

**Overarching Values as Sustainability Indicators  
for a Stakeholder-based Land Use Curriculum\***

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**ABSTRACT**

A stakeholder-based curriculum for sustainable land use developed by Penn State Cooperative Extension in conjunction with the Northeast Regional Center for Rural Development demonstrates the need for a systems-based approach to sustainable land use. This paper builds on that model, using a community capitals framework, to target stakeholders and systematize sustainability values to underpin land use education programs. The sustainability values emerge out of environmental principles that are deeply rooted in Western and American culture. Based on Aldo Leopold's land ethic, the curriculum focuses on the community as an ecosystem where human agents need to work within and for their natural environment. In addition, the values can become assessment tools for sustainable development. This paper will: 1) Explain the land use curriculum. 2) Suggest examples of how curriculum items can be relate to values for sustainability. 3) Offer examples of how the values for sustainability can be translated into assessment tools.

**KEY WORDS:** Community land use assessment tools; Land use and community capitals; Land use curriculum; Land use values; Sustainable land use values

**Introduction**

Developing a land use curriculum involves a meeting of interdisciplinary research and practice to build a systems approach. This allows flexible access to courses that can

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\* Portions of this paper are adapted from "A Systems Approach to Community Land Use Education, Planning, and Action" by Timothy Collins and Stephan Goetz, *Rural Development Papers from the Northeast Region, RDP 35*;

<http://www.ncrcrd.psu.edu/Publications/rdppapers/rdp35BW.pdf>

and "Community Capitals, Human Agency, and Values for Sustainability: A Land Use Example" by Timothy Collins prepared for the 2006 Community Capitals Framework Workshop, December, 2006, Ames, IA,

<http://www.ncrcrd.iastate.edu/projects/commcap/2006/collins.pdf>.

be tailored to the needs of communities, organizations, and individual stakeholders. If the curriculum is to promote sustainable land use, it is important to consider sustainability values to guide curriculum development and to provide benchmarks for expected outcomes.

Initially, this project began in 2004 as a partnership between Penn State Cooperative Extension and the Northeast Regional Center for Rural Development to develop a land-use model for a website and curriculum with:

- multiple points of entry based on stakeholders' interests;
- core topical matter; and
- cross-cutting topical matter for different stakeholders.

Since 2005, the project has been shaped by the Community Capitals Framework developed at the North Central Regional Center for Rural Development (Flora and Flora 2006). The framework expands the systems approach based on the community capitals: natural, human, cultural, social, political, financial, and built. The framework's emphasis on community sustainability suggests basic values that emerge from various streams of environmental thought (Collins 2006). By stressing sustainability values, the curriculum extends the framework to provide guidelines for curriculum development and assessing outcomes for individuals, stakeholder groups, and communities.

### **Systems thinking, Planning, and Sustainability**

Community land use is complicated and requires a systems approach. As Bellinger (2004) notes, when we go beyond linear cause and effect to study behavior patterns and systemic interrelationships, we develop a much deeper understanding about how systems work. By definition, planning is a systems-based effort to integrate various facets of community resource allocation into a blueprint for future activities. But

planning has been viewed as restrictive and hierarchical, not constructive or creative like infrastructure development (Wertz, 1982). The Great Depression helped emphasize the importance of planning. Cole and Crow (1937) outline three major subdivisions for comprehensive planning: human resources, natural resources, and economic activities. By the late 1970s, researchers had adapted systems engineering to comprehensive planning to include scientific, technical, legal, institutional, social, economic, political, and other factors (Haines, 1982). Over time, pressures mounted to democratize planning. Vlachos (1982) discusses participatory planning processes that are flexible; anticipate changes and problems; and learn as the processes move through time. Participatory planning echoes elements of the sustainability movement that has emerged in the past generation.

Community survival is integral to planning. Cole and Crow (1937) don't mention sustainability *per se*, but they view planning as pursuing objectives that are moving targets and preserving resources for the future. To them, planning was anthropocentric and utilitarian, implying the manipulation of the environment and land for their most effective use for both present and future generations. This was at least a stab at sustainability and intergenerational equity.

Since the 1980s, the emergence of sustainability as a pattern for thinking and action – typically defined as the three Es: ecology, economy, and equity – has reinforced the need for systemic approaches to land use. Sustainable land use puts environment first in development decision making, not only as a secondary consideration (cf. Dresner, 2002). Sustainability builds on the conservation and environmental movements; it demands an increased emphasis on environmental

education (cf. Edwards 2005) – the fourth “E” that complements ecology, economy, and equity.

### **Community Sustainability**

Most community researchers have tended to emphasize interactions of people in a particular place, alongside external linkages (Warren, 1963; Christenson and Robinson, 1980). Community development emerged partly out of the recognition of the impacts of community change and the need to build capacity in rural communities (cf. Phifer et al. 1980). It works for the long run (Warren, 1963), including planning to enhance social relationships for continued, coordinated community actions that build democracy (Phifer et al. 1980).

Before the 1970s, community temporizing barely accounted for community dynamics, much less community interactions with their local natural environment. Wilkinson’s (1999) Community Field Theory accounts for complex, dynamic human communities, where community interactions can be fragmented and contradictory, as the field changes with time and circumstances. This theory opens the way for applying systems thinking to communities and the sustainability of human relationships. Wilkinson, however, does not account for human communities within the context of their natural environment.

Leopold’s (1968) “land ethic” of the late 1940s alters the definition of community to include the environment. Leopold (1968, p. 203-204) writes:

All ethics ... rest on a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to co-operate (perhaps in order that there may be a place to compete for).

The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.

Leopold's land ethic demands attention to the incredibly complex interrelationships in the combined social and natural community. In conjunction with Wilkinson's (1999) Community Field and the Floras' Community Capitals Framework (2006), it is now easier to analyze communities and suggest paths toward sustainability. As Emery and Flora (2006) show, the Community Capitals Framework is systematic, linking natural, built, financial, political, social, and cultural capitals to build community capacity (Figure 1). The framework does not fully account for human agency that is integral to sustainability (Collins 2006). One way to document human agency is to use values as the basis for benchmarks.

### **Linking practice with research and theory**

The original stakeholder-based Land Use Toolbox was created as social capital theory was being refined. The toolbox grew out of extension field experience and academic research (Collins and Goetz, 2006). A systems approach to sustainable community land use stakeholders undergirds a cross-cutting curriculum for citizens and organizations.

Leopold's land ethic is pivotal to the curriculum. As a result, community developers must have a basic understanding of human-ecological interactions to put environmental concerns up front when building communities. Environmental scientists need a basic understanding of community interactions to share their expertise more effectively with community leaders and the general public. This is a radical departure from traditional community and economic development with its primary focus on enhancing human social interactions.

By incorporating the land ethic, community developers – now including both place-based social and environmental scientists – have new tools to build sustainable communities. They distill knowledge from the environmental and social sciences, provide educational opportunities, and facilitate building community networks that focus on sustainability. Based on community development principles, the process is participatory, letting citizens collaborate and use their local knowledge to adapt science-based knowledge to improve their lives. The process enhances the capacity of individuals and groups to build communications, trust, and leadership with a common goal of sustainable community land use.

Both leaders and citizens in general need a common working understanding of the broad impacts of land use decision making and the roles of various stakeholders. The curriculum's goal is to provide stakeholders with knowledge and values to make informed sustainability decisions with consideration for ecology, economy, and equity. Community developers have a clear role in education, sustainability's fourth "E" (cf. Edwards, 2005).

### **The Land Use Matrix**

#### *Stakeholders as a system; the original Land Use Toolbox*

The complex community field encompasses shifting interrelationships around land use. In moving toward sustainable land use, it is important to account for the educational needs of a wide cross section of community stakeholders. The original Land Use Toolbox (Collins and Goetz, 2006) focuses mainly on individual citizens, citizen groups, and government officials, but the website information is accessible to land owners, land developers, and other stakeholders.

The toolbox also offers possibilities for organizing and focusing land use education (Figures 2 and 3). It drills down into multiple facets of land use topics of interest within and across stakeholders. Stakeholder areas include land preservation; planning and zoning; water and sewer; historic preservation; fiscal impacts of development and taxation; housing; rural preservation; and active communities. Topics under a stakeholder area could become the basis for a curriculum within that particular area. Topics that cut across stakeholder interests have the potential to offer core information and tools to help community members become more familiar with a broad range of information from different stakeholders' perspectives.

In the original model, economic and retail development and transportation are not listed as stakeholders because the target audiences were intended to be citizens and local government officials. Instead, these stakeholder groups are "givens" for the other stakeholder areas. Extension programming associated with the curriculum is put under the heading of 'You and Your Community.' Programs aimed at individuals are listed under 'What You Can Do.' Programs aimed at groups are listed under 'What You Can Do with Others.' Some programming, such as participatory action research and land use discussion groups, is intended to let participants help build the curriculum to suit their needs.

A Land Use Toolbox website with resources from land use organizations across the Northeastern United States (Northeast Regional Center for Rural Development, 2004, <http://www.cas.nercrd.psu.edu/Toolbox/index.htm>) has already been developed (Figure 4). The toolbox focuses mainly on rural land use topics; some urban land use sites were included because of effects on rural areas. Websites managed by non-profit

organizations, government agencies and universities are included, while sites advertising or managed by a business or for profit are avoided.

***Revising the model: Community capitals and sustainability values***

The Community Capitals Framework has central goals of a healthy ecosystem, vibrant regional economy, and social well-being (Emery and Flora 2006). These goals represent values for optimal community conditions for sustainability. This is important to remember, given discussions of the “post place” community (Bradshaw, 2006). Although people may have strong ties outside of their place of residence, the quality of life near home – their local community – still remains an essential element of their continued health and well being.

Adapting the Community Capitals Framework to include human agency and stakeholder activities focusing on sustainable land use requires revisions to the framework (Table 1), including:

- Based on Leopold’s land ethic, it is important to point out basic rights of the extended community that human agents are obliged to protect;
- To allow for human agency, human capital comprises not only individuals’ skills and knowledge, but also a pool of sustainability values that inform individuals’ ways of knowing and acting. These values overlap with the other capitals, where they affect individuals’ behaviors alone and in their community interactions. The values outline basic rights and responsibilities for achieving individual and community sustainability;

The Community Capitals Framework’s driving values connect to sustainability’s three Es: economy, ecology, and equity. Human agents can tap into these environmental

values to work toward sustainability within and across the Community Capitals Framework. A review of environmental literature (Collins, 2006) suggests six overarching values for sustainable land use:

- **Cultural Capital: *Temper self interest.*** Based on ethical behavior at the intersection of individual, community, and environmental interactions. It is the first step (and likely the most difficult) human agents must take toward community sustainability. Tempering self interest means changing our ways of acting, knowing, and learning and facing our individual, social, and biological limits. Individuals have rights; we also accept responsibilities for the community, including the local ecology. *Core values: Accept limits; Thrift; Balance rights, responsibilities; Cosmivision*
- **Political Capital: *Commonwealth.*** Basic, active quality of civic life, coupled with respect for all other creatures in the community. It entails using political processes to share the fruits of our presence and labors to benefit the whole community. Commonwealth does not negate private property, does demand prominence in community interactions. The land ethic extends commonwealth beyond the human community. Property rights entail responsibilities to the broader community, including the ecosystem. *Core values: Basic, active quality of civic life; Sharing, reciprocity, trust; Justice and equity; Secure liberty – Free flow of information; Dialogue and deliberation* (Mathews, 1998); *Learn from nature.*
- **Natural Capital: *Envirocentrism.*** Essential for sustainability. Based on the land ethic, envirocentrism gives basic rights to our natural surroundings that humans must protect. The land ethic implies primacy of environmental impacts in individual and

group decisions that continue past activities and affect present and future conditions.

*Core values: Land ethic; Earth Healing* (Sears and Fritsch, 1994).

- **Social Capital: *Sense of place*.** Identification with the local community in its broadest sense. Human agents engage each other and the landscape in accordance with the land ethic. *Core values: In our back yard; Personal relationships; Distinctive communities; Recognize, appreciate assets.*
- **Financial Capital: *Promote sustainability*.** Emphasis on an intergenerational, future view. A long-run view takes advantage of the past, as well as the here and now, to focus on building wealth and security for successive generations, based on respect for the landscape. *Core values: Equity, including income and wealth (Commonwealth); Access and affordability; Personalized markets; Stewardship as ideal and practice; Sense of history; Sense of shared future.*
- **Built Capital: *Appropriate technology*.** Cultivating, nurturing nature in the community, including human life. Appropriate technology fits the needs of the community, minimizes environmental damage, and enhances the community's future prospects. It may have local origins or may be adapted from other places. *Core values: Economic and community development linked via 'Earthpreneurship'; Cultivate, nurture nature; Build to last.*
- **Human Capital: *Overarching Values for Sustainability*.** Not only individuals' knowledge and skills, but where sustainability values are expressed in everyday human interactions. People don't always act on their values. But community-level sustainable land use values offer a guide or set of ideals to human agents. The values suggest that human agents have the capability to create "the best of all possible

worlds” for sustainable land use. *Core values: Temper self interest; Commonwealth; Envirocentrism; Sense of place; Promote sustainability; Appropriate technology.*

The modified Community Capitals Framework is based on several assumptions:

- Humans are not separate from nature; they act on it, and it acts on them. There is no acceptable justification for the claim that “destroying nature” is part of our human nature. When we do so, we harm our earthly home, ourselves, and future generations.
- Sustainability values are cultural tools to help limit environmental destruction by posing an alternative to commonly accepted patterns of thought and action that have had, at best, mixed results for the environment. Sustainability values are ideals for human agency, guides and goals for behavior that can help individuals and communities move toward sustainability.
- The model is not a blueprint for “one best way.” Rather, it is a synthesis of values for sustainable land use for the whole community.
- Some values in the model may strike readers as contradictory or in the wrong category; this is unintentional and suggests the complexity of the community field and my own biases.

### **Revised curriculum: Community capitals as access points**

Table 2 shows the revised land use curriculum with access points via community capitals linked to course names and modules. The table is adapted from a database that is the basis for a web gateway to the revised curriculum. The seven community capitals link to 26 different courses. Each course has up to seven modules designed to be used individually or as part of the entire course. Some modules are exclusive to particular courses, while others are shared with other courses. Shared modules allow for the

development of common language among different stakeholders. In addition, some modules introduce other courses to stimulate individuals' deeper interest in particular areas. The primary evaluation rubric for each course comes from the associated community capital's sustainability value. For example, courses related to Natural Capital are evaluated primarily on criteria developed for Envirocentrism, and courses related to Cultural Capital are evaluated primarily under criteria related to Temper Self Interest. Rubrics from other overarching values can be applied in areas where the capitals interact.

Course development starts with an outline that includes cross references to other courses and modules in the land use curriculum. The outline also links to content in each course module, core values, and a logic model for each course with immediate, follow up, and long-term indicators for each module. Module outlines include goals and links to the appropriate community capitals, course elements, concepts, evaluation metrics, tools that can assist the course instructor, and a resource list. For example, the first module of Land and Community – Land – is tied to natural, cultural, and human capitals. The goal is to show that community includes not only people, but the surrounding landscape. Elements are:

- People on the Land – Aldo Leopold's Land Ethic
- Community Ecosystem – soils, flora, fauna, watersheds, wells and groundwater, minerals, and topography.

Community development tools to heighten participants' learning experiences in the course include community asset mapping and participatory research. The course outline provides links to resources that assist with using these tools.

### **Sustainability values as indicators**

Envirocentrism provides the primary evaluation metrics for the Land and Community course, with support by metrics from Commonwealth, Sense of Place, and Temper Self Interest. Table 3 lists sustainable land use values related to Envirocentrism based largely on a review of environmental literature (Collins, 2006). The values are expressed in pithy sentences and phrases to make their message simple and straightforward. An Envirocentric perspective implies looking beyond ourselves based on the land ethic definition of community to promote the supporting values.

Table 4 shows Envirocentric values as indicators of human and community agency for sustainable land use. The list is designed so individuals and communities can choose measures to evaluate local outcomes of their learning and planning processes. Short-term indicators are baselines that can be followed over time to document changes. Other indicators measure intermediate and longer-term goals and processes. They can be adopted as the community expands its efforts aimed at land use sustainability. Intermediate and longer-term goals tend to measure community processes. In conjunction with periodic follow-up of baseline measures, communities will be able to track changes in individuals' attitudes and the effectiveness of processes they adopt to move toward sustainable land use.

### **Stakeholders' interests as access points**

Table 5 illustrates how stakeholders' interests can be reincorporated into the Community Capitals Framework for the land use courses and their modules. This approach is a template for a stakeholder-based web window to complement the community capitals gateway. On a website, each stakeholder group would have a dropdown menu of course and module offerings. In addition, the table suggests ways to

analyze courses and modules that might hold common interest for different stakeholders. Enrollment of different stakeholders in courses would indicate success at attracting diverse groups and individuals. Once a website is operational, it will be possible to analyze hits to see if different users are seeking similar information.

### **Conclusion and next steps**

With the addition of the Community Capitals Framework and values for sustainable land use, the Land Use Toolbox becomes more flexible and descriptive of the richness of land use as a topic for education for sustainability. The enhanced toolbox still offers an interdisciplinary systems approach to land use that includes community development broadly defined to include human-ecological interactions, sociology, systems thinking, planning, Smart Growth, and sustainability as an environmental and social concept. The community capitals version is laden with sustainability values that can be converted to into evaluation metrics for land use and community sustainability.

The toolbox's cross-cutting approach suggests the possibility of core education materials for citizens and leaders who may have differing approaches to land use and planning. Curriculum and programming can be designed to enhance networking and decision making capabilities, and to help different land use stakeholders develop joint action steps that put the environment up front. Finally, the Toolbox offers a platform for research by suggesting areas of potential interaction among stakeholders and various facets of land use decision making.

Obviously, developing this curriculum is a huge project. Most resources are already available, but need to be repackaged to align with the structure and values of the curriculum. Possible next steps include:

- reviewing the current Land Use Toolbox website to see if and how it can be revamped to fit the Community Capitals Framework;
- fully developing a sample course and curriculum prospectus for grant agencies;
- building an interdisciplinary team to flesh out the curriculum and create a combined research-outreach proposal to develop the curriculum, test the sustainability indicators, and follow the curriculum's implementation on a website and perhaps in select communities.

## Bibliography

Bellinger, G. 2004. Systems: A Journey Along the Way. <http://www.systems-thinking.org/systems/systems.htm>. Accessed: November, 2005.

Bradshaw, T.K. 2006. "The Post-Place Community: Contributions to the Debate about the Definition of Community." Paper presented at Annual conference of the Community Development Society, June 2006, St Louis, MO.

Christenson, J.A.; Robinson, J.W., Jr. "In Search of Community Development." *Community Development in America*. (Eds.: Christenson, J.A.; Robinson, J.W., Jr.) Ames: The Iowa State University Press, p.

Cole, W.E.; Crowe, H.P. 1937. *Recent Trends in Rural Planning*. New York: Prentice-Hall.

Collins, T. 2006. "Community Capitals, Human Agency, and Values for Sustainability: A Land Use Example" Prepared for the 2006 Community Capitals Framework Workshop, December, 2006, Ames, IA, <http://www.ncrcrd.iastate.edu/projects/commcap/2006/collins.pdf>.

Collins, Timothy; Goetz, Stephan. 2006. "A Systems Approach to Community Land Use Education, Planning, and Action." *Rural Development Papers from the Northeast Region, RDP 35*; <http://www.ncrcrd.psu.edu/Publications/rdppapers/rdp35BW.pdf>

Dresner, S. 2002. *The Principles of Sustainability*. London: Earthscan Publications.

Edwards, A.R. 2005. *The Sustainability Revolution: Portrait of a Paradigm Shift*. Gabriola Island, BC: New Society Publishers.

Emery, M.; Flora, C. 2006. "Spiraling-Up: Mapping Community Transformation with Community Capitals Framework. *Journal of the Community Development Society*, 37(1)19-35.

Flora, C.B; Flora, J.L. 2006. *Community Capitals Framework*. PowerPoint presentation.

Haines, Y.Y. 1982. "Water and Land Resources Planning." *Water Resources and Land Use Planning: A Systems Approach* (Eds. Loconte, P.; Haines, YY.) The Hague: Martinus Nijhoff, p. 167-192.

Leopold, A. 1968. *A Sand County Almanac and Sketches Here and There*. London: Oxford University Press.

Matthews, D. 1998. "Dialogue and Deliberation: 'Meaning Making' is Essential to Decision Making." *Kettering Foundation Connections* 9(2):24-26.

Northeast Regional Center for Rural Development. 2004. Land Use Toolbox.  
<http://www.cas.nercrd.psu.edu/Toolbox/index.htm>. Accessed: October, 2005.

Phifer, B.M. 1980. "History of Community Development in America." *Community Development in America*. (Eds.: Christenson, J.A. and Robinson, J.W., Jr.) Ames: The Iowa State University Press, p. 18-37.

Sears, R.T.; Fritsch, A.J. 1994. *Earth Healing: A Resurrection-Centered Approach*.  
Livingston, KY: ASPI Publications.

Vlachos, E. 1982. "Socio-Cultural Aspects of Urban Hydrology." *Water Resources and Land Use Planning: A Systems Approach* (Eds. Loconte, P.; Haimes, YY.) The Hague: Martinus Nijhoff, p. 255-282.

Warren, R. 1963. *The Community in America*. Chicago: Rand McNally.

Wertz, E. 1982. "Integration of Land and Water Management. Political, Administrative, and Planning Programs." *Water Resources and Land Use Planning: A Systems Approach* (Eds. Loconte, P.; Haimes, YY.) The Hague: Martinus Nijhoff, p. 255-282.

Wilkinson, K.P. 1999. *The Community in Rural America*. Middleton, WI: Social Ecology Press.

**Table 1: Community Capitals – Additions, revisions to original model’s basic premises**

Capitals	Human Agency	Stakeholders				
<i>Natural</i>	<i>Human</i>	<i>Cultural</i>	<i>Social</i>	<i>Political</i>	<i>Financial</i>	<i>Built</i>
<ul style="list-style-type: none"> <li>• Air quality, wind, sun</li> <li>• Water: quantity, quality</li> <li>• Soil and minerals</li> <li>• Biodiversity-wildlife and plants</li> <li>• Landscape</li> <li>• <i>Basic rights of nature – Envirocentrism a core human value across the model</i></li> </ul>	<p><i>Values for individuals’ ways of knowing and acting</i></p> <ul style="list-style-type: none"> <li>• Education</li> <li>• Skills</li> <li>• Health</li> <li>• Self-esteem, Self-efficacy</li> <li>• Community support</li> <li>• <i>Passion</i></li> <li>• <i>Basic rights, responsibilities for sustainability</i></li> </ul>	<ul style="list-style-type: none"> <li>• Cosmovision – spirituality</li> <li>• Symbols-sense of place</li> <li>• Ways of knowing</li> <li>• Language-history</li> <li>• Ways of acting</li> <li>• Definition of what is problematic</li> <li>• Value of aesthetics</li> <li>• Arts and humanities</li> <li>• Science</li> <li>• <i>Freedom of belief, inquiry</i></li> <li>• <i>Free flow of information</i></li> </ul>	<p><i>Individuals’, organizations’ values for community interactions</i></p> <ul style="list-style-type: none"> <li>• Mutual trust</li> <li>• Reciprocity</li> <li>• Groups</li> <li>• Collective identity</li> <li>• Sense of shared future</li> <li>• Working together</li> <li>• <i>Basic social rights, responsibilities for sustainability</i></li> </ul>	<ul style="list-style-type: none"> <li>• Organization</li> <li>• Connections</li> <li>• Voice</li> <li>• Power</li> <li>• <i>Justice, equity</i></li> <li>• <i>Access, affordability</i></li> <li>• <i>Dialogue, deliberation</i></li> </ul>	<ul style="list-style-type: none"> <li>• Savings</li> <li>• Debt capital</li> <li>• Investment capital</li> <li>• Tax revenue</li> <li>• Tax abatements</li> <li>• Grants</li> <li>• Gifts</li> <li>• <i>Justice, equity</i></li> <li>• <i>Access, affordability</i></li> <li>• <i>Dialogue, deliberation</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sewers and water systems</li> <li>• Buildings</li> <li>• Machinery</li> <li>• Transportation</li> <li>• Electronic communication</li> <li>• <i>Justice, equity</i></li> <li>• <i>Access, affordability</i></li> <li>• <i>Dialogue, deliberation</i></li> </ul>

**Table 2: Access points for revised land use curriculum using Community Capitals Framework**

Comm. Capit.	Courses	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7	Primary Evaluation
Nat.	<b>Earth Healing</b>	Water & Watersheds	Land Reclamation & Conservation	Community Forestry	Prairie Restoration	Local Arts & Letters	Appropriate Technology	Yes, In Our Back Yard	Envirocentrism
Nat.	<b>Land &amp; Community</b>	Land	Community	Intro to Quality Communities	Earth Healing	What Can I Do?	What Can We Do Together?	Yes, In Our Back Yard	Envirocentrism
Nat.	<b>Land Use Leadership</b>	What Can We Do Together?	Earth Healing	Local & State Government Roles in Land Use	Conflict & Cooperation	Quality Communities	Rural Preservation	Local Economies	Envirocentrism
Cult.	<b>Rural Communities: Needs &amp; Opportunities</b>	Intro to Quality Communities	Best Practices	What Can We Do Together?					Temper Self Interest
Cult.	<b>People on the Land</b>	Intro to Land & Community	Sense of Nature	Sense of Place	Community Design	Intro to Earth Healing	Yes, In Our Back Yard		Temper Self Interest
Cult.	<b>Rural Preservation</b>	Rural Communities: Needs & Opportunities	Sense of Place	Community Design	Intro to Land Use Tools	Historic Preservation	What Can I Do?	What Can We Do together?	Temper Self Interest
Hum.	<b>Enduring Values</b>	Temper self interest	Envirocentrism	Commonwealth	Sense of Place	Promote Sustainability	Appropriate Technology	What Can I Do?	Enduring Values
Hum.	<b>Special Courses</b>	Intro to Geographic Information Systems	Intro to Demographics	Build-Outs	E-Government	Assets Mapping	Participatory Research	Community Visioning	Enduring Values
Hum.	<b>What Can I Do?</b>	Intro to Land Use Leadership	Intro to Earth Healing	Intro to Earthpreneurship	Intro to Community Organizations	Intro to Local and State Government	Yes, In Our Back Yard		Enduring Values
Social	<b>Quality Communities</b>	Rural Communities: Needs & Opportunities	Community Design	Earth Healing	Appropriate Technology	Intro to Active Communities	Civic Engagement	Intro to Local Economies	Enduring Values
Social	<b>Community Organizations</b>	Intro to Earth Healing	Marketing & Business Plans	Incorporation & Nonprofit Status	Fund Raising & Grant Writing	Managing Staff & Volunteers	Earthpreneurship	Public-Private Partnerships	Sense of Place
Social	<b>Conflict &amp; Cooperation</b>	Using Conflict Productively	Framing Land Use Issues	Coalition Building	Civic Engagement	Public-Private Partnerships	Yes, In Our Back Yard		Sense of Place
Social	<b>Engaging Youth</b>	Life Stages & Senior Citizens	Involving local schools	Youth Outreach	Enduring Values				Sense of Place
Social	<b>Active Communities</b>	Intro to Quality Communities	Community Design	Recreation	Intro to Transportation	Life Stages & Senior Citizens			Sense of Place
Social	<b>Involving Local Schools</b>	Intro to Land & Community	Place-Based Curriculum	Schools as Community Centers	Service Learning	Life Stages & Senior Citizens	Schools & Sustainable Development	Enduring Values	Sense of Place
Social	<b>What Can We Do Together?</b>	Participatory Research	Assets Mapping	Community Visioning	Civic Engagement	Intro to Involving Local Schools	Intro to Community Organizations	Intro to Engaging Youth	Sense of Place
Polit.	<b>Citizen Planning</b>	Intro to Local & State Government	Role & Structure of Planning Commissions	Public-Private Partnerships	Planning as a Fiscal Tool	Costs-Benefits of Development	Intro to Conflict & Cooperation	Civic Engagement	Commonwealth
Polit.	<b>Citizen Zoning</b>	Intro to Local & State Government	Role & Structure of Zoning Commissions	Community Design	Intro to Conflict & Cooperation				Commonwealth
Polit.	<b>Land Use Tools</b>	Intro to Local & State Government	Community Design	Intro to Planning and Zoning	Land Development	Land Conservation & Reclamation	Funding Options & Incentives	Public-Private Partnerships	Commonwealth
Polit.	<b>Local &amp; State Government Roles in Land Use</b>	Intro to Local & State Government	State Planning, Zoning, & Environmental Law	Land Use Tools	Intergovernmental Cooperation	Funding Options & Incentives	Civic Engagement	Public-Private Partnerships	Commonwealth
Finan.	<b>Earthpreneurship</b>	Intro to Earth Healing	Marketing & Business Plans	Incorporation	Raising Capital & Grant Writing	Managing Staff	Appropriate Technology	Public-Private Partnerships	Promote Sustainability
Finan.	<b>Fiscal Aspects of Land Use</b>	Rural Communities: Needs & Opportunities	Planning as a Fiscal Tool	Funding Options & Incentives	Costs-Benefits of Development	Public-Private Partnerships			Promote Sustainability
Finan.	<b>Local Economies</b>	Rural Communities: Needs & Opportunities	Economic Development	Local Food Systems	Retail Development	E-Communting	Green Tourism	Earthpreneurship	Promote Sustainability
Built	<b>Housing</b>	Affordable Housing	Green Construction	Rehabilitation, Adaptive Reuse	Life Stages & Senior Citizens	Community Design	Public-Private Partnerships	Intro to Active Communities	Appropriate Technology
Built	<b>Infrastructure</b>	Low Impact Development	Water/Sewer/Stormwater (Watersheds)	Yes, In Our Back Yard	Active Communities	Wells & Septic Systems	Transportation Options	Public-Private Partnerships	Appropriate Technology
Built	<b>Transportation Options</b>	Life Stages & Senior Citizens	Intergovernmental Cooperation	Intro to Active Communities	Community Design	Public-Private Partnerships			Appropriate Technology

**Table 3: Sustainable land use values for natural capital**

- Envirocentrism – land ethic - basic rights accorded to nature as part of community
- Commonwealth
- Accept biological, material, physical, technical limits
  - Honor genetic heritage
- Encourage biological diversity – respect for other creatures
- Focus on basic, healthy quality of community life
- Balance aesthetic, use values
- Reduce, reuse, recycle
- Earth healing
- In our back yard: Manageable communities based on watersheds - Respect for environmental boundaries, limits; Sense of place
  - Consideration for those downstream
- Promote sustainability - Stewardship as ideal and practice
  - Intergenerational impact assessment
  - Recognize ecosystem limits to population growth and consumption
  - Recognize different impacts of life stages
- Use appropriate technology
- Cultivate/nurture nature
- Recognize, appreciate assets
- Cosmivision
  - Simplicity
  - Sense of wonder
  - Spiritualism
  - Transcendence

**Table 4: Sustainability indicators based on Natural Capital and primary overarching value of Envirocentrism**

**Natural Capital: *Envirocentrism***

**Short-term Indicators**

- results of assessment of community's land use attitudes, knowledge, and activities, for example:
  - percent of community residents participating in sustainable land use activities on their own land
  - percent of community residents expressing willingness to participate in sustainable land use activities on their own land
  - percent of community leaders participating in sustainable land use activities
  - percent of community residents expressing willingness to participate in sustainable land use activities
  - percent of community's land that is open for public use
  - percent of population participating in preservation and restoration activities on common lands
  - percent of population using common land for educational and recreational activities
- local food production: level of pollution attributed to farming and other extractive activities
  - water and air quality
  - documentation of complaints about odors, flies, over spraying, dust, noise, etc.
  - documentation of resolution of complaints
  - presence of educational programs about current agricultural and other extractive practices and alternatives

**Intermediate Indicators**

- documentation that planning process considers longer-term impacts of the plan
  - documentation of widespread public participation in developing plan
- presence of up-to-date inventory of community biodiversity that is used as part of planning and land use activities
  - documentation of widespread public participation in developing inventory
- presence of governance that respects watersheds in development decisions – watershed-based units or intergovernmental cooperation to protect and nurture shared watersheds
- presence of code that halts or strictly limits development on environmentally sensitive lands
  - number of acres lost; percent of community area (such as a watershed)
  - percent of landowners who limit development on environmentally sensitive lands
  - percent of developments directed toward existing communities
  - percent of transportation system that bypasses environmentally sensitive lands

- documentation of nature and kinds of development decisions based on low impact and green building principles
- documentation of best practices used in waste minimization
  - percent of waste stream that is reduced, reused, recycled
  - percent of waste stream disposed of locally
  - percent of waste stream that is shipped elsewhere
- presence of formal and informal environmental education programs
  - place-based environmental education is embedded across the formal curriculum for all grade levels
  - informal programs are easily accessible to whole community
    - percent of population participating in informal programs
- local food production
  - percent of production using minimal inputs, organic techniques
  - presence of buffers in farming areas to protect streams and wells
  - distance from farms to markets
  - percent of food supply grown locally

### **Long-term Indicators**

- documentation of activities dedicated to preserving and restoring land
  - number of acres preserved; percent of community area
  - percent of preserved land by land use types
  - number of acres restored; percent of community area
  - sources of funding for activities by percent
- documentation of best practices used for mineral extraction
  - levels of pollution attributed to extractive activities
  - use of efficient extraction methods to minimize waste
  - evidence of land reclamation within reasonable time after extraction
  - quality of land reclamation
  - percent of profits from extraction that are returned to community for sustainable land use activities
- documented use of indicators to assure sustainable forest harvesting
- nature of energy use
  - predominance of renewable energy resources where practical, including wind, solar, geothermal, and farm wastes

**Table 5: Access points for revised land use curriculum using stakeholder approach**

Local Govt.	Planning-Zoning	Water-Sewer	Land Preserv.	Historic Preserv.	Rural Preserv.	Econ. Dev.	Housing	Transp.	Active Commun.	Citizens
Earth Healing	- Water & Watersheds - Land Conservation & Reclamation - Yes, In Our Back Yard	- Water & Watersheds - Land Conservation & Reclamation - Appropriate Technology - Yes, In Our Back Yard	<b>Earth Healing</b> -Water & Watersheds - Land Conservation & Reclamation - Community Forestry - Prairie Restoration - Local Arts & Letters - Appropriate Technology - Yes, In Our Back Yard (Waste Minimization)	- Water & Watersheds - Land Conservation & Reclamation - Prairie Restoration - Local Arts & Letters	Earth Healing	Earth Healing	-Water & Watersheds - Land Conservation & Reclamation - Appropriate Technology - Yes, In Our Back Yard	-Water & Watersheds - Appropriate Technology - Yes, In Our Back Yard	Intro to Quality Communities	- Intro to Earth Healing - Yes, In Our Back Yard
Intro to Land & Community	Intro to Land & Community	Intro to Land & Community	<b>Land &amp; Community</b> - Land - Community - Intro to Quality Communities - Earth Healing - What Can I Do? - What Can We Do Together? Yes, In Our Back Yard	Land & Community	Land & Community	Land & Community	- Land - Community	- Land - Community	- Land - Community	Land & Community
Intro to Quality Communities	Intro to Quality Communities	Intro to Quality Communities	Intro to Quality Communities	Quality Communities	<b>Quality Communities</b> - Rural Communities: Needs & Opportunities - Community Design - Earth Healing - Appropriate Technology - Intro to Active Communities	Intro to Quality Communities	Intro to Quality Communities	Intro to Quality Communities		Quality Communities
- Intro to Local & State Government - Intro to Land Use Leadership	- Intro to Land Use Leadership	- Intro to Land Use Leadership	What Can I Do?	What Can I Do?	What Can I Do?	What Can I Do?	- Intro to Land Use Leadership	- Intro to Land Use Leadership	- Intro to Land Use Leadership	<b>What Can I Do?</b> - Intro to Land Use Leadership - Intro to Earth Healing - Intro to Earthpreneurship - Intro to Community Organizations - Intro to Local & State Government - Yes, In Our Back Yard

**Table 5: Access points for revised land use curriculum using stakeholder approach**

Local Govt.	Planning-Zoning	Water-Sewer	Land Preserv.	Historic Preserv.	Rural Preserv.	Econ. Dev.	Housing	Transp.	Active Commun.	Citizens
Land Use Leadership	Land Use Leadership	Land Use Leadership	Land Use Leadership	Land Use Leadership	Land Use Leadership	Land Use Leadership	Land Use Leadership	Land Use Leadership	Land Use Leadership	<b>Land Use Leadership</b> - What Can We Do Together? - Earth Healing - Local & State Government Role in Land Use - Conflict & Cooperation - Quality Communities - Rural Preservation - Local Economy
<b>What Can We Do Together?</b> - Participatory Research - Assets Mapping - Community Visioning - Civic Engagement - Intro to Involving Local Schools - Intro to Community Organizations - Intro to Engaging Youth	What Can We Do Together?	What Can We Do Together?	What Can We Do Together?	What Can We Do Together?	What Can We Do Together?	What Can We Do Together?	What Can We Do Together?	What Can We Do Together?	What Can We Do Together?	<b>What Can We Do Together?</b> - Participatory Research - Assets Mapping - Community Visioning - Civic Engagement - Intro to Involving Local Schools - Intro to Community Organizations - Intro to Engaging Youth
Enduring Values	Enduring Values	Enduring Values	Enduring Values	Enduring Values	Enduring Values	Enduring Values	Enduring Values	Enduring Values	Enduring Values	<b>Enduring Values</b> - Temper Self Interest - Envirocentrism - Commonwealth - Sense of Place - Promote Sustainability - Appropriate Technology - What Can I Do
<b>Local &amp; State Government Roles in Land Use</b> - State Planning, Zoning, and Environmental Law - Intergovt. Cooperation - Funding Options & Incentives - Civic Engagement - Public-Private Partnerships	- Intro to Local and State Government	- Intro to Local and State Government - State Planning, Zoning, and Environmental Law - Funding Options & Incentives -Public Private Partnerships	- Intro to Local & State Government - Funding Options & Incentives -Public Private Partnerships	- Intro to Local & State Government - Funding Options & Incentives - Public-Private Partnerships	- Intro to Local & State Government - Funding Options & Incentives -Public Private Partnerships	- Intro to Local & State Government - Funding Options & Incentives -Public Private Partnerships	- Intro to Local & State Government - Funding Options & Incentives -Public Private Partnerships	- Intro to Local & State Government - Funding Options & Incentives	- Intro to Local & State Government - Funding Options & Incentives	Local & State Government Roles in Land Use - State Planning, Zoning, and Environmental Law - Intergovt. Cooperation - Funding Options & Incentives - Civic Engagement - Public-Private Partnerships



**Table 5: Access points for revised land use curriculum using stakeholder approach**

<b>Local Govt.</b>	<b>Planning-Zoning</b>	<b>Water-Sewer</b>	<b>Land Preserv.</b>	<b>Historic Preserv.</b>	<b>Rural Preserv.</b>	<b>Econ. Dev.</b>	<b>Housing</b>	<b>Transp.</b>	<b>Active Commun.</b>	<b>Citizens</b>
Active Communities	- Recreation - Life Stages and Senior Citizens - Intro to Transportation	- Community Design - Recreation	Intro to Active Communities - Recreation	Intro to Active Communities - Recreation	Intro to Active Communities - Recreation	Intro to Active Communities - Recreation - Intro to Transportation	Intro to Active Communities	Intro to Active Communities	<b>Active Communities</b> - Intro to Quality Communities - Community Design - Recreation - Intro to Transportation - Life Stages & Senior Citizens	Intro to Active Communities - Recreation
Rural Communities: Needs & Opportunities	- Best Practices	- Best Practices	- Best Practices	- Best Practices	<b>Rural Communities: Needs &amp; Opportunities</b> - Intro to Quality Communities - Best Practices - What Can We Do Together?	Rural Communities: Needs & Opportunities	- Best Practices	- Best Practices	- Best Practices	Intro to Rural Communities: Needs & Opportunities
<b>Involving Local Schools</b> - Intro to Land & Community - Place-Based Curriculum - Schools as Community Centers - Service Learning - Life Stages & Senior Citizens - Schools & Sustainable Development - Enduring Values	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development	- Schools & Sustainable Development
- Youth Outreach	- Youth Outreach	- Youth Outreach	- Youth Outreach	- Youth Outreach	- Youth Outreach	- Youth Outreach	- Youth Outreach	- Youth Outreach	- Youth Outreach	<b>Engaging Youth</b> - Life Stages & Senior Citizens - Involving Local Schools - Youth Outreach - Enduring Values
People on the Land	- Sense of Nature - Sense of Place	- Intro to Earth Healing	<b>People on the Land</b> - Intro to Land & Community - Sense of Nature - Sense of Place - Intro to Earth Healing - Community Design - Yes, In Our Back Yard	People on the Land	People on the Land	- Sense of Nature - Sense of Place - In Our Back Yard	- Sense of Place	- Intro to Land & Community	People on the Land	People on the Land

**Table 5: Access points for revised land use curriculum using stakeholder approach**

Local Govt.	Planning-Zoning	Water-Sewer	Land Preserv.	Historic Preserv.	Rural Preserv.	Econ. Dev.	Housing	Transp.	Active Commun.	Citizens
Rural Preservation	Rural Preservation		Rural Preservation	- Historic Preservation	<b>Rural Preservation</b> - Rural Communities: Needs & Opportunities -Sense of Place - Community Design - Intro to Land Use Tools - Historic Preservation - What Can I Do? -What Can We Do Together?	Rural Preservation	- Historic Preservation			Rural Preservation
<b>Special Courses</b> - Intro to Geographic Information Systems - Intro to Demographics - Build Outs - E-Government - Assets Mapping - Participatory Research - Community Visioning	Special Courses	Special Courses	Special Courses	Special Courses	Special Courses	Special Courses	Special Courses	Special Courses	Special Courses	<b>Special Courses</b> - Intro to Geographic Information Systems - Intro to Demographics - Build Outs - E-Government - Assets Mapping - Participatory Research - Community Visioning
- Public-Private Partnerships	- Public-Private Partnerships	Community Organizations	Community Organizations	Community Organizations	Community Organizations	Community Organizations	Community Organizations	Community Organizations	Community Organizations	<b>Community Organizations</b> - Intro to Earth Healing - Marketing & Business Plans - Incorporation & Nonprofit Status - Fund Raising & Grant Writing - Managing Staff & Volunteers - Earthrepreneurship Public-Private Partnerships
Intro to Earthrepreneurship	Intro to Earthrepreneurship	Earthrepreneurship	Earthrepreneurship	Earthrepreneurship	Earthrepreneurship	<b>Earthrepreneurship</b> - Intro to Earth Healing - Marketing & Business Plans - Incorporation - Raising Capital & Grant Writing - Managing Staff - Appropriate Technology Public-Private Partnerships	Earthrepreneurship	Earthrepreneurship	Earthrepreneurship	Earthrepreneurship

**Table 5: Access points for revised land use curriculum using stakeholder approach**

<b>Local Govt.</b>	<b>Planning-Zoning</b>	<b>Water-Sewer</b>	<b>Land Preserv.</b>	<b>Historic Preserv.</b>	<b>Rural Preserv.</b>	<b>Econ. Dev.</b>	<b>Housing</b>	<b>Transp.</b>	<b>Active Commun.</b>	<b>Citizens</b>
Intro to Local Economies	Intro to Local Economies	Intro to Local Economies	Local Economies	Local Economies	Local Economies	<b>Local Economies</b> - Rural Communities: Needs & Opportunities - Economic Development - Local Food Systems - Retail Development - E-Commuting - Green Tourism - Earthrepreneurship	- E Commuting - Earthrepreneurship	Local Economies	- Green Tourism	Intro to Local Economies
<b>Fiscal Aspects of Land Use</b> - Rural Communities: Needs & Opportunities - Planning as a Fiscal Tool - Funding Options & Incentives - Costs-Benefits of Development - Public-Private Partnerships	Fiscal Aspects of Land Use	- Costs-Benefits of Development	Fiscal Aspects of Land Use	Fiscal Aspects of Land Use	Fiscal Aspects of Land Use	Fiscal Aspects of Land Use	- Costs-Benefits of Development	- Costs-Benefits of Development	Fiscal Aspects of Land Use	Fiscal Aspects of Land Use
Housing	- Affordable Housing - Green Construction -Rehabilitation, Adaptive Reuse	- Green Construction	-Rehabilitation, Adaptive Reuse	-Rehabilitation, Adaptive Reuse	-Rehabilitation, Adaptive Reuse	- Affordable Housing - Green Construction -Rehabilitation, Adaptive Reuse - Life Stages & Senior Citizens	<b>Housing</b> - Affordable Housing - Green Construction -Rehabilitation, Adaptive Reuse - Life Stages & Senior Citizens - Community Design - Public-Private Partnerships - Intro to Active Communities	Community Design	-Rehabilitation, Adaptive Reuse	Housing
<b>Infrastructure</b> - Low Impact Development - Water-Sewer-Stormwater (Watersheds) - Yes, In Our Back Yard - Active Communities - Wells & Septic Systems - Transportation Options - Public-Private Partnerships	Infrastructure	Infrastructure	Infrastructure	Infrastructure	Infrastructure	Infrastructure	- Low Impact Development - Water-Sewer-Stormwater (Watersheds) - Wells & Septic Systems - Transportation Options	Infrastructure	Infrastructure	Infrastructure

**Table 5: Access points for revised land use curriculum using stakeholder approach**

Local Govt.	Planning-Zoning	Water-Sewer	Land Preserv.	Historic Preserv.	Rural Preserv.	Econ. Dev.	Housing	Transp.	Active Commun.	Citizens
<b>Transportation Options</b> - Life Stages & Senior Citizens - Intergovt. Cooperation - Intro to Active Communities - Community Design - Public Private Partnerships	Transportation Options	Intro to Transportation	Intro to Transportation	Intro to Transportation	Intro to Transportation	Transportation Options	Intro to Transportation	Transportation Options	- Transportation Alternatives	Intro to Transpotation

Figure 1

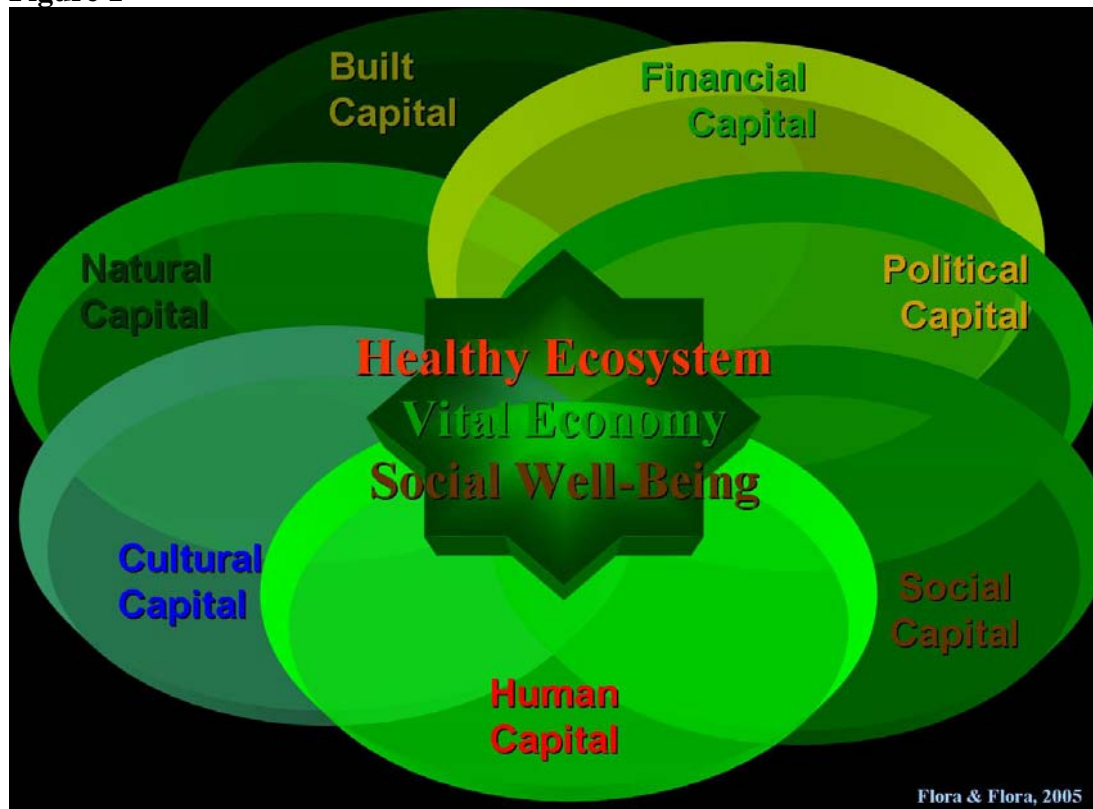


Figure 2

# Land Use Toolbox Stakeholders/Topics

## Land

### Preservation

State Planning Code  
County Planning  
Municipal Planning  
Planning as fiscal tool  
Cost of Community Services  
County Zoning  
Municipal Zoning  
Ag Protection Zoning  
Conservation Zoning  
Standards for Ordinances  
Intergov. Coop.  
Fam/land Easements  
Tax Incentives  
Ag Economic Development  
CAFOs  
**Transportation**  
**Economic Development**  
**Retail development**  
**Housing**  
Open/Green Space  
Recreation  
Watersheds  
Groundwater and Stormwater  
Land Conservancies  
Brownfields  
**Conflict**  
**Living Near a Farm**  
**Good Neighbor Relations**  
**Viewsheds**  
Funding Options  
Suburbanization  
Condemnation  
Importance of Place  
**Revitalizing Towns**  
Forestry  
GIS  
Charting/Visioning  
Community Asset Mapping  
Future of Agriculture in Our Community  
Smart Growth  
Design Principles  
Healthy Lifestyles  
Sustainable Communities

### Planning/Zoning

State Planning Code  
County Planning  
Municipal Planning  
Planning as fiscal tool  
Cost of Community Services  
County Zoning  
Municipal Zoning  
Ag Protection Zoning  
Conservation Zoning  
SALDO  
Standards for Ordinances  
Intergov. Coop.  
**Conflict**  
**Viewsheds**  
**Living Near a Farm**  
Open/Green Space  
Recreation  
Septic Systems  
Wells and groundwater  
Stormwater  
Community facilities  
Demographics  
Legal Issues  
Suburbanization  
State v. Local control  
Brownfields  
**Revitalizing Towns**  
Community Forestry  
Watersheds  
Importance of Place  
GIS  
Charting/Visioning  
Community Asset Mapping  
Future of Agriculture in Our Community  
Smart Growth  
**Transportation**  
**Economic Development**  
**Retail development**  
**Housing**  
Design Principles  
Low-impact Development  
Traditional Neighborhoods  
Healthy Lifestyles  
Sustainable Communities

### Water/Sewer

State Planning Code  
County Planning  
Municipal Planning  
Planning as fiscal tool  
Cost of Community Services  
Tax Incentives  
Districts  
Funding Options  
Fed.-State Water Code  
State v. Local control  
Intergov. Coop.  
Role of Conservation  
District  
Watersheds  
Watershed Groups  
Land Conservancies  
Septic Systems  
Wells and groundwater  
Stormwater  
Building Codes  
Brownfields  
**Conflict**  
State v. Local Control  
Control  
Open/Green Space  
Recreation  
Forestry  
Community Forestry  
GIS  
Charting/Visioning  
Community Asset Mapping  
Smart Growth  
**Transportation**  
**Economic Development**  
**Retail development**  
**Housing**  
Design Principles  
Low-impact Development  
Sustainable Communities

### Historic Preservation

State Planning Code  
County Planning  
Municipal Planning  
County Zoning  
Municipal Zoning  
Conservation Zoning  
HARES  
Building Codes  
Tax Incentives  
Funding Options  
Individual Sites  
Neighborhood Associations  
Scenic Routes  
Rails to Trails  
Land Conservancies  
Brownfields  
**Viewsheds**  
National Trust for Historic Preservation  
Importance of Place  
**Revitalizing Towns**  
Rehabilitation & Restoration  
Condemnation  
**Transportation**  
**Retail development**  
**Economic Development**  
**Housing**  
**Conflict**  
GIS  
Charting/Visioning  
Community Asset Mapping  
Smart Growth  
Traditional Neighborhood  
Sustainable Communities

### Fiscal Impact/Taxation

Local Taxes  
Fiscal Impacts  
Fiscal Modeling  
Build Outs  
GIS  
Cost of Community Services  
Planning as fiscal tool  
Open/Green Space  
Demographics  
Court decisions  
Intergov. Coop.  
Brownfields  
Smart Growth  
Tax Incentives  
**Transportation**  
**Economic Development**  
**Retail development**  
**Housing**  
Sustainable Communities

### Healthy Communities

State Planning Code  
County Planning  
Municipal Planning  
County Zoning  
Municipal Zoning  
Conservation Zoning  
Cost of Community Services  
Open/Green Space  
Rails-trails, Bike Paths, Walking Trails, Greenways  
Recreation  
Intergov. Coop.  
Design Principles  
-Walkability  
-Mixed Use  
Low-impact Development  
Importance of Place

## Rural

### Preservation

Ag Economic Trends  
Ag Economic Development  
CAFOs  
State Planning Code  
County Planning  
Municipal Planning  
Planning as fiscal tool  
Cost of Community Services  
**Transportation**  
**Economic Development**  
**Retail development**  
**Housing**  
Rural Development  
Demographics  
Forestry  
**Conflict**  
**Living Near a Farm**  
**Good Neighbor Relations**  
Intergov. Coop.  
Suburbanization  
GIS  
Charting/Visioning  
Keeping Ahead of Change  
Importance of Place  
**Revitalizing Towns**  
Smart Growth  
Future of Agriculture in Our Community  
Sustainable Communities

### Housing

State Planning Code  
County Planning  
Municipal Planning  
County Zoning  
Building Codes  
Intergov. Coop.  
Condemnation  
Tax Incentives  
Cost of Community Services  
Demographics  
Affordable Housing  
Neighborhood Associations  
GIS  
Charting/Visioning  
**Conflict**  
Community Asset Mapping  
**Living Near a Farm**  
GIS  
Funding Options  
Smart Growth  
Design Principles  
Low-impact development  
Traditional Neighborhoods  
Healthy Lifestyles  
**Transportation**  
**Economic Development**  
**Retail development**  
Sustainable Communities

Land Conservancies  
Environmental Boards  
Traditional Neighborhoods  
Community Forestry  
**Viewsheds**  
Watersheds  
**Transportation**  
**Retail development**  
**Economic Development**  
Funding Options  
GIS  
Charting/Visioning  
Community Asset Mapping  
Smart Growth  
**Revitalizing Towns**  
Healthy Lifestyles  
Sustainable Communities  
**Housing**

Figure 3

# Land Use Toolbox

## Programming

### You and Your Community:

#### *What You Can Do*

Local Decision-maker Worksheet  
Intro to Local/County Government  
Leadership  
Knowing Your Community - Directory  
Existing Organizations - Directory  
Healthy Lifestyles

### What You Can Do with Others

Charting/Visioning  
-Build Outs, e.g., PA Blueprint  
-Intergenerational Futures Festival  
-Charettes  
-*Future of Agriculture in Our Community*

Participatory Action Research  
*Community Asset Mapping*

#### Conflict/Cooperation Modules

Engaging Youth  
Involving Local Schools

#### Sustainable Communities




Municipal planning education  
E-government  
[Land Use Discussion Group](#)  
Keeping Ahead of Change  
*Cost of Community Services*

Building Local Coalitions  
Start a Land Conservancy/Watershed Group,  
etc.  
-How to Become a 501c3  
-Neighborhood Associations  
-HARBS  
*Funding Options*  
-Grant Writing

GIS

Healthy Lifestyles

Figure 4

 <b>The Northeast Regional Center for Rural Development Land Use Toolbox</b>		
Geographic Map and List	Start by clicking on link.	Topic List
	<b>CT Connecticut</b> <b>DE Delaware</b> <b>ME Maine</b> <b>MD Maryland</b> <b>MA Massachusetts</b> <b>NH New Hampshire</b> <b>NJ New Jersey</b> <b>NY New York</b> <b>PA Pennsylvania</b> <b>RI Rhode Island</b> <b>VT Vermont</b> <b>WV West Virginia</b>	<b>Ag &amp; Rural Change</b> <a href="#">links / topic files</a> <b>Fiscal Impact/ Taxation</b> <a href="#">links / topic files</a> <b>Healthy Communities</b> <a href="#">links / topic files</a> <b>Historic Preservation</b> <a href="#">links / topic files</a> <b>Housing</b> <a href="#">links / topic files</a> <b>Intergovernmental Cooperation</b> <a href="#">links / topic files</a> <b>Land Preservation</b> <a href="#">links / topic files</a> <b>Planning/Zoning</b> <a href="#">links / topic files</a> <b>Transportation</b> <a href="#">links / topic files</a> <b>Water/Sewer</b> <a href="#">links / topic files</a> <b>You and Your Community:</b> <b>What You Can Do</b> <a href="#">links / topic files</a> <b>What You Can Do With Others</b> <a href="#">links / topic files</a>
	<b>Locations Outside the Northeast</b> <a href="#">links / topic files</a>	
	<b>Colleges of Agriculture in the Northeast</b> <a href="#">links</a>	
	<b>Help</b>	
<b>Extension Sign In</b>		
<b>Search site for:</b> <input type="text"/> Start Search    Reset		
<b>Email this page to a friend</b>		
 College of Agricultural Sciences	NERCRD ©2004 The Toolbox is a joint effort of The Northeast Regional Center for Rural Development (NERCRD) and Penn State Cooperative Extension in Adams County. This page was last updated on March 17, 2004. Links included in this Toolbox are provided for your convenience and do not constitute an endorsement. Questions and suggestions may be directed to extension staff <a href="mailto:AdamsExt@psu.edu">AdamsExt@psu.edu</a> .	
College of Ag Sciences World Campus Outreach Cooperative Extension Penn State Public Broadcasting		