***

Universities have two primary functions: (1) teaching the next generation of citizens, leaders and workers; and (2) creating the next generation of knowledge to advance the causes of society. However, Adelaja argued that a role for land grant universities is to push society beyond the limits of its scientific, policy and social imagination (Adelaja, 2003). In his views, land grant universities are particularly important in crystallizing know-how for shaping the future.

There are structural issues, however, that limit the ability of universities to respond. They have historically been criticized for their inability to effectively transfer the knowledge that emerges from their research to industry (Adelaja, 2003). The areas of policy and social change are no exception. Few state land grant universities have been able to muster a comprehensive

land use policy, research, outreach and education agenda that will impact the policy process. Yet, this is the type of structure that stakeholders voice as being needed to address their issues.

The following are some of the challenges facing universities in mounting mission-oriented, need-driven, research-based, educational strategies in areas related to public policy.

- Land use problems are complex and involve diverse stakeholders, which university faculty are not always well equipped to deal with.
- The policy area is particularly problematic because it does not represent an area of historical strength within the land grant system.
- Land use solutions must inherently be multidisciplinary and integrative in nature, in order to be effective and meaningful. Team work is required, which academia typically struggle with.
- State and local partnerships are often required in dealing with regional land use issues, but such partnerships are often difficult for universities to handle.
- Land use solutions are public goods, which are nebulous and involve free rider problems.
- Land use innovations require a unique type of knowledge transfer, which universities may not be well suited to handle.
- The culture of academia is not necessarily to create socially or publicly relevant science, but science and research that would have professional impact.
- The gestation period for research could be as long as 2-3 years, but legislators and policy makers want quick action.
- While lawmakers prefer academics to support their positions, academics are inclined to present research-based information in a nonpartisan format (McCarthy, 1990).
- While academics feel the need to write long and scholarly type documents, which focus on convincing the audience, lawmakers typically already accept their competence and are looking for simple solutions (Shavelson, 1988).
- The work of academic researchers often has limited influence because the findings are not always presented in a useful, understandable manner (Kirst, 1988; Andrews, 2003).
- Researchers are often viewed as overspecializing in their field, making the research less relevant to the public, also spurring the feeling that researchers are isolated from society (Mansito, 2006).

- Relationships between policy makers and researchers needs to be more fully developed (McCarthy, 1990).
- Research must take into account the current political, fiscal, and logistical situation in making realistic policy recommendations (McDonnell, 1988; Weiss and Bucuvalas, 1980).
- Policy centers need to overcome the obstacles of obtaining internal university legitimacy (Guthrie, 1990).

While these problems seem insurmountable, they are critical issues to address in order for higher education to play a valuable role in land use research, outreach and education.

### **The Land Grant Challenge in Land Use**

Land grant institutions are unique in that they receive direct federal, state and local appropriations to extend the boundaries of higher education beyond college and universities traditional scope (Adelaja, 2003). They are expected to provide needed education in critical and emerging areas, mission-oriented and science-based solutions to problems of society, and quality services underserved communities. The upper panel of Figure 2 presents Adelaja's model of how universities work. This is contrasted with how a land grant university works differently in the lower panel. Cooperative Extension, the Experiment Station, and university outreach are deliberate additions to academic institutions to ensure that resource and service delivery is a primary objective and not an after-thought. They receive unique resources that allow them to take on additional responsibilities (Adelaja, 2003). Especially in an environment where universities are moving from state funded to state supported universities, the degree of institutional conflict about balancing land grant persona with traditional scholarly persona is mounting. This is so in the area of policy, research and outreach, and more so in the area of land use research and outreach.



On one hand, land grant universities must deliver, and land use is a pressing area of need for stakeholders. On the other hand, the basic nature of academic institutions may be inconsistent with the delivery value that society demands. To deliver as a land grant university, collaboration, system-wide prioritization, integration, stakeholder engagement, efficiency, mission-orientation, and service are critical. However, this may or may not bode well in a traditional setting. An effective land policy institute needs to be engaged with stakeholders; to utilize interdisciplinary and programmatic approaches; and to listen, anticipate problems and conceptualize solutions (Adelaja, 2003). Research and outreach products of the system are often public goods, and goods that would not be delivered without intervention (due to market failure). On the other hand, academic rigor is required. Therefore, developing a land grant organization to address land use issues is challenging. On one hand, it must overcome some of the more challenging internal concerns and issues, such as academic rigor, excellence and publications. On the other hand, it has to be relevant and able to reach deep into stakeholder communities. On one hand, they are usually well funded. On the other hand, they need to work with stakeholders to raise monies. Land use is often seen as a local issue so it is difficult to receive national foundation support. On the other hand, given its social science nature, academic grants are few and far between. Noticing these issues, Michigan State University (MSU) embarked on a strategic planning process, followed by a capacity building process to develop a boundary organization. This organization, the Land Policy Institute, is a likely model for other land grant universities. Already, other universities have inquired about the goals, the missions, the strategies, and the *modi operandi* of the LPI in an attempt to learn from it. These inquiries motivated this paper. In the rest of this paper, the rationale, strategy, programs and impacts of the LPI are defined. The paper concludes with some recommendations to other organizations.

## **Planning for Success in Land Use in a Land Grant Organization**

The early stage of MSU's planning process was the creation of the Kellogg Land Policy Group (KLPG). The charge to the KLPG was to develop a vision for a future land use organization at MSU. To make the groups work exciting, a \$500,000 grant was sought from a foundation so that seed and foundational initiatives could be pursued simultaneously with the planning process. The KLPG was comprised of leading researchers in land use and land policy in MSU, as well as selected leaders outside the university. Non-university members provided a sense of reality, while the academics brought the deep scientific research knowledge base. Together, they agreed on basic principals that would help balance the interests of both groups. KLPG members were guided by some of the recommendations of the Michigan Land Use Leadership Council (MLULC), a statewide panel empanelled by the governor.

### ***Goals Identified for the New Land Use Organization***

The KLPG successfully identified the following goals for a future land use organization:

1. Coordinate/integrate land use research and outreach efforts at MSU.
2. Foster applied research and policy through partnerships and stakeholder input.
3. Foster interdisciplinary collaborations among MSU faculty and with its partner in order to attract state, federal and foundation grants in the future.

### ***Rationale***

The rationale provided by the KLPG for creating a new organization are: (1) need for policy recommendations based on sound research to assist future state, local and regional land use planning initiatives, (2) need for a coordinated response to the State's needs in the area of land use; and (3) improved research and outreach coordination will allow MSU to provide

needed expertise and leadership that can affect the nature and pace of land use change in Michigan. At first glance, it appears that these rationale would have been difficult to arrive at, in an environment dominated by academics, however, the interaction between both groups was of such high quality that there was a convergence of interests around the goals above. The KLPG laid a solid foundation for the new land use institute by taking a visionary position.

### ***Recommended Organizational Objectives and Purpose***

The KLPG further identified the following organizational objectives for the new land use organization at MSU:

1. Develop and implement a research agenda.
2. Encourage and facilitate interdisciplinary research teams.
3. Mobilize and build on the human and financial resources on campus.
4. Aggressively pursue external funding in the area of land use.
5. Build recognition for MSU and the Center as a national center of excellence in the areas of research and outreach surrounding land use.
6. Create opportunities to link undergraduate and graduate education with research.
7. Improve communications with and between stakeholders that will lead to improved information for designing and implementing research-based policy.
8. Create a point of contact for external and internal stakeholders to be able to access land use research and experts on campus.
9. Encourage collaboration with land use researchers at other universities in Michigan and across the country.

Goals number 1 can easily be expected, and so can goals 3, 4, 5, and 6. Goal numbers 2, 7, 8, and 9 are a bit more surprising, given the heavy focus on delivery. It appears that organizational

synergy emerged from the work of the KLPG. These goals and objectives have been the guiding principles of the LPP and LPI.

### *Perceived Gaps*

The development of the strategic plan for land use at Michigan State University involved extensive stakeholder assessment and internal/external capabilities Gap Analysis. MSU extension personnel conducted a number of listening sessions across the state to explore land use with stakeholder the nature of the challenges they face in land use. Also, in-depth interviews were conducted with individual stakeholders on their views of what more MSU might do related in the area of land use policy. In addition, MSU relied on selected input materials for the Michigan Land Use Leadership Council (e.g., survey of interest groups and council members by Public Sector Consultants, and public hearing comment compilation reports). These documents were useful in identifying the weaknesses with MSU's program in land use.

Recognizing that there are hundreds of faculty involved in land use and several hundred research and outreach projects at MSU that relate in some way to public efforts to guide land use patterns, the Swank Professor of Land Use at Ohio State University assisted MSU in conducting a gap analysis in land use. Based on this research, the following gaps were identified:

### *Perceived Outreach Gaps and Opportunities (in order of priority)*

The KLPG identified the following gaps in outreach capacity and organization which limited MSU's effectiveness in land use:

- More pointed attention to state legislators and staff. MSU looked to as a reliable unbiased source of facts.
- Faculty expertise needed to better link land use/land cover research to policy research and outreach. Particularly needed is an economist proficient in GIS.

- A consistent stakeholder advisory structure for land use policy work at MSU.
- A network of regional Land Use and Public Policy extension agents to broker county needs with campus expertise and improve programming.
- Opportunities for sharing land use data bases among communities and state and federal agencies, facilitated by MSU.
- Writers to convert academic research results on land use/policy into bulletins, fact sheets, slides, and other material useful in policy education.
- Land Use AoE could develop a set of subject matter priorities and broadly advertise its “front door” role in land use education.
- Land use policy specialists could use additional interaction with counterparts at other universities in Michigan, particularly U of M, Wayne State, Central, Northern, Grand Valley.
- Stakeholders need MSU faculty/staff to be more active in the policy process, and bring science to bear on policy questions, as expert witness in some cases.
- Additional need for more basic training in land use planning and zoning, particularly in northern Michigan.
- Better incentives for all faculty with land use expertise to engage in outreach.

MSU is aggressively pursuing these objectives as a priority of the university.

*Perceived Research Gaps or Opportunities (in order of priority)*

The KLPG also identified the following gaps in research capacity and organization which limited MSU’s effectiveness:

Understanding the Fundamental Causes and Drivers for Land Use and Policy Change

- Analyze factors that most affect transition between resource based industry (agriculture, mining, forestry) and more capital based industry and service sectors. What are the thresholds of these factors that constitute major economic change (“tipping points”)?

- Analyze full costs and benefits of growth and land use change in particular jurisdictions, and develop a template for benefit/cost analysis of development in larger areas.
- Projecting patterns of land use change based on physical, biological and economic factors. Likely effects of emerging technologies for production, information management. Work should integrate behavioral and economic factors into the projections, indicating how individuals and communities adjust as new information is available. Focus on Michigan and the Great Lakes Region.
- Demand analysis – what do people want and what are they willing to pay for in terms of patterns and attributes of land use and cover. What are prevailing attitudes and preferences regarding alternative land use patterns, eco-system services (wetlands, endangered species habitat, coastal areas).
- Research attention should be directed toward land use change in Detroit and other Michigan cities. What are the economic and social drivers of urban land use change.
- Ecological implications of alternative development patterns, e.g. effect on wetlands, endangered species habitat, shorelands and stream quality of compact vs linear development. What are the economic, social and ecological costs of “sprawl?”.
- Estimating the economic value of eco-system services of undeveloped land, to include groundwater recharge, water cleansing through soil, wetland functions, species diversity under various land use configurations.
- Effects of fragmentation on human and bio-community viability.
- Relationships between urban form, national economic structure, and related policy. That is, how does the structure of the economic and social system in a country affect land use? What are differences between Canada and US, for example?
- Analyze the central importance of transportation investments on land use patterns.
- What is the character of urban fringe agriculture in Michigan and other Great Lakes States? How do farmers adapt to changing economic and social demands at the fringe?

#### Institutional and Policy Context for Changes in Land Use and Cover

- Measure the monetary costs and benefits of alternative development patterns, including linear growth, cluster development, conservation subdivisions.
- Effect of institutional scale on performance – township, county, multi-county regional, state, and multi-jurisdiction cooperation in guiding development. We need a better understanding of the economic and social implications of regions.

- Analysis of the unintended effects of state spending for roads, sewer, water, economic development subsidies, homeowner tax exemption, and location of schools and public buildings on land use patterns.
- Economic and land use consequences of policy options for guiding land use, U.S. and international experience. What approaches or instruments work best on the land, which are most expensive, and who pays the bill (e.g. compare easement purchase, to zoning, to regional urban growth boundaries).
- Land use implications of economic development strategies and policy instruments, e.g. Tax Increment Financing, land donation, tax forgiveness, Redevelopment Fast Track Authority.
- Stakeholders want additional and more timely analyses of the financial implications of alternative methods for funding farmland and open space acquisition. Who pays how much under various sales tax initiatives, land use conversion fees, cigarette or other “sin taxes,” targeted millage, bond sale.
- Potential in Great Lakes states for greater inter-governmental cooperation in growth management, consider legal and political barriers, opportunities for revenue sharing, urban service boundaries that cross local boundaries.
- Implications of current planning and land use statutes in Michigan for land use patterns, particularly the Land Division Act, local planning authorization, lack of specific authority for TDR or local impact fees.
- Global economies and land use, how do global economic patterns affect land use (“globalization”)? Effects of trade agreements, World Trade Organization, multi-functionality in Europe on land use patterns.

#### Land Use and Human Health

- Effect of urban and metropolitan growth policies (subsidized shopping centers, mortgage priority for detached single-family homes) on concentration of poverty, crowding, crime, mental stress, congestion and road rage, obesity, heart disease and other health indicators
- Develop a defensible set of “quality of life” indicators to guide policy formation.
- Better understanding of the social capital implications of development patterns and community land use planning and policy. That is, how does community networking and trust affect land policy development and implementation?

### Land Based Industries

- Help analyze the feasibility of new enterprises for farms at the urban fringe, particularly value-added products, direct marketing, agri-tourism and related policy options.
- Examine the economic potential of eco-tourism in Michigan.
- Documentation of the economic relationships among the resource-based sectors – tourism, forestry, agriculture, minerals and effect of environmental quality on all of them.
- Analyze the trends in Great Lakes waterfront usage, residential, commercial, public access.

### Urban, Metropolitan and Rural Development

- Opportunities for urban revitalization need additional research, including costs and benefits of incentives and other policies to encourage urban investment, affordable housing and neighborhood improvement.
- Implications of policy alternatives for encouraging urban in-fill development, increasing density in Michigan and Great Lakes cities.

### ***Hiring the Hannah Professor***

Based on the early strategic planning by the KLPG, MSU determined that new leadership was required in building a new land use organization at the university. It therefore decided to peg one of its most distinguished endowed professorships to Land Use at MSU. A national search for the John A. Hannah Distinguished Professor in Land Policy was commenced in early 2003. The process eventually resulted in the hiring of Soji Adelaja as the new professor, starting January 2004. The charge to the Hannah Professor was to provide campus wide leadership to land use and policy and to implement the strategies identified by the KLPG.

### ***Later State Planning and Early Implementation of MSU Agenda***

The Hannah Professor focused early on Agenda Setting (Goal 1 and Objective 1). Before officially comming to MSU, he led the faculty and stakeholders through a planning process to



translate the goals, objectives and gap statements of the KLPG and federal research priorities into actionable priority projects and programs at MSU:

- At an October 2003 Faculty Visioning Session led by the incoming Hannah Professor, faculty identify critical programmatic elements and specific projects to inform local and state decision making in Michigan.
- At a December 2003 Land Use Program Retreat led by the incoming Hannah Professor, stakeholders worked along-side faculty to help shape the future of land use research and outreach at MSU by revising and focusing programmatic themes and projects.
- In February 2004, stakeholders helped MSU to finalize the agenda, define thematic areas and define the final list of priority initiatives.

Figure 3 depicts the stages of MSU's strategic planning effort. In each of the sessions held, three questions dominated the process: 1) What are current MSU activities and strengths in land use research/outreach; 2) What are the current needs in Michigan relating to land use; and 3) What should MSU be doing to meet those needs?

### ***MSU Ten (10) Land Use Programmatic Goals and Theme Areas***

The fast-tracked visioning and agenda setting process resulted in the establishment of ten thematic goals. While these goals reflect the stated mission of the LPI, corresponding broader institutional academic goals (in bracket) are of great importance to LPI. Focusing on these areas in building a national reputation for LPI is possible, given the large number of MSU faculty whose activities could be coordinated. The ten thematic areas of LPI research are as follows:

1. Revitalizing Michigan Cities (Urban Revitalization Policy).
2. Market Solutions to Land Use Problems (New Land Use Tools and Policies).
3. Viable Agriculture for the Future (Farm Viability and Preservation Policies).
4. Sustaining Michigan's Water & Natural Resources and Related Industries (Natural Resource Conservation Policy).

5. Enhanced Planning and Coordination in Land Use Decision Making (New Planning Coordination Policies)
6. Creating Healthy Communities (Land Use Policies for a Healthier Community).
7. Equipping State Decision makers in Land Use (Education of State Policy-makers).
8. Empowering Michigan's Citizens in Land Use (Public Education and Citizenry Empowerment).
9. Data Collection, Information and Analysis for Improving Land Use Policy (Land Use Informatics).
10. National Leadership Profile (National Reputation for Excellence).

The basic problem facing MSU and Michigan was the disconnect between academic research and the needs of stakeholders. There were hundreds of faculty on campus that could contribute to land use work, but there was no priority setting or signaling point for research. There was a highly duplicative extension and outreach network also, which seemed disjointed, as shown in Figure 4.

The framework behind MSU's agenda setting is that these ten items would become powerful enough to easily attract stakeholders to them (analogy of retail supermarkets), while simultaneously providing powerful enough to incentives for faculty to want to participate. The Land Policy Program (LPP) was created in February 2004 as the focal point of land use work at MSU. The themes above were the drivers of LPP programs to date. LPP support for faculty have targeted these ten areas. The agenda has helped MSU establish strong focus within thrust areas, although the breadth of the areas covered is encompassing. The LPP developed a graduated strategy to achieve its goals in each of these theme areas and to achieve targeted goals and objectives advanced by the KLPG.

For each of the above thrust areas, detailed strategies were developed. This included a clear mission statement and the identification of high and low priority areas to target. This information is provided in Table 1.

### ***Strategies for Achieving Goals Set by the KLPG and Other Institutional Goals***

Given the cultural differences, for MSU to play its role in the area of land policy, significant institutional change was needed in the way research is conceptualized, research is conducted, research is connected to extension and outreach, and knowledge and information are delivered to stakeholders. All these could be done while positioning MSU to be the academic leader in land use.

Again, Figure 3 depicts the strategic planning process in support of MSU land use work and the strategies that emerged for providing leadership to land use activities at MSU. Figure 5 further elaborates on the strategies of the LPI and the needed support by MSU faculty to achieve the mission and goals. MSU's strategy can be summarized as investing in teamwork and capacity building that would help focus the faculty on present state land use issues while enabling grant competitive MSU-led teams that are active at the national level. This has been the modus operandi of the LPP at MSU. The Land Policy Institute (LPI) was created last year to fully formalize the work at MSU.

Eight (8) strategies emerged from the planning efforts for land use at MSU:

- 1) Leadership in institutional agenda setting.
- 2) Strategic investments in faculty teams to facilitate proof of concept projects that are the foundation to competitiveness for external funds.
- 3) Strengthening of multidisciplinary capacity by leading the development of faculty programmatic teams.

- 4) Attracting foundation resources to support institutional capacity building.
- 5) Building connections between MSU and a diverse set of stakeholder communities in Michigan.
- 6) Establish a more visible identity for MSU land use research and position MSU for recognition as the leading university in the area of land use.
- 7) Enriching campus-wide discourse and curricula in land use and seeking national visibility for the expertise of MSU faculty.
- 8) Fostering the involvement of undergraduate and graduate students in research and outreach

These strategies have driven MSU's prosecution of its agenda and goals over the past two years. The Hannah Professor focused early on Strategy 1 -- agenda setting and stakeholder development (Goal 1, Goal 2, Objective 1, and Objective 7) even before his start at MSU. Following the 2004 Summit, the focus turned to Strategy 2 -- strategic investments in faculty to start to crystallize competitive teams through the LPI grants initiative that has resulted in over 100 projects at MSU and sister institutions (Goal 2, Goal 3, Objective 2 and Objective 3). Strategy 3 -- strengthening multidisciplinary capacity by fostering teams was also aggressively pursued, leading to various research teams on campus (Goal 3 and Objective 3).

Strategy 4 -- attracting foundation resources to support institutional capacity building has been pursued aggressively and this has resulted in approximately \$7.5 million in foundation grants in 2 years (Objective 4). An additional \$6 million in foundation grant is in the pipeline. These grants have supported such institutional capacity building initiatives as the Online Citizen Planner Program (\$400,000), United Growth of Kent County (\$250,000 for the United Growth of Michigan initiative), Land Policy Educators (\$375,000 to hire a new cadre of land use educators statewide), Picture Michigan Tomorrow (\$375,000 to develop a new land use forecast model for Michigan communities and policymakers and to generate updated decision support tools), Impact

of Density on School Revenues/Costs (\$200,000 to evaluate the relationship between schools and growth patterns and determine optimal housing type and density for property value and municipal revenues), Legislative Policy Education Series (\$75,000 to support a legislative education program run by IPPSR and LPI, the Impact of State Subsidies on Growth Patterns initiative (\$200,000 to study the effects of state expenditures on unmanaged growth), the Options and Tools for Intergovernmental cooperation project (\$200,000 to explore the economies of scale and cost saving advantages of intergovernmental cooperation in the delivery of services to constituents across jurisdictions), the Michigan Higher Education Land Policy (MIHELP) Consortium (\$400,000 to enhance the collaboration between MSU, Wayne State University, Grand Valley State University, the University of Michigan, and others, and to work on priority metropolitan land use issues), and the Smart Growth Readiness Assessment Tools Initiative (\$100,000 to develop an assessment instrument and a set of instructional materials to be delivered through county and district land use agents, the Citizen Planner Program, and the MSU land use community).

Strategy 5 is well underway (Objective 7, Objective 8). MSU's land use work is known across Michigan. The list of organizations in the state working with LPI is staggering. Michigan Suburban Alliance, Michigan Environmental Council, West Michigan Strategic Alliance, Grand Valley Metro Council, Michigan Land Use Institute, Nature Conservancy, the Farm Bureau, Rotary Charities, the Farmland Preservation Fund Board, Michigan Agricultural Commission, Michigan Township Association, Michigan Food Council, and Michigan Association of Planners are just a few of the organizations actively involved with the LPI. More substantively, through Kellogg PAL funding, MSU is directly resourcing 18 community projects across the state. LPI

funded seven Prosperity teams from across the state earlier this year. Numerous projects are ongoing which involve stakeholders directly.

Strategy 6 is being achieved rapidly (Objective 5). If one googles Land Policy today, LPI website will be the first to come up that is related to an academic institution and the fifth on the list. It comes after such well established non-university organizations as the United Nations, the World Bank, the Lincoln Institute, and the Bureau of Land Management. Finally, in the area of campus wide discourse (Strategy 7), between the numerous seminars that LPI has sponsored, the annual summit, and others, LPI has been very effective. Even in the area of undergraduate and graduate education and the integration of students into the research process (Strategy 8), LPI has directly given grants to faculty to support graduate education, to support undergraduate student and faculty collaboration projects, to develop 5 new courses related to land use.

### ***LPI Vision and Mission Statements***

The Land Policy Program was founded in 2004, is morphed into the Land Policy Institute in 2006. The 2 years of planning and investing in faculty finally led to the creation of the Land Policy Institute in July, 2006 as a separate administrative unit. The following are the Vision and Mission statements of the proposed Land Policy Institute.

#### *Vision Statement*

To shape the future of Michigan and other regions of the world through effective science-based multi-disciplinary innovations and solutions to land related policy problems. LPI will also position Michigan State University as the premier university in land use policy.

### *Mission Statement*

To lead, coordinate, facilitate and marshal the extensive expertise in land use research and education at Michigan State University (MSU) and partner institutions in order to assist stakeholders and policy makers in finding workable and appropriate solutions to land use concerns.

### ***LPI Importance to Michigan and to Michigan State University***

The great care taken to establish the LPI is reflective of how important a mission oriented land use organization is in Michigan. However, several other states are seeking to develop similar infrastructure, it is important to explain the political economy of a land grant-based land use organization. The challenge of such a complex organization is how to keep reminding partners of the importance of the infrastructure. In this section, we explain the value of LPI.

LPI's mission is central to MSU's land grant mission, especially at the current time when state policy makers and others need better tools and information to reposition Michigan's economy, which is seriously lagging behind. MSU is not lacking in faculty expertise, but this needed to be better connected to the real world. The LPI bridges the gap between researchers and stakeholders. By connecting stakeholders with academics, impactful research work is being fostered. The LPI helps faculty to identify pressing policy concerns that can be addressed through sound research and to conduct research in such a way as to inform policy makers without bias.

The benefits to MSU are immense, as will be shown below. MSU has been able to build capacity in an area where there was no strength before. By helping faculty who are not grant productive in pulling proposals together, the base of funding for MSU is expanding. Many

researchers have never written grants before and those who have tend to attract low levels of funding. The growing opportunities for funding multi-disciplinary, inter-disciplinary and integrative research suggests that the strategy of repositioning land use faculty at MSU via program teams will pay off in terms of competitive grants.

MSU is fortunate to have the support and interest of the WKKF in building its capacity in land use. WKKF's goal is to help build MSU's infrastructure from basic research to direct policy and community impact. WKKF funds have allowed LPI to support and form numerous teams and programs on campus which are now poised for next generation competitive funding from federal agencies and other foundations. Example include (1) quality of life group (working on a proposal for competitive funds), (2) active living research group, (3) zoonotic disease group (recently applied to the NSF for a \$1.5 million grant), and (4) ecosystems valuation group (recently applied for a \$250K USDA grant to support a four-department joint fellowship program). These are seeds for teams that will be competitive for grants in the future and give MSU national visibility in land use.

### ***LPI Funding Strategy***

LPI is grounded in both national and state-level priorities. A graduated funding strategy was designed to make the program self sustaining (see Figure 6). Initial projects catalyzed greater MSU visibility in land use policy in Michigan. In the planning phase, two underlying strategies were employed to promote the program's legitimacy to internal and external stakeholders. The first strategy is to define the goals of the program based on identified priorities at the state and national level; the second strategy is to have the goals further defined by stakeholder communities, so that the research and outreach projects meet their perceived



needs. This method will allow the program to secure matching dollars, foster local ownership of individual projects, and build community capacity for land use initiatives at all levels in the state. The team building work would result in strong proposals to national funding agencies.

Central to the conceptualization of the LPI is that it will be a service center to other faculty in focusing research agenda, supporting faculty in team-building, providing grant-writing support to faculty, shepherding faculty grant proposals through Contracts and Grants Administration, and supporting faculty with outreach infrastructure to facilitate connections between their work and the needs of the public. The benefits to departments would be significant, as LPI will support individual faculty in packaging large scale multi-disciplinary grants that will continue to be run through individual departments (projected need for \$2.4 million, see Figure 6). LPI would also champion those large institution-level grants that would bring together faculty from different departments in pursuing funding from NSF, NIH, USDA, NASA, and other sources. Federal funding agencies and others recognize the important national implications of land use for homeland security, conservation, quality of life, obesity and health, climate change, and urban redevelopment and are providing resources with an emphasis on impact, outreach and partnerships.

### **Research Program of the LPI**

The LPI recognized early that its portfolio of research must involve three types. First, is research to be conducted by faculty in their departments as individuals or as part of teams facilitated by LPI. Second, research by faculty teams, brought together from across universities. Third, gap filling research conducted internally under the leadership of the Hannah Professor, but in conjunction with faculty.

### ***LPI Internal Research***

The Hannah Professor research program is designed to be the more-responsive part of MSU's land use infrastructure. On one hand, it attempts to focus on the more risky frontier topics of state and national relevance, but issues that others would likely not address. On the other hand, it attempts to be responsive to pressing state needs. The following is a list of projects conducted by the LPI internally. It is important to note that all projects listed were not commenced until 2004, when the Hannah Professor came to MSU. While some have been completed, others are still ongoing:

#### *Commerce Centers (Completed)*

This study analyzed the feasibility of the "Commerce Center" concept for Michigan by providing information on a number of demographic, economic and social criteria to assist in the designation of a "Commerce Center". Michigan legislature is currently reviewing a bill that would develop "Commerce Centers" in Michigan to promote location-based economic development strategies.

#### *Density Impact on Infrastructure Costs (Completed)*

This study compared single-family residential developments to evaluate the implications of alternative housing densities for infrastructure costs (water pipes, sewers, and roads). Results demonstrate the efficacy of density. The team consisted of faculty from MSU, Wayne State University (WSU) and CUIRE.

#### *Strategy for Agricultural Resiliency in Michigan (Completed)*

This policy project analyzed Michigan farmland in terms of current viability and future resiliency. Farmland acreage in each county was scored using 22 measures of viability and

resiliency, including agro-ecological features, economic features, social features, and land use factors. This initiative outlines eight scenarios for preserving the most valuable and vulnerable farmland in the state. The project team was from MSU.

*Alternative Funding Sources for Farmland Preservation (Completed)*

This project analyzed 20 state taxes and fees that could be changed to provide additional funding for farmland preservation. Study findings influenced the decisions of key state committees.

*Equity Insurance and Mortgage Programs for Farmland Preservation (Completed)*

LPI pioneered the concepts of Equity Insurance and Equity Mortgage programs. These programs would use a method that allows the state to preserve farmland now, but spreads payments out over time. These new methods would save the state money (approximately 40% for Equity Insurance and 47% for Equity Mortgage). The project team was from MSU.

*Innovation Fund for Agriculture in Michigan (Completed)*

This project studied the innovation pipeline and recommends the promotion of entrepreneurship in agriculture by developing a public/private innovation fund for agriculture. An estimated \$1 million per year is needed to strengthen existing infrastructure, such as the MSU Product Center for Agriculture and Natural Resources, and to establish the Innovation Fund.

*Michigan Aerial Imagery Partnership - MAIP (Completed)*

Michigan lacked a comprehensive, high-resolution imagery for the entire state. The last one available was obtained in 1978. LPI led the creation of MAIP - a partnership of seven state agencies. MAIP negotiated the funding, selected the contractor and has acquired critical statewide aerial imagery for the first updating of statewide land cover/land use data since 1978.

The MSU Land Policy Institute successfully brokered a \$1.2 million deal on behalf of the Partnership with the U.S. Farm Service Agency's National Agriculture Imagery Program (NAIP) who contributed \$800,000.

*Smart Growth Readiness Assessment Tools (Completed)*

This project provided local government officials, developers and other citizens an on-line, self-help evaluation tool to rate how well their community is doing on a smart growth matrix. This project was developed by the internal LPI team.

*State of Michigan Cities Report (Completed)*

This project evaluated the condition of Michigan's cities, in contrast to their respective metropolitan areas and to each other. Since its release, the study has received state wide attention and team members have made presentations to committees and state agencies. The multi institutional project team came from MSU, GVSU, and WSU.

*Strategic Growth in the Lansing Metro Region (Completed- undergraduate project)*

This undergraduate team based project featured a group of nine students in a course on land use change, decision-making and policy. This course was taught by Dr. Soji Adelaja, Director of LPI and Dr. John Warbach of PZC at MSU. Students worked with regional leaders from the Greater Lansing Area to investigate and document the strategic natural resource, human resource and capital assets of the Lansing Region. They made recommendations on how strategic assets could be used to foster sustainable growth.

*Takings and Land Use (Completed)*

This project studied the down-zoning process using a logit political economy model. Three leading determinants of the choice of down-zoning are growth pressures, inability to

mobilize farmland preservation funds, and declining political clout of the farm community. The project was led by the Hannah Professor.

*Down Zoning Impact on Property Values (Completed)*

This project studied the effects of down zoning (large lot zoning) on the values of residential properties in the same community. Demonstrating that home owners gained approximately 6% in property value by down zoning, the study revealed that one of the motivations for down zoning agricultural lands may be the windfall to the dominant majority (non-farmers) in the suburban environment.

*Economic Impacts of Conserving Natural Resource (Ongoing)*

This project aims to estimate the economic value of natural resources provided by public lands in inland lakes. An internal MSU team is executing this project.

*Schools and Land Use (Ongoing)*

This study analyzes the relationship between schools and land use, including the impact planning and zoning may have on the potential of a school district to bring in revenue, as well as an investigation into optimal lot size/optimal density for a sustainable student population. The project team includes disciplines such as education, geography, and political science from MSU, WSU, Eastern Michigan University (EMU), and the University of Michigan (U of M).

*Public Opinion and Preferences for Cities (Ongoing)*

The project analyzed the socioeconomic factors and attitudes that influence public preferences for cities in Michigan. The study indicated that metropolitan land use issues need to be approached from a broad perspective that includes perceptions of individuals who do not live in cities. Project partners were from MSU.

*Public Opinion and Preferences about Land Use and Sprawl (Ongoing)*

The project analyzed the socioeconomic factors and attitudes that influence public preferences for housing, housing characteristics, lot size and land consumption in Michigan. The study provides critical information about personal and attitudinal factors and their contributions to sprawl. Project partners were from MSU.

*Public Spending and Sprawl (Ongoing)*

The project mission is to conduct a detailed study that determines the degree to which state policies and programs are likely to have the unintended consequence of promoting sprawl. Project partners include the LPI, Public Sector Consultants, and the Michigan Land Use Institute.

*Picture Michigan Tomorrow (Ongoing)*

The initiative attempts to build a multidisciplinary team at MSU to develop and maintain new models of Michigan's land use future. The Picture Michigan Tomorrow (PMT) team is currently: developing statistical and spatial analysis of the primary socioeconomic drivers of land use change in Michigan. The project team consists of multi-departmental and mutli-college members.

*Options and Tools for Intergovernmental Cooperation (Ongoing)*

This study examines the possibility that cooperation and consolidation could positively reduce the costs of public service. The project consists of three platforms focused on addressing the issues of what is necessary for cooperation / collaboration to occur, investigating the fiscal issues and considerations that need to be accounted for, and addressing what issues are necessary to maintain cooperation/collaboration. The project takes a look at such services as Dispatch

Centers, Planning and Zoning, and Fire protection, and Property Assessment. The project team came from MSU, WSU, U of M, EMU, and Regional Think-tanks and coalitions.

*Fiscal Impacts of Alternative Land Uses (Ongoing)*

This project evaluates the municipal tax revenues and costs associated with various alternative land uses. It looks at FIA at the County level for all of Michigan. Results will be used to create a web based tool for Michigan communities. The project team is internal to LPI.

*Metropolitan Case Studies (Ongoing)*

This initiative found the Michigan Higher Education Land Policy Consortium (MIHELP) as the focal point for metropolitan issues research. This partnership between MSU, GVSU and WSU is yielding results.

*Data Democratization (Ongoing)*

The goal of this programmatic area is to update and unify information on land use and land cover change at all relevant scales for the state, and to pursue specific analysis from such data that would improve decision making. This project will both serve as a foundation for other projects as well as help democratize data for those engaged in planning throughout the state. We are gathering a 30 year database that includes both statistical and spatial data to enable research and decision making.

*Land Use and Quality of Life (Ongoing)*

This projects goal is to enhance the understanding of quality of life and the factors that contribute to it. The project partners include faculty from several departments, Wayne State University, Extension Educators, and relevant community groups in Detroit.

### ***Ongoing Research Projects Funded by LPI Grants and Teams Facilitated by LPI.***

Critical to LPI's strategy is to invest in capacity building projects that will achieve multiple objectives: 1) target grant-inactive faculty for capacity building support to get them used to the grant writing process, 2) seed the creation of multi disciplinary teams, 3) support the implementation of research projects that are connected to outreach and that relate to stakeholder needs, 4) provide proof of concept opportunities that are foundational to competitiveness to external funding, and, 5) build connections to stakeholder communities.

Since 2004, LPI has funded three rounds of a campus wide grant initiative designed to energize MSU's land use faculty and community. This is consistent with the LPI mission of being a leader, coordinator, and integrator. As a result, well over 100 projects are ongoing at MSU in critical thrust areas of LPI. The LPI internal grants initiative was designed to be phased out after 3 years and to be replaced by an increasing array of support infrastructure to help faculty transition from internal funding to external grants.

The following represent ongoing funded projects (and teams) at Michigan State University (MSU), Grand Valley State University (GVSU), University of Michigan (U of M), and Wayne State University (WSU). The expansion of the program to our sister universities is consistent with the goal set by the KLPG to foster cross university collaboration to enhance the competitiveness and its partners in land use. By thrust area, these projects are listed below.

#### *Revitalizing Michigan Cities*

- *Impact of Genesee County Land Banking on Local Property Values, Property Tax Revenues, and Redevelopment Opportunities.* Patricia Norris, Agricultural Economics, MSU.
- *Creating and Measuring Success in Michigan's Cool Cities.* June Thomas, Urban and Regional Planning, MSU.



- *Can Small Towns Be Cool?* Dave Ivan, Clinton County MSUE.
- *Demographic Trends, Infrastructure, Spending, and their Relationship to Urban Sprawl in Grand Rapids, Lansing, and Detroit Metropolitan Areas.* Joe Darden, Geography, MSU.
- *The Use of Tax Increment Financing for Neighborhood Revitalization.* Gary Sands, Geography, WSU.
- *Understanding Michigan's Laws Which Challenge Attempts to Renew or to Preserve Michigan's Older Cities; and Recommending a New Legal and Governing Model for Local Governments.* Heidi Bulich, Construction Management/College of Business, MSU.
- *Building Saginaw into a "Cool City" Through the Addition of a Part-Time Extension Community Development Agent.* Mike Kovacic, Saginaw County MSUE.
- *Refinement and Synthesis of Sewer Infrastructure Cost Analysis for the City of Grand Rapids.* Mohamed Najafi, Center for Underground Infrastructure Research and Education, MSU.
- *Revitalization of Michigan Cities by Proactive Requirements for Buried Infrastructure Inventory, Condition Assessment, Rehabilitation, Special Use, and Decision Making.* Mohamed Najafi, Center for Underground Infrastructure Research and Education, MSU.
- *Facilitating Safer and Healthier Lansing Communities through Treatment of Physical Disorder.* Christopher Maxwell, School of Criminal Justice, MSU.
- *Priming the Pump: Assessing the Impact of Public Investment in Brownfield Redevelopment.* Rayman Mohamed, Geography and Urban Planning, WSU.
- *Central-City Neighborhood Rebound? A Preliminary Examination of Changes and Benchmarks.* June Manning Thomas. Urban and Regional Planning Program, MSU.

#### *Land Use Data and Informatics*

- *Methodology for Land Use and Land Cover Mapping Interim Report.* Jessica Moy, RS&GIS, MSU.
- *The Michigan Land Change Model Workshop: Building a Foundation for Modeling Land Change in Michigan.* Patricia Machemer, Urban and Regional Planning, MSU.
- *Influencing Land Use Perceptions, Attitudes, and Behaviors of Middle School Minority Citizens Through Design Charrettes.* Patricia Machemer, Urban and Regional Planning, MSU.

- *Exploring the Relationship of Recreation Participation on Residents' Perception of Quality of Life.* Dwayne A. Baker, CARRS, MSU.
- *Predicting Environmental Quality with GIS Based Land-Use Data: An Old Mission Peninsula Case Study.* Jon Burley, Landscape Architecture, MSU.
- *Scanner Acquisition to Facilitate Historic Aerial Photo Digitization.* Robert Goodwin, RS&GIS, MSU.
- *Develop a WSU Faculty Land Use Database.* Gary Sands, Geography and Urban Planning, WSU.
- *Comparative Community Development in the United States and Romania.* Roger Hamlin and Eric Strauss, School of Planning Design and Construction, MSU.

#### *Creating Healthy Communities*

- *Accessibility, Non-Motorized Travel, and Obesity by Income, Race, Age, and Gender: An Inner-City/Suburb Comparison in the Lansing Capital Region.* Igor Vojnovic, Geography, MSU.
- *Measuring the Impact of Community Design on Health in Michigan.* Patricia Machemer, Urban and Regional Planning and Christine Vogt, CARRS, MSU.
- *Chene-Ferry Community Market: A Special Project Grant Proposal for Creating Healthy Communities.* Michael Score, Washtenaw County MSUE.
- *Health Impact Assessment: Tool for Planners in the Capital Area.* Ellen Bassett, Urban and Regional Planning, MSU.
- *Improving Inter-modal Surface Transportation on the Urban Fringe: A Case Study Using the Old Mission Peninsula.* JoAnne Westphal, Landscape Architecture, MSU.
- *Promoting Healthy Environments Through Application of LEED Site Planning Standards to Cold Climate Institutional Settings.* Tim Mrozowski, Construction Management, MSU.
- *Development of a New Class, "Geospatial Technologies for Recreational Open Space Planning and Management".* Sarah Nicholls, CARRS and Geography, MSU.
- *Creating Healthy Communities by Integrating Health into Planning Practice: A Proposal to Support Outreach Education and Applied Research by the Land Use and Health Resource Team.* Ellen Bassett, Urban and Regional Planning Program, MSU.

- *Designed to Move! Active Community Design Guidelines for Michigan.* Katherine Alaimo, Food Science and Human Nutrition, MSU.
- *Assessing the Accessibility and Equity of Grand Rapids Parks.* Sarah Nicholls, CARRS and Geography, MSU.

#### *Market Solutions to Land Use Problems*

- *The Impact of the BEA Process on Redevelopment.* Richard Hula, Political Science, MSU.
- *Improving Land and Property Market Intelligence to Assist Inner-Suburban Revitalization: Development Opportunities Database.* Robin Boyle, College of Urban, Labor and Metropolitan Affairs, WSU.
- *Non-Market Values and Demand for Market-Mechanisms for Great Lakes Coastal Wetland Preservation and Restoration.* Michael Kaplowitz, CARRS; Frank Lupi, Agricultural Economics/Fisheries and Wildlife; John Hoehn, Agricultural Economics, MSU.
- *Non Market Valuation and Public Trade-Offs for Great Lakes Coastal Wetland Preservation and Restoration.* Michael Kaplowitz, CARRS, MSU.
- *Raising the Cost-Effectiveness of Land Conservancy Acquisitions.* John Kerr, CARRS, MSU.
- *Carbon Sequestration and Land Policy in MI.* John Kerr, CARRS, MSU.

#### *Legislative Policy Education*

- *Land Use and Equity Impacts of Michigan's PA 198 Tax Abatement Legislation.* Gary Sands, Geography and Urban Planning, WSU.
- *Informing the Debate: Key Issues in Land Use in Michigan.* Brian McGrain, IPPSR, MSU.
- *A Study of the Efficacy of Michigan's Incentives for Brownfields Redevelopment.* Rayman Mohamed, Geography and Urban Planning, WSU.
- *Assessing the Effects of Michigan's 1999 Property Tax Foreclosure Reform.* Margaret Dewar, Urban and Regional Planning Program, U of M.
- *Natural Resource Conservation Training Module.* John Paskus, MNFI, MSUE.

### *Sustaining Water and Natural Resources and Related Industries*

- *Modeling the Cumulative Effects of Aspen Management Practices on Wildlife Species, Communities, and Habitat Suitability at Multiple Spatial Scales.* Henry Campa III, Fisheries and Wildlife, MSU.
- *Natural Resource Land Use Ordinances: A Case Study of Woodlands Ordinances in Michigan.* Larry Leefers, Forestry, MSU.
- *Integrating Ecological, Economic and Social Dimensions for Sustainable Management of Michigan's Jack Pine Resource.* David Rothstein, Forestry, MSU.
- *Deer and Vegetation in Working Forests: Evaluating Herbivory and Sedge Competition Effects on Vegetation Dynamics and Testing Possible Restoration Treatments.* Michael Walters, Forestry, MSU
- *Development of the Eastern Upper Peninsula Trail Network.* Jim Lucas, Chippewa County MSUE.
- *Computational Computer for the Quantitative Analyses and Visualization of Pore Networks within the Soil Matrix.* Alvin J.M. Smucker, Crop and Soil Sciences, MSU.
- *Deer and Vegetation in Working Forests: Evaluating Herbivory and Sedge Competition Effects on Vegetation Dynamics and Testing Possible Restoration Treatments.* Michael Walters, Forestry, MSU.
- *Driving Factors Associated with Fragmentation and Parcelization in a Developing Michigan Landscape.* Larry Leefers, Forestry, MSU.
- *Modeling Socioeconomic Data Sources and Land use Coefficients to Estimate Impervious Surfaces for Non-point Source Pollution Watershed Monitoring.* Jessica J. Moy, Geography, Remote Sensing and Geographic Information Science, Research and Outreach Services, MSU.
- *Contested Community Landscapes: Mitigating Natural Resource Conflict Between Culture and User Groups in Michigan.* Diane M. Doberneck. Community & Economic Development Program & Bailey Scholars Program, MSU.
- *Collaborative Identification of Research Priorities on the Effects of Prescribed Fire in the southern Lake States.* Gary Rolloff, Fisheries and Wildlife, MSU.
- *Youth Sense of Pace and Land Policy Engagement.* Shari L. Dann, Fisheries and Wildlife, MSUE.

### *Planning and Coordination in Land Use Decision Making*

- *Resolving Land Use Issues When Sitting Wind Turbine Towers in Michigan.* Michael Klepinger, Fisheries and Wildlife, MSU.
- *Assisting Michigan Counties and Local Governments in Conservation Planning.* Patrick Brown, Michigan Natural Features Inventory, MSUE.
- *Montcalm County Build-Out Analysis Study.* Patricia Macheimer, Landscape Architecture, MSU.
- *Assessing the Relationship between Local Officials' Knowledge and Local Planning Outcomes in Coastal Michigan Communities.* Richard Norton, Urban and Regional Planning, U of M.
- *Regional Conservation Lands Needs Assessment for Genesee, Lapeer, and Shiawassee Counties.* Christine Vogt, CARRS, MSU.
- *Coordinating Community and Economic Development: Weighing competing claims shaping the northern Michigan Landscape.* Susan Applegate Krouse, Anthropology, MSU.
- *Exploring State Enabling Legislation Permitting Interjurisdictional Agreements on Land Use Issues.* Ellen Bassett, Urban and Regional Planning Program, MSU.
- *Grand Walk Sustainable Community Plan.* Rick Chapla, Urban Redevelopment, The Right Place, Inc.
- *Integration of Natural Resource Data in Local Land Use Planning.* Ger Schultink and Jennifer Olson, CARRS, MSU.
- *Creating Cool Cities by Building Great Neighborhoods: Publishing a Manual on Neighborhood Planning and Distributing to Urban Core Cities in Michigan/United Growth Expansion Manual.* Carol Townsend and Lynn Vecziedins Urban Collaborators, MSUE.

### *Citizen Empowerment and Education*

- *Online Education: Utilizing GIS and Spatial Data for Natural Resource Assessments and Problem Solving.* Laura Bruhn, Institute of Water Research, MSU.
- *Empowering the Public to Make Informed Land Use Decisions by Using Geographic Information Systems in Journalism.* Dave Poulson, Journalism and Jessica Moy, Remote Sensing and Geographic Information Science, Research and Outreach Services, MSU.

- *Getting Land Use Information in the Heads and Hands of Kent County Residents.* Kendra Wells, Kent County MSUE.
- *3-D Computerized Community Design Visioning.* Pat Crawford, Landscape Architecture, MSU.
- *Computer Equipment Upgrade.* Phil Davis, Victor Institute, MSU.
- *Laptop computer, docking station, monitor, software.* David Poulson, Knight Center for Environmental Journalism, MSU.
- *3-D Design Graphics Computer for Community Visioning.* Pat Crawford, Landscape Architecture, MSU.
- *Sustainable Development Design for Livingston County: Integrating Conservation Design and Low Impact Design.* Glen Pape, Livingston County MSUE.
- *Opening a Well Informed Dialogue on the Land Use Issues Facing Hillsdale County Michigan.* Marc Williams, Hillsdale County, MSUE.
- *Land Use Educational Access Project.* Mary Ann Heidemann, Arenac County, MSUE.
- *Land Use Education Outreach Program Presentation Equipment Research and Outreach Grant.* Kurt Schindler, Wexford County, MSUE.
- *The Development of a Sustainability Strategy for the City of Muskegon and its Urban Area.* John Koches, Annis Water Resources Institute.
- *Developmenter Training Institute.* Donna Wilson, Traverse City Area Chamber of Commerce New Designs for Growth.
- *GATI Speaker Series/Seminar.* Mike Kaplowitz, CARRS, MSU.

### ***Faculty Grantsmanship Capacity Building***

Since the launching of the 2004-2005 Grants Initiative, LPI program coordinators have assisted departments and units across campus in developing proposals for external competitive grants. LPI has collaborated with faculty and staff from 10 units across campus to do this. LPI

is monitor MSU Contracts and Grants Administration data in an effort to document the number of external competitive grants submitted by land use and land policy faculty.

### *Teams Pulled Together*

An important part of LPI's responsibility is to provide leadership in pulling teams together around projects. This is a strategic long term goal and activities in this area are designed to grow as LPI phases out its internal grants program. Approximately 30 teams have been brought together.

### *LPI External Grant Proposals Submitted.*

A minimum of \$4.4 million has been attracted to the university as a result of these efforts.

- Urban and Regional Planning, Food Science and Human Nutrition, Public Sector Consultants, Land Policy Program joint proposal to *Robert Wood Johnson Foundation, Active Living Program* \$199,998
- Agricultural Economics, Fish and Wildlife, Center for Global Change and Earth Observations, Center for Computation Ecology and Visualization Laboratory, Michigan Higher Education Land Policy Consortium pre-proposal to *U.S. Forest Service, National Urban and Community Forestry Advisory Council* \$288,192
- Citizen Planner Program, Fish and Wildlife, MSU Extension joint proposal to *National Fish and Wildlife Foundation Great Lakes Watershed Restoration Grants Program* \$188,200
- Picture Michigan Tomorrow Initiative, Remote Sensing and Geographic Information Science, Michigan Natural Features Inventory, Center for Computational Ecology and Visualization Laboratory to *United States Geological Service, National Spatial Data Infrastructure Cooperative* \$41,234
- Agricultural Economics, Forestry, Urban and Regional Planning, Wayne State University Geography and Urban Planning, Land Policy Program, proposal to *MSU Office of the Vice President for Research and Graduate Studies, Strategic Partnership Grant* \$870,000
- Michigan Department of Community Health, Picture Michigan Tomorrow Initiative, Fish and Wildlife, two other universities, joint proposal to *National Science Foundation, Ecology of Infectious Disease*. \$1.5 million

- Agricultural Economics, Center for Computational Ecology and Visualization Laboratory, Center for Global Change and Earth Observations joint proposal to United States Department of Agriculture \$510,000
- Agricultural Economics, Community, Agriculture, Recreation and Resources Studies, Fisheries and Wildlife, James Madison College, joint proposal to United States Department of Agriculture, Food and Agricultural Sciences National Needs Graduate and Postdoctoral Fellowship Grants Program \$229,500
- LPI, Citizen Planner Program, MSU Global, joint proposal to the W.K. Kellogg Foundation. \$199,950
- LPI Michigan Higher Education Land Policy Consortium, Planning Design and Construction, joint proposal to the W. K. Kellogg Foundation. \$199,500

### *Proposals Being Worked On*

LPI is currently working on proposals totaling approximately \$8.8 million.

- Henry Jackson Foundation – Grant money to facilitate a national speaker and related publicity and outreach for a national conference in metropolitan affairs to be hosted in Detroit in September 2007. This will coincide with the publication of six to eight papers coming from the consortium’s call for papers later this month.
- Sloan Foundation – Integrating mobile telephone technology in governmental service and citizen evaluation. This grant will allow for unused cell phones to be recycled in an effort to expand mobile government to low-income residents and allow them to evaluate said services. A demonstration project with 500 telephones is scheduled for Lansing.
- Kresge Foundation Green Building Grant – Planning grant for the Lansing Public School system to convert its Beekman Center for physically and developmental handicapped students to a green roof building.
- Mott Foundation – Creation in conjunction with MSU’s Department of Education a series of parallel after school programs for both children and parents in Flint for whom English is a second language.
- Sloan Foundation – Higher Education as an Industry. In conjunction with Rex LaMore, LCC, and Prima Civitas and series of training programs for displaced autoworkers to facilitate the transition to bio-based industries. This grant builds directly upon the EDA project with many of the same partners.
- Hudson-Weber Foundation – This grant will examine community and faith-based urban housing development programs and design new outreach strategies that will facilitate public-



private cooperation in low-income housing construction. This grant is designed in concert with the following Kresge Grant.

- Kresge, Detroit Initiative – Predatory Lending, Redlining, Alternative Mortgage Lending programs and how they effect access to housing and homeownership in Detroit as a function of neighborhood stabilization.
- Skillman Foundation – Detroit After School Programs focusing on minority and disadvantaged youth with a substantial university outreach component.

### **Outreach Capacity Building Initiatives**

Consistent with the KLPG set goal of building strong stakeholder relations for the dual purposes of enhancing input into the project development process and improving the relevance of MSU policy research to key stakeholder groups, LPI has worked very hard to build and nurture strong relationships with diverse external stakeholder groups and other organizations to advance Michigan’s efforts in the area of land use. This section summarizes some of these activities.

#### ***Build relationships with numerous organizations***

The Following Activities are designed to better connect MSU faculty and the LPI to diverse stakeholders.

- The LPI advisory Board membership includes some of the most powerful organizations in Michigan.
- LPI’s weekly e-newsletter delivers timely news about events, honors, recognitions, achievements, opportunities, and other information about both LPI activities and those of our partners, affiliates, and stakeholders to a diverse community in Michigan.
- The quarterly People and Land (PAL) newsletter similarly reaches thousands of land use stakeholders in Michigan.
- The monthly Planning and Zoning News is one of the best subscribed newsletters in planning and zoning nationwide.

- The Citizen Planner Program “Directions” newsletter reaches hundreds of Citizen Planner graduates and thousands of local units of government in Michigan.
- LPI and its component programs collaborate regularly with numerous and varied organizations to deliver workshops, seminars, and conferences on an array of land use topics to reach a broader audience and to better focus our collective efforts.
- LPI new web site will be launched soon.
- Associates with the Planning & Zoning Center at MSU have worked closely with two committees of the State Legislature this past year to provide technical resource expertise in the consolidation of all three zoning and all three planning enabling acts.
- PZC works with many other involved groups and is a trusted resource.
- For internal research efforts, and projects for which LPI partners with other departments, advisory committees of relevant stakeholder group representatives are brought in at the beginning, middle, and end of the project.
- For farmland preservation and agricultural viability studies, the project teams recruited stakeholder groups from various farm organization in the state.
- For urban revitalization projects, the Michigan Economic and Environmental Roundtable (MEER) provided feedback on project objectives, methods, and messaging.
- Through project work, LPI has developed relationships with numerous organizations, including CRC, CEMCOG, Michigan Suburbs Alliance, (PSC, Plante Morane, State Police-Dispatch Centers, and others.
- On campus, LPI has also furthered its relationships with many departments and individuals.
- LPI has built a network, fostered through joint project work, of university faculty from outside MSU, that are now partnering with LPI. Examples of non-MSU faculty engaged include Mike Addonizio (Wayne State), Joe Ohren (Eastern Michigan), Dick Norton (University of Michigan), Jared Carr (Wayne State University), Liz Gerber (University of Michigan), Paul Courant (University of Michigan), Rahman Mohammad (Wayne State), Robin Boyle (Wayne State), Gary Sands (Wayne State), Rich Jelier (Grand Valley), John Coches (Grand Valley), Tim Bartik (Upjohn Institute), Paul Gottlieb (Rutgers), and Jeff Horner (Wayne State) .
- MIHELP has worked with numerous organizations, including the Tri-County Regional Planning Commission, the RED Team and other local organizations, to generate both its and the Institute’s outreach capacity.

- MIHELP has coordinated a conference in Grand Rapids with the Grand Valley Metro Council and has assisting the Lansing School District with its strategic planning initiative examining transportation patterns and school catchment areas.

***Hired Regional Land Policy Educators (co-funded with local funds and foundation support)***

With the proliferation and complicated nature of land use problems, current land use programs often lack the capacity to sufficiently meet the needs of citizens in every corner of the state. LPI secured funding to hire four new Land Policy Educators (LPEs) to assist current land use programs in achieving land use education and facilitation at the local and regional levels. St. Joseph County, Hillsdale and Lenawee Counties, the Tri-County region, and Muskegon County make up the current LPE network. More LPEs may be added to this network in the future to enhance the preliminary success of the program.

***Stabilize Funding for United Growth for Kent County and Initiate United Growth of Michigan***

The United Growth for Kent County program gathers stakeholders in rural and urban communities and unites them in a coalition that deals with cross-boundary land use issues. The development of a manual that would allow other communities to replicate the urban-rural model has presented an opportunity for further funding. This effort is meant to leverage the success of the county program to a statewide program: United Growth for Michigan.

***Expanding Expertise by Attracting the Planning & Zoning Center to MSU***

LPI attracted the Planning and Zoning Center (PZC), a premier land use research group, to MSU. This expands our depth in planning and zoning research and outreach.

***Worked with Various State Legislative Committees***

LPI staff have delivered numerous testimonies to legislative committees, including the Michigan Senate Committee for Labor and Commerce, the Michigan Senate Committee on

Local, Urban and State Affairs, the Department of Labor and Economic Growth Leadership Team, the Michigan State Housing Development Authority, amongst others.

### ***Funded Various Extension and Outreach Projects***

Many LPI funded projects have been led by Extension agents. Information related to these projects has already been provided in the Ongoing Research Projects Funded by the LPI. The following is a summary of those projects:

- *Can Small Towns Be Cool?* Dave Ivan, Clinton County MSUE.
- *Building Saginaw into a “Cool City” Through the Addition of a Part-Time Extension Community Development Agent.* Mike Kovacic, Saginaw County MSUE.
- *Chene-Ferry Community Market: A Special Project Grant Proposal for Creating Healthy Communities.* Michael Score, Washtenaw County MSUE.
- *Natural Resource Conservation Training Module.* John Paskus, MNFI, MSUE.
- *Development of the Eastern Upper Peninsula Trail Network.* Jim Lucas, Chippewa County MSUE.
- *Youth Sense of Pace and Land Policy Engagement.* Shari L. Dann, Fisheries and Wildlife, MSUE.
- *Assisting Michigan Counties and Local Governments in Conservation Planning.* Patrick Brown, Michigan Natural Features Inventory, MSUE.
- *Creating Cool Cities by Building Great Neighborhoods: Publishing a Manual on Neighborhood Planning and Distributing to Urban Core Cities in Michigan/United Growth Expansion Manual.* Carol Townsend and Lynn Vecziedins Urban Collaborators, MSUE.
- *Getting Land Use Information in the Heads and Hands of Kent County Residents.* Kendra Wells, Kent County MSUE.
- *Sustainable Development Design for Livingston County: Integrating Conservation Design and Low Impact Design.* Glen Pape, Livingston County MSUE.
- *Opening a Well Informed Dialogue on the Land Use Issues Facing Hillsdale County Michigan.* Marc Williams, Hillsdale County, MSUE.

- *Land Use Educational Access Project.* Mary Ann Heidemann, Arenac County, MSUE.
- *Land Use Education Outreach Program Presentation Equipment Research and Outreach Grant.* Kurt Schindler, Wexford County, MSUE.

### ***Direct Assistance to the Governor's Office***

LPI Director and staff have been a direct resource to the Office of the Governor. LPI's four farmland preservation projects were a direct response to a request made by the Governor's senior staff. LPI participated in/assisted with several governor's task forces, including the Task Force on Local Government Services and Fiscal Stability and the Dispatch Centers Fiscal Stability group, as well as in development of the Centers for Regional Excellence program.

### ***Expanded Funding for Citizen Planner Program***

The Citizen Planner Program (CPP) is a successful initiative of MSU Extension, with over 15,890 participants to date. It has recently launched the Online Citizen Planner program, added the American Citizen Planner concept, the Smart Growth Readiness Assessment Tools project, expanded ongoing fundraising activities, and new activities to market CPP. Expanded funding for CPP has also enabled the following activities:

- Launched Master Citizen Planner Continuing education program in partnership with MTA, MML, MAP, MAC. First voluntary continuing education program for appointed officials.
- Launched the Citizen Planner Online, Master Citizen Planner, and Junior Citizen Planner.

### ***Implemented the Online Citizen Planner Initiative***

With new funding from the WKKF totaling over \$500,000, the Citizen Planner Online program consists of seven modules comprising forty-two units, representing over 100 hours of

education, of directed online learning. Each module is designed to provide a comprehensive learning experience, for new planning officials or experienced professionals.

### ***Implemented a Legislative Education Program***

As part of a multi-year initiative, this program enables us to translate the results of relevant MSU and LPI-funded land use research in practical and concise ways to regularly inform the ongoing land use discussion for policymakers. The program involves sponsoring legislative forums and policy briefings for Michigan legislators and their staff, providing fact sheets to the same audience in a timely way, and hosting a grassroots conference.

### ***Sponsored and Co-sponsored Conferences and Workshops across the State***

The LPI has sponsored and cosponsored a number of conferences and workshops across the state. The Land Use Summit, hosted by LPI, provides a backdrop for more than two dozen individual land use presentations. LPI staff attend stakeholder functions throughout the year to convey the scope of their work, LPI mission and goals, recent accomplishments, opportunities for collaboration, relevant research, and to learn more about our stakeholders' goals and needs.

The following is a list of sponsored events:

- Michigan Suburbs Alliance 2005 Annual Conference where the first “Redevelopment Ready” communities programs were unveiled.
- Michigan *Land Use Summit*, a statewide land use conference for academics, stakeholders, and policy makers. It attracted over a 1,000 participants in 3 years. The 2006 Summit kicked off the LPI's prosperity team initiative.
- Convened an *Agricultural Innovation Workshop*, along with the MSU Product Center for Agriculture and Natural Resources.
- Organized stakeholders from a variety of backgrounds to discuss Commerce Centers legislation. Participants, including the Michigan Land Use Leadership Council and the

Michigan Economic and Environmental Roundtable, who agreed on a set of goals that were passed along to the Michigan Senate Committee for Labor and Commerce.

- Helped bring together the 2006 Growing Communities Conference, where the Director of LPI presented on LPI's activity and engagement model "Michigan Universities Partnering Around Land Use Policy."
- Partnered with Michigan Farm Bureau, the Michigan Townships Association, and the Michigan Department of Agriculture to hold the *2006 Planning for Agriculture Conference*.
- Given numerous presentations about its farmland preservation and agricultural viability work to stakeholder groups.

### ***Delivered at Training Sessions Across the State***

In 2006, Planning and Zoning Center staff has conducted over 36 training programs to over 2400 participants across the state. Programs were focused on issues such as the new Michigan Zoning Enabling Act, PA 110 of 2006, access management, basic planning and zoning issues, and local selected topics, and targeted group such as the Michigan Association of Planning, the Michigan Dept. of Environmental Quality, MDOT personnel, and programs for local government groups.

### ***Community Planning, Implementation & Capacity Building Projects through PAL Investments***

MSU is building new connections to trade associations, statewide organizations, regional groups, and community groups through our newly designed People and Land (PAL) program, supporting groups and projects across the state.

### ***PAL-LPI Community Grants***

This program builds on PAL's history of investments in community projects. The community re-grants program was redesigned to focus on more integrative and more potentially

sustainable projects that are catalytic of community teamwork. Details of LPI's community grants are provided in Table 2. Supported teams/projects this year include:

- The Michigan Land Use Institute, Rotaries Charities, Traverse Region Chamber of Commerce and others. The team is leading a regional transportation planning program for the Traverse Bay region (this has leveraged MDOT funds and will leverage \$3 million in federal funds).
- The Michigan Suburbs Alliance (MSA), who is partnering with communities in Southeast Michigan to plan for and implement a regional transit system (a priority for the Governor).
- The creation of "Michigan Now", a new radio show focused on land use (it has featured MSU faculty and state leaders).
- The Heart of the Lakes (HOL). HOL is partnering with MSU researchers to implement an inland lakes economic valuation program that will impact on Michigan conservancies.
- The Detroit NAACP which is building a regional Smart Growth leadership program.
- The American Farmland Trust (AFT), which is involved in capacity building for Agricultural Preservation Boards in Michigan.
- The Michigan Chamber of Commerce (MCC) which is leading discourse about sustainable economic development in the state.
- The Michigan Trails and Greenways Alliance (MTGA). The MTGA is now working on "Connecting Michigan: Planning for the Future of Michigan's Trail System".
- The Michigan United Conservation Clubs (MUCC) which is investing in the potential of small private forests.
- The Traverse City Area Chamber of Commerce (TCACC). The TCACC is implementing a new sustainable development training program for developers and planners.
- The Otsego County Economic Alliance (OCEA). The OCEA is implementing a new Growth Management Initiative for Ostego County.

LPI's new PAL program has allowed MSU to implement programs through other partners:

(1) West Michigan Strategic Alliance, (2) Michigan Association of Planning, (3) Grand Valley



Metropolitan Council, (4) Northern Initiatives, (5) National Wildlife Federation, and the (6) Huron River Watershed Council. This year, we funded 18 of these projects across the state.

### ***PAL-LPI Higher Education Grants***

LPI's higher education capacity building grants, funded through PAL investments, have allowed MSU to play a leadership role in land use in Michigan Higher Education. Twelve projects were funded under this initiative, with resources going to MSU, WSU, GVSU, UofM faculty, as well as organizations across the state. Higher Education grants are listed in Table 3.

### ***PAL-LPI Higher Education – Community “Hybrid” Grants***

To facilitate integration between university based research and community partners, the LPI has been able to support seven hybrid grants, utilizing WKKF PAL funds, that co-fund higher education and community partners. Organizations such as the Heart of the Lakes, Michigan Land Use Institute, Huron River Watershed Council, Michigan Trails and Greenways Alliance and the National Wildlife Federation involved in participatory research with MSU faculty. A list of community recipients and their university partners is provided in Table 4.

### ***PAL-LPI Prosperity Team Grants***

The 2006 *Planning for Prosperity Summit* grant awards were awarded to seven Michigan communities to fund innovative community initiatives that involve prosperity teams that cut across important organizations at the local level. This initiative has helped to enhance the recognition of MSU as the key academic player in land use policy. The list of prosperity grant recipients is provided in Table 5.

## Impacts

### *Selected Policy Impacts*

- The Food Policy Council Taskforce on Farmland Preservation has taken the information provided in LPI's farmland preservation and agricultural viability reports and translated it into a set of recommendations to the Governor's Office, including \$2 billion to preserve roughly 1 million acres of farmland over the next 15 years.
- The Centers for Regional Excellence was influenced by the actions of the LPI and the MSU State and Local Government program through information inputs.
- Associates of PZC at MSU have been leaders in assisting the Legislature with the rewrite of the three planning and three zoning enabling acts. This has included extensive research, testimony at hearings, one-on-one and multi-stakeholder consensus building on compromises and answering the myriad questions that come up when laws are codified.

### *Selected Community Impacts*

While it is hard to document the impacts, the LPI has focused on this, as it helps in telling the story. The following is a handful of documented community impacts of the activities of LPI and supported MSU, Wayne State (WSU), and Grand Valley State (GVSU) faculty:

- MSU Extension faculty provided leadership to the "Build Saginaw into a Cool City" initiative.
- A manual titled "*Building Great Neighborhoods*" is now available as an Extension e-bulletin for free download.
- MSU faculty research on the effects of land banking in Genesee County showed an increase in property values in neighborhoods where properties were improved by the Genesee County Lake Bank Authority.
- MSU faculty performed an analysis of sewer infrastructure costs for the City of Grand Rapids.
- MSU Landscape Architecture faculty and students performed a build out analysis of selected communities in Montcalm County that illustrated the likely impact of future development based on current zoning.

- Research on the returns to land bank investments in Genesee County is shaping land acquisition policy in the City of Flint and revitalizing degraded neighborhoods.
- Information from Land Policy Institute reports led to a policy recommendation from the Michigan Food Policy Council to preserve one million acres of Michigan farmland.
- Michigan State University joined the Chicago Climate Exchange in November 2006, a market-based solution to dangerously high levels of carbon dioxide in the upper atmosphere.
- The Michigan Food Policy Council recommended to the Governor that five percent of appropriated funds for agricultural preservation should be dedicated to viability and innovation programs.
- LPI provided technical support and information to the State Farmland Preservation Program and to several county programs in Michigan.
- Transportation options were identified in Peninsula Township in response to changing development patterns that may result from agricultural preservation.
- A one-stop shop for information about Michigan's trails and greenways will soon be available to all residents and users of Michigan's green space at [michigantrails.org](http://michigantrails.org).
- John Kerr from MSU's Department of Community, Agriculture Recreation and Resource Studies provided the Little Forks Conservancy, Cedar River watershed in Midland County with an analysis of how to raise the cost-effectiveness of land conservancy acquisitions.
- Nearly 2,000 local planning, zoning, and elected officials received training on Michigan's new consolidated zoning enabling act.
- One pilot community, Fremont, has already pilot tested the Smart Growth Readiness Assessment Tool and is identifying next steps for incorporating Smart Growth principles in future planning efforts.
- Research on the fiscal impacts of providing sewer infrastructure to different housing densities in Grand Rapids helped inform city officials about the benefits of compact development.
- John Koches, Grand Valley State University faculty member, developed a sustainability strategy for the City of Muskegon and its Urban Area.
- Sarah Nicholls, an MSU faculty member within the Department of Community, Agriculture, Recreation and Resource Studies, provided Grand Rapids Parks and Recreation Department with information on how to make access to Grand Rapids parks more equitable.

- MSU Extension faculty provided a sustainable development guidebook for developing suburban and rural communities to Livingston County.
- MSU Extension faculty gave a series of lectures on the status and future of land in Hillsdale County.
- *United Growth Replication* manual is now available as an Extension e-bulletin. *Carol Townsend and Kendra Wills, United Growth of Kent County.*
- MSU's Health Impact Assessment (HIA) tool has shaped decisions about creating healthy communities in Ingham, Clinton, and Eaton Counties.
- MSUE faculty provided leadership in an effort to measure the impact of community design on health in Saginaw, Ingham, and Shiawassee Counties.
- The Land Policy Educator in Ingham County disseminated materials to area planning commissions on Creating Healthy Communities by Integrating Health into Planning Practice.
- *The Right Place* led the effort to develop a Grandwalk Sustainable Community plan for the cities of Walker and Grand Rapids.
- MSU faculty developed a trails network in the Upper Peninsula.
- MSU faculty provided information to support an initiative to improve the utility and tracking of the utilization of Health Impact Assessment (HIA) tools in the Ingham, Clinton, and Eaton Counties.
- MSU Extension faculty published *Building Great Neighborhoods*, a manual that is available for free download.
- Legislators received information about intergovernmental cooperation in Michigan communities, the barriers, the benefits, and what can be done to encourage this cooperation.
- Legislators and their staff learned about land use solutions to rising energy prices, including biofuels produced from agricultural products, public transportation, and green building.
- The Michigan Department of Environmental Quality (MDEQ) received information on brownfield redevelopment in southeast Michigan that will assist in future planning.
- The Citizen Planner Online program provides an alternative training program that is more convenient and can reach nearly every planning official in the state, allowing Michigan to meet the goal of having sixty percent of all local officials trained by 2010.

- The University Cultural Center Association has leveraged nearly \$1.8 million to implement a two-mile urban greenway in Midtown Detroit.
- Land Policy Educators in Hillsdale/Lenawee, St. Joseph, Ingham/Eaton/Clinton, and Muskegon Counties have held over 54 educational events, informing and engaging approximately 1,400 people.
- Land use Public Service Announcements were provided to residents of Kent County.
- Working with the City of Lansing to endorse and sign a National Mayor's Climate Agreement.
- Supporting Jackson School District on a green development program.
- Providing data and information to fund Michigan Farmland Preservation Board activities.
- Providing ecological data and information to support Heart of the Lakes Center for Conservation.
- Providing information to Fair Housing Center in Grand Rapids on economic development and housing challenges.
- Supporting Lapeer City land use decision-makers with land use projections and analysis.
- Representatives from the University of Florida visited the Land Policy Institute to learn about how the program was formed, what challenges were met, and what successes were achieved in order to develop a similar program at their institution.
- Land Policy Institute staff members have given numerous presentations on programs and projects at national and international conferences.

### ***Selected Graduate/Undergraduate Impacts***

- LPI features two internal grant components titled Undergraduate Studies Research Grants and Graduate Studies Research Grants to integrate undergraduate and graduate students into the faculty research processes in land use.
- The LPI has employed over 13 graduate students internally. Current, LPI graduate students come from Agricultural Economics, CARRS, Geography, Urban and Regional Planning, and Computer and Information Sciences departments.
- An estimated 15 to 20 students across campus are supported through grant initiatives.

- LPI faculty are currently teaching a blended course in land use change and decision making. The purpose is to develop expertise and leadership skills in land use for upper division undergraduates and graduate students.
- LPI has funded ten curriculum development initiatives on campus.

### ***Contributions to Intellectual Climate on Campus***

The Hannah Distinguished Speaker Series entitled the New Path Series has held four events, with speakers including Lester Brown, Dr. Stuart Gage, Al Ratner, and Huey Johnson. Taking serious the notion that academic institutions are bastions of new ideas, LPI's goal is to bring to MSU big picture thinkers who enhance intellectual thought, foster new ideas that bring about behavioral change, and deliver those ideas to people on the street, so to speak, in an engaging way.

LPI maintains an internal research program centered around the work of the Hannah Professor, the Planning & Zoning Center, and the Citizen Planner program. In addition, LPI supports faculty research across campus. LPI staff and affiliated faculty have conveyed their work and shared their expertise in myriad ways. Based on data provided by affiliated faculty to date, the following outputs of LPI affiliated faculty have been documented:

- 120 refereed journal articles, journal abstracts, manuscripts under review, working papers and presentations at professional conferences.
- 73 manuals, reports and newsletters.
- 27 presentations at state and non-professional conferences.
- 60 meetings and workshops.
- 8 Land and Course/Curriculum developed/presented
- 55 data bases and information system developed.

- 18 featured newspaper or magazine columns or articles.
- 16 radio programs and radio news items.
- 3 television programs and shows.
- 4 legislative and public testimonies.
- 2 legislative information forums.
- 7 major state policy reports.

### **Conclusions**

As indicated in the introduction, universities have struggled with how to create a boundary policy research organization that can serve the interests of the public, while meeting the academic interests of the university. This is particularly challenging in the area of land policy because the diverse stakeholders have competing needs, while the internal mechanisms of the university are not always well suited for mission oriented research and outreach. Exacerbating the problem is the fact that funding for land policy research entities is often difficult as the public goods they produce are not always well priced in the market for research. Also problematic is the fact that many of the beneficiaries are local entities who do not necessarily have the resources to support much needed research and education.

Facing these challenges, MSU embarked on a strategic process for conceptualizing, designing and implementing an integrated research, outreach and engagement organization in land policy. The accomplishments have been significant, laying the foundation for other academic institutions to build upon. In response to demand for information on MSU's process, this paper was prepared to serve as a resource.

The paper discusses the land use challenge in America and the cultural differences between potential solution providers in academia and solution demanders at the local level. It then details the strategic planning process at MSU. The strategies to galvanize faculty excitement around land use while simultaneously mobilizing products for stakeholders, was explained. The tangible products of the organization are also presented.

The culture of the policy making community is in sharp contrast to academia. Academia is organized by disciplines, while the issues facing policy makers are organized by problems. Policymakers want solutions, not the explorations and unending questions typical of academic researchers. Policymakers want briefs, and academics prefer essays. Given the cultural difference, significant institutional change is required in the way research is conceptualized, conducted, connected to extension and outreach, and delivered to stakeholders. The LPI is a role model of how this can be done, while positioning the university to be the academic leader in land use.



**Figure 1: Citizens Interests and Land Use Issues by Stakeholder Class.**



**Citizens:**

- Good Schools.
- Fair Taxes.
- Less Crime.
- Quality of Life.
- Health.
- No Traffic.
- Strong Community.
- Jobs.
- Fresh Foods.
- Good Government.
- Progress.



**Businesses:**

- Taxes.
- Business Climate.
- Labor Pool.
- Competitiveness.



**Farmers:**

- Losing Best Farms.
- Right to farm.
- Equity.
- Viability.
- Fear of Taking.
- Political Clout.



**Environmentalists:**

- Fresh Air/Open Space.
- Water Quality.
- Energy Efficiency.
- Food Security.
- Biodiversity.
- Stewardship.



**Realtors/Developers:**

- Profitability.
- Affordability.
- Product Diversity.
- Lost Opportunities.



**State Law Makers:**

- Employment.
- Industry.
- State Competitiveness.
- Economic Diversity.
- Welfare of Citizens.

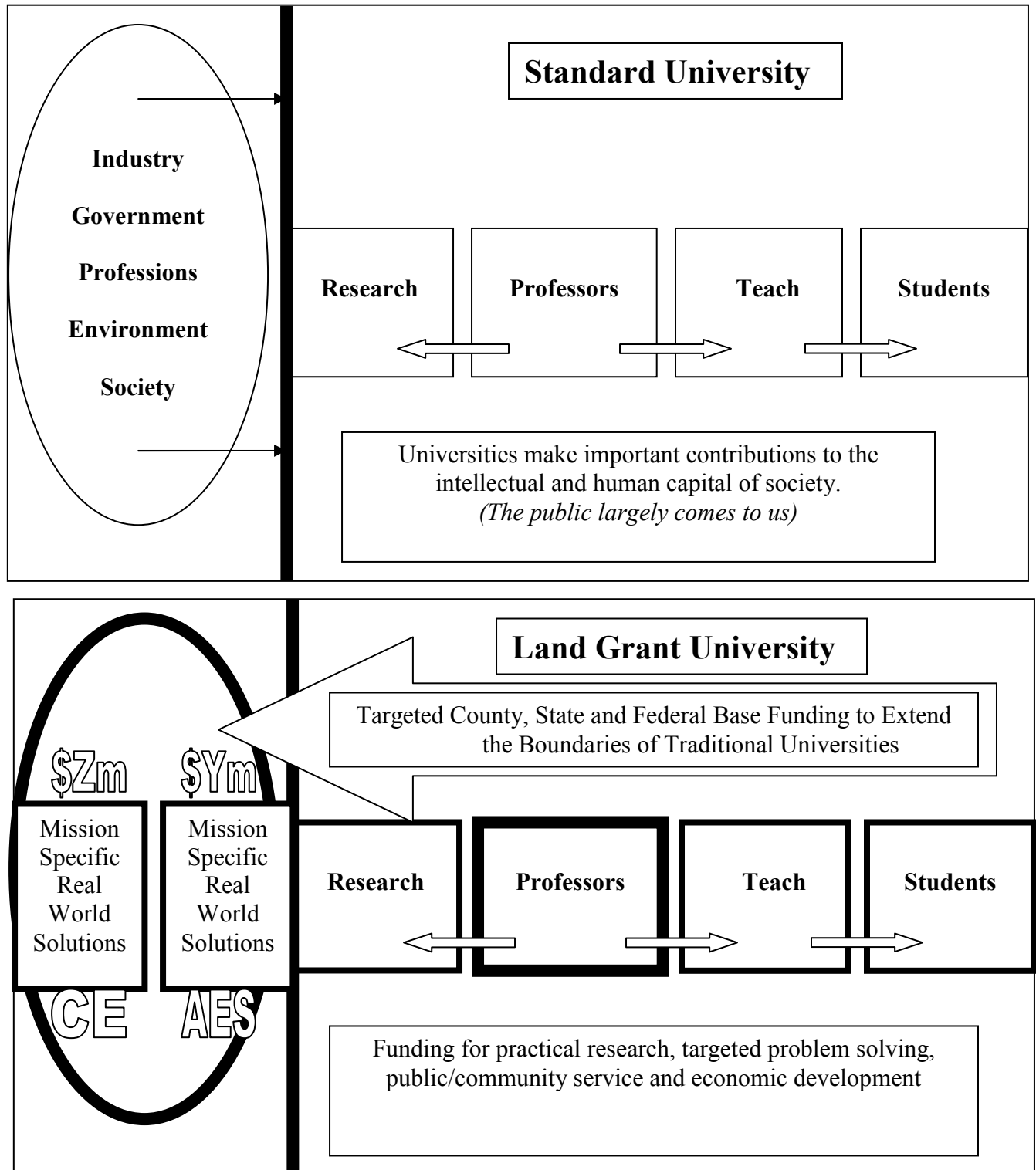


**Local Officials:**

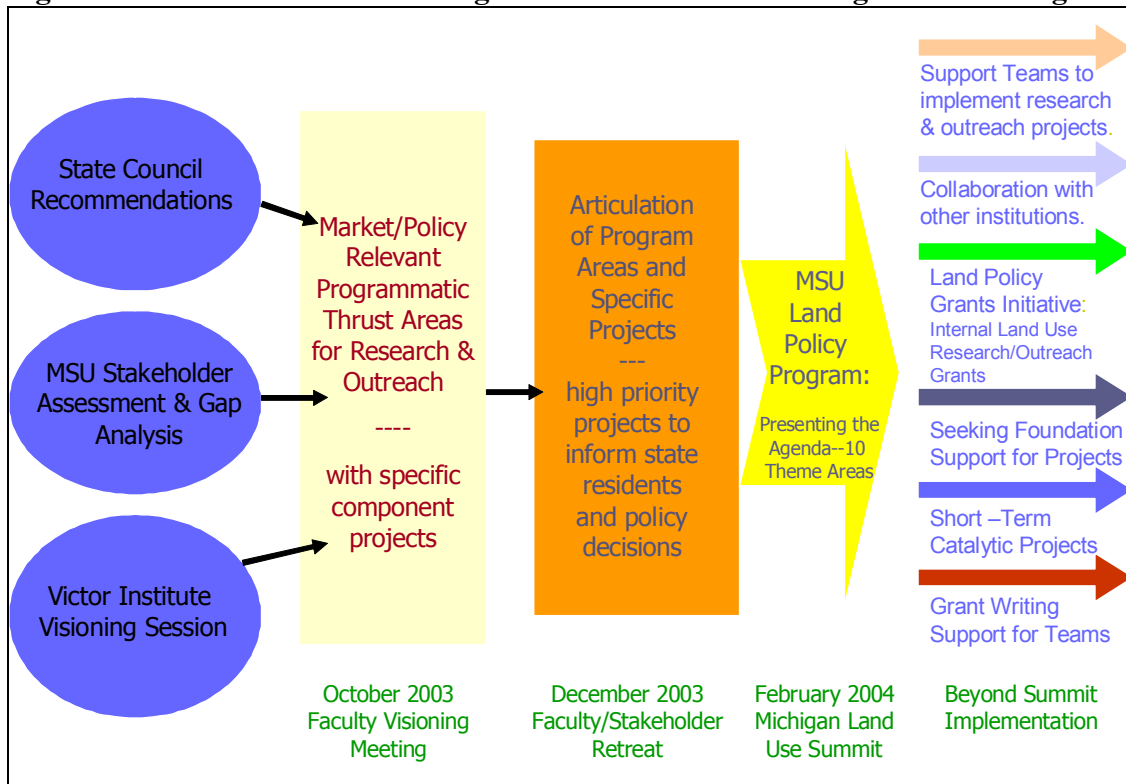
- Healthy Community.
- Sprawl.
- Quality of Life.

Source: A. Adelaja, Land Policy Institute, MSU.

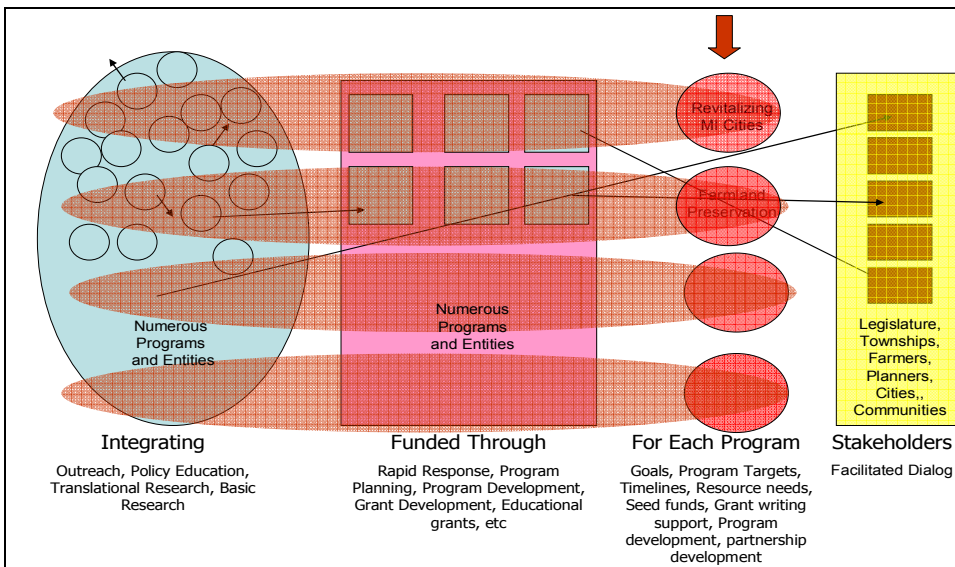
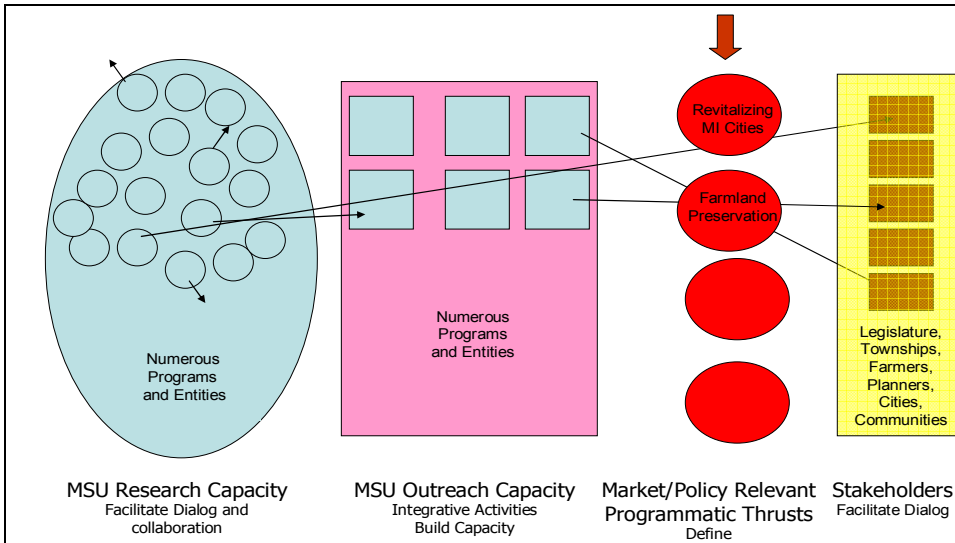
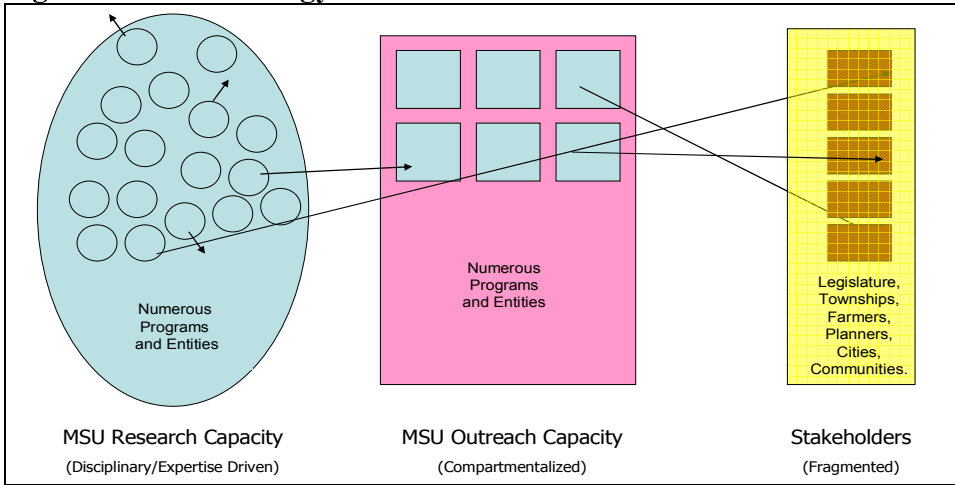
**Figure 2: How Universities Typically Work.**



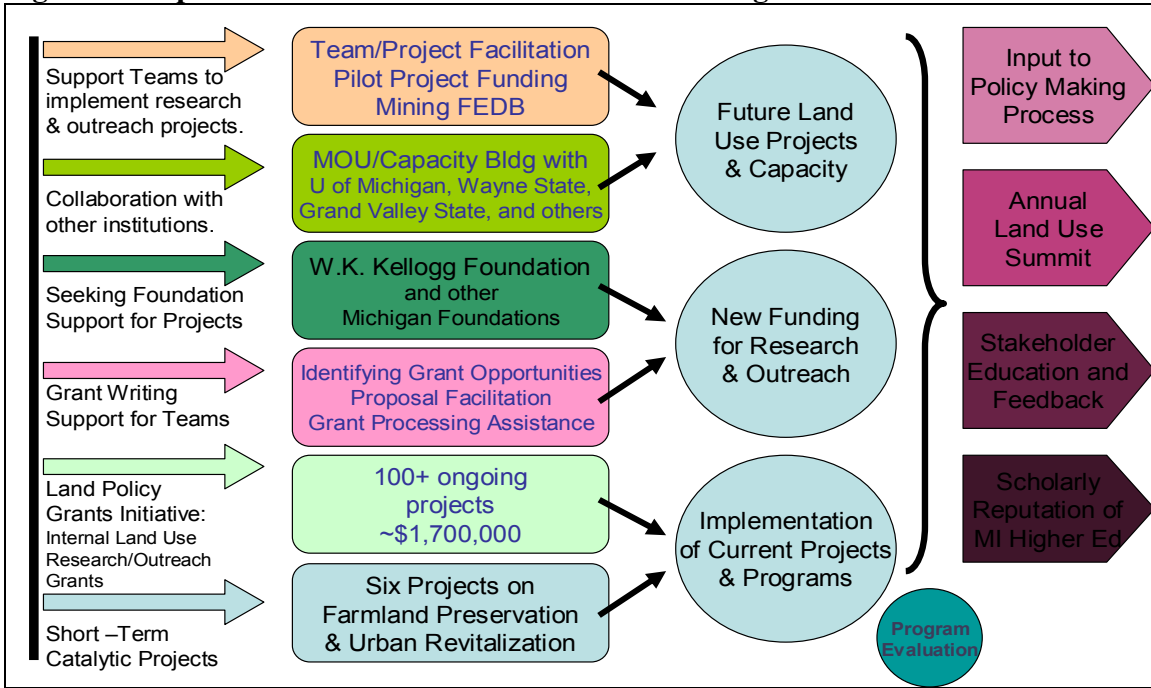
**Figure 3: Vision and Needs Driving Research and Outreach Agenda and Programs.**



**Figure 4: MSU Strategy.**

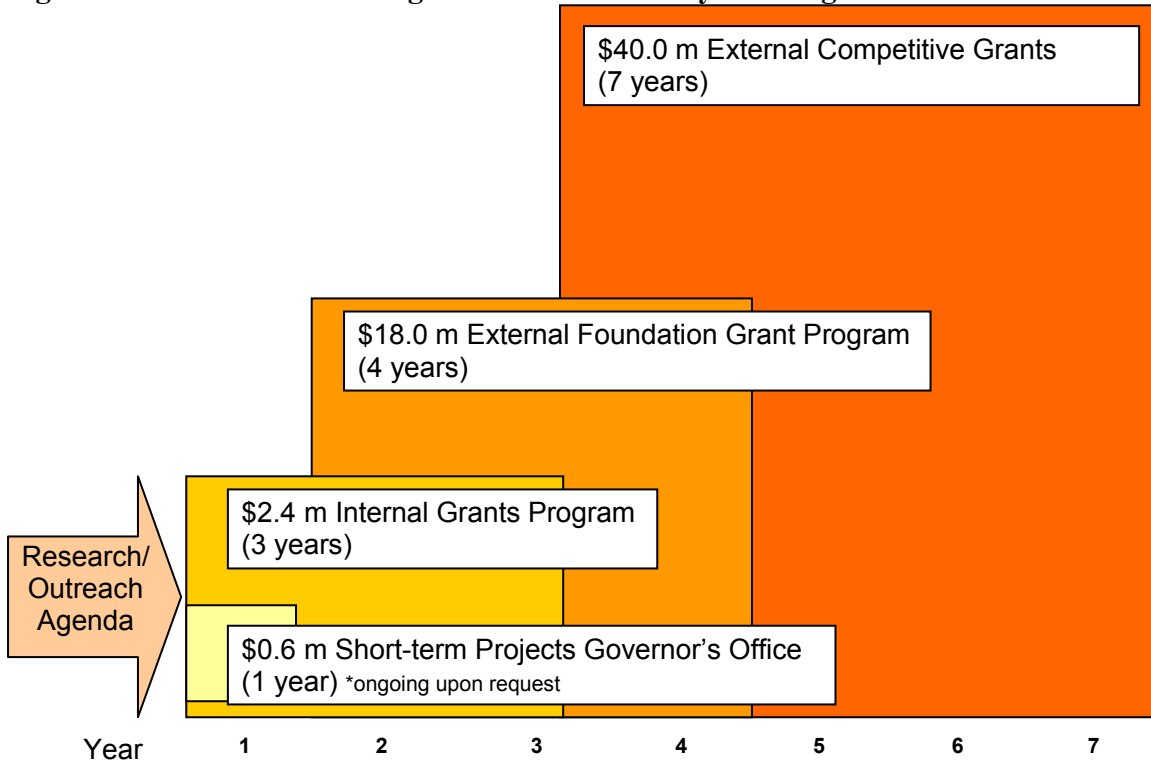


**Figure 5: Implementation of Research and Outreach Agenda.**



Source: Adelaja, A. *MSU's Land Policy Program: A Mission-oriented Agenda for Research and Outreach*. Presented at the Michigan Land Use Summit, February 2-3, 2004.

**Figure 6: Vision for Obtaining Resources Necessary for Program Future.**



Source: Adelaja, A. *MSU's Land Policy Program: A Mission-oriented Agenda for Research and Outreach*. Presented at the Michigan Land Use Summit, February 2-3, 2004.

**Table 1: LPI Thrust Areas.**

Thematic Areas	Mission	Priorities
Revitalizing Michigan Cities	The quality of life of most Michigan’s residents depends upon the health and vitality of its cities. It makes economic, social and ethical sense to maintain and enhance the viability of our cities. This programmatic area will provide information, technical analysis and research to citizens, policy makers, developers and state agencies that will support Michigan’s urban revitalization efforts.	<ul style="list-style-type: none"> <li>● Cost &amp; benefits of Smart Growth design tenets.</li> <li>● Municipal finance reform.</li> <li>● Quality of Life indicators.</li> <li>● Equity and ethics in urban policy and public investment.</li> </ul>
Market Solutions	Market involvement in the redevelopment and revitalization of Michigan’s urban areas is a critical component for success. Research and outreach in this area will focus on finding and communicating ways of sustainably developing Michigan’s land resources from a market perspective. The goal of the program is to better connect urban design, public preference, fiscal responsibility and profit in the development process.	<ul style="list-style-type: none"> <li>● A better understanding of density and public preference.</li> <li>● Design elements desired by the public.</li> <li>● Access to Brownfields and abandoned building titles.</li> <li>● Land Banking options.</li> </ul>
Viable Agriculture for the Future	Agriculture must continue to thrive in the 21st Century. Its preservation must consider various interrelated factors, including long-term viability and community and environmental issues, research and outreach, will seek to find ways to not only preserve agricultural farmland, but to create viable agricultural policies and institutions.	<ul style="list-style-type: none"> <li>● Cost/benefit analysis of farmland/open space preservation.</li> <li>● Techniques for farmland/open space preservation.</li> <li>● Taxation – system &amp; alternatives.</li> <li>● Alternative funding opportunities.</li> <li>● Opportunities for agricultural tourism.</li> <li>● Critical mass &amp; agricultural fragmentation.</li> <li>● New agricultural systems &amp; enterprises.</li> </ul>
Water, Natural Resources & Related Industries	This area seeks to protect & sustainably develop Michigan’s natural resources by balancing current needs with those of future generations. Component research & outreach efforts include better understanding of environmental resources and enhancing the performance of land based industries (LBI). Research and outreach programs under this thrust will help shape the future of forestry, mining, agriculture and tourism.	<ul style="list-style-type: none"> <li>● Information on fragmentation &amp; parcelization.</li> <li>● Effective management of watersheds.</li> <li>● Social &amp; ecological management of GL.</li> <li>● Economic viability &amp; social equity.</li> <li>● Water constraints to development.</li> <li>● Long-term policies to sustain water &amp; NR.</li> <li>● Water diversion from the GL Basin.</li> </ul>

<p>Enhanced Planning and Coordination</p>	<p>Michigan’s 1,800+ governmental entities are not required to coordinate plans, zoning, or infrastructure with adjoining governments. This program will conduct research and outreach designed to increase coordination between governmental bodies as well as create an information/data clearing house and decision support system for the state.</p>	<ul style="list-style-type: none"> <li>• Democratization of information.</li> <li>• Negotiation &amp; conflict resolution methods &amp; processes.</li> <li>• Incentive to encourage cooperative multi-jurisdictional planning.</li> <li>• Models for joint planning commissions.</li> <li>• Decision support and integration tools.</li> <li>• Capacity building throughout the state (i.e. Citizen Planner Program).</li> </ul>
<p>Creating Healthy Communities</p>	<p>Community design influences physical activity, mental health, social networks and the abilities to adopt healthy behaviors. Along with various policies, the built environment of many communities hinders walking and biking for transportation. This program area will focus on the relationships between the built environment, social capital and human health and will provide information, technical assistance and research to policy makers and state agencies so that they can make informed community decisions which consider health effects.</p>	<ul style="list-style-type: none"> <li>• Relationship between land use, social capital &amp; health.</li> <li>• Physical requirements of social capital networks.</li> <li>• Indicators of quality of life.</li> <li>• Analysis of infrastructure needs.</li> <li>• Access to fruits and vegetables in urban areas.</li> <li>• Opportunities for urban agriculture.</li> </ul>
<p>Equipping State Decision Makers in Land Use</p>	<p>Michigan is at a critical point in its history, where the state can either choose to provide assistance and incentives to local communities or not. This programmatic area will seek to educate state decision makers and provide balanced, objective policy recommendations on land use issues in order to bring about positive change through sound research and outreach.</p>	<ul style="list-style-type: none"> <li>• Analysis of state policies &amp; programs that impact land use patterns.</li> <li>• Fiscal impact analysis of sprawl by county.</li> <li>• Comparative analysis of Michigan to other home rule states.</li> <li>• Analysis of infrastructure &amp; demographic impacts on land use patterns.</li> </ul>
<p>Empowering Michigan’s Citizens</p>	<p>This programmatic area is designed to be the information and education component of the Land Policy Program. It will increase public awareness about land use issues and provide transformational education that results in changes in people’s attitudes and behavior. Research and outreach will include, among other methods, visualization techniques, planning charts, public service announcements, and television programs. All communication will be tied to sound research.</p>	<ul style="list-style-type: none"> <li>• Public Service Announcements.</li> <li>• Translational education.</li> <li>• Visual processes.</li> <li>• Citizen engagement.</li> </ul>

<p>Data Collection, Information &amp; Analysis</p>	<p>The goal of this programmatic area is to update and unify information on land use and land cover change at all relevant scales for the state, and to pursue specific analysis that would improve decision making. Research and outreach will focus on the causes and consequences of land use change and the resulting patterns, as well as on policy recommendations that consider such factors as population changes, transportation, health, and the impacts of sprawl.</p>	<ul style="list-style-type: none"> <li>● Carrying capacity for ecosystem &amp; ag integrity versus economic viability.</li> <li>● Systematic/repeated land use cover update</li> <li>● Drivers of land consumption in Michigan.</li> <li>● Demand analysis: “What do people want and what are they willing to pay for?”</li> <li>● Investigation at various scales of what Michigan’s future landscape might look like.</li> </ul>
<p>National Leadership Profile</p>	<p>The Land Policy Program seeks to make Michigan and its higher education institutions the recognized national leaders in land policy. An important dimension is to raise MSU’s profile and ranking at the national level through creating a conducive environment for academic and professional excellence and impact.</p>	<ul style="list-style-type: none"> <li>● Take the lead in promoting the concept of a national network of “Centers of Land Use Excellence.”</li> <li>● Establish a five-year plan for success.</li> <li>● Identify trends that have significant effects on Michigan’s citizenry (e.g. Michigan: the Great Lakes state).</li> <li>● Build a successful track record.</li> </ul>



**Table 2: PAL-LPI Community Grants.**

<b>Contact</b>	<b>Organization Name</b>	<b>Title</b>	<b>Grant</b>
Scott Everett	American Farmland Trust	Capacity Building for Agricultural Preservation Boards in Michigan	\$82,000
Jay Hoekstra	Grand Valley Metropolitan Council	Sustaining Prosperity and Supportive Urban Form in the Grand Valley Region	\$100,000
Kelly McIntyre	Michigan Association of Planning	Smart Michigan: Tools for Creating Healthy, Vital, Sustainable Communities	\$57,500
Bob Thomas	Michigan Chamber of Commerce	Changing the Paradigm: Business Proposal for Competitive Communities	\$100,000
Conan Smith	Michigan Suburbs Alliance	Michigan's Golden Spike: Linking Transit & Prosperity Ann Arbor-Detroit Corr.	\$150,000
Donna Stine	Michigan United Conservation Clubs	Investing in the Potential of Small Private Forests	\$18,218
Korey Hall	NAACP	Building Detroit's Regional Leadership on Smart Growth & Urban Revitalization	\$45,000
Dennis West	Northern Initiatives	The Great Waters: Where Nature, Economy and Community Come Together.	\$100,000
Jeff Ratcliffe	Otsego County Economic Alliance	Otsego County Growth Management Initiative Implementation	\$90,000
Donna Wilson	Traverse Area Chamber of Commerce	New Designs for Growth - DevelopMentor Program	\$95,000
<b>Total</b>			<b>\$837,718</b>

**Table 3: PAL-LPI Higher Education Grants.**

<b>Contact</b>	<b>Organization Name</b>	<b>Title</b>	<b>Grant</b>
Rayman Mohamed	Wayne State University	Assessing the Impact of Public Investment in Brownfield Redevelopment	\$19,644
John Kerr	Michigan State University	Raising the Cost-Effectiveness of Land Conservancy Acquisitions	\$17,125
John Kerr	Michigan State University	Carbon Sequestration and Land Policy in MI	\$20,000
Larry Leafers	Michigan State University	Driving Factors Associated with Fragmentation and Parcelization	\$46,000
Ellen Bassett	Michigan State University	State Enabling Legislation for Interjurisdictional Agreements on Land Use Issues	\$16,000
Rick Chapla	The Right Place	Grand Walk Sustainable Community Plan	\$5,000
Ellen Bassett	Michigan State University	Creating Healthy Communities	\$12,471
Laura Reese	Wayne State University	Land Use and Equity Impacts of Michigan's PA 198 Tax Abatement Legislation	\$42,000
Margaret Dewar	University of Michigan	Assessing the Effects of Michigan's 1999 Property Tax Foreclosure Reform	\$20,000
John Paskus	Michigan Natural Features Inventory	Natural Resource Conservation Training Module	\$20,000
John Koches	Grand Valley State University	Development of a Sustainability Strategy for the City of Muskegon	\$5,000
Donna Wilson	Traverse Area Chamber of Commerce	DevelopMentor Training Institute	\$9,000
<b>Total</b>			<b>\$232,240</b>

**Table 4: PAL-LPI Higher Education-Community “Hybrid” Grants.**

Contact	Organization Name	Title	Higher Education Partner	Grant
Steve Arwood	Heart of the Lakes Center for Land Conservation Policy	Economic Impact Studies and Strategic Planning for Conservation Research	Soji Adelaia, MSU	\$70,000
Kris Olsson	Huron River Watershed Council	Transfer of Development Rights in the Huron Watershed	Patricia Machemer, MSU	\$75,000
Joe VanderMeulen	Land Information Access Association	Making Multi-jurisdictional Partnerships Work	Eric Scorsone, MSU	\$48,500
Jim Lively	Michigan Land Use Institute	Building Leadership to Link Smart Growth and Prosperity in the Grand Traverse Region	Eric Scorsone, Michigan State University	\$135,000
Nancy Krupiarz	Michigan Trails and Greenways Alliance	Connecting Michigan: Planning for the Future of Michigan's Trail System	Jessica Moy, MSU	\$35,000
Beek Lentz	National Wildlife Federation	The Role of Corporate Forest Management in Land Use, Conservation, and Local Prosperity in Michigan's Upper Peninsula	Larry Leefers, MSU Robert Froese, Michigan Technological University	\$140,000
Greg Northrup	West Michigan Strategic Alliance	Green Infrastructure- Next Steps	Alan Steinman, Grand Valley State University Jon Bartholic, MSU	\$150,000
<b>Total</b>				<b>\$653,500</b>

**Table 5: PAL-LPI Prosperity Team Grants**

Contact	Organization Name	Title	Grant
Marcy Colclough	Southwest Michigan Commission	Growing Greener in Southwest Michigan	\$25,000
Anmarie Borucki	University Cultural Center Association	Midtown Loop Greenway Project	\$25,000
Denise Paquette	Lansing Vision 2020	Martin Luther King Boulevard Restoration Project	\$5,000
Annette Rook	Washtenaw County Office of Community Development	Ypsilanti Healthy Foods Access Initiative	\$5,000
Emily Gobright	Livingston Natural Features Coalition	Countywide Natural Features Inventory Project	\$3,550
Daniel Wiiki	Habitat for Humanity	Macomb County Vision 2020	\$5,000
Lindsay Eister	Shiawassee County Prosperity Team	Shiawassee Economic Development Partnership	\$5,000
<b>Total</b>			<b>\$73,550</b>

## ***Bibliography***

Adelaja, S. O. "The 21<sup>st</sup> Century Land-Grant Economist." *Agricultural and Resource Economics Review*, vol. 32(2). 2003. pp 159-170.

Andrews, W. *Building Bridges among Institutions: A First Step in the University of North Carolina System*, ADE Bulletin 133, Monterey, California. 2003. pp 57-59.

Atkinson, R.D. *The Past and Future of Americas Economy: Long Waves of Innovation that Power Cycles of Growth*, Washington D.C.: Edward Delgar Publishing, 2005.

Barlow, R. *Land Resource Economics: The Economics of Real Estate*. Volume 61. Englewood Cliffs, NJ: Prentice Hall Inc., 1986.

Diamond, H. and P. Noonan. *Land Use in America*. Island Press. 1996. pp 261-272.

Foster, J. B. "The Household Debt Bubble". *Monthly Review*. vol. 58(1). May 2006.

Frumkin, H., L. Frank, R. Jackson. *Urban Sprawl and Public Health: Designing, Planning and Building for Healthy Communities*. Washington: Island Press, 2004.

Guthrie, J. W. "Education R&D's Lament (And What to Do about It)." *Educational Researcher*, vol. 19(2). March, 1990. pp 26-34.

Hershberg, T. "Regional Cooperation Strategies and Incentives for Global Competitiveness and Urban Reform." *National Civic Review*, vol. 85(2). 1996.

Hu, D. and A. Pennington-Cross, *The Evolution of Real Estate in the Economy*. Institute Report no. 00-02. Washington, D.C.: The Research Institute for Housing America. June, 2000.

Kirst, M.W. *Bridging research on Public Policy in the United States*. Paper presented at the Conference of American and Hungarian Policy Researchers, Esztergom-Budapest, Hungary, 1988.

Mansito, N. *Bridging the Gap Between the Scholar and Society*. Nebula, 3.1. April, 2006.

McCarthy, M. "University-Based Policy Centers: New Actors in the Education Policy Arena." *Educational Researcher*, vol. 19(8). 1990. pp 25-29.

McDonnell, L.M. "Can Education Research Speak to State Policy?" *Theory into Practice*, vol. 27. 1988. pp 91-97.

Progressive Policy Institute. *2002 State New Economy Index: Benchmarking Economic Transformation in the States*. Washington D.C.: Progressive Policy Institute, 2002.

Richardson, J.J., M. Zimmerman Gough, and R. Puentes. *Is Home Rule the Answer? Clarifying the Influence of Dillon's Rule on Growth Management*, discussion paper, The Brookings Institution Center on Urban and Metropolitan Policy. Washington D.C. January, 2003.

Shavelson, R.J. "Contributions of Educational Research to Policy and Practice: Constructing, Challenging, Changing Cognition." *Educational Researcher*, vol. 17(7). 1988. pp 4-11.

Soule, D. "Defining and Managing Sprawl", *Urban Sprawl*. Westport, Connecticut: Greenwood Press, 2006.

U.S. Census Bureau. *Government Units in 2002*. 2002 Census of Governments, GC02-1(P), at [http://ftp2.census.gov/govs/cog/2002COGprelim\\_report.pdf](http://ftp2.census.gov/govs/cog/2002COGprelim_report.pdf). July, 2002.

Voith, R. "The Determinants of Metropolitan Development Patterns." *Metropolitan Development Patterns Annual Roundtable*. Lincoln Institute of Land Policy, Cambridge, MA. 2000. pp 62-65, 81-81.

Weiss, C. H., and M. J. Bucuvalas. "Truth Tests and Utility Tests: Decision-Makers' Frames of Reference for Social Science Research." *American Sociological Review*, vol. 45. 1980. pp 302-313.

---

<sup>1</sup> Technically, the power to plan and zone is more difficult to revert back to the state in a Home Rule state than a Dillon Rule state.