

10-31-2017

Role of Extension in Building Sustainable Partnerships with Multiple Stakeholders for Land Conservation

John M. Diaz
University of Florida

Robert E. Bardon
North Carolina State University

Dennis Hazel
North Carolina State University

Jackie Bruce
North Carolina State University

K.S.U. Jayaratne
North Carolina State University

Follow this and additional works at: <https://scholarsjunction.msstate.edu/jhse>



Part of the [Life Sciences Commons](#), and the [Social and Behavioral Sciences Commons](#)

Recommended Citation

Diaz, J. M., Bardon, R. E., Hazel, D., Bruce, J., & Jayaratne, K. (2017). Role of Extension in Building Sustainable Partnerships with Multiple Stakeholders for Land Conservation. *Journal of Human Sciences and Extension*, 5(3), 5. <https://scholarsjunction.msstate.edu/jhse/vol5/iss3/5>

This Original Research is brought to you for free and open access by Scholars Junction. It has been accepted for inclusion in *Journal of Human Sciences and Extension* by an authorized editor of Scholars Junction. For more information, please contact scholcomm@msstate.libanswers.com.

Role of Extension in Building Sustainable Partnerships with Multiple Stakeholders for Land Conservation

John M. Diaz

University of Florida

Robert E. Bardon

Dennis Hazel

Jackie Bruce

K.S.U. Jayaratne

North Carolina State University

The complexity of issues facing rural landscapes in the United States has resulted in a shift from the traditional Extension model to a partnership building approach. In North Carolina, Extension was charged with coordinating a partnership with a diverse set of stakeholders representing the interests of working lands, conservation, and national defense to address shared land compatibility issues. Using a single case study design, we evaluate the role of Extension in the coordination of diverse stakeholder groups for conservation of rural landscapes to protect the military training mission based on insights from the North Carolina Sentinel Landscapes Partnership. The case study includes analysis of key informant interviews and organizational documents through the constant comparative method that provides themes for Extension to consider for such efforts. We found that Extension plays a leadership role in convening a diverse set of interests, facilitating organizational development and educating a broad range of stakeholders. We provide eight key recommendations to accelerate the process of initiation and implementation of such efforts based on an ability to implement a realistic and feasible program that is informed by knowledge of what works elsewhere.

Keywords: partnership building, diverse stakeholders, rural landscapes, military training

Introduction

Public agencies responsible for managing rural landscapes across the United States (U.S.) are experiencing increasingly difficult challenges in the face of complex environmental problems and decreasing budgets (Layman, Doll, & Peter, 2013; Wondolleck & Yaffee, 2000). Once such agency is the Department of Defense (DoD) that is dealing with issues of unplanned

Direct correspondence to John M. Diaz at john.diaz@ufl.edu

development and the encroachment of incompatible land uses that compromise their ability to effectively train for the purposes of national defense. The DoD has traditionally addressed land compatibility issues by working with local governments to develop favorable zoning and environmental management activities (Urban Land Institute, 2006). Following the implementation of such strategies, military leadership developed a new understanding of the complexity of these land compatibility issues creating a new DoD commitment to collaboration and regional partnerships across large landscapes.

As a result, The Office of the Secretary of Defense created the Conservation Partnering Program, now known as the Readiness and Environmental Protection Integration (REPI) program. REPI was designed to complement traditional efforts and provide a new approach by allowing the military to partner with other organizations through REPI projects to achieve land-use compatibility (DoD REPI Program, 2013). REPI allows the DoD to fund cost-sharing partnerships among a diverse group of stakeholders that are intended to support military readiness by protecting compatible land uses and preserving natural habitat on non-DoD lands (DoD REPI Program, 2013). These programs have now set the stage for the Sentinel Landscapes approach that was officially announced by the DoD in 2013. This is an approach that calls for federal, state, and local collaboration dedicated to promoting natural resource sustainability in areas surrounding military installations (Sentinel Landscapes, 2016).

The North Carolina Sentinel Landscapes Partnership represents an example of the new direction for conserving rural landscapes through multiple stakeholder partnerships including the military. The partnership was formed to develop coordinated strategies to address land compatibility issues that equally threaten the future of working lands, natural resource conservation, and military readiness which comprise the foundations of three major engines of the state's economy (North Carolina Department of Environment and Natural Resources [NCDENR], 2012). The military positioned Extension into a leadership role in the coordination and management of the partnership to leverage its statewide reach, resources, and working relationships with various organizations and key stakeholder groups. In addition, the military lacked the skillset necessary to coordinate such an effort and realized the ability of Extension to serve as the coordinating entity.

While some military partnerships have been cited for their success, Lachman, Wong, and Resetar (2007) explain that guidance is often inadequate, and as a result, there are inefficiencies in the execution of partnership projects. These inefficiencies have caused confusion among partners, specifically within their joint efforts. The overall lack of guidance has also resulted in an inefficient use of time and money as a result of needing to redo things and resolve conflict during implementation (Lachman et al., 2007).

To date, no formal evaluation exists that demonstrates how Extension may effectively coordinate effective partnerships for the conservation of rural landscapes to protect the military training

mission. The body of research has focused on project-level efforts between installations and their local communities leaving a significant gap in understanding how to lead an effective military-based landscape-scale partnership. This research was conducted to fill this knowledge gap.

Purpose of the Study

The purpose of this qualitative case study is to determine and describe the role of Extension in the coordination and management of a partnership involving multiple stakeholders, including the U.S. military, for large-scale land conservation. In order to accomplish these goals, the following guiding questions were established:

- What roles did individuals and partnering organizations play in the collaboration?
- How did the efforts of Extension impact the overall success of the partnership?
- What communication and problem-solving processes were considered priorities by people in leadership positions?

Study Area

North Carolina is a rapidly urbanizing state. It is the 9th most populated state in the nation and by 2030 it is projected to rise to the 7th largest, with 12.2 million people (Colby & Ortman, 2015). This rapid growth is having a significant impact on North Carolina's rural landscape on which the military depends for their training operations. North Carolina is a national leader in the net loss of both farmland and forest land due to urbanization that represents a decline in land uses compatible with military training (NCDENR, 2012). The result is a loss of approximately eighty-five percent of flight training airspace in the eastern part of the state (NCDENR, 2012).

Additionally, the military in North Carolina is the second largest economic sector in the state, just behind agriculture (Nienow, Harder, Cole, & Lea, 2008). North Carolina has the third largest military population in the nation, home to the largest army installation and the world's largest DoD amphibious training complex (DoD REPI Program, 2015; NC Military Foundation, 2015). North Carolina leadership has a vested interest in the sustainability of rural landscapes that contribute approximately \$100 billion to the state's economy and provide irreplaceable ecosystem services that promotes environmental quality (NCDENR, 2012).

The Partnership

Study participants represent a range of organizations including academia, state agriculture and environmental agencies, military, environmental and agricultural nongovernment organizations, and economic development organizations. They include key stakeholders involved in the

creation of the partnership, members of the overall steering committee, or key collaborators involved in partnership projects. These stakeholders play an important role in the Sentinel Landscapes Partnership, which began with focusing on four initiatives designed to conserve and protect the interests the partnership values — working lands, conservation, and national defense. These initiatives include developing and implementing tools that foster landscape-scale conservation, creating and delivering a working lands conservation professional training and landowner outreach program, increasing the military's local purchasing capacity, and testing an innovative conservation strategy focused on compensating private landowners for placing term limited restrictions on their property.

Conceptual Framework

Developing a successful partnership with multiple stakeholders is an emergent process that requires time and effort because collaboration does not happen overnight. A planned and phased approach is needed for partnerships to build the necessary foundation that requires subsequent stages to flourish (Caffyn, 2000; Duffield, Olson, & Kerzman, 2013; Kelsey & Mariger, 2003; Lachapelle, Austin, & Clark, 2010; Ram, Corkindale, & Wu, 2013; Wildridge, Childs, Cawthra, & Madge, 2004). To make sure that progress is sustained as the collaboration grows, partners must find effective means of making decisions and of ensuring accountability (Caffyn, 2000; Diaz, Jayaratne, Bardon, & Hazel, 2014; Duffield et al., 2013; Guion, 2010; Ram et al., 2013; Wildridge et al., 2004).

Effective and enduring processes emerge through frequent, structured dialogues that develop network level values, norms, and trust, enabling social mechanisms to coordinate and monitor behavior (Bryson, Crosby, & Stone, 2006; Lachapelle et al., 2010; Ram et al., 2013; Wondollock & Yaffee, 2000). Collective ownership of decisions and explicit responsibilities within the collaboration are needed to enhance accountability among individual members. Also, clarity about respective partners' responsibilities has been postulated to enhance partnership synergy by fostering perceptions of interdependence (Caffyn, 2000; Duffield et al., 2013; Wildridge et al., 2004).

Building social capital through collaborative partnerships is frequently cited as an attribute of successful initiatives and includes building local social networks, norms, and trust (Gruber, 2010; Melaville & Blank, 1991). Successful partnerships mobilize resources, access expertise and ideas outside their organizations, and build political support that enable them to proceed (Barnhardt, 2015; Bryson et al., 2006; Duffield et al., 2013; Melaville & Blank, 1991; Wondollock & Yaffee, 2000). Appropriate commitment from leadership is important especially if key decision makers establish personal connections that promote the development of trust. Trust specifically is touted as a vital ingredient of successful partnerships (Duffield et al., 2013; Wildridge et al., 2004).

For partnerships to endure, mutual gain must be perceived by and actualized for all members. Mutual gain addresses various sets of implicit or explicit principles, rules, and norms around which actors' expectations converge in a given area (Kelsey & Mariger, 2003; Krasner, 1983; Lachapelle et al., 2010). Creating new opportunities for stakeholders to engage in collaboration is crucial to put issues on the agenda and to generate the ideas that can achieve change (Barnhardt, 2015; Bryson et al., 2006; Melaville & Blank, 1991). It is necessary to establish parallel structures and groups that allow for both formal and informal involvement as circumstances demand (Gruber, 2010).

The United States Department of Agriculture, Department of the Interior, and Department of Defense understand that a partnership approach built upon regional collaboration is necessary for the conservation of rural landscapes that are important to each organization's mission (Sentinel Landscapes, 2016). The challenge is finding an organization to take the lead in effectively integrating these diverse interests into an effective partnership. The North Carolina Sentinel Landscapes Partnership leveraged Extension to take on that leadership role. This paper focuses on developing a better understanding of what the role is and the effectiveness of Extension's efforts based on the perception of key stakeholder leadership.

Methods

Using a holistic, single case study design (Yin, 2013), we explored Extension's role in facilitating multiple stakeholder group processes for cross-sector partnerships within the Sentinel Landscapes Partnership as well as the partners' expectations and impressions of Extension in developing a successful partnership. Due to the nature of this exploratory study, we wanted to include the key stakeholders of the Sentinel Landscapes partnership as the source of information in data collection. Therefore, we used the purposive sampling method (Berg, 2004) to ensure the representation of key stakeholders of the partnership in the study sample. A discussion with the lead Extension person of the partnership and review of partnership documents and meetings were used to identify individuals for the study sample to represent various groups of the partnership. The institutional review board (IRB) approved this study and informed consent was obtained from all participants.

A semi-structured interview protocol was developed using Melaville and Blank's (1991) theoretical framework for cross-sector partnerships. Telephone and in-person interviews were conducted with 13 participants representing program leadership and the interests of the working lands, conservation, and national defense. The interviews were audio-recorded and transcribed for analysis. The partnership also granted access to organizational documents. A constant comparative approach was used to analyze interview transcripts, and as part of the constant comparative method, content analysis was completed during data triangulation to analyze organizational documents (Merriam, 2009).

Interview data are presented within the findings section using designated identification numbers for participants (for example, Participant 1) to ensure the anonymity of the participants. Data from organizational documents are presented within findings using document identification numbers (for example, Document 1) to reduce unnecessary length. The findings of this study are specific to the North Carolina Sentinel Landscapes Partnership, but lessons learned may be applicable to better understand similar partnerships in other locations.

Trustworthiness

Multiple measures were taken to ensure the credibility of the findings in order to promote research quality (Lincoln & Guba, 1985). Trustworthiness of this study was founded on four tenets (Berg, 2004; Corbin & Strauss, 1990; Creswell, 1998; Dooley, 2007; Krefting, 1991; Lincoln & Guba, 1985; Merriam, 2009). These tenets include credibility, transferability, dependability, and confirmability.

Credibility. Credibility requires prolonged engagement (Lincoln & Guba, 1985), persistent observation (Lincoln & Guba, 1985), data triangulation (Berg, 2004), member checks (Creswell, 1998; Lincoln & Guba, 1985), peer debriefing (Creswell, 1998; Dooley, 2007), and negative case analysis (Lincoln & Guba, 1985). The researchers were engaged with the partnership for approximately three years, which allowed for the development of a holistic and comprehensive understanding of the case and the development of trust among study participants. Over the three years of engagement, the researchers had the opportunity to observe the participants by attending over twenty in-person partnership meetings, over thirty partnership conference calls, four partnership-related landowner workshops, and three other miscellaneous partnership events resulting in hundreds of hours of engagement and observation.

Researchers analyzed documents and triangulated those against the semi-structured interview data in order to gain a deeper understanding of the findings that emerged (Berg, 2004). After each interview was transcribed, the researchers provided the participants transcripts of their interviews to check for accuracy. Participants were also able to review rough drafts of the researchers' work in order to correct or provide substitute language (Creswell, 1998).

A team of peers was formed to take part in the debriefing process based on their knowledge of the partnership, qualitative methods, and partnership evaluation. After each step in the analysis, process researchers created a memorandum for the team, updating them on the study process and data analysis. The peer debrief team provided guidance throughout the process by suggesting revisions to categories and reviewing themes with the researchers. Once feedback was provided, the researchers would correct and change the developing analysis.

Negative case analysis was conducted to explore all exceptions that emerged during analysis through subsequent interviews and literature review to account for the exception and confirm patterns emerging from the data. This analysis provided overall direction for the presentation of study findings but was not explicitly stated within the findings themselves. It was used as a measure to ensure that the research process was not pursuing interpretations of events that were not shared among multiple participants or presented in previous studies.

Transferability. In order to promote the reader's ability to transfer the findings of the study to his or her own context (transferability), the insights and lessons learned are richly described along with the population of interest and study context. By developing this comprehensive view, the researchers facilitate the reader's ability to identify the commonalities and differences as it relates to their case and ultimately judge how the associated findings may transfer (Creswell, 1998; Krefting, 1991).

Dependability. To ensure the dependability of the study, a dependability audit trail (Berg, 2004; Dooley, 2007) was constructed based on detailed notes taken throughout the study. This audit trail was then used to conduct an inquiry audit that leveraged the input of external researchers to evaluate the researchers' ability to outline a process for replication. Each auditor was provided detailed notes that outlined the overall research process, the evolution of the process through analysis, and associated thoughts and decisions during the process.

Confirmability. A closely related confirmability audit trail was also constructed in order to authenticate the confirmability of the study. The confirmability audit was conducted at the same time as the dependability audit, requiring the auditors to evaluate whether the data and interpretations made were supported by material in the audit trail, were internally coherent, and represented more than the researchers' biased perspective (Lincoln & Guba, 1985). The audit trail provided detail for how data were collected, how categories were derived, and how decisions were made throughout the inquiry (Merriam, 2009). The audit trail provided an organizational structure to understand the relationship between the conclusions, interpretations, and recommendations by clearly linking to the data sources themselves. Triangulation was also used to increase confirmability (Lincoln & Guba, 1985). The researchers used multiple methods of triangulation, including triangulation of sources and analyst triangulation to help facilitate a deeper understanding of the phenomenon of interest.

To help maintain objectivity, the researchers developed a reflexive journal that allowed the researchers to track methodological decisions and study logistics as well as the researchers' own values and interests. Journal entries were completed before and after every interview as well as throughout the process to keep bias in check and keep the researchers on track. The researchers documented bias that related to both personal experience and beliefs as well as experience with the partnership throughout the research process. Journaling allowed the researchers to review

data and reflect on personal variables that may have affected the interview and data collection process (Lincoln & Guba, 1985).

Findings

Through data analysis, five key themes emerged as key strategies and/or processes that Extension should consider for the coordination of working partnerships to conserve rural landscapes that protect the military training mission. These themes are

- 1) Bringing together diverse partners,
- 2) Planning, evaluation and monitoring,
- 3) Steering committees and workgroups,
- 4) Engagement structure, and
- 5) Strategic communication and education.

Direct quotes from the study participants are included to provide insights from their perspective.

Bringing Together Diverse Partners

Before the partnership was established, Extension held brainstorming meetings that included approximately 30 different agencies and organizations (Appendix) that represented the interests of rural landscapes (Document 1). Extension facilitated discussion among the group to develop an understanding of how these diverse stakeholders could move forward in a collaborative fashion. A longstanding partner echoed the sentiment of all interviewees expressing that a key strength was Extension's ability to "leverage pre-existing relationships to [bring multiple stakeholder groups together] to create a diverse partnership" (Participant 1). The partnership was able to coalesce based on a complex network of previously established working relationships related to university and Extension projects ranging from mapping installation footprints to evaluating landowner interests in conservation incentive programs (Document 2).

In fact, one of the partners cited Extension's ability to leverage its "relationship with both Camp Lejeune and Farm Bureau" (Participant 8) as a key factor to getting the partnership off the ground. Leaders of the partnership also cited the work of program champions leveraged by Extension as being important toward overall program success. The program champions were cited by multiple partners as being "a force in making sure this project stayed on everybody's radar" (Participant 4) and having "done a lot to open things up with the military installations and [provide support for] a lot of the [partnership initiatives]" (Participant 13).

Planning, Evaluation, and Monitoring

Extension evoked a stakeholder driven approach to ensure the partnership was orienting itself with the problem in a comprehensive manner based on the shared vision of the partners thus developing goals that would achieve mutual gain. The primary military representative expressed the opinion of several partners explaining that “goals and objectives for the program were approached in a very holistic manner” (Participant 2). The specific model used by the partnership to guide program planning is the Targeting Outcomes of Programs (TOP) Model (Rockwell & Bennett, 2004), which is a commonly used model in Cooperative Extension. This model was used to ensure that the partnership was able to develop an effective theory of change while also providing a seamless link to program evaluation efforts (Document 3).

The partnership established two types of evaluation to determine program performance within the TOP Model. The process evaluation measured the resources used, activities held, participation, and participant reactions (Document 3). The outcomes evaluation was developed to measure changes in participant knowledge, attitudes, skills, and aspirations (KASA); participant behavior; and social, environmental, and economic outcomes. Extension faculty and staff developed the evaluation plan to collect quantitative and qualitative data as indicators of program performance during process and outcome evaluations. The partnership collaboratively developed a utilization plan for the program evaluation results which were divided into three categories: program improvement, partnership accountability, and program marketing (Document 3).

The partnership did ensure a sense of collaborative accountability among the members of the partnership and other key stakeholders through regular program reporting of implemented activities and associated impacts (Document 4). Program reporting was originally structured around the deliverables identified in the program proposal and subsequent agreement but was later aligned with their strategic plan. Multiple partners expressed their belief that “the reporting side help[ed] ground [the partnership] programs in contractual metrics” (Participant 10) and would be able to then “report them out programmatically to another program lead” (Participant 11). The partners explained that the reporting structure worked well. A founding partner explained that its effectiveness was a result of its focus on “accountability of the dollars but also of what was accomplished and with whom” (Participant 11).

Steering Committees and Workgroups

Multiple partners explained that by having Extension develop “a formal steering committee and a core team” (Participant 12), it provided much needed “structure” (Participant 4) and a shift to “thinking strategically that [wasn’t] fully realized the first couple years” (Participant 7). In order to represent the organizational mandates and interests of the partnership and the broader landscape of working lands, conservation, and national defense, Extension brought in leadership

from each of the partnering organizations to be included in the partnership steering committee (Document 5). The steering committee was responsible for setting partnership policies and guiding the direction of the partnership which was facilitated by Extension specialists.

Extension also brought together key stakeholders into a committee structure to consider the feasibility of developing a framework for ecosystem markets in eastern North Carolina to promote compatible resource uses (Document 5). The stakeholders formed three committees (science, economics, and policy) to aid in the planning process. A couple of partners included in the initial leadership group explained how the partnership benefited from the use of “a hybrid between those three [committees] and the steering committee” (Participant 12) with the intent “that the core team [would] push things forward” (Participant 7). One of these partners further explained that by “having that structure in place [it would continue to] ensure buy-in” (Participant 7).

The partnership evoked a tiered approach for approving planning documents including the strategic plan, evaluation plan, and communications plan as well as partnership activities (Document 6). During this process, the steering committee was given an opportunity to gain feedback from external stakeholders so that the partnership was in tune with the broader needs of the context of management. One of the program leads expressed what multiple partners saw as a value-added as “the [committee structure] makes sure that each of the elements are focusing on the prime objectives of the Sentinel Landscapes and not going down rabbit holes that are of little or no value to the overall strategy of Sentinel Landscapes” (Participant 10).

Engagement Structure

Extension faculty and staff worked with the partners to develop a set meeting schedule that the partners felt “were appropriately spaced” (Participant 10) by ensuring that “all had input on when that exact date and time was going to be set permanently” (Participant 12). A program lead thought this approach was beneficial and explained that it “works best if you have set meeting dates that everyone can put on their calendar” (Participant 12). Another program lead vocalized the importance of “consisten[cy] with communication and meetings” explaining that “once you lose communication you cannot build trust” (Participant 4).

Extension developed a robust engagement structure that included face-to-face quarterly meetings, and telephone and email exchanges based on lessons learned through the pilot process (Document 7). While one of the partners expressed that “the frequency with which communication occurred telephonically was beneficial to keeping all of the players informed” (Participant 11), another partner echoed the sentiment of the group that “being able to meet face-to-face was critical” (Participant 6). Even though all partners interviewed expressed that the face-to-face social interactions were critical, the initial quarterly meetings did not achieve all of their intended results. A program lead explained that the initial format produced a “forum [that]

was conducive to interchanges between the element leads and the program office” (Participant 10).

Based on this realization, Extension helped to develop and facilitate a new social interaction structure for the quarterly meetings that promoted group discussion among the attendees to explore links between the program elements as well as external programs (Document 8). Multiple program leaders expressed their satisfaction with the change in structure. One partner explained that the “meetings improved over time when they became less of a stand up and report out and more interaction and discussion” (Participant 1), while another partner explained that “if [the new format for quarterly meetings] would have been done all through the process, you would have maybe some different outcomes, maybe additional outcomes than what we have seen” (Participant 12).

Strategic Communication and Education

The communication approach initially evoked by the partnership was summarized by one of the university partners as being less about formal structures and processes and more about “an open line of communication” (Participant 7). The majority of partners expressed the importance of maintaining an open line of communication for the development of trust. A program lead explained that “the process of communication was [at] multiple levels” (Participant 4) where the core leadership would serve as advocacy group for the Sentinel Landscapes efforts, targeting priority groups “with other organizational activities like the working lands group” (Participant 4).

Reflecting on their initial experience with the program pilot, the military partners expressed that “[the partnership] underestimated how new this would be viewed by a lot of different groups” (Participant 2) and in turn “underestimated that that newness required a degree of communication that exceeded what [the partnership] was communicating” (Participant 2). A program lead echoed a realization shared by many in the partnership that efficacy hinged on “sharing of information between cylinder groups of folks that had different assignments or different responsibilities in government or in the private sector” (Participant 4). This partner believed that this process was important to “link things together and develop a common knowledge of what each [group] was doing and how it interfaced” (Participant 4).

Extension faculty and staff understood the need for a more structured approach leading to the facilitation and development of a communication plan in collaboration with the partnership steering committee. The communication plan was built upon the integrative model of social marketing which evokes the marketing approach of the four P’s: Product, Price, Place and Promotion (Document 9). The partnership also realized the importance of educating agency and organizational professionals as well as landowners on the strategies for conserving working lands. The Forestry and Environmental Outreach Program within the Cooperative Extension

System developed a Working Lands Conservation Program that includes a professional development component for agency representatives and a landowner outreach targeting landowners involved in farming, forestry, and conservation (Document 10).

Discussion and Conclusion

Developing a successful partnership is a complex process that requires a significant investment among leadership to develop the necessary foundation for sustained success. The case of the North Carolina Sentinel Landscapes Partnership is helpful to understand how Extension could effectively serve in a leadership role for coordinating military-based, cross-sector partnerships for the sustainability of rural landscapes. Promoting a shared vision among partners is the first step necessary for any partnership to endure beyond initial efforts because mutual gain must be perceived by all (Kelsey & Mariger, 2003; Krasner, 1983; Lachapelle et al., 2010). By bringing together a diverse group of partners based on a recognized need and prior joint achievement, Extension successfully positioned the partnership for the development of a shared vision. This is a significant success when the military is involved as their interests are somewhat unique within the realm of conservation.

Approaching the partnership from a position of mutual gain helped the partnership build the necessary social capital that the literature identifies as another important precursor for the success of partnership initiatives (Barnhardt, 2015; Bryson et al., 2006; Duffield et al., 2013; Gruber, 2010; Melaville & Blank, 1991; Wondellock & Yaffee, 2000). The partnership was able to develop trust among its members because they perceived that all interests were being incorporated, not simply those of the military, and resulted in a Sentinel Landscapes “social network” with widespread participation in collaborative ventures. Extension accessed the social network to leverage a breadth of expertise and ideas from external organizations and built political support that enabled the partnership to proceed. In conjunction with the work of dedicated program champions, the partnership was successful in mobilizing resources (specifically funding) over a large landscape to ensure the partnership could continue to move forward.

The creation of these new opportunities for collaboration allowed for meaningful discussions of issues between the DoD and potential partners for the development of strategies that have the capacity to achieve desired results of land-compatibility (Barnhardt, 2015; Bryson et al., 2006; Lachapelle et al., 2010; Melaville & Blank, 1991; Ram et al., 2013; Wondollock & Yaffee, 2000). Extension was able to facilitate a stakeholder-driven approach through the creation and utilization of a partnership steering committee that allowed for the formal involvement of federal, state, and local agencies and organizations into partnership decision making. Extension provided a means for partners to see diverse aspects of a problem and develop mutual gain solutions that may not have been possible within their limited perspectives. Additionally, Extension faculty were able to develop effective and enduring processes through an engagement

structure that was agreed upon by all members. This structure promoted frequent, structured exchanges that helped to develop ground rules, build trust, and help to coordinate and monitor behavior.

In addition, Extension facilitated a sense of collective ownership of decisions and explicit responsibilities within the collaboration based on program evaluation and monitoring processes, which instituted a reporting structure that enhanced accountability among individual members. They were able to provide clarity about respective partners' responsibilities through a consensus building approach that has enhanced partnership synergy by fostering perceptions of interdependence (Caffyn, 2000; Duffield et al., 2013; Wildridge et al., 2004). The ability for Extension to meaningfully involve several organizational representatives with diverse knowledge and perspectives increased the partnership's capacity to generate new and better ways of thinking about land compatibility strategies that is reflected in partnership goals and plans. By developing a partnership strategic plan and program evaluation framework in addition to the steering committee structure, Extension found a means of ensuring progress through the partnership's life (Caffyn, 2000; Diaz et al., 2014; Duffield et al., 2013; Guion, 2010; Ram et al., 2013; Wildridge et al., 2004). In addition, the partnership is now in a position to be able to orchestrate and publicize positive outcomes as a result of the strategic planning process that led to the development of an action plan, program evaluation framework, and marketing strategy that were purposively connected to develop a mechanism to build public support.

Recommendations

Partnership success is based on the ability to implement a realistic and feasible program that is informed by knowledge of what works elsewhere. Greater knowledge and understanding about what it takes to increase effectiveness in partnerships can accelerate the process of initiation and implementation. Following analysis of the North Carolina Sentinel Landscapes case, we provide eight recommendations for Extension professionals to consider when developing similar partnerships.

- 1) Leverage pre-existing relationships to build a diverse and sustainable partnership.
- 2) Form a steering committee of trusted leaders that represent the interests that exist across the partners of landscape to develop a shared vision for the partnership.
- 3) Evoke a stakeholder-driven, consensus building approach for the development of an effective partnership (i.e., strategic planning and program evaluation).
- 4) Design a program evaluation and monitoring framework that promotes mutual accountability and proactive program improvement.
- 5) Develop a structured engagement schedule of face-to-face meetings, conference calls, and email exchanges to maintain an open line of communication to update collaborators about the partnership.

- 6) Face-to-face meetings should engage program partners and key stakeholders in a meaningful way, allowing for open dialogue and the effective exchange of ideas.
- 7) Develop a robust communications and education plan structured within the framework of social marketing that promotes program compatible action.
- 8) Employ a skilled facilitator to guide organizational development efforts as well as engagement activities.

References

- Barnhardt, C. L. (2015). Campus educational contexts and civic participation: Organizational links to collective action. *Journal of Higher Education*, 86(1), 38–70. doi:10.1080/00221546.2015.11777356
- Berg, B. L. (2004). *Qualitative research methods* (5th ed.). Boston, MA: Pearson Education.
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review*, 66(s1), 44–55. doi:10.1111/j.1540-6210.2006.00665.x
- Caffyn, A. (2000). Is there a tourism partnership life cycle? In B. Bramwell & B. Lane (Eds.), *Tourism, collaboration, and partnerships: Politics, practice and sustainability*. Bristol, CT: Channel View.
- Colby, S. L., & Ortman, J. M. (2015). *Projections of the size and composition of the U.S. population: 2014 to 2060*. Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>
- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3–21. doi:10.1007/BF00988593
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Department of Defense (DoD) Readiness and Environmental Protection Integration (REPI) Program (2013). *The Department of Defense's Readiness and Environmental Protection Integration (REPI) program buffer partnership: A guide for state, local, and private partners*. Retrieved from http://www.repi.mil/Portals/44/Documents/Primers/Primer_REPIBufferPartnerships.pdf
- Department of Defense (DoD) Readiness and Environmental Protection Integration (REPI) Program. (2015). *U.S. Marine Corps: MCB Camp Lejeune: North Carolina with MCAS New River* [Fact Sheet]. Retrieved from http://archive.defense.gov/documents/2015_REPI_Challenge_Fact_Sheet.pdf
- Diaz, J. M., Jayarante, K. S. U., Bardon, R. E., & Hazel, D. (2014). A framework for integrating and managing expectations of multiple stakeholder groups in a collaborative partnership. *Journal of Extension*, 52(3), Article 3IAW6. Retrieved from <http://www.joe.org/joe/2014june/iw6.php>
- Dooley, K. E. (2007). Viewing agricultural education research through a qualitative lens. *Journal of Agricultural Education*, 48(4), 32–42. doi:10.5032/jae.2007.04032

- Duffield, S., Olson, A., & Kerzman, R. (2013). Crossing borders, breaking boundaries: Collaboration among higher education institutions. *Innovation in Higher Education*, 38(3), 237–250. doi:10.1007/s10755-012-9238-8
- Gruber, J. S. (2010). Key principles of community-based natural resource management: A synthesis and interpretation of identified effective approaches for managing the commons. *Environmental Management*, 45(1), 52–66. doi:10.1007/s00267-008-9235-y
- Guion, L. (2010). A 10-step process for environmental scanning. *Journal of Extension*, 48(4), Article 4IAW2. Retrieved from <http://www.joe.org/joe/2010august/iw2.php>
- Kelsey, K., & Mariger, S. (2003). A survey-based model for collecting stakeholder input at a land-grant university. *Journal of Extension*, 41(5), Article 5FEA3. Retrieved from <http://www.joe.org/joe/2003october/a3.php>
- Krasner, S. D. (1983). Structural causes and regime consequences: Regimes as intervening variables. In S. D. Krasner (Ed.), *International regimes* (pp. 1–21). Ithaca, NY: Cornell University Press.
- Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 214–222. doi:10.5014/ajot.45.3.214
- Lachapelle, P., Austin, E., & Clark, D. (2010). Community strategic visioning as a method to define and address poverty: An analysis from select rural Montana communities. *Journal of Extension*, 48(1), Article 1FEA1. Retrieved from <https://www.joe.org/joe/2010february/a1.php>
- Lachman, B. E., Wong, A., & Resetar, S. A. (2007). *The thin green line: An assessment of DoD's readiness and environmental protection initiative to buffer installation encroachment* (Vol. 612). Santa Monica, CA: Rand Corporation.
- Layman, C., Doll, J., & Peter, C. (2013). Using stakeholder needs assessments and deliberative dialogue to inform climate change outreach efforts. *Journal of Extension*, 51(3), Article 3FEA3. Retrieved from <http://www.joe.org/joe/2013june/a3.php>
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Melaville, A. I. & Blank, M. J. (1991). *What it takes: Structuring interagency partnerships to connect children and families with comprehensive services*. Washington, DC: Education and Human Services Consortium.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- NC Military Foundation. (2015). *A unique military presence*. Retrieved from <http://www.ncmilitary.org/content/unique-military-presence>
- Nienow, S., Harder, C., Cole, T., & Lea, A. (2008). *North Carolina's military footprint: Current economic impacts and projects for 2013*. Retrieved from <https://www.nccommerce.com/Portals/0/Research/Industry%20Reports/North%20Carolinas%20Military%20Footprint.pdf>

- North Carolina Department of Environment and Natural Resources (NCDENR). (2012). *Governor's Land Compability Task Force (GLCTF) report*. Retrieved from <http://cdm16062.contentdm.oclc.org/cdm/ref/collection/p16062coll9/id/22139>
- Ram, J., Corkindale, D., & Wu, M. L. (2013). Implementation critical success factors (CSFs) for ERP: Do they contribute to implementation success and post-implementation performance? *International Journal of Production Economics*, *144*(1), 157–174.
- Rockwell, K., & Bennett, C. (2004). Targeting outcomes of programs: A hierarchy for targeting outcomes and evaluating their achievement. *Faculty Publications: Agricultural Leadership, Education & Communication Department*, *48*. Retrieved from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1047&context=aglecfacpub>
- Sentinel Landscapes. (2016). *What are sentinel landscapes?* Retrieved from <https://sentinel-landscapes.org/about/>
- Urban Land Institute. (2006). *Department of Defense range sustainability: A development community perspective on land planning coordination*. Retrieved from <http://uli.org/wp-content/uploads/ULI-Documents/DoD-Range-Sustainability.pdf>
- Wildridge, V., Childs, S., Cawthra, L., & Madge, B. (2004). How to create successful partnerships: A review of the literature. *Health Information & Libraries Journal*, *21*(s1), 3–19. doi:10.1111/j.1740-3324.2004.00497.x
- Wondolleck, J. M., & Yaffee, S. L. (2000). *Making collaboration work: Lessons from innovation in natural resource management*. Washington, DC: Island Press.
- Yin, R. K. (2013). *Case study research: Design and methods*. New York, NY: Sage.

Dr. John Diaz is an Assistant Professor and Extension Specialist at the University of Florida in the Department of Agricultural Education and Communication.

Dr. Robert Bardon is a Professor and Associate Dean of Extension for Extension Forestry at North Carolina State University, Raleigh, NC.

Dr. Dennis Hazel is an Associate Professor and Extension Specialist for Extension Forestry at North Carolina State University, Raleigh, NC.

Dr. Jackie Bruce is an Associate Professor in the Department of Agricultural and Extension Education at North Carolina State University, Raleigh, NC.

Dr. K. S. U. Jayaratne is an Associate Professor in the Department of Agricultural and Extension Education and the State Extension Leader for Program Evaluation at North Carolina State University, Raleigh, NC

Appendix

Collaborating and Partnering Organizations

1. North Carolina State University
2. United States Marine Corps
3. Marine Corps Installations East
4. United States Navy
5. North Carolina Forest Service
6. North Carolina Forestry Association
7. North Carolina Wildlife Resources Commission
8. North Carolina Soil and Water Conservation Districts
9. Foundation for Soil and Water Conservation
10. North Carolina Association of Soil and Water Conservation Districts
11. North Carolina Farm Bureau Federation
12. North Carolina Department of Agriculture and Consumer Services
13. North Carolina Department of Natural and Cultural Services
14. North Carolina Eastern Region
15. Environmental Defense Fund
16. Texas A&M University
17. North Carolina State Grange
18. Southern Group of State Foresters
19. The Conservation Fund
20. North Carolina Military Business Center
21. Department of Defense
22. U.S. Fish and Wildlife Service
23. USDA Natural Resources Conservation Service
24. Albermarle-Pamlico National Estuary Partnership
25. South Atlantic Landscape Conservation Cooperative
26. Mount Olive University
27. Brooks, Pierce, McLendon, Humphrey & Leonard, LLP
28. The University of North Carolina Partnership for National Security
29. Duke University
30. Fort Bragg Regional Alliance
31. United States Air Force
32. Elon University