

A Systems Approach to Community Land Use Education, Planning, and Action

Timothy Collins, Ph.D., Assistant Director
Illinois Institute for Rural Affairs
Western Illinois University
Macomb, IL 61455
t-collins@wiu.edu



Stephan Goetz, Ph.D., Director
Northeast Regional Center for Rural Development
Penn State University
University Park, PA 16802
sgoetz@psu.edu

**The Northeast Regional Center
for Rural Development**

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St. Louis, MO, June 25-28, 2006



Western Illinois University is an Affirmative Action, Equal Opportunity institution.

The integration of sustainability and community requires a systems perspective focused on the relationships among numerous stakeholders.

- Edwards, 2005, p. 29



Where

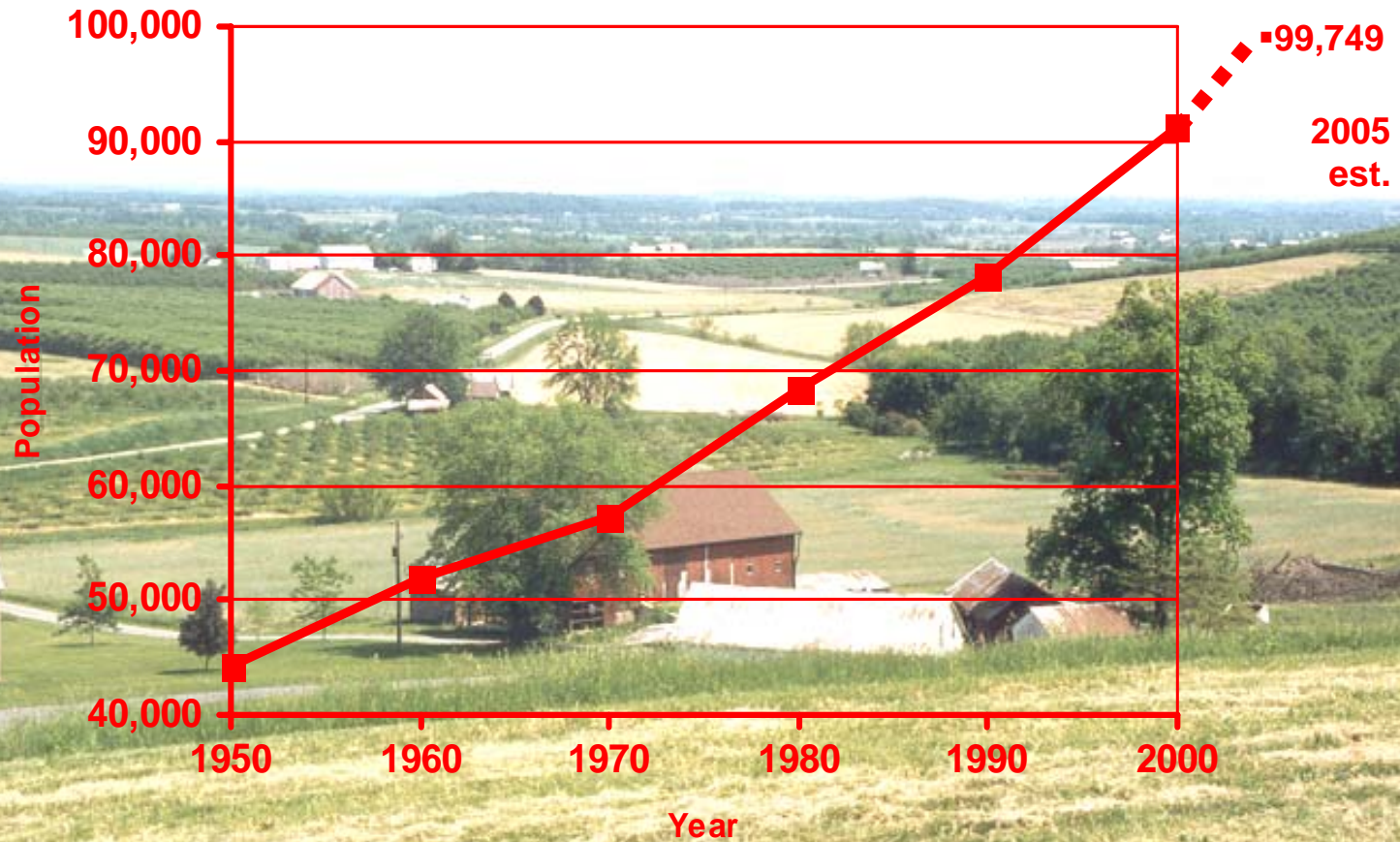


Where is Gettysburg, Pennsylvania?



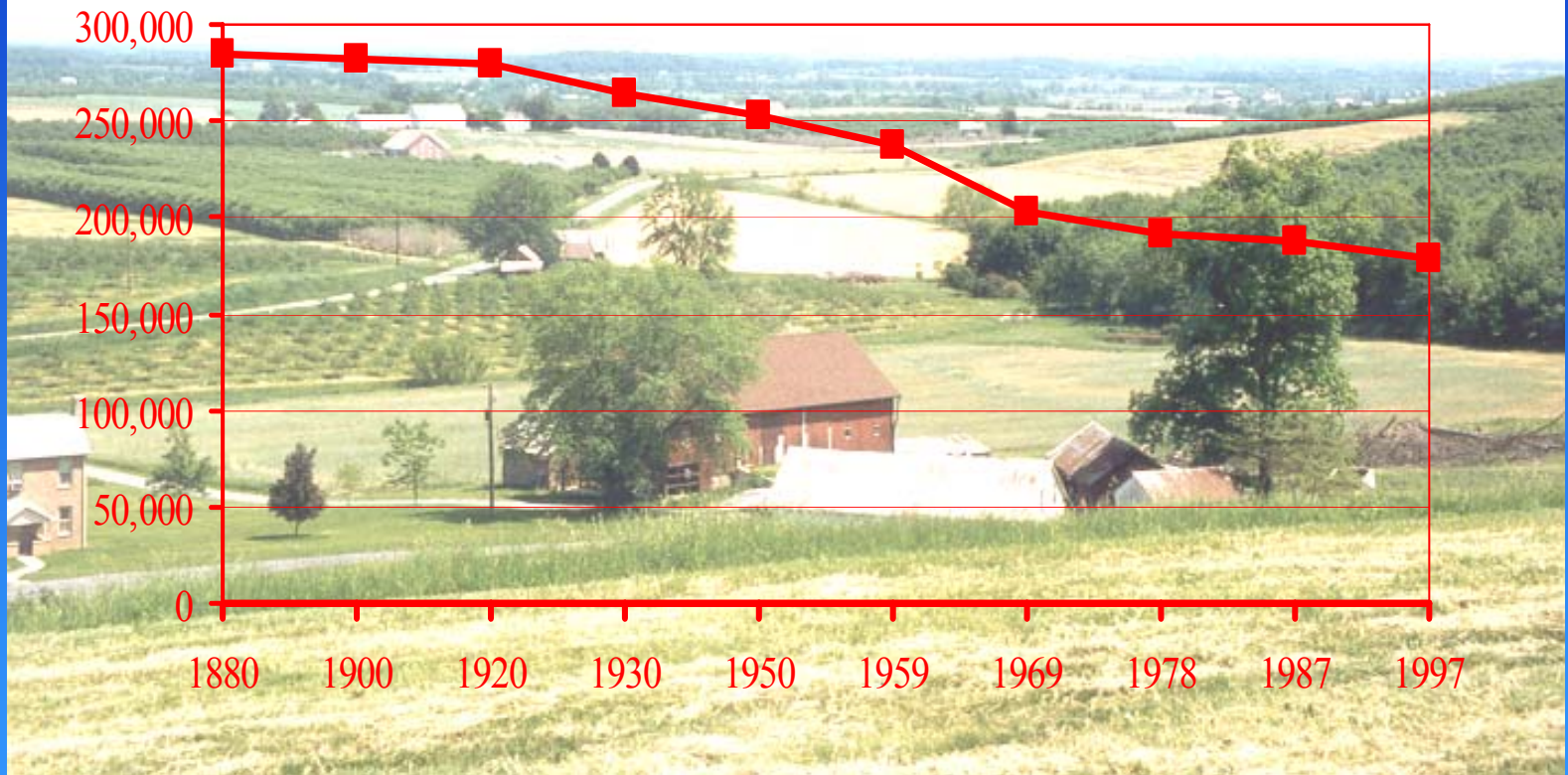
Local context

Adams County Population, 1950-2000



Local context

Adams County, Acres of Land in Farms, 1880 to 1997



Local context

Why Adams County?

→ Location, location, location

→ **Gettysburg**
→ **Tourism**

Local context



Why Adams County?

→ Rural, scenic beauty

→ Quality of life

Gettysburg

Local context



Why Adams County?

→ Small town qualities

→ Relatively low cost of living

Gettysburg

Local context



Why Adams County?

→ Relatively low taxes

→ **Climate**

Gettysburg

Local context



Regional context

The Northeast contains

→ 22.0% of U.S. population

→ 6.7% of the land area



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Regional context

The Northeast contains

- Largest consolidated metropolitan area
- Some of the most rural states



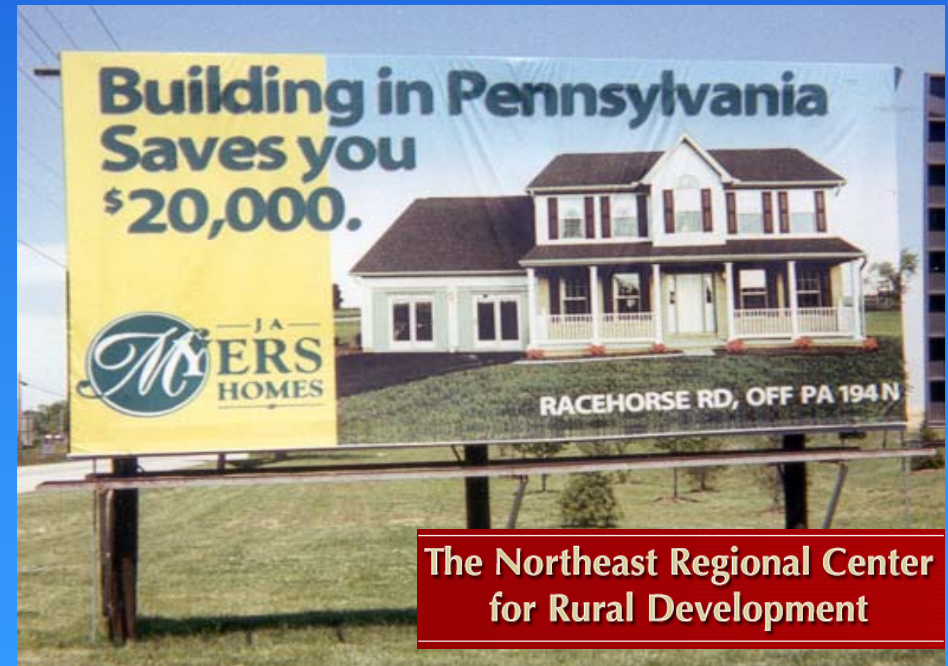
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Regional context

Trends and Issues

- Urban fringe land is cheaper, valued highly by homebuyers (a private benefit)



Regional context

Trends and Issues

→ Farmers sell when amount offered exceeds profits from agriculture plus non-pecuniary benefits



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Regional context

Trends and Issues

→ Current residential development is widely believed to have negative public impacts



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Regional context

Trends and Issues

→ The Northeast is more generous than any other region of the country in converting land to accommodate newcomers

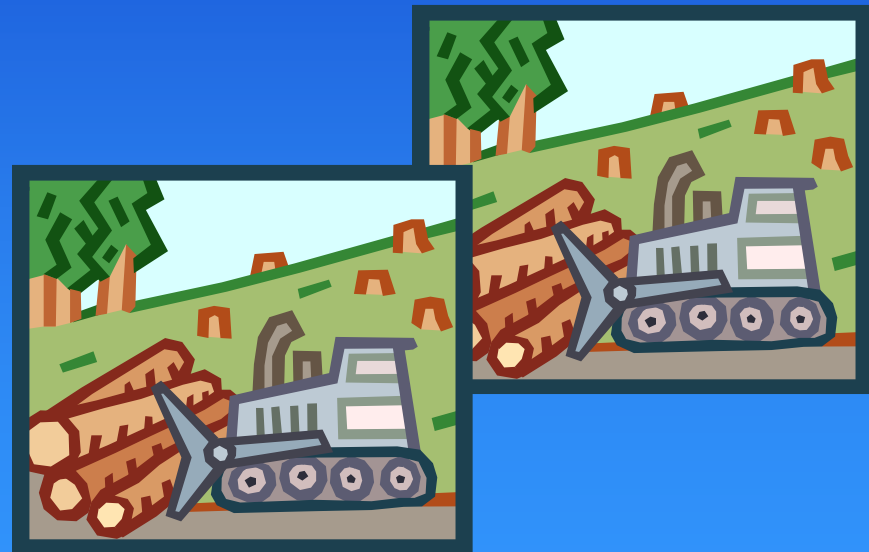


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Regional context

Trends and Issues

→ Pennsylvania is by far the most generous



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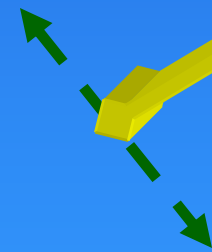
Initial Theory

→ Systems thinking



→ Macrosociology

Community



Human agency



Initial Theory

- Environmentalism - Planning
 - Sustainability
 - Smart Growth
 - Sense of place



Human agency

Initial Theory

Systems approach to community sustainability

Material Infrastructure

Local - regional economy

Ecology

Watersheds, groundwater
Soil types
Natural features

Development patterns

Built infrastructure
Cultural amenities

Demographic trends

Technology

Social Processes

**Federal and State land use
laws and agencies**

**Local land use laws and
policies**

**Local, state, and national
land use organizations**

Local schools

Maryland land use laws

Extension methods

- Participatory action research
- Leadership development
- Discussion groups

General Ideology

Beliefs, values, norms

Local knowledge

Sense of place

Local traditions/History

Ways of gaining and
transmitting knowledge

Human agency



Adapted from Sanderson, 1988

Interdisciplinary approach

“Hard” Science

“Social” Science

Human agency

**Land and
Community**

Where
Sustainable
Community
Development
Happens

Local programming



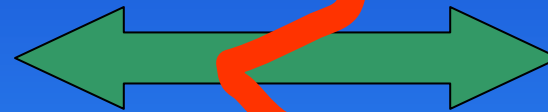
Sustainability Over Time

Technological
Problems

Human agency

People
Problems

*Technological
Solutions...
Problems...*



People
Solutions...
Problems...

**Where
Sustainable
Community
Development
Happens**

Land and Community



Local programming

Program Assumptions

→ Land use decisions are crucial to environmental and community sustainability



Land and Community

Program Assumptions

→ Ongoing people solutions are as important as technological solutions



Land and Community

Program Assumptions

→ Building social processes through participatory decision making is as important as ongoing resolution of challenges and opportunities



Land and Community

Program Assumptions

→ Adapting and using local knowledge is crucial to building social processes for ongoing recognition of challenges and opportunities



Land and Community

Program Assumptions

→ Leaders guide sustainable change by listening well, building coalitions, and serving people's needs



Land and Community

Help citizens understand

→ government operation and policies

→ how “ordinary” citizens can and do become community leaders



Goals

Help citizens understand

→ forces of social and technological change

→ relationships between natural and built environments



Goals

Knowledge gained from local practice

- lots of interest in land use
- plenty of room to improve communications among stakeholders



Supporting Theory

- Community development
 - *Field (interactionist) theory*

Human agency



Supporting Theory

- Environmentalism
 - Land ethic



Human agency

Economic factor

→ You can actually save money by preserving farmland and open space



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Social factor

→ **Planning can mitigate future conflicts**



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Policy factor

→ Opportunities for rural development



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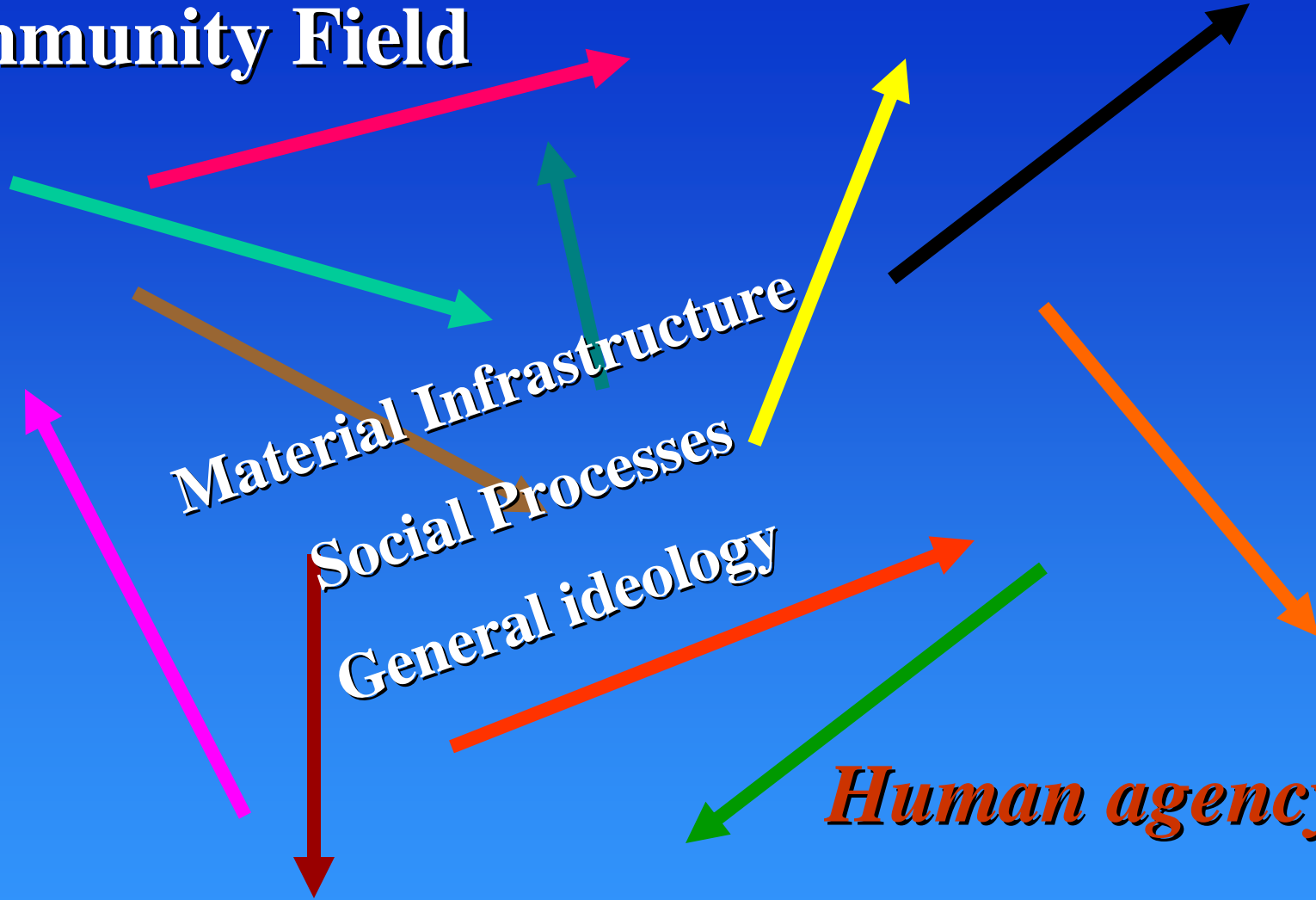
Community Field

What is needed is a conception of community that recognizes its complexity.... It should be studied ... as a dynamic and changing field of interacting forces.

Human agency



Community Field



Working for sustainability?

Community

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).



Human agency

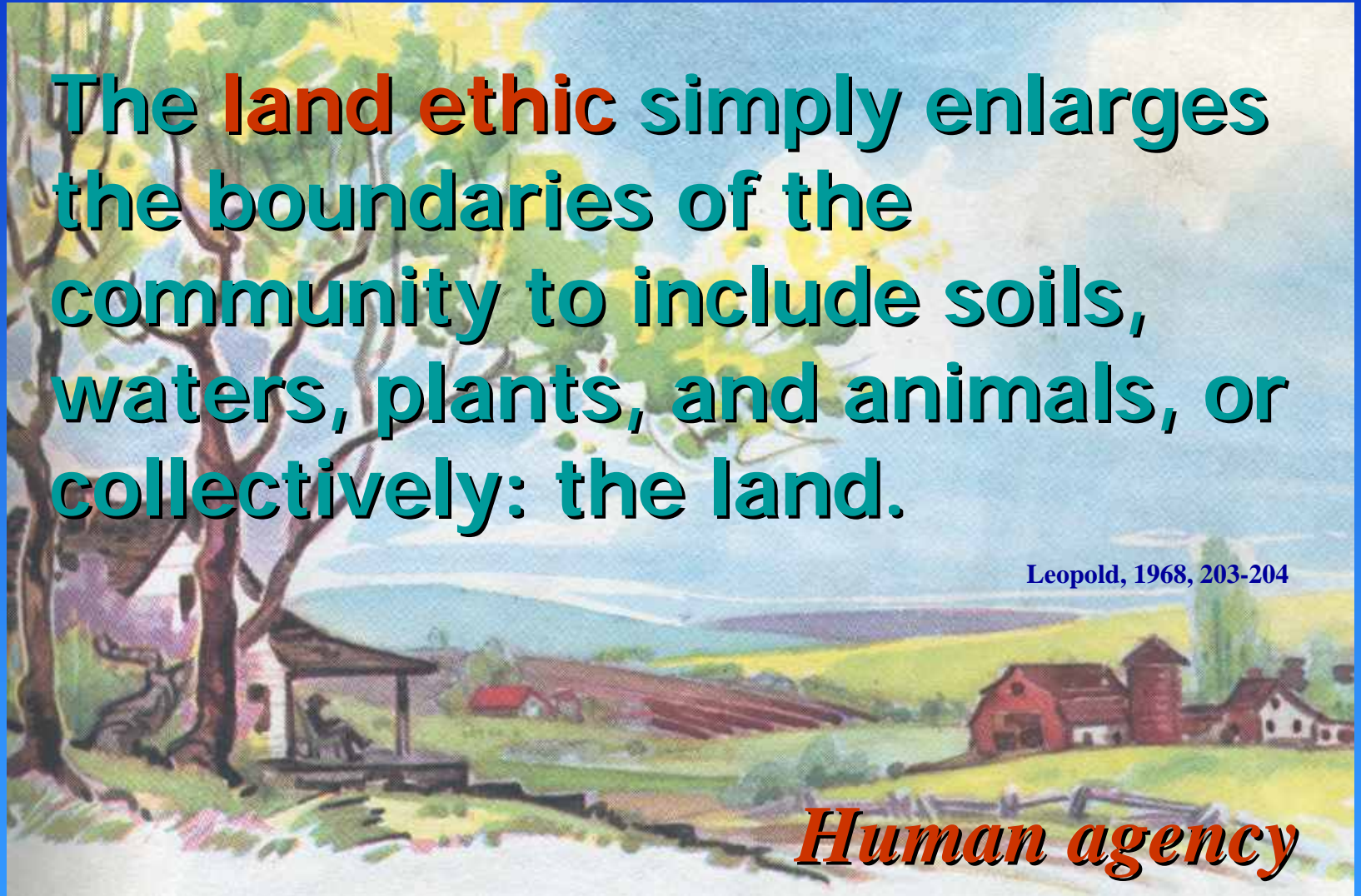
Land and Community

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

Leopold, 1968, 203-204



Human agency



Community Field

Working for sustainability



Human agency



What we started out to do

Material Infrastructure

Social Processes

General Ideology

Local - regional

Land use model

values, norms

Ecology

Local land use laws and

Local knowledge

Watersheds, groundwater

policies

Soil types

for curriculum

Natural features

land use organizations

Built infrastructure

Local schools

Sense of place

Cultural amenities

Development patterns

and website

Demographic trends

Maryland land use laws

Local traditions/History

Technology

Extension methods

Ways of gaining and

-Participatory action research

transmitting knowledge

-Leadership development

-Discussion groups

Human agency



What we wanted

Material Infrastructure

Social Processes

General Ideology

→ **Multiple points of entry based on stakeholders' interests**

Ecology
Watersheds, groundwater
Soil types
Natural features

Local land use laws and policies
Local, state, and national land use organizations

Local knowledge

Built infrastructure
Cultural amenities
Development patterns

Local schools

Sense of place

Demographic trends

Maryland land use laws

Local traditions/History

Technology

Extension methods
-Participatory action research
-Leadership development
-Discussion groups

Ways of gaining and transmitting knowledge

Human agency



*Land use model
for curriculum
and website*

What we wanted

Material Infrastructure

Local + regional economy

→ **Core topical matter**

Ecology

Watersheds, groundwater

Soil types

Natural features

Built infrastructure

Cultural amenities

Development patterns

Demographic trends

Technology

Social Processes

Federal and State land use laws

Local land use laws and policies

Local, state, and national land use organizations

Local schools

Maryland land use laws

Extension methods

-Participatory action research

-Leadership development

-Discussion groups

General Ideology

Beliefs, values, norms

Local knowledge

Sense of place

Local traditions/History

Ways of gaining and transmitting knowledge

Human agency



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Local, state, and national
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Beliefs, values, norms

Local knowledge

Sense of place

Local traditions/History

Ways of gaining and
transmitting knowledge

Human agency

→ **Cross-cutting topical matter**

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and website*



What we did

Pull together research and field expertise from Penn State Cooperative Extension and Northeast Regional Center for Rural Development to understand common areas for stakeholders

- Leadership development
- Discussion groups

Human agency



**The Northeast Regional Center
for Rural Development**

Land Use Toolbox

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
Intergovt. Coop.
Farmland 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
Watersheds
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
Intergovt. 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
Intergovt. Coop.
Role of Conservation District
Watersheds
Watershed Groups
Land Conservancies
Septic Systems
Wells and groundwater
Stormwater
Building Codes
Brownfields
Conflict
State v. Local 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

Stakeholders / Topics

Historic Preservation

State Planning Code
County Planning
Municipal Planning
County Zoning
Municipal Zoning
Conservation Zoning
HARBS
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
Intergovt. Coop.
Brownfields
Smart Growth
Tax Incentives
Transportation
Estimate
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
Intergovt. Coop.
Design Principles
-Walkability
-Mixed Use
Low-impact Development
Importance of Place

Housing

State Planning Code
County Planning
Municipal Planning
County Zoning
Municipal Zoning
Building Codes
Intergovt. Coop.
Condemnation
Tax Incentives
Cost of Community Services
Demographics
Affordable Housing
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
Viewsheds
Watersheds
Retail development
Sustainable Communities

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
Intergovt. Coop.
Suburbanization
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Charting/Visioning
Keeping Ahead of Change
Importance of Place
Revitalizing Towns
Smart Growth
Future of Agriculture in Our Community
Viewsheds
Watersheds
Sustainable Communities

Land Conservancies
Environmental Boards
Traditional Neighborhoods
Community Forestry
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Sustainable Communities
Housing

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



Human agency

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

The Website

 The Northeast Regional Center for Rural Development Land Use Toolbox		
Geographic Map and List	Start by clicking on link.	Topic List
	CT Connecticut DE Delaware ME Maine MD Maryland MA Massachusetts NH New Hampshire NJ New Jersey NY New York PA Pennsylvania RI Rhode Island VT Vermont WV West Virginia	Ag & Rural Change links / topic files Fiscal Impact/ Taxation links / topic files Healthy Communities links / topic files Historic Preservation links / topic files Housing links / topic files Intergovernmental Cooperation links / topic files Land Preservation links / topic files Planning/Zoning links / topic files Transportation links / topic files Water/Sewer links / topic files You and Your Community: What You Can Do links / topic files What You Can Do With Others links / topic files
	Locations Outside the Northeast links / topic files	
	Colleges of Agriculture in the Northeast links	
	Search site for: <input type="text"/> Start Search Reset	Help
Email this page to a friend	Extension Sign In	
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College of Ag Sciences World Campus Outreach Cooperative Extension Penn State Public Broadcasting		



<http://www.nercrd.psu.edu/Toolbox/index.htm>

What we also got

→ Starting point for in-depth systems analysis of community land use using stakeholders' perspective



*Land use model
for curriculum
and website*

What we also got

- Recognition of complexity of land use problem from social and environmental viewpoints
- **Better understanding of community as dynamic, interactional field**



*Land use model
for curriculum
and website*

What we also got

→ Ability to assess organizational capacity to deliver programming and conduct research



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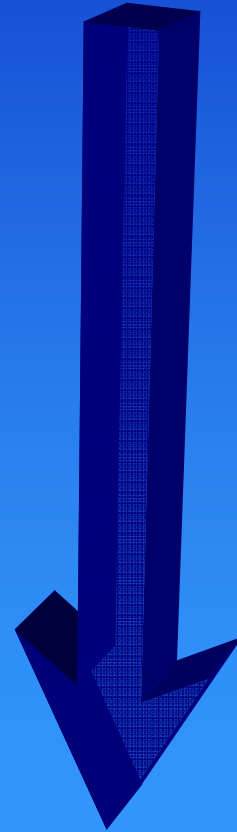
What we also got

→ Potential to plan and develop priority areas for both research and programming

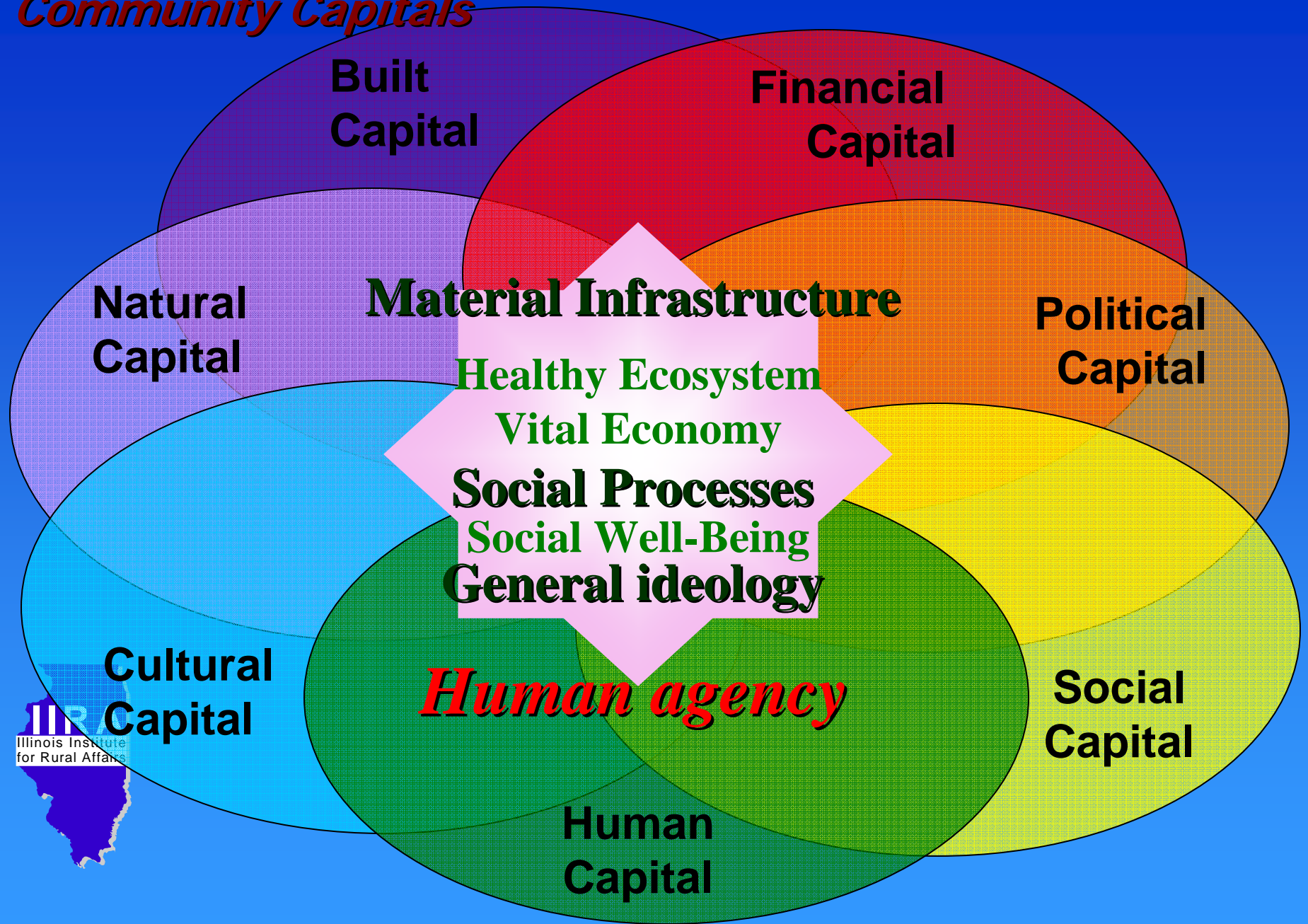


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and website*

Another approach to research



Community Capitals



Community Sustainability

Basis for potential metrics

→ Increased use of the skills, knowledge, and abilities of local people



Human agency

Adapted from Flora, 2005

Community Sustainability

Basis for potential metrics

→ Strengthened community relationships
and communication



Human agency

Adapted from Flora, 2005

Community Sustainability

Basis for potential metrics

→ Improved equity – social justice



Human agency

Adapted from Flora, 2005

Community Sustainability

Basis for potential metrics

→ Improved community initiative,
responsibility, and adaptability



Human agency

Adapted from Flora, 2005

Community Sustainability

Basis for potential metrics

→ **Appropriately diverse and healthy economies**



Human agency

Adapted from Flora, 2005

Community Sustainability

Basis for potential metrics

→ Sustainable, healthy ecosystems with multiple community benefits



Human agency

Adapted from Flora, 2005

Sources

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