

THESIS

CORPORATE INVESTMENTS FOR PUBLIC LAND MANAGEMENT:
INSIGHTS INTO THE FOREST SERVICE'S CORPORATE PARTNERSHIPS

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ABSTRACT

CORPORATE INVESTMENTS FOR PUBLIC LAND MANAGEMENT: INSIGHTS INTO THE FOREST SERVICE'S CORPORATE PARTNERSHIPS

There is a shift in environmental governance towards devolution and neoliberalism, whereby federal land management agencies increasingly rely on external actors to help them meet their management objectives. For the U.S. Forest Service, budget deficiencies and increasingly complex management challenges, in part due to climate change, drive the agency to seek external funding sources, including for-profit companies. As reliance on companies to meet gaps in agency funding and capacity increases, there is a need to better understand the expectations and interests of these corporate partners. My thesis aims to better understand the Forest Service's corporate partners by identifying key partners and their mechanisms for investment, corporate motivations for engagement, company interests in metrics and return on investment, and overall successes and challenges of the partnerships. To address these research questions I conducted interviews with Forest Service staff, both in the Washington Office and with Regional partnership coordinators, for-profit companies funding projects on national forests related to climate change, and key non-profit organizations that serve as intermediaries between the Forest Service and companies to channel funds and implement the work.

In the following thesis I synthesize my findings into two stand-alone chapters, bookended by an introduction and conclusion chapter. The first chapter is a comprehensive report to the Forest Service Office of Sustainability and Climate, which funded this project, regarding the mechanisms, motivations, desired metrics and overall successes and challenges of corporate partnerships with the Forest Service. Among other things, I find that corporate partners have a

limited understanding of what national forests are, the role the Forest Service plays as an agency, and avenues that exist for partnerships with the Forest Service. I offer a few recommendations for the agency moving forward, including, improved storytelling by the Forest Service to corporate partners regarding who the agency is and the benefits of partnership, increased collaboration between companies to help tackle projects of larger scale, standardized metrics for improved measurement of project outcomes, and further developed options to participate in carbon markets on national forests. The second chapter is intended for submission to a peer-reviewed journal. The article dives deeper into exploring corporate motivations for engagement in these types of projects. I find that companies engage in projects for a variety of reasons, primarily including: desires to achieve sustainability goals driven by leadership; stakeholder pressures, such as those from consumers, employees, and investors; company characteristics, including the dependency of a company's products or services relying on benefits that forests provide; and marketing tied to a company's brand or reputation.

Overall, insight into this topic can inform the Forest Service on its private partners in order to improve and expand these types of partnerships moving forward. This research also contributes to literature regarding the increasing role of public-private partnerships, consistent with a broader shift towards neoliberal approaches in environmental governance whereby private actors contribute funding and capacity in ways that help the Forest Service manage public forests, but also significantly influence public agency activities. Further research is still needed to evaluate the impact of increasing corporate influence on public lands management and to further explore the added value of intermediary organizations for the success of these partnerships.

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CHAPTER 1 – INTRODUCTION

Climate change is significantly impacting forests, and the U.S. Forest Service (Forest Service) is interested in engaging more corporate partners in funding climate change related projects. Climate change impacts the delivery of forest ecosystem services by exacerbating existing disturbances such as drought, insect outbreak and disease, and fire (Baker et al. 2007; Anderegg et al. 2013). The Forest Service manages 193 million acres of national forests and grasslands and has several national-level policies that aim to incorporate climate change into day-to-day operations for national forests (Laatsch & Ma 2015; Timberlake & Schultz 2017). The agency has also implemented a number of programs meant to accelerate the pace and scale of restoration in order to support ecological integrity and resilience (Schultz et al. 2018). On the ground, the Forest Service is advancing both climate change mitigation (i.e., reducing the accumulation of greenhouse gases that contribute to climate change) and climate change adaptation (i.e., making a system more resilient to the effects of climate change) actions (USFS 2008). These activities include planting trees (afforestation or reforestation) to enhance carbon stores and carbon sequestration (Cunningham et al. 2015), and forest management activities, such as forest thinning, to decrease the severity of wildfires and reduce associated carbon loss, and make forests more resilient and adaptive to the effects of climate change (D’Amato et al. 2011; North & Hurteau 2011). These activities are costly and the agency already suffers budget constraints due to a decline in revenue as a result of decreased timber harvest and increased spending on wildfire suppression (Abrams 2019). As a result, the agency increasingly turns to external partners for financial resources and capacity to complete projects on federal forests (Abrams et al. 2017).

For-profit companies are a promising new partner in the climate change management arena because they can provide capital up front to enable climate change adaptation and mitigation projects, and accelerate the pace and scale at which these projects can be undertaken (Woolworth & Knight 2018). For companies, these partnerships give them an avenue to help protect the ecosystem services they rely on to maintain their bottom line; these services include the provision of raw materials, protection of facilities from natural disasters, and regulation of regional or global climate (Molnar & Kubiszewski 2012). Companies are becoming increasingly involved in corporate social responsibility (CSR) or corporate sustainability, where they engage in voluntary actions to achieve the “triple-bottom line,” integrating economic, ecological, and social sustainability objectives and practices into their business model (Dyllic et al. 2002). Companies also are becoming increasingly aware of the inter-dependences of their businesses, the environment, and society at large (Lozano 2015), and more aware of the effects of climate change in particular (Kolk & Pinkse 2007). Numerous companies are working with non-profit organizations, each other, and governments in order to gain legitimacy and improve their CSR practices (Dauvergne & Lister 2012).

The role of companies and the Forest Service in public-private partnerships reflects public management trends on a global scale, where governments, facing budget constraints, are beginning to enter into long-term business relationships with companies under more complex and extensive contracts (Hodge & Greve 2007). Many governments recognize that addressing social-ecological issues requires the collaboration of multiple actors (Bouwen & Taillieu 2004), and there is an increased reliance on public-private partnerships to deliver services that have traditionally been provided by the public sector (Koontz & Thomas 2012). Corporate social responsibility is part and parcel of a shift in environmental governance towards neoliberal

approaches, as decision-making power regarding social and environmental consequences of business are relinquished from the state to companies (Himley 2008). This shift is part of a global trend and manifests in the Forest Service through decreased funding, increased devolution of power and functions to state and private actors, and increased dependence on non-state actors for planning and implementing management activities on national forests (McCarthy 2005; Maier & Abrams 2018; Abrams 2019).

As companies increase their involvement and presence in natural resource management, particularly with the Forest Service, understanding these actors is vital to the success of the agency. Increased private sector funding may influence public land management in terms of what work is done on national forests. Existing research explores the role of utility companies and the Forest Service (Bennett et al. 2014), but no current literature looks at other corporate partnerships with the Forest Service. When providing funds to public land management agencies, these companies work through third-party, non-profit organizations that work as intermediaries by facilitating the financial exchange and implementing projects on federal lands. Intermediary organizations provide a legal channel for companies to give money to the Forest Service, tax-deduction benefits for companies, and coordination with corporate partners to match company preferences with available projects. Thus, three main actors are involved in these transactions, including: (1) The Forest Service, as the public land management agency overseeing the 193 million acres of U.S. national forests and grasslands; (2) corporate partners, referred to herein as “companies;” and (3) non-profit organizations, referred to herein as “intermediary organizations” or “intermediaries.”

This thesis was funded in part by a cost-share agreement between Colorado State University and the Forest Service's Washington Office of Sustainability and Climate Change (OSC). This project was the fourth and final phase of a larger grant on climate change planning and management within Forest Service. For this phase, the Forest Service was interested in better understanding their corporate partners in order to improve existing relationships and to find ways to expand public-private partnerships in the future. I explored who the current for-profit corporate partners are and their funding mechanisms, corporate motivations for engaging with the Forest Service, and corporate interests related to metrics for returns on investment. I also looked at overall successes and challenges of these public-private partnerships. In order to address these topics, I took a qualitative research approach that allowed me to create dialogue with my interviewees and explore my research questions in-depth. The data was analyzed and synthesized into two subsequent chapters I present in this thesis.

I conducted a total of 44 phone interviews separated into three rounds of interviews: (1) preliminary informational interviews with Forest Service staff; (2) interviews with key intermediary organization representatives; and (3) interviews with corporate representatives of companies funding projects on national forests. Interviews ranged from 30-75 minutes. I conducted semi-structured interviews with open-ended questions from an interview guide tailored to each group in order to help elicit views and opinions from the participants in a flexible format, as well as to allow for the emergence of unexpected topics (Appendix A: Interview Guides). The first round of interviews were with Forest Service staff in the Washington D.C. Office and Regional Partnership Coordinators. These interviews served to provide background information on corporate partnerships in general and to identify key non-profit intermediary organizations the agency works with for these partnerships. Since these were informational

interviews, they were not recorded or transcribed, but I instead took detailed notes. The second round of interviews with key non-profit organizations provided insight on the in-between role these organizations play between the Forest Service and companies, and to identify the range of companies funding projects on national forests. All but one of the organizations we contacted, responded and was interviewed.

By using the websites of and interviews with intermediary organizations, I identified a range of companies that were funding forest restoration projects on national forests and eventually narrowed this list to a company interview sample. I focused on companies that were funding projects on national forests that might achieve climate change adaptation and mitigation goals, using a broad interpretation to include projects such as watershed restoration, fuels management, and tree planting. I then used data mining software (RocketReach) to locate contact information for company representatives that were likely knowledgeable on projects relevant to my scope (e.g., people in positions such as Sustainability Director, CSR Director, Chief Marketing Officer, or CEO). I asked respondents to connect me with the individual in the organization that could best speak to their engagement with projects on national forests. Ultimately, I conducted 26 interviews with company representatives, completing the third and final round of interviews. Company representatives came from a diverse range of sectors, but interviews were limited in that not every sector that was contacted responded. Thus perspectives from a few sectors, such as firearm companies, are missing from the data.

The second and third round of interviews, with key intermediary organizations and corporate partners, were recorded with the consent of the interviewees, transcribed through a third-party, and then the interview transcripts were analyzed to identify key themes and patterns relevant to my research questions. I used a computer-assisted qualitative data analysis software

(Dedoose) to conduct thematic coding, where I developed codes, or labels, from literature based on my research questions. While reading through my interview transcripts and labeling segments of texts with each code, I also coded emergent themes until I eventually developed a complete coding tree (Appendix B: Coding Trees). These interviews served to answer my research questions related to how companies fund projects, why they engaged in projects, their desired metrics for projects, and overall successes and challenges of these partnerships.

This thesis contains two stand-alone yet interconnected chapters in which I present my key research findings. The following chapter, Chapter 2, is a comprehensive report to the Forest Service that addresses my four overarching research questions. In this chapter I describe how companies fund projects through non-profit organizations that serve as intermediaries and key reasons companies engage in projects. I also discuss desired metrics companies want on projects and overall successes and challenges of these partnerships. I conclude with five recommendations for the Forest Service moving forward with corporate partnerships. In Chapter 3, written as an article that I plan to submit to the peer-reviewed journal, *Climatic Change*, I focus specifically on the motivations for companies engaging in projects on national forests and the implications of these findings for how the Forest Service can engage more corporate partners. I also explore how these public-private partnerships parallel a global trend in environmental governance where external actors increasingly gain power and legitimacy as federal agencies rely on them to achieve their management goals. In the final chapter, Chapter 4, I summarize my key findings and conclusions, discuss limitations of the research, and propose future areas of exploration.

CHAPTER 2 – MOTIVATIONS AND MECHANISMS UNDERLYING U.S. FOREST SERVICE CORPORATE PARTNERSHIPS

Executive Summary

Climate change significantly impacts forests, and the U.S. Forest Service (Forest Service) is working with external partners to leverage funds to invest in projects that may support climate change mitigation and adaptation. For-profit companies hold great potential for partnerships with the Forest Service by providing capital up front to enable public projects. Partnerships between the Forest Service and companies are facilitated through non-profit organizations that function as intermediaries, performing roles such as managing the funds and implementing project work. Intermediary organizations include different types of non-governmental organizations that play a variety of roles, in this case non-profits performing an in-between role for companies and the Forest Service.

In 2019, we conducted an investigation to better understand corporate funding for Forest Service projects. Given the Forest Service Office of Sustainability and Climate's (OSC) interest in engaging more corporate partners to fund climate change related projects, our research focused on corporate investments for such projects, including tree planting, fuels management, and watershed restoration. We interviewed Forest Service staff, representatives from intermediary organizations, and representatives from companies to better understand the desires and expectations of corporate partners. Our goals were to identify the range of mechanisms used for investment, the range of corporate motivations for engagement in projects, and desired metrics for returns on investment by companies. We also identified successes and challenges in these partnerships.

We conducted a total of 44 interviews, including 11 informational interviews with Forest Service staff in the Washington Office and regional Partnership Coordinators, seven interviews with representatives from key non-profit intermediary organizations, and 26 interviews with representatives from companies funding projects on U.S. national forests. Informational interviews served to collect background information and identify key intermediary organizations and corporate partners. Interviews with intermediary organizations explored the role these organizations play between the Forest Service and companies, as well as provided insight into the range of corporate partners of the Forest Service. Lastly, interviews with corporate representatives were conducted from a subset of companies drawn from a large population of companies funding projects on national forests. Interviews with intermediary organizations and companies were recorded, transcribed verbatim, and analyzed using qualitative social science software to identify key themes.

Company representatives described the important role intermediary organizations play in enabling companies to fund projects on public forests. These organizations provide a channel for companies to give funds to the Forest Service legally and also were helpful in relationship building and communication. These organizations served a range of roles, depending on the individual needs of each partnership. Most companies only interacted with intermediary organizations and had little to no interaction with the Forest Service directly. Companies interviewed typically gave funds through their corporate divisions (sustainability, corporate social responsibility, environment health and safety, and marketing) or through corporate foundations that fund philanthropic work. We found that:

- Almost every company works through a non-profit organization serving as an intermediary, channeling funds and implementing the projects on the ground
- Several companies also partner with each other or with external organizations, like 1% for the Planet, that connect companies with non-profits to donate 1% of their profits
- Companies fund projects from different internal departments or their company's foundation
- Carbon offsets are popular by demand from companies and intermediaries but many challenges exist in generating them on public forests

Interviewees discussed a wide range of motivations for why companies engage in projects on national forests. These included: meeting a company's sustainability goals, directives of company leadership, product dependency, company characteristics, stakeholder pressures, and market shifts towards sustainable business. There were differing opinions on how much engagement was motivated by whether projects were conducted on public forests versus private, as well as to the extent to which climate change concerns motivated companies. Specifically, we found:

- Most companies are driven by concerns regarding climate change effects and risks. A few companies, despite acknowledging climate change, preferred to focus on "forest health" to appeal more to their customer base.
- Some companies prefer projects on national forests, while others said "a forest is a forest" and just want to engage in forestry projects regardless of whether they are on public or private lands
- Projects almost always directly tie to a company's corporate sustainability goals and leadership helps drive forward these initiatives

- Market shifts towards sustainability spur action, especially as competitors and partners engage. “Story value”, or the charisma of a project, is important to companies to communicate their projects to the broader public.
- Stakeholders such as customers, investors, and employees largely influence companies to become involved in forest management projects
- Companies dependent on products provided by forests (e.g. wood or water) are largely involved in projects on national forests

Companies were wide-ranging in terms of whether or not they wanted to quantify project accomplishments (called “metrics”), the rigor of metrics desired, what types of metrics they are interested in, and who they expect to record the metrics for projects they fund. Often this depended on what part of the company had funded the project. For example, foundations require more rigorous financial accounting from non-profit organizations before a project is accepted but upon project completion there is less interest in taking metrics, such as evaluation and monitoring. Also, if a company’s marketing department funded a project, they may be interested in social media engagement as a metric versus a sustainability department that may track gallons restored to a watershed instead. We also found:

- The majority of companies wanted to record outcomes but differed in the level of rigor for these metrics
- Metrics utilized included gallons of water restored, acres treated, trees planted, potential wildfire reduced, number of employees engaged, and number of social media “shout-outs”

- Companies often expected intermediaries to record metrics and send reports. Sometimes tools are used for metrics; these are developed internally by the company or by the intermediary organization the company works with.
- Sometimes a third-party organization was hired to verify watershed restoration metrics or carbon offsets

Interviewees identified a range of successes and challenges for these partnerships.

Successes included the partnerships themselves, in that interviewees were happy with the relationships they had built between companies and intermediaries, and among companies themselves, as well as the accomplishments of their projects. Companies sometimes joined corporate coalitions which helped them share knowledge or partner with each other to achieve projects of larger scale. Interviewees also identified many challenges, including limited knowledge of national forests and the role of the Forest Service, difficulty in measuring certain returns, and challenges with achieving projects of larger scale. Other findings include:

- Collaboration, whether it was between companies and intermediaries or between multiple companies, was often positively referenced in successfully conducting projects. Company representatives said intermediary organizations were helpful in terms of goal alignment, trust, and credibility.
- There was a large gap in company knowledge on what national forests are, what role the Forest Service plays, and avenues for partnership with the Forest Service
- Companies and intermediary organizations expressed difficulties in measuring certain returns, especially non-tangible returns such as reputation, and a lack of standardization of metrics related to watershed restoration and carbon sequestration

- Many companies wanted, but still had challenges with, scaling-up projects. This was especially true for larger companies who want to fund multi-year and multi-million dollar projects but larger projects where they could pool together funding with other companies did not exist.

Most interview participants had a positive view of their partnerships and the implementation of projects on national forests. However, several challenges were identified as well as suggestions for moving forward. We identified a few key areas for future work. These include:

- Communicating the story of national forests and the Forest Service to corporate partners more frequently and clearly, perhaps by developing outreach materials that can be provided by intermediary organizations to companies. These materials could increase awareness regarding the benefits of engaging in forest management projects on national forests, thus making partnerships more appealing. The Forest Service could also engage in more conferences and convening events with corporate partners. As these partnerships expand, it is also important to track the influence of private interests on public forest management and role of intermediary organizations in ensuring third party credibility.
- Bringing companies together on projects that have mutual goals and multiple benefits to scale-up projects and reduce timelines, where appropriate. Inviting companies to project site visits are one way that this has achieved positive outcomes in the past. We recommend more communication and possibly annual agreements between companies and intermediary organizations so that projects can be identified as soon as possible.

- Standardizing metrics used to evaluate the success of projects and further developing the carbon market on public forests. Partnerships would improve through the standardization of measuring particular returns, especially those that are less tangible and more difficult to quantify. We also recommend further development in terms of national forests and the generation of carbon offsets. Many intermediary organizations were interested in selling carbon offsets and companies expressed interest in purchasing them; some companies were particularly interested if carbon offsets came from public forests. Further research and development could explore potential for a carbon offset measurement approach, even in the absence of a payment for offsets as part of a market.

Introduction

Climate change is significantly impacting forests and their provision of ecosystem services, as increasing temperatures drive wildfire, tree mortality, and forest regime shifts (Baker et al. 2007; Anderegg et al. 2013). The Forest Service, an agency that manages 193 million acres of national forests and grasslands, is advancing actions to support both climate change mitigation (i.e., reducing the accumulation of greenhouse gases that contribute to climate change) and climate change adaptation (i.e., making a system more resilient to the effects of climate change). The U.S. Forest Service is increasingly engaging external partners to leverage financial resources to manage for climate change effects and looks to diversify their funding sources as they suffer budget constraints, reduced staff, and limited programmatic capacity as wildfire spending dominates the agency budget (USFS 2015).

While existing research has investigated partnerships between utility companies and the Forest Service (Bennett et al. 2014), there has been little research on corporate giving by other types of companies that supports projects on national forests to date. There is also limited

literature on the recent rise in corporate sustainability efforts and investigating what drives companies to undertake these projects. As federal forest management increases its reliance on private contributions to manage for forest health, and the role of multiple stakeholders for addressing complex issues also increases, understanding these partnerships is vital to the success of the agency (McCarthy 2005).

Private actors, specifically for-profit companies, are promising partners in management for climate change because they can provide capital up front to both enable projects and accelerate project pace. These companies work through third-party, non-profit organizations who facilitate the financial exchange between the private and public sectors and help implement projects on federal lands. Thus, three main groups are involved when companies invest in actions on national forests. These include: (1) the Forest Service; (2) corporate partners, referred to herein as “companies”; and (3) third-party, non-profit organizations, referred to herein as “intermediary organizations” or “intermediaries.”

The purpose of this study was to better understand corporate giving related to managing forests in an era of climate change in order to expand and improve private-public partnerships in the future. This project was funded by the Forest Service’s Washington Office of Sustainability and Climate (OSC), who is interested in engaging more corporate partners that are interested in funding projects related to climate change adaptation and mitigation. Thus, we looked at corporate investments in projects that might fall in this category to help inform this area of interest. Ultimately, this research can better inform the Forest Service about its engagement with the private sector.

This report addresses the following set of guiding questions:

- 1) Who are the major current for-profit corporate partners of the Forest Service and what are the mechanisms in use for investing in projects on national forests?
- 2) What are the range of current motivations for companies that engage with the Forest Service?
- 3) What are the metrics that are being used or of interest to understand return on investment?
- 4) What are the successes and challenges identified by corporate partners and other parties involved that could shed light on how to improve practice going forward?

In the following sections, we first provide background on climate change effects on forests and corporate giving, then describe our methods, next we report on our findings from the four questions above, and conclude with a section that summarizes our key findings, recommendations, and next steps.

Background Information: Climate Change and Corporate Partnerships

The Forest Service has several national-level policies that aim to incorporate climate change into day-to-day operations for national forests (Laatsch & Ma 2015). For example, the regulations promulgated in 2012 under the National Forest Management Act of 1976 require consideration of climate change when developing national forest land management plans (Timberlake & Schultz 2017). Additionally, the agency has developed a Performance Scorecard, to assess national forests' response to climate change, and vulnerability assessments, which are documents intended to improve management actions in response to climate change (Timberlake & Schultz 2017). The Forest Service also has implemented a number of programs meant to accelerate the pace and scale of restoration (Schultz et al. 2018). Yet, many challenges persist as

the Forest Service suffers declining budgets and staff capacity in the face of complex challenges, such as climate change and climate-driven disturbances (Maier & Abrams 2018). External funding sources and partnerships have become key strategies for Forest Service managers in addressing these gaps (Abrams et al. 2015).

Climate change is significantly impacting forests, and the Forest Service is working with private partners to help manage for the effects of climate change. The Forest Service recognizes climate change as one of the greatest challenges to sustainable management and human well-being (USDA Forest Service 2008). Climate change impacts the ability of forests to provide ecosystem services by exacerbating pre-existing disturbances such as drought, fire, insect outbreaks and disease. The agency turns to external partners for financial resources and capacity to help manage for climate change's effects through both climate change mitigation and adaptation actions (USFS 2008; Abrams et al. 2017). In general, current forest management approaches to mitigate climate change include: 1) planting trees to enhance carbon stores and carbon sequestration (Cunningham et al. 2015), and 2) forest management activities, such as forest thinning, to decrease the severity of wildfires and reduce carbon loss (D'Amato et al. 2011; North & Hurteau 2011). Methods such as forest thinning, prescribed fire, and invasive species removal make forests more resilient and adaptive to the effects of climate change (Safford et al. 2012; Bradford & Bell 2017). National forests are also the largest supplier of municipal water in the United States (USFS 2006) and watershed restoration projects, including forest thinning, can reduce the vulnerability of these watersheds to high severity fires and enhance water provision to downstream users. For this study, we focused on projects that involved tree planting or forest management activities, such as those described above, that are funded by for-profit companies. Projects thus included forest health projects (such as thinning

and reforestation) for wildfire mitigation or wildlife habitat, tree planting, and watershed restoration. We acknowledge that many of these projects have multiple objectives and often are not new activities; indeed, we asked companies whether climate change was a motivation for them, since we could not determine this on our own.

Private investments¹ are one potential way to connect private capital with government projects in order to support climate change adaptation and mitigation work. Conservation investments are growing in North America and many investors plan to increase or allocate more capital towards conservation impact investments (Hamrick 2016). Companies have started to incorporate natural capital accounting into their policies and practices due to potential increased costs and risks as resources become scarcer (Millennium Ecosystem Assessment 2005; Schaefer et al 2015). Corporate bottom lines also often rely on ecosystem services that provide raw materials, protect facilities from natural disasters, and regulate regional or global climate (Molnar & Kubiszewski 2012).

The Forest Service has a variety of public-private partnerships and divides these corporate relationships into corporate giving and conservation finance. In corporate giving, the donor does not expect financial returns; unlike conservation finance, where returns are expected. Since a considerable amount of research is being conducted on conservation finance tools, such as the Forest Resilience Bond, we focused on corporate giving projects for our interviews to address a knowledge gap in an underexplored topic. We avoid calling these investments “philanthropy” because the projects that companies choose to fund are usually directly related to

¹ We use this term broadly to encompass financial investments from companies looking for both monetary and non-monetary returns, including corporate giving.

the materiality of the company (i.e. companies are not funding projects solely for altruistic purposes).

Assessment Methods

We started the assessment with a review of relevant documents from the Forest Service's², Ecosystem Market Place's³, and Blue Forest Conservation's⁴ websites, which provided background information on corporate partnerships with the Forest Service. For additional background information, we conducted several preliminary informational interviews with Forest Service representatives in the Washington Office and regionally with partnership coordinators to help design our study. These individuals provided us with the names of key intermediary organizations and companies for our next round of interviews.

We then conducted semi-structured and confidential phone interviews. Semi-structured interviews involve using an interview guide with a set of questions that facilitate the interview, while also allowing flexibility to ask follow-up questions for emergent topics (see Appendix: Interview Guides). We interviewed seven representatives from the key intermediary organizations (Table 1). From these interviews, as well as the websites of these organizations, we identified a range of companies that were funding forest management projects on national forests. We narrowed this list into companies that were funding projects on national forests that might achieve climate change adaptation and mitigation goals (n=300), using a broad interpretation to include projects such as watershed restoration, fuels management, and tree planting. From this targeted sample of company names, we used data mining software to locate

² For USDA Forest Service Public-Private Partnerships, see:

<https://www.fs.usda.gov/detailfull/prc/home/?cid=stelprd3804156&width=full>

³ To read EMP Forest Trend's reports, see: <https://www.forest-trends.org/publications/>

⁴ See: <https://www.blueforestconservation.com/>

contact information for company representatives that were likely knowledgeable on projects relevant to our scope (e.g., people in positions such as Sustainability Director, corporate social responsibility (CSR) Director, Chief Marketing Officer, or CEO). We were able to locate contact information for 255 companies and sent outreach emails to this list of companies funding projects and working with key intermediaries of the Forest Service. We received responses from 58 companies, 10 of which declined, 11 of which upon further conversation did not fit the study scope (e.g. were only funding projects outside the U.S. or projects not related to forests), 13 of which replied initially but did not respond later for an interview, and 24 of which we interviewed.

Ultimately, we conducted 26 interviews with company representatives, with the two additional interviewees introduced to us by an intermediary organization and Forest Service staff member. A full list of the companies interviewed is available upon request, and they represent a variety of business sectors (Figure 1). A few business sectors, such as Firearms & Ammunition and Health & Care Products and Services were not represented in our interview sample. Company representatives from these business sectors were contacted but declined to participate or did not respond to our outreach emails. Low response rates from these sectors could be due to the limited accuracy of the data mining software used to find contact information for company representatives, a desire by company representatives to avoid topics related to climate change, or a variety of other reasons. Despite these limitations, we were able to speak with a wide range of companies funding projects on national forests that closely represented the population of companies and business sectors we identified as funding projects on national forests related to climate change.

Table 1- Key intermediary organizations of the Forest Service with organizational mission statements, and project types.

Non-profit organization	Mission statement	Project focuses related to research
American Forest Foundation (AFF)	To ensure the sustainability of America's family forests for present and future generations in conjunction with our strategic partners.	Forest health, watersheds, and carbon finance
American Forests (AF)	To inspire and advance the conservation of forests, which are essential to life.	Tree planting
Arbor Day Foundation (ADF)	To inspire people to plant, nurture, and celebrate trees.	Tree planting
National Fish and Wildlife Foundation (NFWF)	To sustain, restore and enhance fish, wildlife, plants and habitats for current and future generations.	Watershed restoration, forest health, and carbon offsets
National Forest Foundation (NFF)	To engage Americans in promoting the health and public enjoyment of our National Forests.	Tree planting, forest health, watershed restoration, recreation
National Wild Turkey Federation (NWTF)	Dedicated to the conservation of the wild turkey and the preservation of our hunting heritage.	Forest health for wildlife conservation
The Nature Conservancy (TNC)	To conserve the lands and waters on which all life depends.	Tree planting, watershed restoration, forest health

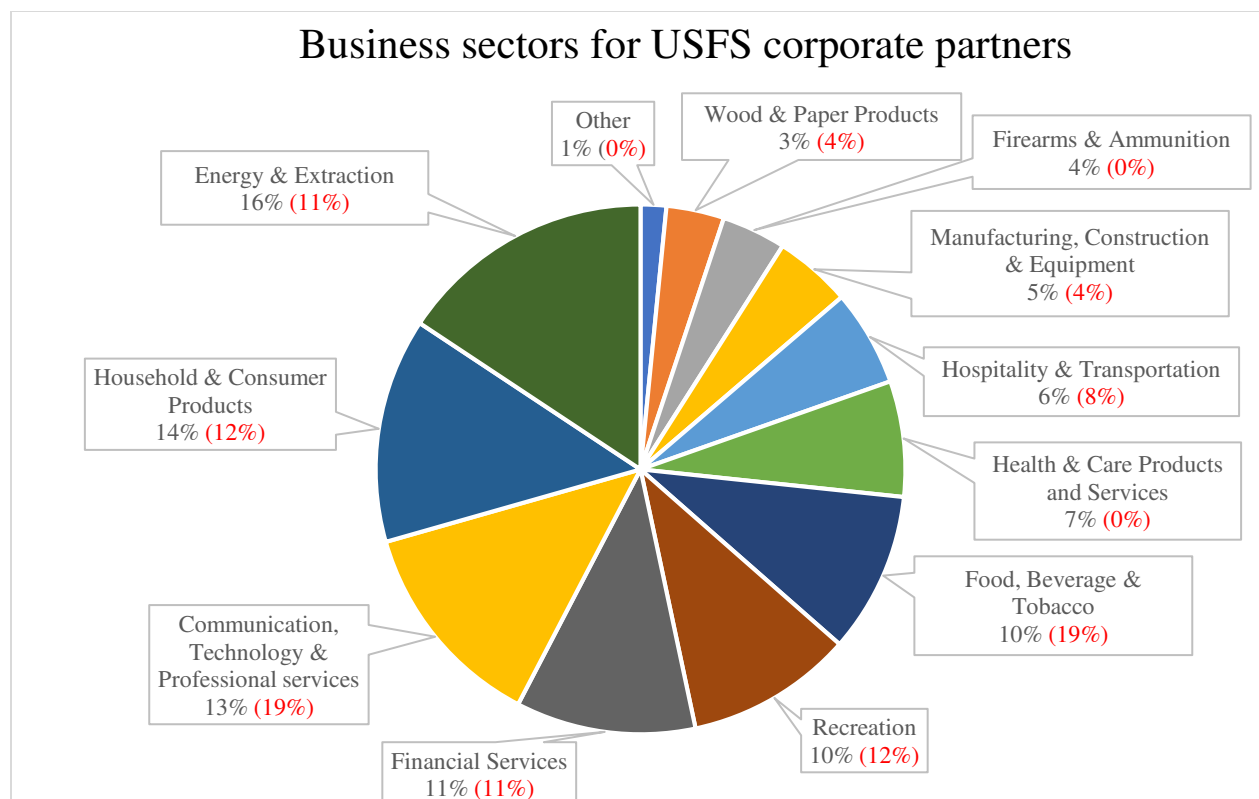


Figure 1- Range of business sectors for companies first identified in the population (n=255) and of those interviewed (n=26). Percentages of companies from the initial sample that fall within each sector are indicated in black font and the percentage for companies interviewed corresponding to each sector is indicated in red font.

We conducted a total of 44 interviews, including the 26 with corporate representatives (each from a different company), 11 Forest Service personnel, and seven representatives from key intermediary organizations (Table 2). In this report, we identify as much as we can about interviewees without compromising confidentiality; this means that when individuals are associated with a company, we do not identify the company or their position, since this could reveal their identity. Interviewees are denoted by their unique number and by “INT,” which indicates a representative from an intermediary organization, or, “CORP,” which indicates a company representative.

Table 2- Interviews conducted during this study.

Interviewee Group	Participants	#	Purpose
Forest Service	Staff in the Washington D.C. Office and Regional Partnership Coordinators	11	To collect background information, identify key intermediary organizations, and finalize research design.
Intermediary organizations	Representatives of key intermediary organizations of the Forest Service	7	To identify the range of corporate partnerships with non-profit organizations and gain insight on corporate funders broadly.
Companies	Representatives of companies funding projects on national forests	26	To address the research questions for previous, current, and potential companies engaging in climate change projects on national forests.
Total Interviews Conducted		44	

Interviews ranged from approximately 30-75 minutes. Despite our low response rate, we believe we approached saturation, because nothing new emerged in our later interviews with regards to our research questions other than specific company preferences. All interviews were recorded and transcribed verbatim by a third-party transcription service. We then used a social science analysis software (Dedoose) to conduct thematic coding, where codes or “labels” are given to segments of text that address particular research questions (Glesne 2016). This approach allows us to identify answers to our research questions while also pulling out emergent themes that we may not have expected. To promote systematicity and trustworthiness in the analysis, we adopted methods of intercoder consistency, where interview transcripts were independently coded by two different researchers and then compared to ensure for quality control and consistency (O’Connor & Joffe 2020).

Findings

In this section we synthesize key themes that emerged from our interviews in accordance with our four research questions. Thus, we begin by identifying corporate partners that we interviewed and describing the funding mechanisms they use. We then describe the principal motivations for companies funding projects on national forests and their interests regarding measuring their returns on investment. We conclude this section discussing the overall successes and challenges of these partnerships. We focus our findings on our formal interviews with company representatives and intermediary representatives, but sometimes include insights from preliminary interviews with Forest Service personnel, when relevant.

1. Mechanisms

In our interviews, representatives from intermediary organizations and companies discussed various ways in which companies fund projects on national forests. In almost every case, funds are channeled through a third-party non-profit organization. Companies and intermediary organizations work together to identify projects of interest on national forests. Funds come from a company's Sustainability department, Corporate Social Responsibility (CSR) department, Environment and Health & Safety department, Marketing department, or from a corporate foundation. Interviewees mentioned their interests and perceived barriers, in regards to carbon offset generation on public forests.

1.1 Role of Intermediary Organizations

Every company works through at least one non-profit intermediary organization that facilitates the money transfer and implements the projects⁵. Intermediary organizations include the National Forest Foundation, the National Wild Turkey Federation, American Forests, the American Forest Foundation, the Arbor Day Foundation, the National Fish and Wildlife Foundation, and The Nature Conservancy. Non-profit intermediaries play an essential role since the Forest Service as a public agency is not legally allowed to directly accept donations from companies. For companies, donating to a non-profit also has tax-deduction benefits. Since intermediary organizations bridge the gap between companies and the Forest Service, they also serve to facilitate communication and relationship building. Typically, a MOU (Memorandum of Understanding) is signed between the intermediary organization and the Forest Service, and then the intermediary organization works to identify both potential projects and corporate funders. Interviewees commented that often times intermediaries and companies work together to identify projects for companies to fund. In some cases, the intermediary organization presents the company with different types of projects with associated costs and the company chooses from this selection, while in other cases, interviewees said that companies give intermediaries a very specific set of qualifications for the types of projects they are interested in funding. One intermediary organization explained this role:

So much of my work, it's been directly at the nexus of private sector funding and the Forest Service.... That's kind of the purpose of the [intermediary organization] in a way, is to bridge that gap. And, that's been the heart of my work for the last seven years.... We serve as a vehicle for investing funds in [forests], and we add value through partnership communication. We bring a strong partnership with the agency, which allows us to do work that not every partner would be able to do. (INT_2)

⁵ Interviewees commented on one unique corporate partnership where the company works more directly with the Forest Service.

Several companies also mentioned partnerships among companies and through organizations like 1% for the Planet⁶ that bring non-profit organizations and companies together to invest in forestry projects. Organizations such as 1% for the Planet provide a credible way for companies to donate 1% of their proceeds to non-profit organizations, like the ones the Forest Service works with, and to use the 1% logo to promote their products. Relationships among companies also are formed by other coalitions, such as the California Water Action Collaborative, which joins companies together to share information and tackle projects at larger scales.

1.2 Revenue Streams for Projects

Companies fund projects from different internal departments or their company's foundation. Common internal corporate departments include Sustainability, Corporate Social Responsibility (CSR), Environment Health & Safety, or Marketing departments. Many companies create foundations through which non-profits apply for grants to fund forest management projects. These foundations often have more reporting requirements and details upfront for non-profits to provide regarding the projects, but afterwards there is less follow-up reporting expected regarding the success of the projects. For instance, one interview participant commented:

What I will say about foundations is there's often more red tape just because obviously the legalities of how foundations are structured and certain requirements that have to come out of foundations.... But then often time when the grant is awarded, [the non-profits] have done the due diligence and understanding in advance. And so often the reporting [from the non-profits] back to [the foundations] is very short...[because] that due diligence is done up front in advance. (INT_6)

⁶ See: <https://www.onepercentfortheplanet.org/>.

The funding source within a company usually reflects corporate goals around the project it chooses to fund. For example, projects funded through a company's marketing department are typically "buy one, plant one" schemes for tree planting projects. This is known as "cause-marketing," where for-profit companies aim to increase sales and benefit society. Examples of this in companies we interviewed included a company planting a tree in exchange for a product purchase, Instagram post, or completing a form or survey. Interviewees commented that "buy one, plant one" tree planting schemes were successful because low costs for tree seedlings and the ease of communicating the benefits of tree planting to consumers.

1.3 Carbon Offsets

One company is planting trees on national forest to generate carbon credits in the future, but many companies and a few intermediaries have met barriers with doing carbon offsets on national forests despite their interest to do so. The company currently involved described how they purchased their carbon credits "up-front" by funding reforestation efforts on national forests that will eventually generate the carbon credits they will use to meet their company's greenhouse gas reduction goals. Company representatives interested in becoming involved in carbon offset programs on national forests commented on their desires to further their current tree planting initiatives to generate offsets that will help them meet corporate goals for carbon neutrality or carbon footprint reduction. A few representatives interviewed described that they had purchased carbon offsets generated on private lands but would be interested in buying them from programs on public lands. Intermediary organizations that work with carbon offsets on private lands have also expressed interest in working with the Forest Service to provide carbon offsets on public forests; however, they have met various challenges. These included a lack of carbon

measurement protocols, additional costs, legality issues, and confusion regarding different claims e.g. the difference between carbon offsets, carbon credits, and verified carbon offsets and credits.

Interviewees commented:

Working in the verified carbon arena demands a lot of rigor and a lot of costs outside of just paying for the seedlings...You have to troubleshoot issues like monitoring and permanent buffer pools of risk insurance... There's [also] a lot of challenges in capturing the carbon benefit of tree planting projects...right now we don't have a metric, a system or a protocol to easily arrive at a [carbon sequestration] estimate for [corporate partners]. We're working through several different avenues to develop products and services that would allow us to have [measurement protocols for carbon offsets] more effectively. (INT_2)

[In] our experience, [carbon offsets] [are] challenging for federal agencies of any kind, but particularly for the Forest Service, in part because those [carbon] offset projects come with certain restrictions and guarantees on [the] future management of a property and we've heard in the past from federal partners that they feel bound by the laws of the United States [regarding] the role of the public in determining how land should be managed and when you put the layer of a [carbon] offset project on federal land, it just feels like some other kind of party is just being introduced into the equation in ways that can be challenging. (INT_7)

The challenge [with carbon offsets] is there are a whole bunch of different claims regarding the climate and carbon that are on the market. They're all slightly different. The way that they're different is extremely technical and frankly not understood by the buyers, and so there's a lot of confusion and misinformation out there. (INT_1)

2. Motivations

A primary objective of our work was to identify the range of motivations for why companies engage in projects on national forests. Companies frequently mentioned climate change concerns, but there was variation regarding the degree to which climate change motivated their involvement in projects. When prompted, most companies agreed that it was important to them to address climate change and that the projects they invested in contributed to climate change adaptation or mitigation. For several companies, climate change was a key focus of the company's sustainability goals and reasons for engaging in a particular project. For several other

companies, their project focuses were on water, carbon, or responsible forestry rather than, as they said, “explicitly driven” by climate change, but these interviewees acknowledged the “interconnectedness” of climate change to their specific initiatives. This was consistent with preliminary interviews where Forest Service staff said that the link between company objectives and climate change were often implicit or embedded into restoration projects rather than the key focus of the projects. Lastly, a few interviewees acknowledged the impacts of climate change on forests or their organization on a personal level, but their company or organization used language like “forest health” instead due what they said was the “divisive nature of climate change” and “political leanings” of their customer base.

We begin this section by describing the four most commonly agreed upon motivations, including: 1) sustainability goals and leadership; 2) stakeholder pressures; 3) market shifts; and 4) company characteristics, such as sector and size. Then we conclude with an analysis of other motivations, including interviewees’ differing references related to the importance of supporting projects on public lands and the lack of the role regulations played in motivating project engagement.

2.1 Sustainability Goals and Leadership

The most commonly cited motivation by interviewees was the connection between projects on national forests and the company’s sustainability goals. Companies almost always funded projects directly related to their sustainability vision. Interviewees commented that this allows for companies to develop specific metrics they want from a project that they will use in their sustainability reports to demonstrate how they are reaching their sustainability goals.

Companies often used the United Nations' Sustainable Development Goals (UN SDGs) to help identify target areas for their corporate sustainability efforts. Companies often specifically referenced the relationship between UN SDGs and specific projects in their sustainability reports. Company representatives commented that the UN SDGs were an important factor in driving their engagement because they help companies identify what targets are important to focus on globally. For example, one company explained:

The biggest motivating factor for expanding the scope of the goals was the UN SDG.... The 2030 SDGs gave kind of a unified voice of "This is what is relevant to the world. These are the areas we should all be working together in...." So we felt a bit more comfortable to come outside of our own walls and start addressing things that are much more like entire markets, or entire watersheds, rather than just focusing on energy reduction within our walls, or water usage reduction within our walls, or waste reduction within our walls. The framework provided by SDGs really encouraged us to...expand the scope significantly. (CORP_8)

Most interviewees also cited the direction or interests of company leadership—often the CEO or founder of the company—as a key motivating factor. Many companies referenced the role of the founder or CEO in embedding sustainability into the core values of the company. Interviewees noted that these leaders were instrumental in the initial implementation and growth of the company's sustainability goals and initiatives. Sometimes interviewees referenced a leader from a particular corporate department e.g. Sustainability Director who took the initiative to begin or move forward the company's involvement in a project on national forests. A few companies mentioned they were motivated to engage in projects because they wanted to be seen as “global sustainability leaders” in the corporate world.

2.2 Market Shifts

Interviewees noted that the market shifting towards sustainability was a key driver for companies to engage in these projects. Some interview participants commented that companies are being expected to be environmental stewards in order to have social license to operate, as well as increase their competitive advantage. A few interviewees said that when rival companies engaged in environmental projects, such as those on national forests, they then felt pressure to engage in projects themselves. Several interviewees explained that a company can no longer be successful without adopting sustainability measures, of which many of the companies interviewed have used projects on national forests to contribute to these corporate sustainability objectives. One company representative commented:

In today's world, [as] big, multinational corporations, you almost have to be a good environmental steward and doing sustainability work to have a seat at the table. So I think it's, at some level, [sustainability engagement] is almost expected. (CORP_25)

Several interviewees further mentioned how the “story value” of a project was a large motivating factor for companies. Story value refers to how well the significance of a project can be communicated to the greater public. The majority of companies were interested in leveraging easy-to-communicate and on-brand stories to their stakeholders. For instance, restoration projects after wildfires in California, especially in well-known national forests, were more compelling and appealing to companies due to their story value. A couple representatives from intermediary organizations commented on how companies may not fund a project without a good associated story to tell. An intermediary organization representative described:

So [that company] isn't going to support a project because they think it's a cool project. Never, ever will they do that. They support projects that earned them the very specific number of credits that they get to roll up in their [Corporate Social Responsibility] reports, and then they get to share a story about the impact. (INT_1)

2.3 Stakeholder Pressures

Almost every interview participant cited stakeholder pressures, especially from customers, as a relevant motivation for their engagement in these projects. Companies have traditionally focused on prioritizing shareholders (stock owners), but companies have recently expanded their key stakeholders to also include employees, customers, and investors. Each of these groups have unique influences on the decisions that companies make. For example, companies recognize that engaging in sustainable practices and projects is increasingly relevant to their customer base and they are making changes accordingly.

Interviewees also often referenced the importance of employees in terms of engagement and retention in motivating their projects on national forests. More than half of companies looked for local projects that were in areas where their employees worked and could volunteer. This was important for companies when identifying projects, especially tree planting, which is a popular employee engagement activity. Several companies emphasized their interest in local projects near their business operations so they could have positive impacts on the broader local communities. One company explained their decisions related to tree planting as follows:

We're trying to mainly plant where our employees live and work. So that's our primary commitment, and so we have recognized over the years that our employees as well as our customers, they love to know that [company] is planting trees in their region. You know, in their neighborhood is great, but at least in their region is something that people really identify with, and it makes them feel like they're a part of the program. (CORP_16)

Some of the representatives from publicly traded companies cited investors as a primary motivation for their engagement in environmental projects, such as those on national forests. Investor segments include impact investors, institutional investors, and private investors. Companies are being ranked according to different sustainability indices regarding how they are

addressing certain business risks, such as those posed by climate change. Investors use these rankings to make decisions on whether or not to invest in a particular company. Of the interviewees that were concerned about investors, representatives discussed their desires to reduce business risks and cited research showing that companies that have sustainability integrated in their corporate strategy are more profitable and thus more attractive to investors. For example, one company said:

Investors are demanding that companies be more transparent and disclose more related to their sustainability initiatives.... All those investment firms have created sustainability rankings for companies, and they've created questions to evaluate companies based on sustainability. And I really think that's driving a lot of efforts within companies right now... There's a lot of work has been tied into showing that companies have strong sustainability programs are more profitable. So that's the piece that the investors care about. (CORP_2)

2.4 Company Characteristics

The characteristics of a company, such as business sector and size, were mentioned by interviewees as influencing their desire to engage in projects on national forests. Company sector, or more specifically the product or service a company provides, was the most commonly referenced as motivating the types of projects companies are interested in (See Figure 1 in Chapter 2 for company sectors.) For example, companies that had products directly tied to forests or forest products were especially motivated by their company sector to engage in tree planting or forest health projects.

Several representatives from intermediary organizations and companies referenced product dependency on forest-related ecosystem services as being a key motivator for corporate engagement. For example, forest products companies may not take their wood from national forests; however, if they rely heavily on forests and trees in general, tree planting projects have a close tie to their tree replenishment goals or reforestation goals. Similarly, water-dependent

companies, such as breweries, use water restoration projects on national forests to “replenish” resources they are using in their supply chain. Additionally, outdoor recreation and hunting companies have products that relate to healthy forests because their customers recreate outside, often in national forests. For example, one representative from a hunting supply company explained how healthy forests mean happy consumers who will buy their products:

Well, if [the Forest Service is] improving the habitat and populations, then there's more room for more hunters and outdoorsmen to use our products.... No wildlife, [then] there's no hunters.... Hunters pay, they spend a lot of money on ammo, and camo, and food at the gas station, and whatever else. They're so big for the economy. (CORP_19)

Other companies, such as those tied to entertainment and tourism referenced that they fund projects on national forests due to the link with their business. For example, an entertainment company may have products that are strongly tied to nature e.g. wildlife documentaries, and the tourism industry, especially eco-tourism or adventure tourism, depends on the health of natural ecosystems and people so that they are able to travel. Projects on national forests have provided an opportunity for these companies to engage in projects that tie directly to their business and its long-term success. Interviewees said:

We're tourism. That's our world. So if we're not doing things towards [addressing] climate change, and people and cities are getting sick, [then] they're not going on vacation. We're not making money. That's again another intangible, but there's correlation between illness and pollution [and people vacationing]. If we're not doing our part to make sure that they go to a location that's sustainable...then we're not really doing our part, and we're really not making good business decisions. (CORP_21)

[Our company] has strategically focused our investments in supporting forests.... We have different types of entertainment assets that are tied around nature.... For us, it made sense for us to really invest in forests. There's more of these standing areas for communities and families to enjoy, and also for our future generations. All of these things really aligned with the [company brand], and also as a company who is trying to make not just entertainment, but to really support families. (CORP_14)

Other company characteristics such as size, being publicly traded, and being a subsidiary were drivers for project engagement. Large companies referenced the importance of their reputation and visibility as well as pressure to “make a difference.” Smaller companies were often Certified B Corporations⁷ which have requirements to integrate sustainability into their company mission. Publicly traded companies, as referenced previously, are more strongly influenced by investor pressures. Lastly, parent companies often motivated their subsidiaries to follow suit with their forestry projects. For example, one subsidiary mentioned that the parent company’s engagement in mangrove planting is what motivated them to do tree planting on national forests.

2.5 Other Factors: Public Forests and Regulations

We did not have consistent findings regarding the importance to companies of investing on public lands. Some companies specifically chose to do projects on national forests and preferred to contribute to public lands; for instance, one interviewee commented that they felt their project would have a longer lasting impact if it was on public land. A couple other participants commented that they simply wanted forestry projects, noting the distinction of public forests versus private was irrelevant because “a forest is a forest.” One interviewee explained:

Honestly, from my perspective, I don't really have a preference for what type of land our projects are done on, so I don't really track that. That's not a key performance indicator or anything that I would be looking at. I'm mainly looking at what are the priority sites, why are they priority sites, and what are basically the metrics associated with the projects there? So, it being a national forest isn't one of those [Key Performance Indicators]. (CORP_6)

⁷ Certified B Corporations are companies that meet high standards related to social and environmental impact, transparency, and accountability. For more information, see: <https://bcorporation.net/>.

Interviewees did not believe policy played an important role in motivating them to engage in projects on national forests. A couple intermediary organizations mentioned the possibility that policies do or could incentivize investments in carbon offsets (e.g. policies requiring airlines to engage in carbon offsets or the California carbon market motivating companies based in California). However, only a few companies mentioned policy or regulation at all, and all of them stated that they had little-to-no impact. One company engaged in projects on national forests because of a Sustainable Forestry Initiative (SFI) certification requirement to do conservation work. A few companies referenced the importance of policy in driving their engagement in renewable energy projects, but did not believe policy played a significant role in driving their engagement in projects on national forests. One extractive industry company was affected by regulations but said they address it through their corporate department versus philanthropic department.

3. Desired Metrics and Returns on Investment (ROI)

Throughout our interviews we sought to identify the types of metrics companies wanted to quantify returns on investment for projects they funded. There was a range of variation in the level of rigor companies sought in terms of metrics. Some companies had metrics they considered as essential for engaging in projects, while other companies were not interested in measuring specific projects outcomes. Interviewees interested in quantifying project outcomes looked for metrics such as acres treated or trees planted, environmental conditions, community impact, employee retention, and financial returns. Interviewees mentioned difficulties in quantifying less tangible returns and sometimes third-party verification and tools were used by companies and intermediary organizations.

3.1 Rigor for Metrics

Most every company was interested in project outcomes, yet interviewees differed in the level of control and details they wanted from intermediaries in terms of where projects are conducted and in reporting metrics. Intermediary organizations commented that some companies had very specific goals and ideas about the location and type of project they want to fund, whereas other companies were much more flexible. In instances where companies had specific goals and metrics, they typically wanted metrics that they could use to incorporate into their corporate sustainability reporting e.g. gallons of water restored to a watershed or number of trees planted. Other companies did not care about specific metrics and rarely, companies were satisfied by “doing good” and did not desire any metrics.

For companies interested in specific metrics, interviewees noted that there were certain metrics they considered as essential criteria to engage in projects, while other metrics had added value. For tree planting projects, many companies required reporting on the amount of trees planted, since many companies had number specific tree planting goals. Additionally, some companies were interested in follow up reporting, such as tree survival rate or amount of carbon sequestered. Companies involved in watershed restoration projects expressed more overall interest in rigorous metrics. This was consistent with preliminary interviews where Forest Service staff mentioned that most corporate partners, particularly those involved in watershed projects, were interested in metrics to track progress. For example, most of these companies expressed that a calculated water volume return was a top criteria for project engagement. Other essential criteria mentioned by companies involved in watershed restoration projects included locality to business operations or markets of interest, long-term impact, reputable intermediary organizations, and reasonable project timelines. Additional but not required metrics included

overall benefits to the entire ecosystem or local communities and opportunities for employees to volunteer. One interviewee elaborated:

[The project] has to have [a] quantifiable volume benefit... We only work with NGOs that have a proven track record in implementing these projects. We only look for projects that have a positive long-term or permanent benefit to the watershed... we're not going to fund a project that is going to take five years or something. Because we have a goal. We have a commitment to our stakeholders that we've made and so we need to do in that time frame... There's other things that we look at, but they are more of kind of added value... less tangible benefits... [like] the benefit to the entire ecosystem... Is this project going to catalyze a bigger amount of restoration? Is it going to catalyze bringing in more dollars from other organizations?... [H]ow strong is the community benefit?... But those top criteria, those are the deal breakers. We're looking at the long-term benefit. We're looking at investing in organizations that know what they're doing and we know that the project will be successful. (CORP_12)

Sometimes interviewees explained that environmental metrics were internally converted to assess return on investment, or ROI, for companies. These types of measurements can contribute to “triple bottom line” accounting, where companies measure their performance more broadly to include social and environmental metrics, in addition to profit. For example, one company talked about how they connect the volumes of water replenished in a watershed restoration project with how much money is invested to calculate gallons per dollar invested. Another company discussed how they had to discontinue a tree planting project because they didn’t have an acceptable financial return on their investment, and a third company discontinued a tree planting project because they were unable to get the customer engagement they hoped it would bring (this company had implemented a “fill out a form, plant a tree” cause marketing scheme in order to gain more demographic information from their customers). Example statements included the following:

Everything that we do has to show a cost avoidance—a return on investment. It has to make business sense.... In order for our CEO or CFO to say yes, it needs to make business sense.... The corporation's main goal is to make money. That's what they're there to do. My goal...is to show them that they can still make money and avoid expenses by doing sustainability measures. (CORP_21)

Honestly, [our project engagement] was really altruistic, because it was an expense.... I don't think we were ever able to demonstrate that there was a return on investment for our tree planting. And quite honestly, it was stopped [because] I think it was really the original CEO who was really pushing for it.... All spending of any kind of that nature was truncated by the investment company that bought us. (CORP_9)

3.2 Desired Metrics

Interviewees discussed a variety of different desired metrics for projects that they fund on national forests. Companies expressed interest in finding projects that produce multiple benefits and expect these types of metrics to be included in intermediary organizations' reports on project outcomes. Some companies have specific Key Performance Indicators, or KPIs, that correlate to specific corporate goals they are trying to meet (e.g. water quantity/quality restored, acres treated or enhanced, reduced potential for wildfire, or number of employees that volunteered). For example, one interviewee elaborated:

Types of measurements include water restored, reduced wildfire, and acres restored. It's a combination of things. [Our company], for example, still is working at trying to calculate flow restoration benefits. In general, more of the metrics are around modeling that shows overall wildfire risk reduction... reduction of potential, both in terms of fire itself and also post fire debris photos and fermentation and erosion that can be damaging to water delivery infrastructure and water quality. They measure the acres treated and that kind of thing too, but the actual outcome metrics is more around reduced potential for wildfire and post fire impact. (CORP_7)

Companies are also looking to take metrics to establish or improve their brand image. This includes calculating their impact in terms of social media engagement, or articles published by intermediary organizations or the companies themselves. A large benefit that companies

receive from working with and giving funds to intermediary organizations is the guarantee that these organizations will promote the image of the companies through social media “shout-outs” or articles written about the projects they are funding. Companies also look to intermediaries to help them quantify the benefits of their projects in ways that allow for the company to communicate a conservation “story” to the broader public through their sustainability reports or on their company website. An intermediary representative explained:

There's definitely a [return on investment] data piece... the story is important to [companies.] People's lives affected. Habitat that was affected. Wildlife that was affected. That is also a piece that's not really data-driven quantifiable, but it's very important. It makes [companies] feel good that they are helping restore areas that are most often the case when they're devastated by wildfire. (INT_6)

Company representatives also commented that they faced challenges measuring certain project accomplishments. Companies expressed difficulties in quantifying less direct metrics regarding their projects on national forest e.g. carbon sequestered was more difficult to quantify than trees planted and the extent to which a project affects a company’s reputation was not possible to quantify. Interviewees commented that the lack of standards for particular projects, such as watershed restoration, made projects more time-consuming because there weren’t existing guidelines to follow.

3.3 Tools and Third-Party Verification

Interviewees described a few tools that they used in measuring their returns on projects; usually intermediaries took metrics on project outcomes, while other times companies had developed their own tools. For example, one wood products company described an internal tool they had developed in order to convert board lengths into trees to calculate a replacement level of tree planting; this allowed them to meet their goals of replacing the amount of trees used in their manufacturing with trees planted. Another intermediary organization described how they use a

tool called i-Tree⁸ to calculate benefits, such as CO₂ absorbed, as a result of tree planting projects.

Several interview participants, particularly from larger companies, commented on using a third-party verifier for watershed restoration metrics and to get carbon offsets verified. Companies with watershed restoration projects always had specific metrics and a couple companies identified Limno Tech⁹ as a third party that would add credibility to watershed restoration metrics taken. In terms of carbon offsets, some companies generating offsets on private lands and one company generating offsets on national forests had a third-party organization, like the American Carbon Registry¹⁰, which would verify the data and give carbon offset credits. Not all companies that expressed interest in purchasing carbon offsets from public lands in the future were interested in getting their offsets verified; they were mostly interested in engaging in carbon offsetting instead of the official credits.

4. Perceptions of Successes and Challenges

We asked about perceived successes and challenges of partnerships between companies and the Forest Service related to projects on national forests. We soon realized that in many cases there was a limited understanding among corporate interviewees on what national forests were. Interviewees often confused the Forest Service with the National Park Service, and they also confused public and private forest lands when asked to discuss their projects on national forests. We found that many corporate interviewees did not know what a national forest is, who the Forest Service is, or what role the agency plays. As a result, even companies that were

⁸ For more information on i-Tree, see: <https://www.itreetools.org/>.

⁹ For more information on Limno Tech, see: <https://www.limno.com/>.

¹⁰ For more information on the ACR, see: <https://americancarbonregistry.org/>.

currently funding projects on national forests were unaware of the distinction or opportunities the Forest Service has for its partners, and a few interviewees were unsure if their projects were on public or private forests. As a result, what we report on in this section are their perspectives on their partnerships overall. Overall, interview participants had positive perspectives of their partnerships between companies and intermediary organizations, as well as partnerships between companies themselves. Challenges that were frequently mentioned included difficulties with the Forest Service, such as limited understanding of the Forest Service and national forests, difficulty in measuring returns, challenges with scaling-up projects, and sometimes specific conflicts associated with an intermediary organization.

4.1 Successes

The following section reviews perceived successes mentioned by interviewees regarding their partnerships that fund projects on national forests. The vast majority of interviewees identified their relationships with intermediary organizations as a partnership success. Most interview participants said that their partnerships with intermediary organizations allowed for both parties to achieve goals and supported improved communication and relationships. Most of the time, company representatives had little or no interaction with the Forest Service, and therefore their relationships with intermediary organizations were crucial to achieving their projects on national forests. A few interviewees highlighted that when these intermediary organizations sent them photographs of their tree planting sites, it had a significant impact on their positive view of the project and that they enjoyed doing site visits. For example, one interview participant said:

Well there's one [reason] why I like this partnership a lot. And it comes back to the fact that we go out to the project sites and visit them, they all seem to be in really neat areas that are fun to visit, and it just makes it a fun partnership, as well as a successful partnership. (CORP_25)

Interviewees commented on the importance of trust, expertise, and personal relationships in having successful partnerships between companies and intermediary organizations. Often times, companies said that they chose to work with a particular intermediary organization because of its reputation and the trust they have in the organization to deliver on projects. Multiple companies interviewed stated that the intermediary organization provided expertise in an area that was outside of their knowledge area. Personal relationships developed between companies and intermediary organizations were another important factor that interviewees mentioned contributing to the success of their projects. In preliminary interviews with Forest Service staff, interviewees commented on the importance of intermediary organizations for the execution of these projects. Participants commented that these organizations help with administrative tasks like managing money, recording metrics, project logistics, and navigating grants and agreements processes.

A few representatives from intermediary organizations noted their success in achieving multi-year partnerships with companies. These organizations were happy with companies they had been partners with over a long period of time because of how much they were able to accomplish and streamline projects. Interviewees mentioned that projects and partnerships were successful when they were able to have longer multi-year contracts so that they could achieve projects of larger scale and impact. For example, one company participant mentioned that the cost is high for one-off projects, and they prefer to do multiple projects instead. An intermediary organization interviewee also described the benefits of multi-year projects:

I would say trending through we are getting less and less sort of the one-and-done partners and more into this multi-year partnership because we ask for that up front as well. If you're going to support our work, trees take a while to grow, obviously, and there's a need like never before. So, if we're going to look at you as a true partner, we expect that you are kind of side-by-side with us. And ultimately we like three, five, ten-year agreements. We have one partner that committed 50 years-worth of tree planting to us. And so that's fantastic. It helps us project plan and understand how much volume we need and all of that. (INT_8)

Another success interviewees mentioned was partnering with other companies and joining larger corporate coalitions for sustainability. Examples of this include the California Action Water Collaborative, the Electric Power Research Institute, and the International Counsel of Mining and Metals. These collaboratives provide a space for companies to share projects they are working on and motivate each other. Companies can also join together to pool funding and take on projects of larger scale and impact. One interview participant commented on the benefits of this:

You don't have to duplicate efforts. You can scale up. So, rather than each one of us contributing a small amount, you can pool your resources and have the bigger impact. You can bring others to the table. So, I think all in all we always try to collaborate and bring partnerships and look for more people that can be involved. (CORP_3)

4.2 Challenges

While interviewees highlighted a few successes associated with effective collaboration between companies and intermediaries, as well as between companies themselves, they also addressed the following challenges and concerns. Some interviewees cited challenges specific to working with the Forest Service. This included difficulties in communication and a lack of adaptability in the Forest Service. In terms of communication, one interview participant mentioned changes in management structure affecting the Forest Service's ability to keep track of ongoing projects. Another interviewee mentioned it can be difficult to get in touch with on the

ground personnel at the tree planting sites. One interviewee expressed frustration with things moving slowly in the agency and the need for the agency to adapt how it operates to better cater to companies:

I think [the Forest Service] get[s] in their own way, and there are those of us who were interested in working with them, but they can't get out of their own mindset.... [and] I don't have time to wait for them to figure it out. We are focused on dealing with climate issues right now, and, so, if they're willing to work with the kind of urgency and expediency that we have in mind, then I'm certainly open to that...Engage folks like us, and I'm not just thinking of [our company], but like corporates and foundations, when those projects are at a place where they're basically ready to go. Don't come to us and say, "Oh, if we can clear these hurdles over the next three or four years, then we might could do something...." You might as well not even have the conversation from the perspective of a lot of funders. So I think, helping to clear the path on some of the regulatory and procedural hurdles would be incredibly valuable. (CORP_13)

A couple representatives from intermediary organizations expressed concern about the increasing level of partnership engagement between the Forest Service and companies. These representatives commented that these relationships should be approached carefully to make sure that the Forest Service as a public agency is not overly influenced by companies. The concern was that corporate interests may affect what type of projects are done on public lands, favoring certain projects over others. One interview participant explained:

All you have to do is look back to the 1980s to the timber wars in the Northwest, private timber companies, spotted owl, the whole thing. I mean, we have these examples of the Forest Service being influenced by private interests in our recent history. And they were devastating to the Forest Service's reputation, and they're still digging out of that today. And I would hate to see that repeat itself. So, I have a lot of concerns. I think [corporate partnerships are] really promising in a lot of ways, I think it just demands a lot of thought, rigorous process, and careful evaluation of opportunities as this kind of idea gets kicked around. (INT_2)

Although uncommon, it is important to note that in a couple instances, companies expressed frustration with the intermediary organizations that they worked with. One interview participant expressed difficulty in communication because the intermediary organization used a

lot of science jargon that was difficult for them to understand. Another interview participant said they felt like the intermediary organization was more focused on the financial transaction and funding that the company provided versus the impact of the project. Preliminary interviews revealed similar perspectives from Forest Service staff. Interviewees said that intermediary organizations typically were not interested in working in more rural regions because companies wanted to fund projects near urban areas.

Several interviewees mentioned challenges associated with measuring certain returns. There was a clear distinction made between direct (e.g., trees planted) and indirect returns (e.g., improved reputation); interview participants described particular difficulty in measuring the latter. Interviewees also said it was difficult to accurately measure the impact of their project and that sometimes difficulties in quantifying returns on investment can make it hard to get funding for conservation projects. A few interviewees commented on difficulties with measuring returns:

I think that a lot of returns on this are indirect. You truly can't measure an indirect.... When we talk about sustainability, it's a little bit harder to talk about an ROI or return on investment...." (CORP_21)

That's an ongoing struggle for us to figure out the impact of our investments...So, we're continuing to work on how we're assessing impact and where we're going to measure it and that sort of thing....We don't have a specific concerted strategy around how we're measuring impact of our forest investments. (CORP_26)

Projects with harder-to-measure metrics can increase project costs and time investments. For example, one interview participant described challenges associated with watershed projects where there is a lack of standards for reporting compared to carbon:

So, there's a slew of challenges within water. One of the biggest is just the lack of standards in reporting work in this space.... [With] water, the standards don't always exist.... [E]very site is so unique. There's not really an all-encompassing way of measuring and tracking improvements in those areas.... It's very difficult and makes projects like this extremely time consuming on the front end, because there's so much stakeholder outreach. So, projects move very slow, which is frustrating from my perspective, because I'm used to projects going very quickly.... The lack of standards and the lack of just goals in watersheds makes it much more difficult to prioritize and even select projects. (CORP_15)

A few intermediary organizations also expressed challenges associated with carbon and giving corporate partners specific metrics for the amount of carbon sequestered by tree planting projects. An intermediary organization representative commented that they eventually developed their own average of how much carbon a tree sequesters in order to communicate impact to funders. This demonstrates a gap in knowledge related to measuring carbon accurately and the need to standardize this from a credible source so that companies are accurately understanding and reporting on the impacts of their projects.

Some company representatives expressed challenges in finding larger scale projects, which are important to them. Several interviewees expressed interest in pooling together funding from multiple companies and tackling projects of larger scale. One interview participant mentioned that this would also reduce the amount of pressure they felt from the intermediary organization to raise a large amount of funds. A few interviewees who had partnered with other companies on projects in the past spoke positively about working together on a project with mutual goals; they noted that their success also attracted other companies. A representative described their interests in scaling-up projects in their own words:

I think we'd all be better served if... we could have a cohort type of approach. And by that I mean I'm much more interested in a \$50 million pooled fund project, than ten, \$5 million dollar one-off projects. The operational burden on most foundations, on most partners, is incredibly high on a one-off project basis. So if we could develop a fund to fund or a portfolio of projects that different partners can engage on, and it seems like the Forest Service is as well placed to do that as anyone, I think that would probably be much more interesting than pretty ad hoc one-off type projects.... So I think scale matters, because we need to operate at scale from a climate perspective, but it also matters from how you deliver projects. (CORP_13)

Interviewees additionally expressed difficulty in aligning the supply and demand of projects. One intermediary organization discussed how there is more corporate funding available than there are projects ready to be conducted. A large barrier, another interview participant added, is that only some projects have passed through National Environmental Policy Act (NEPA) review and are ready and available for funders. This presents challenges in the supply of projects, and, as this interviewee commented, also neglects projects that may have less attention, while instead giving an avenue for a project that may likely already have some funding secured. Since the Forest Service already has projects lined up and underway, it can be challenging to match a funder's project preferences into the Forest Service's existing program of work. An interviewee said:

And so that's one of the things that's incredibly limiting about these kinds of models with corporate partners reaching out for projects on an annual basis is, and perhaps one of the biggest challenges, is there's all sorts of great work going across on a number of different units across the national forest system that would qualify great for these types of projects. But are they NEPA ready? Usually not. And so we're limited instantly to only NEPA ready projects, and [this company] wants those projects implemented within a calendar year." (INT_2)

Recommendations and Conclusions

The Forest Service looks to external partners to help fill gaps in funding and capacity to address climate change impacts on forests. We explored current corporate partnerships with the agency in order to identify funding mechanisms, motivations for engagement, and interests in measuring returns on investment for projects that could address climate change adaptation and mitigation goals. Through this process we also identified several successes and challenges of these partnerships. Our research indicates that there are five key areas for future work. These include the following five recommendations.

The Forest Service could work with intermediary organizations to improve their “storytelling” of what national forests are, who the Forest Service is, and the opportunities and benefits that exist for corporate partners. Many companies, despite funding projects on national forests, had little understanding of what national forests are and the role the Forest Service plays as a federal land manager. Several companies interviewed expressed they were open to and interested in interacting more with the agency but were generally unaware of avenues for engagement and opportunities that the Forest Service has for its corporate partners. In addition, in some preliminary interviews with Forest Service staff, interviewees expressed that their regional offices expressed difficulties in connecting with companies and a lack of information regarding how to engage with corporate partners. Based on our observations, we recommend that the Forest Service spend time to create effective and catered outreach materials that can be given to current and potential partners. This could be in collaboration with their non-profit intermediary partners since they appear to be the key conduit of information between companies and the Forest Service and thus can play a positive role in telling the Forest Service’s story and advocating for more work on public lands.

As the Forest Service continues to work with companies, it may be important to track the influence of corporate interests on national forest management. For instance, it would be important to make sure that projects with high “story value,” or that are more appealing to corporate partners for marketing reasons, are not being funded at the expense of more important work for achieving the Forest Service’s goals. The overwhelming popularity of tree planting projects by companies, despite a diverse range of forest management project needs, illustrates this concern well. Companies said they engaged in these projects because seedlings are inexpensive and customers can easily understand the benefits of tree planting. We suggest more companies donate money to non-profit intermediaries for diverse projects and with funds that can be used to address multiple needs, rather than just tree planting. This may create a need for companies to place greater emphasis on educating their customers about the benefits of various forest management practices. For partnerships where the Forest Service works more directly with companies, or would like to work more directly with companies, the role of intermediary organizations in ensuring transparency and identifying projects and partners would be valuable to evaluate over time. For example, intermediary organizations may play a critical check-and-balance role regarding corporate influence on public forest management. For more rural regions that may be overlooked by companies, the Forest Service and intermediary organizations may play an important role in identifying beneficial projects in that region and identifying alternative sources of funding.

Companies, intermediaries, and the Forest Service can work together to facilitate more connections to accomplish more work on the ground. Connecting companies to one another to fund joint projects of larger scale can be done through intermediary organizations facilitating partnership and dialogue between companies to find and fund projects of mutual interest.

Multiple interviewees mentioned that they enjoyed site visits and getting to see the projects, so hosting events to bring multiple companies together and talk about the benefits of these projects could be a valuable way to make these connections. Efforts to scale-up may not be appropriate for all projects, though, and it is important to consider potential trade-offs for other actors and resources. Nonetheless, in some instances, non-profit organizations could work together to share knowledge and pool funding to tackle larger projects together. Between companies and intermediary organizations, we recommend more communication and possibly annual agreements so that projects can be identified as soon as possible.

There is a lack of standardization of metrics, especially in regard to measuring the impacts of watershed restoration projects and carbon sequestered from tree planting. Intermediary organizations could work together with the Forest Service to develop standards for metrics and reporting to companies, especially for returns that are less tangible. Companies should also weigh-in on what metrics matter to them and what level of reporting they are interested in receiving from their intermediary partners. Other third-party verifiers could be valuable in creating consistency across organizations and companies related to measuring and reporting metrics. One company commented on their involvement in standardizing methodologies for watershed restoration projects through Volumetric Water Benefit Accounting (VWBA)¹¹; however, it appeared that other companies were not aware of this tool because in their interviews they expressed difficulties in achieving standardized protocol for watershed

¹¹ The World Resources Institute and partners developed a methodology for implementing and valuing water stewardship activities. For more information, see: <https://www.wri.org/publication/volumetric-water-benefit-accounting>.

restoration. Thus, when standards are developed, there is a need for better information dissemination.

Developing a market for carbon offsets on national forests may not be an option, but exploring the potential to quantify and track carbon offsets on national forests outside of a market or payment system still could be beneficial. Many companies and intermediary organizations expressed an interest in carbon offsets on public lands. One company representative suggested that the Forest Service become part of a certified carbon offset program and be able to give a “reforestation offset certification” similar to the EPA Safer Choice certification, the USDA BioPreferred certification, and the USDA Organic certification. As there was only one company that was currently planting trees on national forests to generate carbon credits, it would be valuable to further explore the model this company used and adopt it for other partners. Intermediaries and companies discussed challenges they faced regarding carbon offsets, suggesting a need for improved carbon measurement protocols and clarification regarding levels of credibility e.g. carbon offsets versus carbon credits and what verification looks like. One interviewee also mentioned the success of the National Fish and Wildlife Foundation in generating carbon offsets on public lands, so it could be valuable for the Forest Service to connect with and learn from other agencies.

In summary, this report synthesized our findings regarding partnerships between the Forest Service and for-profit companies for projects that address climate change adaptation and mitigation. These partnerships are often facilitated through third-party non-profit organizations that function as intermediaries that provide a legal means of channeling funding from companies and help to implement projects on national forests. We conducted 44 semi-structured phone interviews with Forest Service staff, representatives from key non-profit intermediary

organizations, and 26 representatives from companies funding projects on national forests to address our research questions. As a result, we identified key corporate and non-profit partners of the Forest Service, the range of funding mechanisms used to fund projects, corporate motivations for engaging in projects, desired metrics for measuring project accomplishments, and overall successes and challenges of these partnerships. According to our findings, we made several recommendations to the Forest Service for improving and expanding their corporate partnerships moving forward.

CHAPTER 3 – WHY DO COMPANIES INVEST IN PUBLIC LAND MANGEMENT?

INSIGHTS INTO THE FOREST SERVICE’S CORPORATE PARTNERS

Introduction

Disturbances such as fire and insect outbreaks pose a growing threat to the integrity of forest ecosystems and delivery of ecosystem services from public forestlands in the United States (Millar & Stephenson 2015). In light of decreased capacity and increased problem complexity, the U.S. Forest Service (Forest Service) increasingly turns to external partners for funding and capacity to manage national forests (Abrams et al. 2017). For-profit companies are a promising new partner because they can provide capital to fund forestry projects and accelerate the pace and scale at which these projects can be undertaken (Woolworth & Knight 2018). When providing funds to public land management agencies, these companies work through third-party non-profit organizations that work as intermediaries by facilitating the financial exchange and implementing projects on federal lands. Intermediary organizations provide a legal channel for companies to give money to the Forest Service, tax-deduction benefits for companies, and work with corporate partners to match company preferences with available projects. Thus, three main actors are involved in these transactions, including: (1) The Forest Service, as the public land management agency overseeing the 193 million acres of US national forests and grasslands; (2) corporate partners, referred to herein as “companies”; and (3) non-profit organizations, referred to herein as “intermediary organizations” or “intermediaries.” In summary, intermediaries communicate with and raise money from companies and then work with the Forest Service through agreements to transfer corporate investments to the agency to fund forest management work.

The field of corporate social responsibility (CSR), also referred to as corporate sustainability, is gaining momentum (Garriga & Mele 2004; Ranagen & Zobel 2013), and various empirical studies have begun to explore what motivates companies to engage in sustainable practices and programs (Dauvergne & Lister 2012; Ervin et al. 2013; Windolph et al. 2014; Lozano 2015). Given the important role of companies in managing ecological systems, looking at their role and interests informs how these relationships and projects can be more effective in the future (Brody et al. 2006). In federal forest management, as the Forest Service increases its reliance on private contributions to manage for forest health and multiple stakeholders engage to address complex issues (McCarthy 2005; Maier & Abrams 2018; Abrams 2019), understanding these partnerships is vital to the success of the agency and its stakeholders in supporting the agency in serving its mission.

These public-private partnerships parallel a trend in environmental governance where addressing social-ecological issues require the collaboration of multiple actors and power is shifted from state to non-state actors (Bouwen & Taillieu 2004; Himley 2008). The reliance of the Forest Service on participatory networks to achieve management goals has been coined “social forestry,” and scholars have traditionally focused on how collaboration between the Forest Service and local non-governmental organizations and communities can improve forest management and environmental decision-making (Maier & Abrams 2018). As the Forest Service faces increasing budget deficiencies and companies take more proactive roles in sustainability that include environmental governance, the drivers and outcomes of these trends merit further investigation.

While existing research has investigated partnerships between utility companies and the Forest Service (Bennett et al. 2014), there has been little work on other companies investing in national forests, and even less research on what drives companies to finance these projects. Therefore, our objective was to understand why corporate partners of the Forest Service are funding projects on national forests. For this study, because of the significant current and anticipated impacts of climate change on forests and forest ecosystem services, we focused on corporate partners interested in funding projects that might be related to climate change adaptation (e.g. tree planting and small-tree thinning/removal on forests and watersheds to increase resilience to disturbance) and climate change mitigation (e.g. fuels reduction or completing prescribed burns in order to prevent large, catastrophic fires). We also distinguish between what the Forest Service defines as conservation finance investments (corporate funding given with expected financial returns) and corporate giving investments (no expected financial returns). We focus on the latter and avoid calling these investments “philanthropy” because the projects that companies choose to fund are often directly related to the materiality of the company (i.e. companies are not funding projects solely for altruistic purposes).

Background

In order to understand the role of companies in financing forest management projects on national forests, it is important to explore how this topic is embedded in current forest management strategies, as well as provide background on corporate social responsibility (CSR) and what is known about corporate motivations for engagement in sustainability to help contextualize our study.

Climate change and forest management

Climate change is significantly impacting forests and the ecosystem services they provide, as increasing temperatures drive wildfire, tree mortality, and forest regime shifts (Baker et al. 2007; Anderegg et al. 2013). The Forest Service manages 193 million acres of national forests and grasslands and has identified ecosystem services provided by national forests, including clean water and air, scenic beauty, biodiversity, outdoor recreation, natural resource-based jobs, forest products, renewable energy, and carbon sequestration (USDA Forest Service 2008). Climate change impacts the delivery of forest ecosystem services by exacerbating existing disturbances such as drought, insect outbreaks and disease, and fire. The agency has several national-level policies that aim to incorporate climate change into day-to-day operations for national forests (Laatsch & Ma 2015; Timberlake & Schultz 2017). The Forest Service also has implemented a number of programs meant to accelerate the pace and scale of restoration in order to support ecological integrity and resilience (Schultz et al. 2018). At the same time, the Forest Service faces declining budgets and staff capacity as more than half the budget goes to managing wildfire (USFS 2015). This is especially challenging in light of the imperative to manage for climate change and climate-driven disturbances (Maier & Abrams 2018). External funding sources and partnerships have become key strategies for Forest Service managers in adding capacity and addressing these funding gaps (Abrams et al. 2015).

The Forest Service is advancing both climate change mitigation (i.e., reducing the accumulation of greenhouse gases that contribute to climate change) and climate change adaptation (i.e., making a system more resilient to the effects of climate change) actions (USFS 2008). In general, current forest management approaches intend to mitigate climate change by enhancing forest carbon storage and fostering adaptation by maintaining compositionally and

structurally complex forests (D'Amato et al. 2011). Agency policies suggest that mitigation strategies could include planting trees (afforestation or reforestation) to enhance carbon stores and carbon sequestration (Cunningham et al. 2015), and forest management activities, such as forest thinning, to decrease the severity of wildfires and reduce associated carbon loss (D'Amato et al. 2011; North & Hurteau 2011). In terms of climate change adaptation, methods such as forest thinning (the removal of vegetation, commonly smaller trees), prescribed fire (controlled burning of an area), and invasive species removal are intended to make forests more resilient and adaptive to the effects of climate change. National forests are also the largest supplier of municipal water in the United States (USFS 2006) and watershed restoration projects that employ forest thinning can reduce the vulnerability of these watersheds to high severity fires and ensure water provision to downstream users (Jones et al. 2017).

Corporate sustainability approaches

The role and responsibility of companies in sustainability has been a topic of discussion for many years, but not until the mid-1990s did corporate social responsibility (CSR) become a high-profile, global issue (Garriga & Mele 2004; Dauvergne & Lister 2012; Ranagen & Zobel 2013). CSR, also referred to as corporate responsibility (CR), corporate sustainability (CS), and corporate social and environmental responsibility (CSER), is defined differently by different scholars (Garriga & Mele 2004), but generally refers to the voluntary actions companies take to achieve the 'triple-bottom line', integrating economic, ecological, and social sustainability objectives and practices into their business model (Dyllic et al. 2002). Over the past two decades, companies have become increasingly aware of the inter-dependences of their businesses, the environment, and society at large (Lozano 2015), and addressing climate change in particular is attracting attention in the world of CSR (Kolk & Pinkse 2007).

Businesses are also working with non-profit organizations, each other, and governments in order to gain legitimacy and improve their CSR practices (Dauvergne & Lister 2012). Companies have begun to realize that collaboration with public-private networks results in stronger outcomes (Brody et al. 2006), and that working with a broad range of organizations can increase the achievability, success, validity, and acceptance of their corporate sustainability practices (Dauvergne & Lister 2012). Companies have started to incorporate natural capital accounting into their policies and practices due to potential increased costs and risks as resources become scarcer (Millennium Ecosystem Assessment 2005), as companies rely on ecosystem services to maintain their bottom line by providing raw materials, protecting facilities from natural disasters, and regulating regional or global climate (Molnar & Kubiszewski 2012). In essence, although corporate sustainability has traditionally focused on measuring and managing easily quantifiable metrics such as effluent or emissions, companies are moving towards proactive sustainable measures that affect their supply chain and community at large (Dauvergne & Lister 2012). As companies increase their involvement and presence in natural resource management, understanding what drives companies to engage will help inform how they will likely shift environmental governance dynamics in the future.

Various empirical studies have looked into corporate motivations for sustainability management with inconsistent results (Windolph et al. 2014). Companies may engage due to a variety of factors, including: regulatory pressures (Brody et al. 2006; Lynes & Andrachuk 2007; Khanna et al. 2007; Ervin et al. 2013; Windolph et al. 2014); pressure from constituents, such as, customers (Brody et al. 2006; Ervin et al. 2013; Windolph et al. 2014; Lozano 2015), investors (Khanna et al. 2007; Stanny & Ely 2008; Ervin et al. 2013), and employees (Brody et al. 2006; Lozano 2015); environmental leadership and managerial attitudes within the firm (Ervin et al.

2013; Lozano 2015); organizational characteristics, such as the size of the company (Ervin et al. 2013; Khanna et al. 2007; Stanny & Ely 2008); to reduce their risk exposure (Millennium Ecosystem Assessment 2005; Ervin et al. 2013; Lozano 2015); to increase competitive advantage (Lynes & Andrachuk 2007; Ervin et al. 2013; Lozano 2015); to enhance their brand image and reputation (Brody et al., 2006; Lynes & Andrachuk 2007; Lozano 2015); or financial benefits (Brody et al., 2006; Lynes & Andrachuk 2007). Many scholars further organize corporate motivations into internal and external motivations (Brody et al. 2006; Khanna et al. 2007; Panwar et al. 2010; Windolph et al. 2014; Lozano 2015; Roberts et al. 2020). There is some discrepancy in terms of what motivations researchers categorize as internal versus external, but for the purposes of our study we use the typology provided by Lozano (2015) where internal motivations consider everything within the walls of the company, while external motivations are factors that originate outside of the firm. Thus, internal motivations include: company culture; leadership in the firm; financial resources and gains; risk management; and employee opinions and desires. External motivations include: regulatory or legislative pressures; the company's reputation; market expectations; and customer demands and expectations.

Existing research on corporate sustainability has largely focused on internal sustainability measures of a company and has been sector-specific (i.e. focusing on companies that are extractive such as mining and forestry) (Lynes & Andrachuk 2007; Ranagen & Zobel 2013). Many empirical studies have also focused on publicly traded and large manufacturing firms, leaving out private, small, and medium firms and the service sector (Ervin et al. 2013). In addition, studies have focused on the impacts of industry participation on ecosystems but not what motivates them to engage and the benefits companies receive, especially from an industry perspective (Brody et al. 2006). Research on this topic is relatively nascent in the United States

(Panwar et al. 2010), and there is no existing research that focuses on the range of companies that invest in public forest management specifically.

This study strives to address this gap in the literature by investigating the range of motivations for companies engaging in projects on national forests. Better information on this topic could improve public-private partnerships between corporate partners and the Forest Service because these results can provide guidance to planners, managers, and corporate executives interested in engaging industry in collaborative resource management efforts (Brody et al. 2006). Additionally, it can inform what activities companies engage in (Panwar et al. 2010), be used to develop mechanisms to increase the use of CSR in a company's decision-making (Lynes & Andrachuk 2007), inform cost-effective policy development (Ervin et al. 2013), and contribute to the success of sustainable development (Windolph et al. 2014). Given the important role of companies in managing ecological systems, looking at their role and interests helps to understand how these relationships can be effective into the future (Brody et al. 2006) and for environmental governance in general.

Methodology

Overall approach and sample identification

Because little research had been conducted on this topic, we took a qualitative approach to this work in order to pursue the “how” and “why” questions of corporate engagement in national forest management. We began by reviewing relevant documents from the Forest Service¹², Forest Trends¹³, and Blue Forest Conservation's¹⁴ websites, which provided

¹² For USDA Forest Service Public-Private Partnerships, see:

<https://www.fs.usda.gov/detailfull/prc/home/?cid=stelprd3804156&width=full>

¹³ Forest Trend is a non-profit that focuses on increasing transparency and providing reports on ecosystem services and payment schemes world-wide. To review their reports, see: <https://www.forest-trends.org/publications/>

¹⁴ Blue Forest Conservation is a company who partnered with the World Resource Institute (WRI) to develop a conservation finance investment model with the increase funding for forest restoration on Forest Service lands. For more

background information on corporate partnerships with the Forest Service. In order to better understand corporate motivations for funding Forest Service projects, we then conducted three rounds of interviews: 1) preliminary informational interviews with Forest Service staff; 2) semi-structured interviews with key intermediary organization representatives; and 3) semi-structured interviews with corporate representatives of companies funding projects on national forests (see Table 2 in Chapter 2). We used semi-structured interviews in order to allow for flexibility to explore topics in our interview guides. To identify interviewees, we used both purposive sampling, where we preselected our interviewees from existing contacts, and snowball sampling, where potential future candidates were recommended by interviewees (Tongco 2007; Heckathorn & Cameron 2017).

Our first round of interviews with Forest Service staff in the Washington, D.C. Office (national agency headquarters) and Regional Offices (nine around the country that provide support to individual national forests with their Regions) provided us with the names of key intermediary organizations and companies they work with for our next rounds of interviews. There are over one hundred intermediary organizations that serve to facilitate partnerships between the Forest Service and companies, but seven emerged as relevant to our study due to the duration of their partnership with the Forest Service and the number of projects they are involved in (refer to Table 1 in Chapter 2). We interviewed seven representatives from all but one of the key intermediary organizations identified; one organization did not respond to our requests for interviews.

information, see: <https://www.blueforestconservation.com/>

From the websites of and interviews with intermediary organizations, we identified a range of companies that were funding forest restoration projects on national forests. We narrowed this list to focus on companies that were funding projects on national forests that might achieve climate change adaptation and mitigation goals (n=300), using a broad interpretation to include projects such as watershed restoration, fuels management, and tree planting, since we could not consistently identify *a priori* whether climate change was a motivation for project funding and design. We then used data mining software to locate contact information for company representatives that were likely knowledgeable on projects relevant to our scope (e.g., people in positions such as Sustainability Director, CSR Director, Chief Marketing Officer, or CEO). We were able to locate contact information for 255 companies and sent outreach emails to this narrowed list of companies who were funding projects and worked with key intermediaries of the Forest Service. We asked respondents to connect us with the individual in the organization that could best speak to their engagement with projects on national forests. We received responses from 58 companies, 10 of which declined, 11 of which upon further conversation did not fit the study scope (e.g. were only funding projects outside the U.S. or projects not related to forests), 13 of which replied initially but did not respond later for an interview, and 24 of which we interviewed.

Ultimately, we conducted 26 interviews with company representatives, with the two additional interviewees introduced to us by an intermediary organization and Forest Service staff member. A full list of the companies interviewed is available upon request and they represent a variety of business sectors (refer to Figure 1 in Chapter 2). A few business sectors, such as Firearms & Ammunition and Health & Care Products and Services were not represented in our interview sample. Company representatives from these business sectors were contacted but

declined to participate or did not respond to our outreach emails. Low response rates from these sectors could be due to the limited accuracy of the data mining software used to find contact information for company representatives, a desire by company representatives to avoid topics related to climate change, or a variety of other reasons. Despite these limitations, we were able to speak with a wide range of companies funding projects on national forests that closely represented the population of companies and business sectors we identified as funding projects on national forests related to climate change. Interviewees are denoted by a unique number to protect confidentiality where “INT” indicates a representative from an intermediary organization, and, “CORP”, indicates a company representative.

Data collection and analysis procedures

We conducted semi-structured confidential phone interviews with open-ended questions in order to help elicit views and opinions from interviewees in a flexible format. Interviews ranged from approximately 30-75 minutes. Our interview guides started with questions about the participant’s role in the organization or company and the role the organization or company plays with the Forest Service. The bulk of the interview focused on questions regarding motivations for why companies engage in these projects, concluding with questions about where interviewees saw the partnership going in the future and recommendations for other organizations or companies to contact. Recordings of the interviews were transcribed through a third party. Despite our low response rate, we believe we approached saturation, because nothing new was emerging in our later interviews in regards to our research questions other than specific company preferences e.g. a company discussing that their projects are driven by the CEO versus the Sustainability Director, but both showing the role of leadership in motivating companies to engage in projects.

We then used a computer-assisted qualitative data analysis software (Dedoose) to conduct thematic coding to analyze our interviews (Braun & Clark, 2006). This approach allowed us to identify answers to our research questions based on concepts from the literature, while also pulling out emergent themes that we may not have expected. We broke our coding analysis into different stages in which we conducted open coding, axial coding, selective coding, and constant comparison of codes (Creswell 2014), thus working back and forth between themes and the data until we had established a comprehensive set of themes. To begin, we conducted open coding where we inductively built themes from our data, after which we conducted axial coding, whereby we compared these themes to each other to see if we could group any of the themes together and parse within themes to facilitate analysis. Next, we deductively looked back at our data with our selected themes to see if more evidence could support themes or we needed to gather more information (Creswell 2014). Lastly, we conducted selective coding where we went back through our transcripts to find more data segments that contributed to these existing themes. To promote systematicity and trustworthiness in the analysis, we adopted methods of intercoder consistency, where several interview transcripts were independently coded by two different researchers and then compared to support quality control and consistency (O'Connor & Joffe 2020). In addition to coding, we conducted memo writing to create a reflective field log of thoughts as they occurred during the data collection and analysis process and used it to help us develop our coding scheme (Glesne 2016).

Findings

Interview participants cited a wide range of reasons for why companies engaged in projects on national forests (Figure 2). We begin this section exploring to what extent climate change and the public forest distinction motivated companies to engage in projects. Then, we focus our discussion on four main motivations listed by representatives of intermediary organizations and corporate partners explaining why companies became involved in forest management projects on national forests. We condensed these into the following categories: (1) company culture (including sustainability goals and leadership); (2) stakeholder pressures (including employees and external stakeholders); (3) company characteristics (including size and product dependency); and (4) marketing related to reputation.

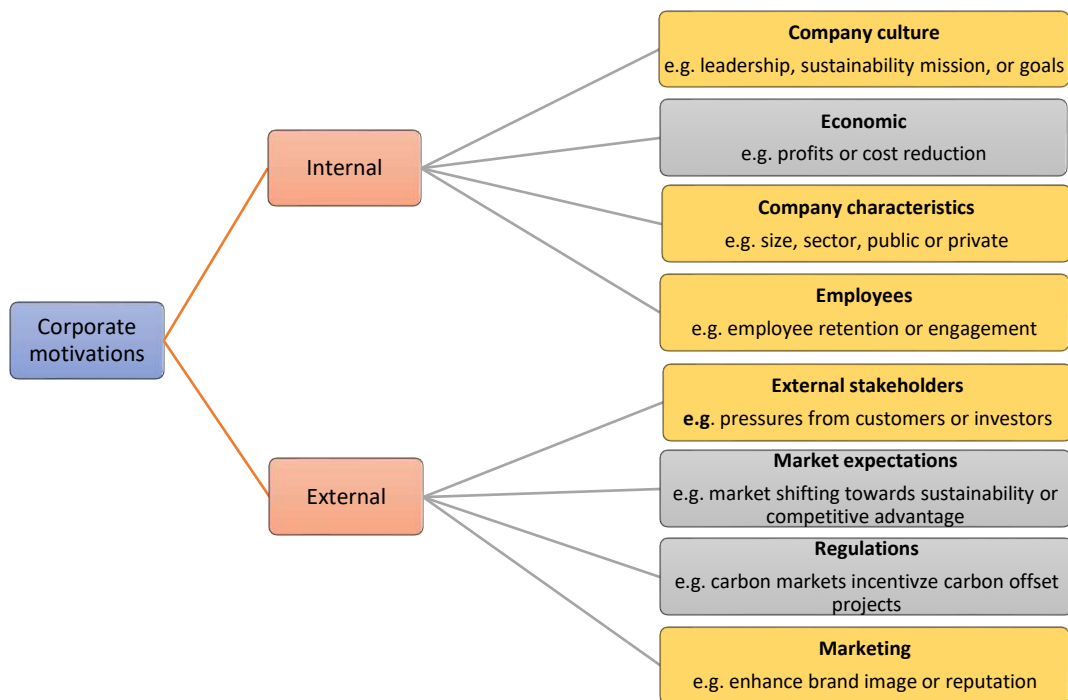


Figure 2- A synthesis of the range of motivations interviewees observed regarding why companies invest in projects on national forests. Motivations that were frequently mentioned are indicated by yellow boxes and motivations that were not frequently mentioned are indicated by gray boxes. Note: “employees” and “external stakeholders” were joined in the analysis to create the heading “stakeholder pressures.”

Motivations regarding climate change and national forests

Since we were interested in learning about the reasons companies engage in projects on national forests that could be related to climate change, we first discuss to what extent climate change and the fact that forests were public were motivations for companies to engage. Findings for these topics were inconsistent because, although most companies agreed that it was important to them to address climate change and that the projects they invested in contributed to climate change adaptation or mitigation, the degree to which this drove their decisions to fund projects varied. For several companies, climate change was a key focus of the company's sustainability goals and reasons for funding a particular project. For several other companies, their project focuses were on water, carbon, or responsible forestry rather than explicitly driven by climate change, but these interviewees acknowledged the interconnectedness of climate change to their specific initiatives. Lastly, a few interviewees acknowledged the impacts of climate change on forests or their organization on a personal level but said their business or organization used language like "forest health" to describe projects, due to the "divisive nature of climate change" and "political leanings" of their customer base. For example, one interviewee said:

I'd just say our focus is not specifically on climate change and the effects of that [on] national forest lands, but it's on forest health and resiliency. And you know, they kind of go hand in hand. Climate change is a pretty broad and huge topic.
(CORP_6)

We also did not have consistent findings regarding the importance to companies of investing in public lands. Some companies specifically selected to do projects on national forests and preferred to contribute to public lands; for instance, one interviewee commented that they felt their project would have a longer lasting impact if it were conducted on public land. A couple other participants commented that they simply wanted forestry projects, noting the distinction of public forests versus private was irrelevant. An interviewee said:

I would say a forest is a forest... [We're] more interested in, what's the multiple benefit? We don't care where it's at. Just what it is doing. (CORP_20)

These perspectives may have been influenced by the fact that almost half of participants did not have a clear understanding of what national forests are, what role the Forest Service plays, or of opportunities to become a corporate partner of the Forest Service, despite the fact that these companies were funding projects on national forests. For example, some interviewees confused the Forest Service with the National Park Service and incorrectly believed that national forests encompassed private or urban forests.

Company culture: sustainability goals and leadership

Most interviewees commented on the desire of companies to have national forest projects that tied directly to their corporate sustainability goals and said their leadership played a key role in driving these projects forward. We refer to these items under the broader umbrella of company culture. For example, one participant said:

We have committed to being a socially responsible company, and have committed to having targets where we are making an impact on the environment. [I]f we didn't have these targets in place, I don't know if we would have really embarked on this journey that we have in investing in all these projects...it's really been one of the drivers for us to continue to support these forest projects. (CORP_7)

Some participants also commented that the United Nations' Sustainable Development Goals (UN SDGs) helped them to identify target areas for their corporate sustainability efforts because the SDGs helped them prioritize and focus their sustainability goals. Companies engaged in projects on national forests also frequently mentioned that sustainability was important to their company leaders, including the founder or CEO of the company—people who almost always were mentioned as being instrumental for this and were responsible for integrating sustainability into the corporate pillars. A few interviewees commented:

It came from our CEO, [he] has been driving force around leading [our company] to be a company that is responsible. He wanted use to come out with a set of impactful environmental targets...That was really the driving force, [it] is because he has, and had, that vision for the company. (CORP_7)

It was leadership. As a company, from the very beginning, [sustainability] has always been important to our CEO and executive leaderships as it's the right thing to do. (CORP_5)

It all ties back to our founder, who established the corporate values for the company... If you look at the five corporate values that he established, which happens to be in place until today after all those years, one of them actually says that we will behave as good corporate citizens. That brings in all the pillars of CSR, of sustainability, environment, [and] social...it provided the foundation for the company to innovate and develop products, and that is supported by our commitment to sustainability over the decades until the current day. (CORP_18)

In summary, we found company culture plays a large role in motivating whether or not companies engage in projects on national forests. This stems from the leadership instilling sustainability into the corporate mission, as well as driving the development of specific sustainability goals that guide project selection. Interviewees mentioned leadership from various sectors driving their engagement in environmental projects, such as those on national forests, not just companies that are heavily dependent on natural resources.

Stakeholder pressures: customers, employees, and investors

Almost every participant cited stakeholder pressures, especially from customers, as a relevant motivation for their engagement in projects on national forests. The majority of participants referenced customers as a key motivation, about half of participants referenced employees and desire for local projects that employees could engage in, and some participants referenced investors as playing a key role in why the company engages in particular projects. An interviewee discussed the importance of stakeholder engagement, saying:

At the highest level is stakeholder engagement, whether the stakeholders are investors, whether they're our customers, whether they're our employees. There's a significant push from a number of areas within the larger society for [our company], and frankly, every other [company] of our size to be highly engaged, I would say, on these issues. So, we hear it from retail customers, we hear it from commercial customers, we certainly hear it from our investors. And so, it would be very difficult for us to operate in the current environment without some fairly aggressive sustainability objectives. (CORP_13)

Consumers were the most commonly referenced stakeholder group. Interviewees who referenced consumers as being an important stakeholder talked about consumer expectations for companies to take their environmental impact into consideration. Interviewees noted that consumers are expecting more out of companies than just providing products and services and that this is driving companies to adopt sustainability measures. Examples of what interviewees said included the following:

I feel like a lot of consumers...expect companies to help kind of be an agent of change and to have a plan and to understand that plan is just not necessarily reaping profits without giving back. (INT_8)

Consumers are demanding [sustainability], and [they, the consumers,] will be the change. The consumers demand it. And then the companies and organizations have to adapt to that demand or they will lose their market share. (CORP_12)

Employees are also getting a seat at the table in terms of driving change in companies. Projects on national forests are often used for internal engagement, such as to organize employee volunteer days. In this approach companies are able to accomplish dual goals: they can meet sustainability goals and also increase employee engagement through employee volunteer days. More than half of companies looked for local projects that were in areas where their employees worked and could volunteer. This was important for companies when identifying projects, especially tree planting, which is a popular employee engagement activity. Several companies emphasized their interest in local projects near their business operations so they could have

positive impacts on the broader local communities. One company explained their decisions related to tree planting as follows:

We're trying to mainly plant where our employees live and work. So that's our primary commitment, and so we have recognized over the years that our employees as well as our customers, they love to know that [our company] is planting trees in their region. You know, in their neighborhood is great, but at least in their region is something that people really identify with, and it makes them feel like they're a part of the program. (CORP_16)

Some of the representatives, particularly from publicly traded companies, cited corporate investors as a primary motivation for their engagement in sustainability projects. Interviewees said investors are becoming increasingly interested in the sustainability reporting of companies, which is most relevant for publicly traded companies because their shares are traded openly in the stock market. Investors are using sustainability rankings, based on companies' voluntary sustainability reports, to inform whether they will invest in a particular company. Of the interviewees that were concerned about investors, representatives discussed their desires to reduce business risks and cited research that has come out showing that companies that have sustainability integrated in their corporate strategy are more profitable and thus more attractive to investors. Interviewees said:

[M]ainly publicly traded companies are being rated by sustainability rating systems on essentially their exposure to climate risk and also the way that they are accounting for and dealing with their carbon emissions. And so there's a whole slew of organizations that basically communicates this information to large institutional investors like pension funds, for example. And those large institutional investors increasingly are using the sustainability ratings of companies, particularly on climate as a decision point in who they invest in and who they don't. (INT_1)

Investors are demanding that companies be more transparent and disclose more related to their sustainability initiatives.... All those investment firms have created sustainability rankings for companies, and they've created questions to evaluate companies based on sustainability. And I really think that's driving a lot of efforts within companies right now.... There's a lot of work has been tied into showing that companies have strong sustainability programs are more profitable. So, that's the piece that the investors care about. (CORP_2)

In summary, customers, employees, and investors are largely driving companies to ramp up their sustainability efforts, including climate change projects on national forests. Differing characteristics of a company can influence to what extent each of these stakeholder groups is more or less relevant for a particular company and this is described more in the following section.

Company characteristics

The characteristics of a company, including business sector, size, whether a company is publicly traded or privately held, and whether a company is a subsidiary or a larger parent company, were mentioned by interviewees as influencing their desire to engage in projects on national forests. Company sector, or more specifically the product or service a company provides, was most commonly referenced as motivating the types of projects companies are interested in. Companies that had products directly tied to forests or forest products were especially motivated to participate in forestry projects. This includes a wide range of company types from paper producers to breweries to outdoor recreation companies. For example, forest products companies may not take their wood from national forests; however, if they rely heavily on forests and trees in general, tree planting projects have a close tie to their replenishment goals. Similarly, water-dependent companies, such as breweries, use water restoration projects on national forests to “replenish” resources they are using in their supply chain. Companies such as

beverage companies have come to recognize that water supply reliability relates to significant business risks in their industries. One intermediary organization interviewee commented:

[This company] was initially interested in working with us as part of their commitment to offset their water use involved in their production.... They contacted us initially around wanting to invest in things that would help them offset their water use. Initially, and still, a lot of the focus, especially [in] the beverage industry, has been trying to show that they are conserving flows that offset the waters that they use. (INT_9)

Additionally, outdoor recreation and hunting companies have products that relate to healthy forests because their customers recreate outside, often on national forests. An intermediary organization interviewee commented:

Thinking about the companies whose brand is sort of invested in healthy outdoor places and spaces...[companies] all have a really vested interest in having healthy ecosystems for people to go out and play. (INT_1)

Other representatives working with or for hunting supply companies explained how healthy forests mean happy consumers who will buy their products:

Well, if [the Forest Service is] improving the habitat and populations, then there's more room for more hunters and outdoorsmen to use our products.... No wildlife, [then] there's no hunters.... Hunters pay, they spend a lot of money on ammo, and camo, and food at the gas station, and whatever else. They're so big for the economy. (CORP_19)

I don't know what to say about hunting companies other than I think they get it, you know, there's a real strong tie. They love wildlife, number one, and if there's not healthy habitats, there's not wildlife. Then, number, two, their company is dependent on abundant wildlife populations. (INT_5)

Other businesses, such as those tied to entertainment and tourism referenced that they fund projects on national forests due to the link with their businesses. For example, entertainment that is somehow linked to nature may want to contribute to projects for the environment e.g. wildlife documentaries or TV shows. Also, in order for the tourism industry to thrive, people and the environment need to be healthy:

We're tourism. That's our world. So if we're not doing things towards climate change, and people and cities are getting sick, [then] they're not going on vacation. We're not making money. That's again another intangible, but there's correlation between illness and pollution [and people vacationing]. If we're not doing our part to make sure that they go to a location that's sustainable...then we're not really doing our part, and we're really not making good business decisions. (CORP_21)

[Our company] has strategically focused our investments in supporting forests.... We have different types of entertainment assets that are tied around nature.... For us, it made sense for us to really invest in forests. There's more of these standing areas for communities and families to enjoy, and also for our future generations. All of these things really aligned with the [company brand], and also as a company who is trying to make not just entertainment, but to really support families. (CORP_14)

Large companies referenced the importance of their reputation and visibility as well as pressure to make a difference. For example, one participant said that large companies, which are more visible, are hearing the most from the customer base to take actions that will benefit the environment, explaining:

I would say even Fortune-100, Fortune-500, so large companies, are most often hearing from...their consumers or their investors that, “hey there's a need for change in the world based on what's going on with the climate”. I don't have to necessarily say climate change or global warming. But I think that there is a very robust dialogue happening from the investor and consumer base that is trickling up to these organizations that say “hey if we're going to continue to support you, we need to make sure that you are investing in our planet, in the environment.” (INT_8)

Smaller companies were often Certified B Corporations,¹⁵ which have requirements to integrate sustainability into their company mission. This could mean that smaller companies are more intrinsically driven to “do good” as a participant noted, saying:

¹⁵ Certified B Corporations are companies that meet high standards related to social and environmental impact, transparency, and accountability. For more information, see: <https://bcorporation.net/>.

Smaller organizations that support us, their motivations I would say are often they want to do something. They might not necessarily have the budget of a larger organization, but what they like is again planting trees they feel like relates to their consumer base...So I would say their motivations are more intrinsic in the way that they can give back as opposed to this mounting pressure maybe from an investor group. (INT_8)

In terms of the distinction between publicly traded versus privately held companies, publicly traded companies are more strongly influenced by investor pressures. Lastly, parent companies often motivated their subsidiaries to follow suit with their conservation projects. Participants commented that subsidiaries and parent companies would work together to invest in similar projects and companies would often be motivated by a parent company's involvement. For example, participants said:

We, as a company, we take the lead from our parent company....we knew we wanted to do something that maps to our corporate goal and we just kind of decided that this was something that we all just liked, so we moved forward with that. (CORP_9)

I would look at the parent company goals as more of a holistic umbrella approach. And then the local subsidiaries will develop their own priorities and conservation initiatives in their respective states and their respective service territories. (CORP_23)

[Our parent company] support[s] mangrove planting...[and] we wanted to do something similar that was sort of more relevant for our location, and that for us was national forests. We were looking to kind of mimic the program that [our parent company] [was] supporting, financially, the planting of trees and national forests...(CORP_24)

As seen in this data, participants have observed that companies with products and services that link to forests are largely motivated to engage in projects on national forests. Forest product companies, outdoor recreation and hunting companies, and the beverage industry are all examples of this. In addition, larger companies are motivated by their reputation and access to more resources, whereas smaller companies seem to be more intrinsically driven by commitment to sustainability and their consumers. Companies that are publicly traded are more influenced by

investor pressures and subsidiary companies may be driven to engage in projects that are similar to those their parent company is involved in.

Marketing

A company's motivations for engagement also relates to where the funding comes from inside of the company, and if the marketing department is involved then brand image and reputation can be a motivation. Companies fund projects from different internal departments or their company's foundation. Common internal corporate departments include the Sustainability department, Corporate Social Responsibility (CSR) department, Environment Health & Safety, or the Marketing department. Many companies create foundations through which non-profits apply for grants to fund conservation projects. An intermediary organization described how different funding sources relate to projects and desires of companies:

We're funded through a variety of ways. For instance, we could be funded from an organization sustainability division. We can be funded from an organization's foundation. We could be funded from an organization's marketing division... if we're working with an organization that is giving their budget from the marketing team, that most often we know that there's going to be [public relations] around it. There's going to be potentially talking about on packaging. There's potentially going to be a social-media activation to activate their consumers...when marketing tends to found our partnership, you can expect some marketing aspects on that. Now, if we get a bunch of dollars from a sustainability division within an organization, oftentimes that is geared towards strategic [return on investment]. And so we use i-Tree...to help talk about shared value over the lifetime of a tree, whether that be forest or in communities. (INT_8)

As shown in the above quote, the funding source within a company usually reflects corporate goals around a forestry project. For example, projects funded through a company's marketing department are typically "buy one, plant one" schemes for tree planting projects. This is known as "cause-marketing," where for-profit businesses aim to increase sales and benefit society. In these schemes, companies offer to plant a tree for the purchase of a particular product.

In this way, customers can feel they have donated positively to a cause, and companies can meet sustainability goals, as well as have a campaign to incentivize people to buy their products. For companies we interviewed, examples of this included a company planting a tree in exchange for a product purchase, Instagram post, or completing a form or survey. Many companies funded projects through their marketing department, but sometimes, regardless of what department funded the projects, reputation and “brand image” was a key driver for companies to engage in these projects. Several participants further mentioned how the “story value” of a project was a large motivating factor for companies. Story value refers to how well the significance of a project can be communicated to the greater public. An intermediary organization representative described it this way, saying:

So the story value is paramount. For example, if you were to offer them some sort of carbon project on a national forest, you would want a very desirable story value. An ideal one, I'm just making this up, would be, okay, look, there were fires around Yosemite, right, in the national forest and we are helping to restore the forest around this national treasure. Okay. Well, every company wants to be a part of that. Well, you might do the exact same thing on another national forest unit with the exact same ecological need and impact, but because it's not well known or there's no resonance with the greater public, you'll have a very hard time getting money from that pot because it's really so associated with story value. (INT_1)

This quote demonstrates how companies are encouraged to fund a particular project or a project in a particular location due to the impact it can have for promoting their business. For instance, restoration projects after wildfires in California, especially in well-known national forests, were more compelling and appealing to companies for this reason. The majority of companies were interested in leveraging easy-to-communicate and on-brand stories to their stakeholders. Half of our interviewees mentioned how the charisma of a project was a large factor for companies, and the phrase “story value” was specifically used by a few different

participants. This illustrates how companies are motivated to fund particular projects because of the story they are then able to communicate to the greater public.

Summary

Interviewees mentioned a range of motivations observed for why companies engage in projects on national forests related to climate change. Companies are driven by their leadership to engage in projects that help them meet specific sustainability goals. Stakeholders including customers, employees and investors all can motivate companies to engage in conservation projects. Various factors, such as company characteristics related to size, sector, and public ownership, can modify the relevancy of motivations for one company compared to another. Product dependency is another important motivation because companies that rely on resources that come from forests are incentivized to keep forest ecosystems healthy. Lastly, marketing is a large driver for companies to engage in these type of projects as it can be used both as a funding mechanism and also to improve a company's reputation.

Discussion

Contextualizing corporate motivations and engagement strategies

The purpose of this study was to determine the key factors that drive corporate partners of the Forest Service to invest in projects on national forests that could address climate change adaptation and mitigation goals. Identifying what drives companies to fund projects can be used to create strategies to more effectively engage corporate partners. Interviewees mentioned a range of motivations observed for why companies engage in these projects. These included: values from people in company leadership positions; sustainability goals; company culture; pressure from customers, employees, and investors; risk exposure; company size; business

sector; and reputation. Interestingly, although companies were funding climate change related projects on national forests, the degree to which climate change or the public land distinction motivated companies to engage in projects varied by interviewee.

In general our findings were consistent with the motivations we found from the literature on CSR, with a few exceptions. Our findings also showed that many of these motivations are intertwined. For example, we found that people in leadership positions set corporate sustainability goals and thus defines a company culture in favor of sustainability. Leadership was referenced by studies as a primary motivation for companies to engage in sustainability projects (Lawson 2015), with the UN SDGs increasingly being adopted by companies because they provide a clear set of global priorities that can help companies secure their social license to operate (Schramade 2017; Pederson 2018). Authors in the corporate sustainability literature also commented on the shift from businesses being primarily driven by the desires of leadership and shareholders to expanding to more stakeholder groups (Glavas 2012). This has been formalized by the Business Roundtable, a non-profit association whose members are chief executive officers of major U.S. companies, redefining the purpose of a corporation in 2019 to include employees, customers, suppliers and communities as well as shareholders (The Business Roundtable 2019). The pressures from various stakeholder groups interact to exert external pressures on companies to adopt sustainability measures, like projects on national forests. Investors were an additional stakeholder group we found in our study as being an important driver for project engagement. Outside of our study, this is seen in the Carbon Disclosure Project (CDP), launched in 2000, that serves to inform managers about investors' concerns about climate change and to inform investors about firms' risks associated with climate change (Stanny & Ely 2008). Since publicly traded companies are more affected by investors, the CDP also demonstrates how pressures from

investors, a company's risk exposure, and if a company is publicly traded, are interconnected motivations.

Another way our findings were consistent with other studies is how we found that company size impacts the level of engagement of companies in sustainability initiatives. Studies assert that larger firms are more able and more able to participate in sustainability initiatives because of their greater resource wealth and lower costs to take on projects (Stanny & Ely 2008), and that larger firms also may be under more pressure than smaller firms because they have more media attention and face more regulatory pressures (Khanna et al. 2007; Ervin et al. 2013). Thus, company size is intertwined with a company's reputation, which is largely influenced by customers. A novel finding not mentioned in the literature was that we found smaller companies engage in sustainability projects due to their commitments as Certified B Corporations. Lastly, in terms of corporate department and motivations, studies have found that the functional area that engages in sustainability management has a direct correlation to the types of activities the company will engage in and the types of returns a company is looking for (Windolph et al. 2014). This supports our findings that projects funded by the marketing department of a company will be interested in projects and returns that relate to corporate reputation.

Overall, our findings showed a wide range of motivations, suggesting the use of a "multi-strategic approach" where both external and internal pressures are incorporated into strategies to promote corporate participation in projects (Brody et al. 2006). Externally, it appears that exerting pressure through reputation and outside stakeholders can help influence corporate involvement in projects. Internally, working with leadership to create sustainability goals that encompass climate change and forest management objectives is one possible avenue. However, because of the divisive nature of climate change, as commented by several interviewees,

outreach by the Forest Service for these projects may be more effective using language such as “forest health”, “forest resiliency” and “forest restoration” may be more beneficial than “climate change”, depending on the company. Also, since companies strategically engage in local projects that directly relate to their products and services, it would be useful to align existing local Forest Service projects with companies that have specific replenishment goals that are directly related, e.g. increasing wildlife health for hunting companies.

Despite the literature on corporate sustainability frequently citing regulations as a key motivation (Brody et al. 2006; Lynes & Andrachuk 2007; Khanna et al. 2007; Ervin et al. 2013; Windolph et al. 2014; Lozano 2015), we found that interviewees did not believe policy played an important role in motivating them to fund projects on national forests. A couple intermediary organizations mentioned the possibility that policies could incentivize investments in carbon offsets (e.g. policies requiring airlines to engage in carbon offsets or the California carbon market motivating companies based in California). However, only a few companies mentioned policy or regulation at all, and all of them stated that they had little-to-no impact in driving their engagement in projects on national forests. One company engaged in projects on national forests because of a SFI (Sustainable Forestry Initiative) certification requirement to do conservation work. Another extractive-industry company was affected by regulations but said they address it through their corporate department versus philanthropic department.

Consistent with other studies was the fact that economic factors were infrequently mentioned by a few companies. Other studies had found that these were not at the top of the list for motivating companies to engage in sustainability projects (Lozano 2015). These findings suggest that increasing emphasis on bottom line or the need for financial ROI may be unfounded or unnecessary to build these partnerships. In addition, policy changes and monetary incentives

may be less effective to motivate engagement compared to relationship building and quantifying environmental outcomes that relate to a company's bottom-line. This study also revealed that many companies, even those funding projects on national forests, have limited knowledge on what national forests are, the role the Forest Service plays, and avenues for involvement with the Forest Service. Thus showing that most companies are not motivated by the distinction of funding public forests versus other forest types. This demonstrates a need for the Forest Service to better communicate its role and benefits of partnership to companies to increase more engagement and partnerships.

Implications for policy and practice

The growing presence of corporate funding in U.S. Forest Service land management has potential value to increase capacity and also political implications around the influence of companies on a public land management agency. Intermediary organizations could play a vital role in supporting credibility and transparency through their in-between role with The Forest Service and companies. Currently, these organizations help the Forest Service and companies find and fund projects that meet mutual goals in an era of climate change. Climate change drives agencies to link social and ecological systems (Young et al. 2006), and to form partnerships to manage for its effects (Brinkerhoff & Brinkerhoff 2011). This context has grown increasingly complex, creating a network of multiple actors involved in the funding and implementation of climate change adaptation and mitigation work on national forests. Non-profit intermediary organizations are a kind of bridging organization, linking actors across multiple sectors to solve problems that neither actor would have been able to tackle on their own (Crona & Parker 2012). These organizations generate benefits such as knowledge coproduction, trust building, sense making, learning, vertical and horizontal collaboration and conflict resolution (Berkes 2009).

For companies, these organizations also provide a legal avenue for companies to give money to the Forest Service, tax-deduction benefits, and legitimacy in the sustainability arena. Yet the role these organizations serve may extend past their direct partners. Intermediary organizations hold great power in project match-making, but they could also serve to support transparency between companies and the broader public. These organizations could play a critical role in monitoring the influence of companies for public land management. Thus, their role in environmental governance deserves more attention from the agency, policy makers, and other stakeholders.

Companies are beginning to define their own sustainability standards and metrics, demonstrating how private entities are shaping environmental governance. The role of special interest groups and corporate funding in public land management is not new. For example, the Forest Service's funding structure was historically strongly tied to sales to timber companies. As the agency has transitioned to managing for forest health, separations between the agency and the timber industry, in addition to increased spending on wildfire suppression, have resulted in budget deficiencies and more diffuse and diverse political coalitions influencing national forest management (Abrams 2019). In response to decreased budgets and less organized political support, the Forest Service has increased its use of external partnerships to leverage resources from other external actors to accomplish its management activities on federal forests (Maier & Abrams 2018; Abrams 2019).

The role of companies and the Forest Service in public-private partnerships reflects public management trends on a global scale, where governments, facing budget constraints, are beginning to enter into long-term business relationships with companies under more complex and extensive contracts (Hodge & Greve 2007). Governments are beginning to realize that addressing social-ecological issues requires the collaboration of multiple actors (Bouwen &

Taillieu 2004), and there is an increased reliance on public-private partnerships to deliver services that have traditionally been provided by the public sector (Koontz & Thomas 2012). Concurrently, private interest in natural resource management is increasing globally as companies are driven to take more proactive sustainability measures that embrace environmental governance (Clapp 2003; Tang et al. 2012). As a result, oversight and administrative functions are increasingly transferred from the government to non-state actors, such as companies, and thus corporate social responsibility demonstrates a neoliberal shift in environmental governance as decision-making powers regarding social and environmental consequences of business are relinquished from the state to companies (Himley 2008). This shift towards neoliberal approaches and increased public-private partnerships more generally, is seen in the Forest Service through increased dependence on non-state actors for planning and implementing management for national forests (McCarthy 2005; Maier & Abrams 2018; Abrams 2019).

As the role and power of companies in environmental governance increases, it is important to understand the implications of the increasing involvement of the private sector in forest management in ways that are not focused on timber like in the past, but rather on ecosystem services. A couple representatives from intermediary organizations expressed their concerns regarding how private interest may influence public forest management. Increasing private interest may sway project priorities towards corporate preferences versus land management needs. For example, tree planting projects may be preferred by companies to engage in but may not address the diverse forest management project needs of the Forest Service. It is also possible that more remote areas that have less appealing projects in terms of “story value” will be neglected. In addition, it is important to consider how the transfer of power and influence to businesses may pose conflicts of interest if companies begin to enforce global

standards for their own sustainability products and practices (Clapp 2003; Himley 2008; Dauvergne & Lister 2012). Understanding the underlying motivations for companies to engage in forest management fund can help inform how corporate funding is and will influence the Forest Service's management of forests. More research will be needed to track this going forward and to determine how bridging organizations, land management agencies, and corporations together define work that is occurring on public lands and how this intersects with a public service mission and public interests.

Conclusions

Our study aimed to identify the key reasons companies fund projects on national forests that could address climate change adaptation and mitigation. Interviews with representatives from key intermediary organizations and corporate partners demonstrated that companies were motivated to engage for a variety of reasons and that businesses engage in climate change projects for reasons that benefit their business, and not purely for altruistic purposes.

Understanding the motivations of current corporate partners can help inform and improve current partnerships, as well as serve to expand partnerships in the future. This research can inform the Forest Service on what types of projects to offer and the importance of demonstrating links between project types and a company's products or services. As the impacts of climate change increase along with funding demands, increasing public-private partnerships for forest management will continue to be important and an area of interest.

Although this study is limited to a sub-set of interviewees, it provided insight into a range of corporate motivations seen by these organizations and expressed by companies themselves. Since companies may be inclined to answer in ways positive to their reputation, it was important that the perspectives of intermediary organizations be integrated into the findings, though it

could have been valuable to also formally include perspectives from Forest Service staff. Additionally, companies from sectors that were underrepresented, such as firearm companies, health services, or care products companies, would be valuable to add. Lastly, further research could expand upon this topic by investigating the role that non-profit intermediary organizations play for the success of these partnerships and as a regulator of private influence, another underexplored topic. We suggest that insight into these motivations will improve similar partnerships in the future and increase the scale of climate change projects on national forests. This study focused on the Forest Service, but information gleaned from this study can apply to similar partnerships with other land management agencies. Moving forward it is important to track the impacts of the private sector becoming increasingly involved in public land management and how this could shift project priorities.

CHAPTER 4 – CONCLUSION

In this thesis I explored public-private partnerships between the Forest Service and for-profit companies that could address climate change adaptation and mitigation goals on national forests. My objective was to better understand the Forest Service's corporate partners by addressing four research areas: (1) key mechanisms companies use to fund projects on national forests; (2) company motivations for engagement; (3) desired metrics by companies to measure their project outcomes; and (4) overall successes and challenges of the partnerships. I was able to address each of these topics through my interviews. Key findings for all four topics were discussed in Chapter 2, the report to the Forest Service. I found that partnerships between the Forest Service and companies rely on non-profit organizations who serve as intermediaries by signing agreements with the Forest Service, provide a legal means for companies to donate to the Forest Service, and help facilitate communication and relationship building. Companies donate money through their different corporate departments or their company's foundation. In terms of corporate motivations for engagement, I assert that companies engage for a variety of reasons. These include: values of those in company leadership positions; to address corporate sustainability goals; to address pressures from stakeholders, including customers, employees, and investors; influence from the overall market shifting towards sustainability; to address climate change effects and risks; company dependence on forests for their product or service; to follow the actions of their parent companies; their designation as a Certified B Corporation; and to enhance corporate reputation. In Chapter 3, my article, I elaborated on these findings and commented on the implications of increasing corporate engagement with the Forest Service

paralleling larger trends in public land management where government increasingly depends on non-state actors to achieve management goals.

In regards to my third research question focused on desired metrics, I found that companies vary in the rigor of metrics they want on project outcomes, who they want to take those metrics, and what types of metrics they are interested in. Companies usually want metrics on the number of trees planted, gallons of water restored to a watershed, and acres treated for wildfire reduction and for intermediary organizations to take these metrics and write reports to companies. Sometimes companies want third party verification and intermediary organizations and companies may use tools to help measure project accomplishments. Many companies and intermediaries are interested in further developing their tree planting projects to generate carbon offsets on public forests. For my fourth research question on partnership successes and challenges, also addressed in my report in Chapter 2, I found that companies and intermediary organizations find their partnerships to be successful in terms of goal alignment and relationship building. I also found that many companies have limited knowledge about what national forests are and what role the Forest Service plays as an agency, even if they are funding projects on national forests. Interviewees expressed difficulties measuring less tangible returns from watershed restoration and tree planting projects and many companies expressed interests in joining together to tackle projects at larger scale.

This research opens up further discussion regarding public-private partnerships between the Forest Service and external actors. It appears that climate change and its impacts on forests ecosystems requires a diverse set of actors to come together to address its impacts. This study parallels broader literature regarding the shift in environmental governance towards more neoliberal approaches, by which an increase in public-private partnerships results in the

increased participation of private actors, like companies, as significant actors. As the impacts of climate change increase along with funding demands, the role of public-private partnerships for forest management will continue to be important and an area of interest. This research can inform the Forest Service on how to increase corporate funding by better understanding the ways in which companies fund projects, why companies are interested in certain projects versus others, the types of metrics and returns companies are looking for, and what is working well, and where there are areas for improvement. In addition to these original research questions, this study also found new topics of interest. For example, interviewees raised concerns regarding increasing private influence on public land management as companies provide funding for these projects. This raises the need to track the changes in political power and possible shift in priorities of projects on public lands as private companies become increasingly involved in providing funding.

This study provided useful insights into perspectives from key intermediary organizations that work with the Forest Service and companies funding projects on national forests, but the project also had limitations. The study was limited to a subset of potential interviewees and company representatives because a large amount of company representatives that were contacted did not respond or declined to participate in this study. Thus, our sample is skewed in that it represents those willing to respond to our queries and some sectors, such as fire arm companies and health services, had few or no company representatives that were interviewed. This may have affected my results in that motivations or desired metrics from these sectors were not included. For example, a health services company may want to have measurements on the air quality returns of tree planting that affect health. In terms of intermediary organizations, I was not able to include perspectives from one key intermediary organization, which would have been

valuable since it was cited by interviewees to have been successfully conducting carbon offset projects on public lands.

Further research could address these gaps, as well as evaluate the accomplishments and outcomes of these partnerships. For example, a similar study could target company outreach to organizations and business sectors that were underrepresented in this study. To address possible response bias, changing the email outreach from “projects related to climate change” to “forest restoration projects” may encourage a wider response by encouraging companies who are not interested in linking climate change to their business to participate. Additionally, as these partnerships continue and expand, it will be important to evaluate how the increasing role of private influence impacts national forest management, more specifically, if and how private interest may sway project priorities towards corporate preferences instead of land management needs. A future study could track the types and locations of projects conducted on national forests and how these projects change overtime. It would be interesting to investigate the percentage of projects funded by companies and if there is a pattern in the types of projects and regional locations of projects preferred by companies, and if that influences what projects are conducted by the Forest Service overall. For example, if tree planting projects, a popular employee engagement activity for companies, significantly increase. Another underexplored area of research is investigating the role that non-profit intermediary organizations play for the success of these partnerships as bridging organizations and credibility they may ensure to reduce private influence. The concept of bridging organizations stems from the adaptive governance literature and describes organizations that link actors across multiple sectors to solve problems that neither actor would have been able to tackle on their own (Crona & Parker 2012). These organizations generate benefits such as knowledge coproduction, trust building, sense making,

learning, vertical and horizontal collaboration and conflict resolution (Berkes 2009). I would like to further explore the idea of how the Forest Service's key non-profits play a role as bridging organizations between the agency and for-profit companies and the benefits they produce for these partnerships. These organizations could provide a check-and-balance on private interest influence on public forest management. I would explore this topic by re-coding my interviews according to the literature on bridging organizations and write a second article to submit to a peer-reviewed journal this summer.

Overall, the research in this thesis can be used to inform relevant parties on how to improve their existing partnerships. For the Forest Service, this information can serve to increase the scale of climate change projects on national forests. These findings could also be useful to companies who are interested in gauging their sustainability initiatives and interests in comparison to other companies. If companies see they are facing similar issues or interests, they may see opportunities to work together. For non-profit organizations that work with companies, this work synthesizes corporate motivations, desired metrics, and overall successes and challenges, which is information that could help these organizations better cater to their corporate partners. As the field of corporate social responsibility increases and companies continue to gain political influence, insight into corporate interests helps inform how to best engage these actors. This study focused on the Forest Service, but information gleaned from this study can apply to similar partnerships with other land management agencies. Since the increasing role of public-private partnerships parallels global shifts in environmental governance, these types of partnerships and how they develop will be valuable to follow in order to see how incorporating private actors affects environmental governance on a global scale.

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APPENDIX A – INTERVIEW GUIDES

Guide 1- Interview Guide for Forest Service Staff

Introduction (~15-20 min)

1. Can you introduce yourself and give me some background on how you got involved with the Forest Service? What is your current role?
2. What role do you play with private partners?
3. What do you know about these partnerships in general and specific to your region?
4. We are interested in for-profit companies, can you talk more about that? What partnerships do you think would be critical to look at?

Corporate partners (~20-25 min)

1. What are some of the largest partnerships and projects in your region? What mechanisms do they use?
2. Have partners mentioned any motivations for engagement? If you had to guess, what would they be? Do you think climate change is a motivation or how would you gauge that?
3. Why do partners choose the Forest Service versus another agency or private landowner?

Future

1. Is there anything else you want to tell me or that we should talk about?
2. Who else do you know in the Forest Service that would be good to talk to?
3. Can I follow-up with you in the future, maybe for a formal (recorded) interview?

Guide 2- Interview Guide for Intermediary Organizations

Introduction and project overview (~15-20 min)

1. To begin, can you tell me about your current role at [organization], including what role do you play between private companies and the Forest Service?
2. Can you describe how these partnerships work? How do you initially get involved with these companies? (Do you reach out to them? Does the Forest Service defer you? Do the companies reach out to you?)
3. What are some of the current largest partnerships/projects? There are so many companies listed on your website, if you were to group the types of companies that are involved into broader categories, what would they be? Are certain types of companies working on certain types of projects?

Motivations and desired returns (~25 min)

1. Have partners mentioned any motivations for engagement? If you had to guess, what would they be? Are there certain patterns for types of companies or projects companies are interested and types of motivations?
2. As I mentioned before, we are interested in partnerships specific to climate change efforts. What types of partnerships come to mind?
3. Are partners interested in specific returns on investment in regards to these projects (monetarily or otherwise)? What about your organization?
4. Who is taking measurements and what metrics are being used? Are there any tools or software you use?
5. We're interested in what's working well and where you face challenges and see opportunities for improvement. Does anything come to mind?
6. Why do you think companies choose to work with you and the Forest Service versus another agency or private landowner?

The Future (~10 min)

1. What plans does your organization have in the future regarding corporate engagement?
2. Do you plan on maintaining or expanding your current project(s)? Why or why not?
3. Are there other types of private actors you have been thinking about engaging with? Why or why not?

Conclusions (~5 min)

1. Is there anything else you want to tell me or that we should talk about?
2. Is there any other organization who you recommend I talk to that plays a similar role with the Forest Service?

Guide 3- Interview Guide for Corporate Partners

Introduction and project overview (~15-20 min)

1. Can you tell me about your current role at [company]?
2. What are the current projects your company is involved in on national forests?
3. What role does this company take within these projects? What mechanisms are used and why? What department is funding the project?
4. How did this company become involved these projects on national forests or with the Forest Service? How has it evolved?
5. Does this company engage directly with the US Forest Service and how? Is there any intermediary organization involved, how?

Motivations and desired returns (~25 min)

1. We are interested in what motivates companies to engage in these types of efforts, what comes to mind? (investors, leadership, outside pressure, marketing, consumer pressure, climate change, etc.)
2. Why was your company interested in this type of project (i.e. tree planting) versus another activity?
3. How did you choose where these projects took place? Was it important that it be on national forests versus private? Is visibility important for you company in regards to these projects?
4. Does climate change impact this business? Is climate change a concern? How is it integrated into the company's sustainability vision, why or why not?
5. We're interested in what's working well and where you face challenges and see opportunities for improvement. Does anything come to mind?
6. What kinds of returns on investment are you looking for, financial or otherwise? What metrics are being used for measurement? Are there any tools or software you use?

The Future (~10 min)

1. Where do you imagine this partnership going in the future?
2. Do you plan on maintaining or expanding your current project(s)? Why or why not? Are there other projects you have been thinking about?
3. Is this company aware of other opportunities the Forest Service has for its partners?
4. If you could give advice to the Forest Service or other companies to get involved in these types of partnerships, what would you say?

Conclusions (~5 min)

1. Is there anything else you want to tell me or that we should talk about?
2. Is there anyone else in this company who you recommend I talk to? What about other companies that are doing similar projects or may be interested in doing similar projects?

APPENDIX B – CODING TREES

Initial coding tree

- Mechanisms
 - Offsets
 - Foundation
 - Project types
- Motivations for engagement
 - Stakeholder pressures (customers, employees, shareholders, investors)
 - Regulations
 - Certifications (FSC, SFI, offsets)
 - Corporate social responsibility
 - Climate leadership
 - Company characteristics (size, sector, public or private)
 - Climate change risk
 - Company culture/ desire to “do good”
- Measurements for returns
 - Publications (website and CSR report)
 - Employee engagement/retention
 - Customer loyalty
 - Forestry certifications
 - Carbon offsets (verified or not)
 - Financial returns
- Role of intermediaries
- Challenges
 - Securing funding
 - Projects of scale
 - Measuring returns
 - Navigating and access to carbon market

Final coding tree

- Mechanisms
 - Corporate
 - Buy one, plant one
 - 1% planet and other organizations
 - Foundation
 - Other
- Background
 - Company background
 - Intermediary background
- Working well
 - Collaboration
 - Other
- Company characteristics
 - Sector
 - Public or private
 - Size
 - Subsidiary
- Do further research
- Role of intermediary
- Future
- Role of Forest Service
- Project funder names
 - Foundations
 - Private companies
- Motivations for engagement
 - Local/community
 - Bcorp/green brand
 - Company culture/ “do good”
 - Market pressures
 - Sustainability goals/CSR
 - Reduce risk
 - Public lands
 - Consumer pressures/connection
 - Employee engagement/retention
 - Certifications
 - Investor pressures
 - Company leadership
 - Marketing
 - Product dependency/link
 - Global leaders
 - Regulations
- Climate change reference
- Measurements for returns
 - Replenishment

- Community engagement/impact
- Rigor
- Indicators
- Employee engagement/retention
- Publications or branding
- Third party verification
- Tools
- Other
- Enabling factors for intermediaries
 - Tree planting positive
 - Other
 - Personal relationships
 - Expertise
 - Goal alignment
 - Scale
 - Reputation and credibility of intermediary
 - Trust
- Challenges in projects/partnerships
 - Difficulties with intermediary
 - Working with public lands/agency
 - Measuring returns
 - Project specific challenges
 - Carbon offsets/finance
 - Influence of private sector in public space
 - Limited knowledge of NF or USFS
 - Communication
 - Other: scale, funding, capacity
- Suggestions for improvement/advice
- Types of projects
 - Recreation
 - Forest health (wildlife goals)
 - Forest health/fuels reduction/fire
 - Carbon finance
 - Sustainable forestry
 - Tree planting
 - Water