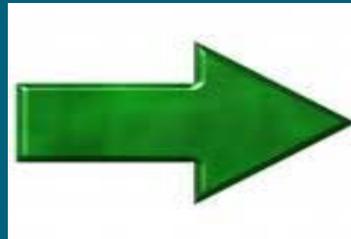


Developing Human, Social, and Financial Capital in Rural Collaborative Organizations: An Evaluation of Eight Rural Landfill Development Projects

John Lehman

Appalachian State University Energy Center, RIEEE



- In Blountville, Tennessee, Sullivan County could make as much as \$120 million dollars from a deal to cap and develop an existing landfill and building an additional 300 acre landfill(Tri-Cities.com, 2010)
- A new landfill in Gilliam County, Oregon provides \$3 million in annual host fees, while providing the community with 84 full-time jobs([OregonBusiness](http://OregonBusiness.com), 2010)
- In Catawba County, NC, the Eco-Complex has brought more than 150 jobs to the county as a result of a comprehensive development project that includes a methane recovery facility, greenhouses, a biofuel facility and multiple business end users(sogweb.sog.unc.edu, 2010)

Developing Human and Social Capital in a Rural Economically Distressed Counties

- The OECD defines human capital(1998,p. 9) as “the knowledge, skills, competences and other attributes embodied in individuals that are relevant to economic activity.”
- To Putnam(1993, 1995), social networks, norms, reciprocity and trust are the determinants of social capital
- These networks, norms, reciprocity and trust contribute to form stronger communities, which spawn useful activities as by-products that are made possible by the increase in sharing of information, increased trust and increased inter-personal solidarity(Coleman,1990, Roseland, 2000)

- Williamson(1975) described transaction costs as the “comparative costs of planning, adapting, and monitoring task completion under alternative governance structures.”
- Transaction costs can also be thought of as the time, effort, and cash outlays involved in locating someone to trade with, negotiating terms of trade, drawing contracts, and assuming risks associated with the contracts(Hyman, 1999)
- Collaborative settings can be conceptualized as institutions that require many transactions but that also have inherent mechanisms that reduce the transaction costs associated with collaborative policy making at the collective choice level(Ostrom, 1999)

Collaborative Management Themes

Leach and Pelkey

Affirm Success

1. Funding(23)
2. Effective leader or facilitator(22)
3. Limited or focused activities(16)
4. Broad membership(16)
5. Cooperative and committed participants(16)
6. Trust(16)
7. Low or medium levels of conflict(14)

Contradict Success

1. Broad or inclusive membership(8)
2. Local Bottom-up leadership(7)
3. Limited or focused scope of activities(6)
4. Well-defined decision rules(3)
5. Formal enforcement mechanisms(3)
6. Low or medium levels of conflict(2)
7. Consensus decision making(2)

The Importance of Leadership and Facilitation

- Margerum(1999) It is critical that, “There are people with the skills and time to lead the effort.”
- Leach and Pelkey found that an, ‘effective leader or facilitator’ was identified as a theme affirming success in 22 out of 37 studies.
- Good leaders and facilitators can mollify disagreement and conflict as well as provide entrepreneurial innovation(Wondolleck and Yaffe, 2000)

The EnergyXchange Case Study

- The EnergyXchange is a multi-faceted operation that focuses on “3 E’s”-education, economic development, and the environment.
- Acting as a business incubator, the site houses clay and glass studios as well as aquaponics and four greenhouses.
- Economic development:
 1. \$1 million in energy cost offsets,
 2. \$1-2 thousand a month saved energy costs for artists,
 3. 3-5 thousand visitors per year.

A Logic Model Emerges from the EnergyXchange

Inputs	outputs	Outcomes
Facilitation > Time	Workshops	Large Grants
> Money	Testing	Contracts for development
> Facilities	Financial and policy analysis	County Landfill Development
> Locating Partners	Grant proposals	
> Technical Support	Landfill Development Plans	
> Group Formation	Small grants	

Social Capital Index: Eight North Carolina Counties

Counties	Social Capital Index
Robeson	-2.061
Rockingham	-0.732
Columbus	-0.976
Mcdowell	-1.148
Edgecombe	-0.943
Bertie	0.196
Scotland	-1.589
Cleveland	-0.596

Scale- Lowest(-3.804 to -1.257), the second lowest being (-1.257 to-.662), the middle range being (-.662 to .041), the second highest being (.041 to 1.037), and the highest range being (1.037 to 15.222)

Source: http://nercrd.psu.edu/Social_Capital/ProductionOfSocialCapital.pdf

Community TIES Survey

Human and Social Capital

- Educational Attainment: High School-29%, BS/BA- 14%, Masters-57%
- Community Residence: Average 28 years per community group member
- Business Ownership: 33%
- Public Service: 33%
- Volunteer Civic Organization Membership: Average 4.25
- Church or Religious Organization Affiliations: 83%
- Elected Officials: Zero
- Employment with Educational Unit: 33%

Variables that Fostered and Hindered Success

Fostered

1. Facilitation(5)
2. Accumulating Knowledge and Information(4)
3. Leadership(3)
4. Trust(3)
5. Decision Making(2)
6. Community Support(2)
7. Availability of Carbon Market(2)
8. Ability to translate Technical Information(2)
9. Formal Strategic Plan(1)
10. Communication(1)
11. Political Leadership(1)

Hindered

1. Limited Physical Capital(4)
2. Political Opposition(3)
3. Shortage of Financial Capital(2)
4. Decision Making(1)
5. Limited Ability to Translate Technical Information(1)

Outputs and Outcomes

Outputs

- Workshops(all 8 counties)
- Landfill Development Plans
(all 8 counties)
- Small Grants(5 counties)
- Testing(4 counties)
- Financial and Policy Analysis
(all 8 counties)
- Large Grant Proposals
(5 Counties)

Outcomes

- Large Grants
(1 county=\$690,000)
- Contracts for Development
(2 Counties)
- Small Animal Processing
Plant(1 county)