

CAPITAL ASSET VALUATION BY SMALLHOLDERS: CONNECTIONS BETWEEN LAND MANAGER VALUES AND LANDSCAPE MULTIFUNCTIONALITY



Sydney Andersen and Karen E. Allen

Furman University, Department of Earth, Environmental, and Sustainability Sciences, Greenville, SC 29613



Introduction

Multifunctional landscapes are important to both human and natural systems, as they provide ecosystem services that contribute to community and landscape resilience. In Upstate South Carolina, there is a community of small farms that are reshaping local markets and traditional agricultural practices, offering the opportunity to support biodiversity and food production as well as potentially increasing community resilience during large-scale disturbances like COVID-19. There is a need for an improved understanding of smallholder value systems and how these inform landscape multifunctionality and livelihood pathways for incorporation into more effective agricultural policies. The data gathered in this study deepens our understanding of human value systems and decision-making in Upstate South Carolina, which can inform future land-use and policy decisions.

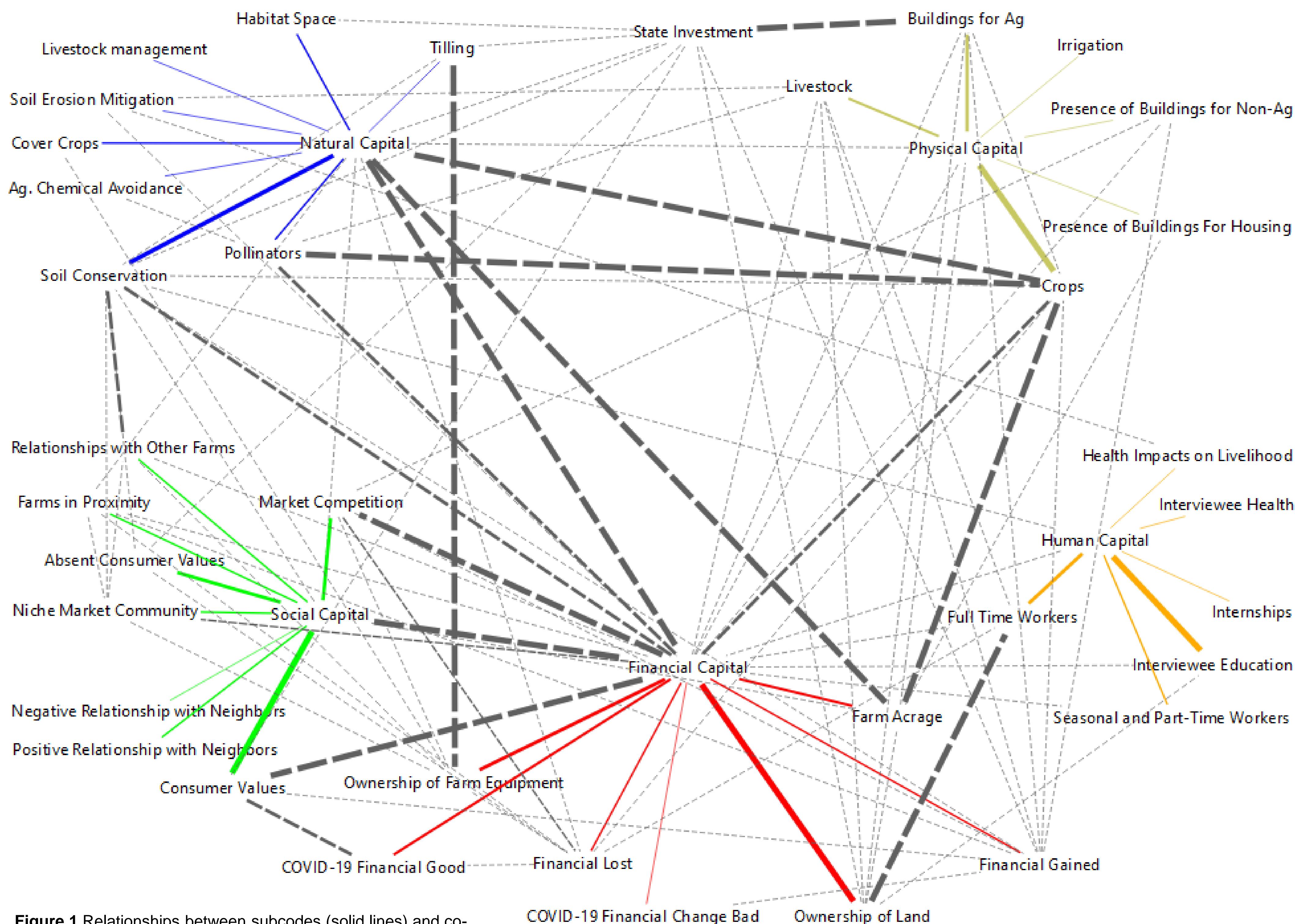
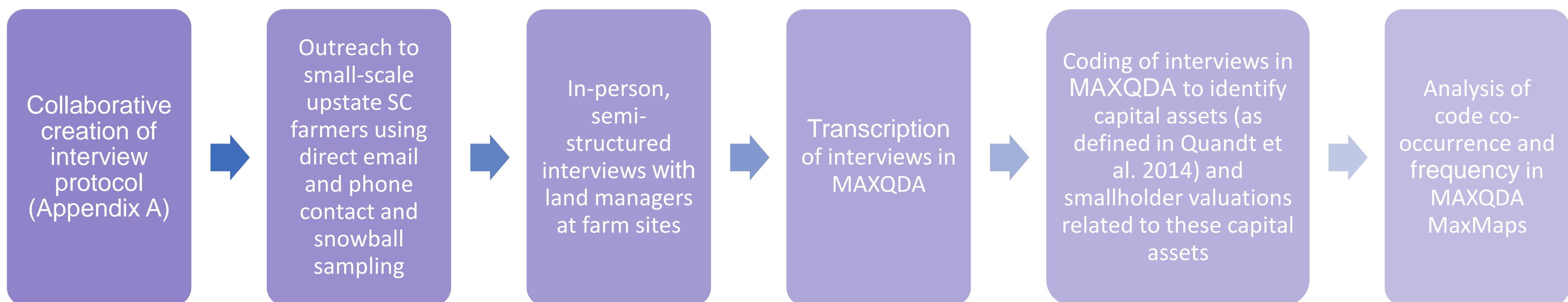


Figure 1 Relationships between subcodes (solid lines) and co-occurring codes (dashed lines) across all interviews. Strength of connection is denoted by line width.



Figure 2 Subcode frequency by capital. Frequencies were analyzed by the number of coded segments per subcode across all interviews. The y-axis shows this percentage.

Table 1 Capital assets and key quotes from interviews associated with each that support the findings. Parameters and capital definitions are taken from Quandt 2018 and Scoones 1998.

Capital Asset	Key Quotes	Connection
Natural	...if we focus on soil health our profits go up. Because of stocking capacity, less tractor use, less fossil fuels... Right, so focusing on our soil is of the upmost importance to us because it is the basis of our farming operation. (Farm 1)	Natural to Financial
Natural	I'm establishing- the deer keep eating them- cherries, mulberries, elderberries, blackberries, blueberries, raspberries... I mean something like turmeric I'm perennializing... herbs, a lot of stuff. I leave flowers for the [pollinators], for insect habitat... (Farm 6)	Natural to Physical
Human	I had a farm manager, and it was great for a year, and it would be nice to eventually have a farm manager again... I'm trying to think long-term sustainability, but to be able to pay someone else... like I haven't paid myself- I didn't pay myself last year, I'm not paying myself this year- so the money doesn't add up to support it on this scale, at the moment. (Farm 5)	Human to Financial
Financial	We flooded in March which knocked us back quite a bit. You're supposed to wait 30-60 days to replant anything because of concerns with contaminations in the water... Not super sustainable for us. (Farm 8)	Financial to Natural
Financial	Oh, [upstate farmers] don't all work together... We feel fortunate to have the opportunity to run a small farm. It's really inaccessible. There are a lot of people that would like to do it and don't have the resources, and I think, to fulfill our sense of being fortunate, we kind of want to keep that as a cornerstone- that we're like, in the community. We're not... roping ourselves off. (Farm 7)	Financial to Social
Social	[Our] CSA did slightly better under COVID... that could have been partly due to... people realizing that their local supply chains are still there even when more national supply chains break down. So... people realize the value of local at that point, but people also have short memories and so they forget what it takes and how necessary it is to support local farms. [A] CSA is the most direct way to support local farms... participating in [CSA's]. (Farm 4)	Social to Financial
Physical	Obviously we're organic but we are using good quality compost, incorporating cover crops... The benefits- I mean it is what it is because we've done it for 5 years the same way, the way we're doing it [now]. So what we're getting is wonderful, wonderful crops. Just yesterday we got 1700 pounds of yellow squash. (Farm 1)	Physical to Natural

Results and Implications

- The participant demographics questionnaire revealed that land managers in the study group were primarily white and young, held bachelor's degrees or higher, and described themselves as politically leftist. Notably, over half of participants identified as female (see Table 2).
- Upstate smallholders valued natural and financial capital above human, built, or social capitals. Across 10 interviews, participants mentioned this topic 148 times. Close seconds in importance were Natural and Social capital, which were mentioned 96 and 86 times, respectively (see Table 1).
- Importance was placed on fostering biodiversity and ecological health in order to maintain livelihood diversity and valued social capital for their niche market as an avenue for continued success.
- There were indirect connections between financial and natural capitals through co-occurrence with social capital subcodes (see Figure 1). Absent consumer values and relationships with other farms connected them, as well as livestock and crop subcodes and state investment.
- Results from interviews and demographic surveys improve understandings of rural value systems by showing connections between capitals, which signify availability of livelihood pathways (Scoones 1998). A broader understanding of how value systems inform landscape multifunctionality and create pathway resiliency is important to future effectiveness of agricultural policies targeting these topics. The results found by this study support the idea that smallholders see a connection between the ecological health of the land and their resulting agricultural revenue (Figure 1). They are aware of and articulate how multifunctionality creates livelihoods for them and increases the resiliency of their land during disturbance.

Acknowledgements

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References and Appendix

References and Appendixes, including the full set of interview questions used for data collection, are available through the QR link.

