

Social capital and land protection in rural Appalachia¹

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Abstract

This chapter examines the organizational collaborations of land trusts in the Appalachian region of North Carolina, Virginia, and Tennessee. Land trusts (LTs) are nonprofit, charitable organizations that work to conserve land in the communities in which they operate. Within U.S. federal and state tax policy frameworks, the capacity of land trusts to protect land varies considerably. A purported explanation rests on differences in the level of social capital, an important component in multi-functional land use planning. To date few studies have empirically examined the relationship between social capital and land conservation. Drawing on interviews with 24 land trust executive directors, this chapter explores the types of collaborations land trusts engage in, and how these collaborations – in the form of bonding, bridging, and linking social capital – facilitate land protection in rural areas. Results show that while linking social capital is critical for land protection, the success of many small local land trusts is largely accounted for by bonding and bridging social capital.

Keywords: land conservation, land trusts, social capital, organizational collaborations, success

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1. Introduction

Over the past two decades development of land and population pressures have increased and so has the number of land conservation organizations across the United States. In western North Carolina, the number of acres converted from natural land to developed land increased nearly 570 percent or at an average rate of 17 acres per day between 1976 and 2006 (Vogler et al., 2010). Across the United States, an estimated 23 million acres of forests will be lost to developed uses by 2050, and another 57 million acres of rural private forestlands will likely be affected by housing development by 2030 (Alig et al., 2010; Stein et al., 2005, 2009). The conversion and loss of ecologically valuable land has been influenced not only by development, but also rising land prices, population growth, tourism, and increasing interest in the amenity value of forests. In the face of limited resources and lack of effective market mechanisms for ecosystem services, the ability to protect ecologically valuable lands depends on effective private-public collaborations.

This chapter examines the collaborations of land trusts with other private and public organizations in rural Appalachia. Land trusts (LTs) are nonprofit, charitable organizations that work to conserve land in the communities, in which they operate. LTs directly purchase land for permanent protection or accept donations of land, funds, and conservation easements. A conservation easement is a negotiated, legally-binding agreement between a private property owner and a land conservation organization that limits development and protects the land for its conservational, historical, or other public values (Farmer et al., 2011; Gustanski and Squires, 2000). Within federal and state tax policy frameworks, the capacity of LTs to protect land varies considerably. According to the national Land Trust Alliance (LTA), there are about 1,700 local land trusts in the United States with varying degrees of organizational and financial capacity,

professional staff, membership, and record of protected areas (LTA, 2011). The distribution of conservation easements and protected land among regions has also been highly uneven and disproportionate, in particular between states in the Northeast and Southeastern United States (Yonavjak and Gartner, 2011). In 2010, over a third of the total acres conserved in the United States by local and state land trusts were in the Northeast (33% or 5,225,019 acres), compared to about 16% (2,623,148 acres) in the Southeast (LTA Census 2010). In addition, the Southeast had only about 9% of the total number of conservation easements in the country as of 2011 (Yonavjak and Gartner, 2011).

A purported explanation for these trends rests on differences in the level of social capital, an important component in multi-functional land use and planning. To our knowledge few studies have empirically examined the relationship between social capital and land conservation. Social capital can be understood as “the structural and cognitive dimensions of the relationships between people and organizations” (Knight et al., 2010:1350). Successful collaborations and vibrant associational life are indicators of high social capital, which in turn promotes environmental well-being, conservation action, and the provision of environmental goods. This study focuses on the organizational collaborations of land trusts with other entities, and their ability to mobilize resources for a common objective. Two questions are addressed in this chapter: 1) *What types of organizational collaborations are important for land protection?* 2) *How does social capital (measured as organizational collaborations) facilitate land protection and the success of land trusts in rural areas?*

The analysis examines 24 land trusts operating in western North Carolina, southwest Virginia, and east Tennessee. This tri-state area, known as South-Central Appalachia, encompasses 85 counties with comparable topography, demographic, and socio-economic

characteristics. While conservation opportunity in the area is high, tensions between development and land use have challenged conservation action. Among the many barriers are limited resources and ability to leverage resources among land trusts, and between land trusts and their communities (Yonavjak and Gartner, 2011).

The next section reviews the theoretical linkages between social capital and collaborative natural resource management. A brief background of land trusts and private land conservation is also provided. Next, the data collection and analytical approach of the study are presented, followed by the results, and a brief discussion.

2. Social capital, land trusts, and collaborative natural resource management

Social capital is essential to successful collective action in the natural resource management arena (Ostrom, 1990, 2005). Accumulating research shows that trust and shared understanding among individuals who use and manage natural resources, the right to self-organize, common rules, norms and sanctions, among others, are associated with effective natural resource management and sustainability (Agrawal, 2002; Cox et al., 2010; Dietz et al., 2003; Ostrom, 1990; Pretty and Ward, 2001). As defined here, social capital is embodied in social relationships and norms among people and organizations (Knight et al., 2010). The structural dimension of social capital entails different types of relationships, networks, and social structures, while the “subjective aspects and intangible features, including attitudes, accepted rules of conduct, shared values, reciprocity and trust” represent the cognitive dimension of social capital (Paletto et al., 2012:132). One could argue that the two dimensions are mutually reinforcing and integrative, such that the level of cognitive social capital is a function of the level of structural social capital and vice versa.

In addition, research shows the importance of connections within, between, and beyond communities. These relationships are known as bonding, bridging, and linking types of social capital (Woolcock, 2001; Pretty and Smith, 2004). *Bonding social capital* reflects relationships between local groups and people with similar objectives and outlooks (e.g. between land trusts and other conservation or environmental groups). *Bridging social capital* is manifested in connections between land trusts and other entities with different views, such as local tourism groups, real estate or business associations. The *linking social capital* describes the ability of land trusts to build relationships vertically with policy-making institutions and government agencies, such as the United States Forest Service, the Department of Environment and Natural Resources, or the Parks and Recreation Trust Fund. These three types of social capital (bonding, bridging, and linking capital) reflect the different types of organizational collaborations land trusts engage in.

Collaborations are an important indicator of social capital in the field of environmental management (Imperial, 2005). Collaboration, here, captures the idea of collective decision-making and “co-laboring” over shared pursuits and common goals (Agranoff and McGuire 2003; Ansell and Gash 2008:545). In natural resource management, a diverse set of actors interact with one another on a spectrum of collaborative initiatives (wildlife habitat protection, watershed management, conservation easements), and across different sectors (public, private) and levels of government (federal, state, and local) (Ansell and Gash, 2008; Imperial, 2005). Public agencies, private and non-profit organizations work together in multiple ways to conserve land and keep streams and forests healthy in order to ensure a stream of ecosystem benefits for current and future generations. These collaborative efforts to manage and use natural resources sustainably reflect the idea of collaborative natural resource management.

Private land conservation is a great example of collaborative natural resource management, where conservation easements are carried out through a diverse set of partnerships with non-profit organizations, public agencies, private businesses, and individuals. Land trusts are key actors in this context. They are non-profit organizations that “actively work to conserve land by undertaking or assisting in land or conservation easement acquisition, or by stewardship of such land or easements” with the ultimate goal of enhancing the environmental, economic, and social values of communities (LTA, 2011:4).

The land trust movement in the United States took off on a large scale in the 1980s, largely due to changes in the federal tax structure, decline in government land acquisition programs, and the adoption of the Unified Conservation Easement Act (UCEA) (Gustanski and Squires, 2000; King and Fairfax, 2006; Brenner et al., 2013). In the period 1980-2010, the number of local, state, and national land trusts grew from 400 to 1,723, with local and state groups representing the majority (1, 699) (LTA, 2011). Because land trusts have diverse conservation goals, including the protection of working farms, forests, watersheds, wildlife habitats, recreation, and historic preservation, we would expect their organizational collaborations to vary widely. Similarly, the financial² and organizational capacity of land trust is likely to shape who they collaborate with. Lastly, the strategies employed by LTs, ranging from land and property rights acquisitions, land-use planning, policy advocacy, to education and outreach influence their collaborations, as well as the nature of these collaborations (Gerber and Rissman, 2013; LTA, 2011).

One of the objectives of this study is to relate the collaborative efforts of local land trusts to their success. Generally, success is measured by acres conserved or acres placed under

² The median operating budget for local and state land trusts in 2010 was \$62,000 compared to the group’s average of \$460,832 (LTA, 2011).

conservation easement. As of the latest Land Trust Alliance Census report (LTA, 2010), land trusts have protected over 47 million acres of land, 10 million between 2005-2010, and 23 million between 2000-2010. According to some estimates, this represents “an area over twice the size of all national parks in the contiguous United States” (LTA, 2011:5). In addition, the total area held under CEs by local and state land trusts in 2010 was 8.83 million acres or 3.57 million hectares (LTA, 2011). The next section proceeds by describing our study area, data sources, and analytical approach.

3. Methods

3.1 Study area

Our study area includes 29 counties in Western North Carolina, 18 counties in Virginia, and 38 counties in Tennessee that are part of the Appalachian Regional Commission (ARC)’s South-Central sub-region (Fig. 1). The Appalachian region is a federally designated geographic area spanning 205,000 square miles (420 counties) across thirteen states, with a population just over 25 million people (ARC, 2014). It is divided into five contiguous sub-regions for research purposes, based on topographic, demographic, and economic similarities. We interviewed 24 local and state land trusts operating in the geographic area of South-Central Appalachia.

[Fig. 1 here]

We focus on land trusts in South-Central Appalachia for two primary reasons. First, the area is historically seen as economically-underdeveloped and marginalized, and certain pockets of the region are still qualified as distressed counties (93 counties in 2014) (ARC, 2014)³.

Research suggests that economically distressed rural areas stand to benefit from higher levels of

³ Distressed areas represent “census tracts in at-risk and transitional counties that have a median family income no greater than 67 percent of the U.S. average and a poverty rate 150 percent of the U.S. average or greater” (ARC, County Economic Status and Distressed Areas in Appalachia, 2014).

social capital and vibrant associational life (Woolcock, 2001; Putnam, 2000). Second, a focus on Appalachian-based land trusts can help us explore the degree to which local culture informs land protection in rural settings. Culture here is conceptualized as a mediating factor in the relationship between social capital and land protection.

3.2 Data and analysis

In order to understand how social capital facilitates land protection and the success of land trusts in rural areas, we conducted 24 semi-structured interviews with land trust executive directors between September 2012 and April 2013. Two of the interviews were face-to-face and the rest were conducted over the phone. The conversations ranged, on average, between 14 and 57 minutes. The interviews gathered information on: how the executive director measures the success of the land trust, his/her relationships with the board of directors, the collaborations of the land trust with other organizations, membership in state and national networks, and organizational reputation. Upon interviewees' consent, the conversations were audio-recorded, then transcribed, and analyzed thematically (Boyatzis, 1998).

The analysis primarily sought to document patterns of collaborations among land trusts in South-Central Appalachia and to identify the presence of bonding, bridging, and linking social capital. The three types of social capital were operationalized based on the type of organizational collaborations: a) bonding social capital - collaborations with other land trusts, and membership in regional, state, or national land trust networks; b) bridging social capital – collaborations with local community organizations; c) linking social capital – collaborations with state and federal organizations. Using an interpretive phenomenological perspective (Smith et al. 2009), the data were open-coded for themes. Additional data sources used in the corroboration of themes included policy documents and news articles published in local print and online media in

the period 2010-2012. The final step in the analysis included within-case and across-case comparisons of themes that emerged from the experiences of land trusts in our study area.

4. Results

Our results show that while linking social capital is critical for land protection, the success of many of the land trusts in the study area is largely accounted for by bonding and bridging social capital. The size and experience of land trusts in South-Central Appalachia is fairly representative of those across the nation. The oldest of the 24 land trusts was founded in 1883, four groups were formed between 1950 and 1970, four in the 1980s, and the remaining ones in the post-1990 period. Notably, 3 of the 24 land conservancies are state-wide organizations that represent conservation interests before the state legislatures and advocate on behalf of local land trusts. Unique among them is a group that operates as a quasi-state organization, and whose director is appointed by the state governor. We found substantial variation among the 21 local land trusts in terms of: quantity of full-time staff members (Mean=7.6, Median=4, Range=45), number of counties served (Mean=7.3, Median=6, Range=34), and number of acres protected (Mean= 68,082; Median=20,117; Range= 724,901).

4.1 Types of organizational collaborations

Our results indicate two types of partnerships that are instrumental to the work of land trusts in our study: collaborations with other land conservancies and local community organizations (bonding and bridging social capital); and collaborations with state and federal agencies (linking social capital). In addition, several indicators of structural and cognitive social capital were identified by study participants (Table 1).

Bonding social capital is manifested in collaborations with local land trusts, state, regional and national conservation groups, such as Conservation Trust for North Carolina, The Nature Conservancy, the Trust for Public Land, and the Land Trust Alliance. When asked why they collaborate with other land conservancies, one land trust director responded: “*Because they are so much like us in how they do business, as well as simply born out of a need.*” (LT21)⁴. Such need is related to activities, such as: sharing land management stewardship; sharing staff and volunteer coordinators; sharing trust, and doing fundraising events together. Many land trust partnerships are motivated by the need for resource sharing, others are project-driven. In both cases, the catalyst driving these relationships is a set of common values and norms that contribute to bonding social capital: “*Collaborating with others that have similar values and similar missions [is] how we can help landowners.*”(LT21). This outlook illustrates the interplay between cognitive and structural social capital in land conservation work (Table 1).

[Table 1 here]

In addition, frequent communications among land trust executive directors and/or staff members seems to enhance bonding social capital, and to support collective decision-making. For instance, the executive directors of land trusts that are members of the NC Land Trust Council hold monthly conference calls and meet once or twice a year to talk about the big issues their organizations are facing, about public policy, and funding challenges. A number of executive directors also sit on the boards of other local or state land trusts.

A second indicator of bonding social capital is membership in regional, state, and national networks (Table 1). Specifically, accreditation by the national Land Trust Alliance is an important measure of network access and support, and represents a stamp of approval for good organizational practices. The Land Trust Accreditation Program recognizes land trusts that meet

⁴ LT21=land trust number

national quality standards for protecting important natural places. In our study area 16 of the 24 land trusts are currently accredited by the LTA, and one is undergoing accreditation. The Virginia-based LTs are members of the state network of land trusts, known as Virginia's United Land Trusts (VaULT), and 15 North Carolina LTs participate in the statewide Land Trust Council. In addition, 10 land conservancies in Western North Carolina have formed a regional group "Blue Ridge Forever" that provides land trusts with access to important resources and opportunities for collaborations. In the words of one interviewee: "*we started the conversation that eventually led to the formation of Blue Ridge Forever. While all of the member land trusts are legally independent there were numerous committees formed so that the land trusts could work on public relations and fundraising on a more regional as opposed to local level*" (LT1). Such network memberships strengthen the organizational capacity of land trusts and contribute to bonding social capital.

Land trusts also collaborate with local community groups, associations, town and county governments, garden clubs, and research institutions (Fig. 2). These collaborations represent bridging social capital and are particularly important for land trusts that operate across large geographic areas. In describing a recent partnership with the Soil and Water Conservation Districts over a farmland protection plan, this LT executive director emphasized the value of bridging social capital: "*Well, [it contributes] a lot, especially with Soil and Water Conservation districts. It's those folks for us in the more rural counties where we don't have as much of a presence. They can be our eyes and ears on the ground. They can connect us with landowners who they think are conservation minded and help us with connections to that local community that we wouldn't have otherwise.*" (LT11). Similarly, building relationships with other groups in the community is how some land trusts are able to meet their mission: "*The vision of*

conservation is not just [us], so we're working on finding ways that we can work with others and have a community impact. We can't do the work alone, that's just the bottom line." (LT21). This outlook underscores the value of social capital in collaborative natural resource management.

Finally, funding- and policy-oriented collaborations between land trusts and state or federal agencies contribute to linking social capital. Partnerships with state agencies and funding programs were a recurrent theme in the interviews: "*Funding organizations are the most important [for our work]. These include the Natural Resources Trust Fund, Clean Water Trust Fund, Agricultural Lands Trust Fund, Parks and Recreation Trust Fund, the National Forest Service, the National Parks Service*" (LT1). This is not surprising since the capacity to protect land has traditionally relied on public funding programs. Many land trusts also rely on partnerships with state and federal agencies, such as the National Park Service, the U.S. Forest Service, and the State Department of Environment and Natural Resources for large-scale conservation projects.

[Fig. 2 here]

We found that land trusts with relatively small capacity typically pursue collaborations that contribute to bonding and bridging social capital, while high-performing, high capacity organizations tend to focus on linking social capital. We expand on these two trends in the next section, which links social capital to the success of land trusts.

4.2 Social capital and land trust success

One of the study objectives was to understand how social capital (defined as organizational collaborations) facilitates land protection and the success of land trusts in rural areas. Recognizing that success is a multidimensional concept, we operationalize it here through a number of indicators identified in responses to the question: "*How do you measure the*

“success of the land trust?”. In a narrow sense, indicators of success include number of acres or miles of water protected, projects completed, and money raised. From a broader perspective, land trust success was measured in terms of community impact, the financial health of the organization, the quality and quantity of the staff, and membership growth (Table 2).

Notably, social capital in the form of organizational reputation and membership in the LTA accreditation program is also considered part of the organization’s success. For some groups, a positive reputation in the community as well as among landowners was an indication of success. A good reputation gains new members, committed volunteers, and board members. As one land trust director noted, *“Our reputation within the community is another measure that we’re doing well. The ease with which we can get people to join the board is another one, again reputation within the community”* (LT4).

[Table 2 here]

In response to the question *“Do you think your collaborations with other groups influence the success of the land trust? How so?”* most executive directors replied positively and related collaborations to organizational mission, capacity, efficiency, and project success. In the words of this executive director: *“Collaborations with other groups are instrumental to the success of the conservancy. It is impossible to achieve meaningful goals without collaboration.”* (LT1). For many small-scale land trusts, collaborations with other land trusts (bonding social capital) were an effective way to improve their efficiency and organizational capacity, both of critical importance to their success: *“We are small and have to leverage the resources and experiences of other groups to succeed.”* (LT15). In addition, a number of land trust directors assessed their collaborations in the context of specific projects, where bridging social capital in the form of relationship-building and trust was critical to the success of these projects. In the

words of this executive director: “... *relationship-building is absolutely key to so much of what we do. I am in a somewhat rural, traditionally conservative, Appalachian region where people are very suspicious of government. Local government doesn't want to be told too much what to do. I have some counties that don't have zoning, ..., so a lot of it is building relationships, building trust, explaining, helping research questions.*” (LT17). Similarly, another land trust director emphasized that their success is largely influenced by trust and “people trusting [them] to protect their land”.

When asked which types of collaborations were most important for the success of their organization and why, land trust directors offered responses that converged around two common themes. First, study participants emphasized the importance of funding and policy-oriented collaborations with statewide groups (linking social capital). This trend was particularly prominent among high capacity land trusts. Second, small local land trusts identified sister land trusts and local businesses (bonding and bridging social capital) as most critical to the success of their work. In both cases, social capital was an effective mechanism to meet and adapt to changing economic and policy realities.

The first theme was recurrent among high-performing land trusts that have made use or had significantly relied on public funding for land protection in the past. Critical for these groups today are collaborations that help leverage funding for state-level voluntary conservation programs and policies: “*I would say [collaborations with] the statewide organization in our efforts to influence public policy because the amount of public funding that's available and some of the statutes regarding conservation easements, those things are critical to what we do. And if we are not successful pushing for them in the legislature then we are not going to be successful protecting land.*” (LT11).

Second, in response to changes in state conservation programs and financial cutbacks, many land trusts have sought to strengthen their collaborations with local community groups, city and county governments, other non-profit organizations, fishing and hiking clubs, businesses, tourism associations, and corporate supporters (bridging social capital). This strategy allowed one local conservancy to transition from a portfolio of 70% public-30% private to 70% private and 30% public funding over the last four years. Collaborations with sister land trusts (bonding social capital) were identified as most critical to the success of small-scale local land trusts: *“We are extremely effective in working together and they are probably the most valuable partnership that we have. ... They have expertise, and they have a much larger staff than we have. They have expertise in areas that we don’t have, and we’re happy to lend and share and collaborate together. It’s so great because you talk to these other land trusts that are also small staffed, like ours, and they say “Wait, how can you purchase all this land and still do the easements and the monitoring and we say we have XX do that, and they say oh my gosh, that’s brilliant.”(LT12)*

Finally, other factors affecting land trust collaborative success included market forces and geographic location. This is not surprising since market mechanisms, along with existing legal and regulatory regimes, are important structural variables influencing, both landowners’ land use choices and the conservation work of land trusts. The market value of land was identified as an important contextual factor shaping the decisions and collaborative efforts of land trusts, particularly in popular tourist destinations: *“We’re also in a region, where you can do a 10 acre conservation easement, which is very small and the tax donation is over 200,000 dollars....So being small and being in this very, very expensive market, it’s really hard for me to go to governmental organizations and buy land - ask them to give me money to buy land when, you*

know, a 100,000 dollars will buy me a couple of acres here but in some place in Kentucky will buy 50 acres.” (LT4). In addition, land trusts operating in valley regions had more diverse organizational collaborations than those in mountainous areas, largely due to the wider presence of federal agencies, more conservation partners, and access to funding in non-mountainous, agricultural areas.

5. Conclusion

Among land trusts in South-Central Appalachia, bonding social capital is dominant, followed by bridging and linking types of social capital. This is not surprising since cohesiveness and collective decision-making are easier when organizations have shared values and norms, and constitute a fairly homogenous group of like-minded individuals. Funding-oriented collaborations were instrumental to the success of many land trusts in our study. Equally important were relationships with local businesses and non-profit organizations that helped fill recent gaps in state funding for conservation work. Our results showed that where linking social capital is weak or disappearing, the importance of bonding and bridging social capital becomes more prominent. In particular, land trusts that had previously relied on strong support from state and federal funding agencies have now shifted their efforts to building stronger relationships with sister land trusts, non-profit groups, and businesses within their own communities. One could argue, therefore, that the three types of social capital can serve as supplements for one another, allowing land trusts to effectively adapt to changes in their economic and policy environments. The supplementary use of different types of social capital can also be explained by variation in the organizational capacity and structure of land trusts. Small land trusts with low capacity tend to rely on bonding and bridging social capital, while high capacity land trusts can

effectively build and utilize linking, as well as bonding and bridging social capital. More research is needed, however, to better understand the nature of interactions among the three types of social capital.

Our findings further illustrate the value of relationship-building in land conservation work. It is through strategic collaborations and genuine partnerships based on need and mutual interests that land trusts are able to effectively meet their strategic goals. Such relationships, starting with the one between a land trust and a landowner, and evolving into a web of interactions and collaborations with other organizations, illustrate the critical role of social capital in land protection work. Other important components of social capital for land trusts in this study included trust, shared values, organizational reputation, and network memberships. As expected, these results illustrate the integrative and mutually reinforcing nature of both structural and cognitive social capital (Knight et al., 2012).

In conclusion, the study findings contribute to important questions in environmental policy scholarship, namely, how local collaborative institutions support environmental sustainability and natural resource conservation in rural areas. Importantly, readers need to acknowledge the substantial variations among rural communities, both in terms of what constitutes a rural county, and what types of resources and culture exist in these communities. With this caveat in mind, our findings help illustrate the time and context-specific collaborations of land trusts operating in the rural communities of western North Carolina, southeast Virginia, and east Tennessee.

Figures and Tables

Fig. 1 Study area showing the South-Central Appalachian sub-region

Fig. 2 Land trust collaborations by social capital

Table 1 Types of social capital identified among land trusts in South-Central Appalachia

Table 2 Land trusts' measures of success

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Table 1: Types of social capital identified among land trusts in South-Central Appalachia

<i>Structural Social Capital</i>	<i>Cognitive Social Capital</i>
Organizational collaborations	Organizational reputation
Membership in regional and/or national networks	Trust and respect
Sharing resources and staff with other organizations	Shared values and norms

Table 2: Land trusts’ measures of success

<i>Indicators of Land Trust Success</i>
Acres of land and miles of water protected per year
Organizational growth (quality and quantity of staff)
Membership growth
Meeting and staying within budget
Meeting the organization’s strategic goals
Community impact
Reputation
Land Trust Alliance (LTA) accreditation
Overcoming the stigma of being a governmental entity in a rural county

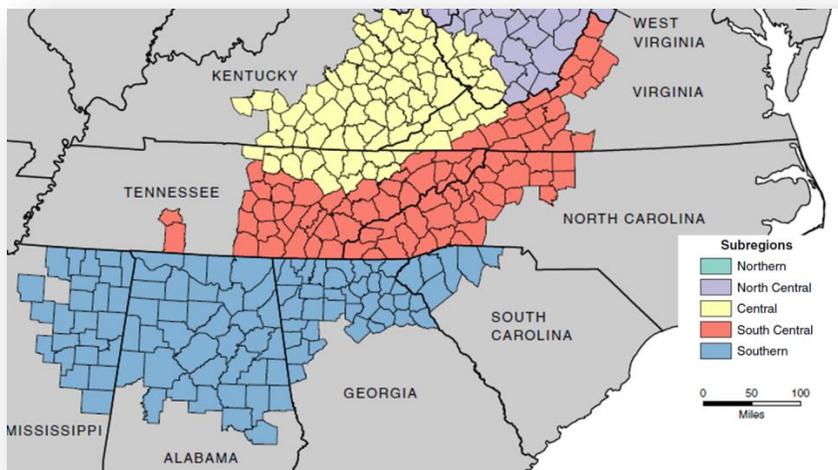
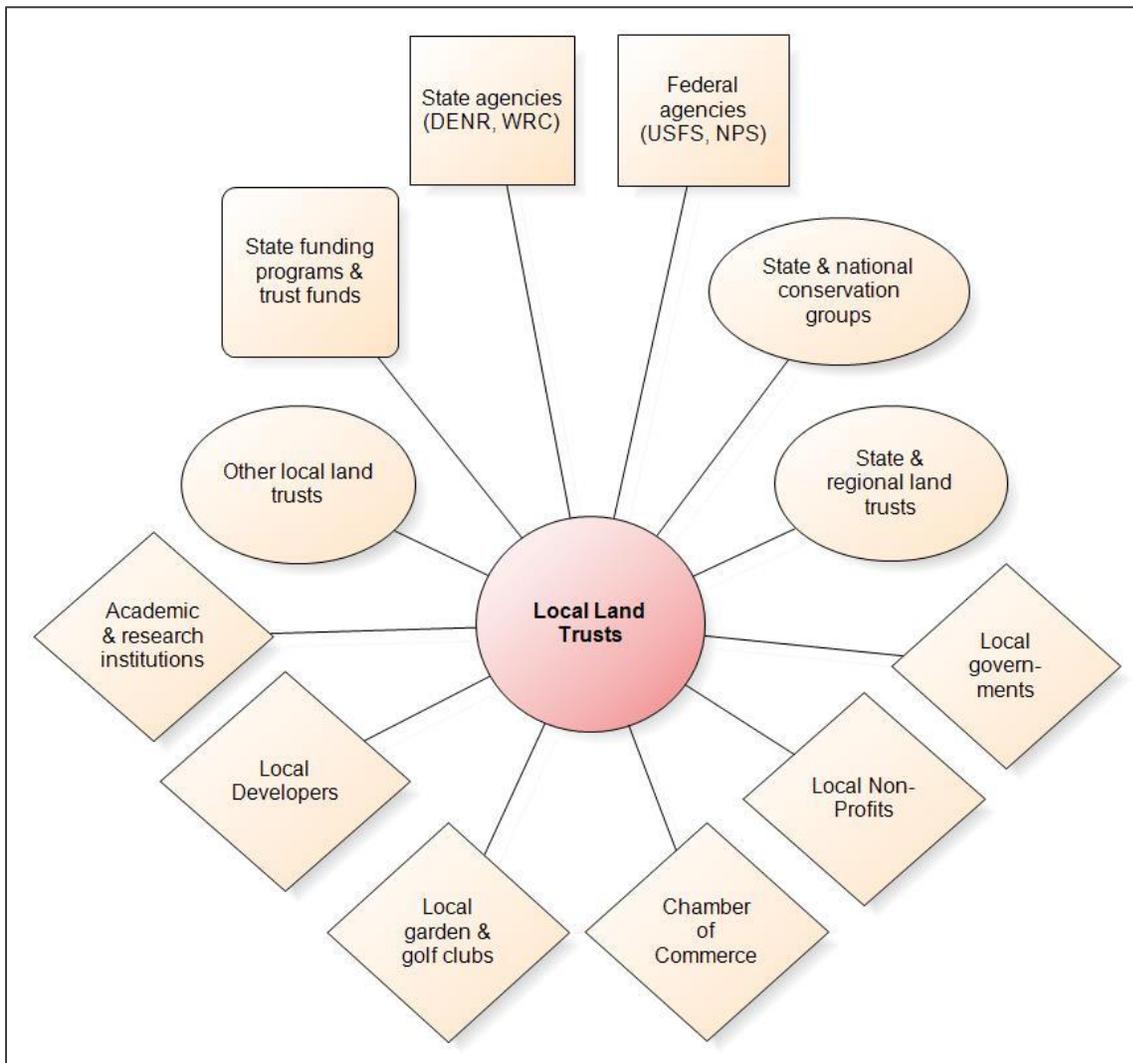


Fig. 1 Study area showing the South-Central Appalachian sub-region (Source: Appalachian Regional Commission, 2014)



Legend:

- Collaborations contributing to bonding social capital
- ◇ Collaborations contributing to bridging social capital
- Collaborations contributing to linking social capital

Fig. 2 Land trust collaborations by type of social capital (Note: DENR=Department of Environment and Natural Resources; WRC=Water Resources Commission; USFS=U.S. Forest Service; NPS= National Park Service)