

Nicholas Institute for
Environmental Policy Solutions

Engaging Large Forest Owners in All-Lands Conservation

All-Lands and Large Ownerships—
A Conversation to Advance Engagement
Workshop, March 8, 2016, Washington, D.C.

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SUMMARY

Successful landscape-scale forest conservation and management efforts must engage a wide variety of forestland owners. Owners of large areas of forestland (more than 10,000 acres) have a particularly important role to play in the attainment of landscape-scale goals. Their cooperation increases opportunities for attaining conservation benefits at significant scale.

On March 8, 2016, a group of large private landowners was for the first time brought together with federal, NGO, and academic thought leaders to generate ideas for improving engagement on landscape-scale conservation goals. The dialogue was designed to identify barriers to and options for that engagement.

These proceedings summarize the dialogue of meeting participants in addressing an "all lands" approach to conservation whereby landowners and stakeholders collaborate on identifying long-term, mutually beneficial goals for the landscapes they share. It includes a profile of large institutional forestland owners and details the results of a survey conducted to measure their current engagement in conservation activities.

Participants identified barriers to engaging large forest landowners in conservation. They include the absence of an inclusive vision for the future of forest management, insufficient leadership for building diverse coalitions to address forest threats, lack of alignment of existing federal programs with respect to large ownership structures, limited understanding of the public benefits provided by large privately owned forests, and lack of markets to sustain these benefits.

Participants recognized the need to define a shared conservation vision, to build leadership for a broad coalition of stakeholders, and to execute a national strategy recognizing the value of and providing incentives for large private landowners to cooperatively address forest threats. Much discussion centered on building the business case for conservation and on recognizing new values and expanding markets. Participants also considered opportunities for aligning the incentive-based approaches of funding agencies with the needs and interests of forestland owners.

A steering committee was formed to consider developing specific strategies to incentivize engagement of large forestland owners and to work toward a collaborative vision for attaining conservation objectives across varied ownerships.

EXECUTIVE SUMMARY

To address the challenges facing our environment today such as climate change, fire, insect and disease outbreaks, water shortages, and development pressure, we have to operate across ownership and geographic boundaries. Successful landscape-scale forest conservation and management efforts must engage a wide variety of forestland owners. Owners of large areas of forestland (more than 10,000 acres) have a particularly important role to play in the attainment of conservation benefits at significant scale. Their cooperation increases opportunities for accomplishment of landscape-scale conservation goals.

On March 8, 2016, a group of large landowners was for the first time brought together with federal, non-governmental organization (NGO), and academic thought leaders to generate ideas for improving engagement on landscape-scale conservation goals. The dialogue was designed to identify barriers to and potential options for engagement of large private landowners in large-scale, conservation-oriented practices.

These proceedings summarize the dialogue of meeting participants in addressing an “all lands” approach to conservation whereby landowners and stakeholders collaborate on identifying long-term, mutually beneficial goals for the landscapes they share and on planning to reach those goals.

The workshop primarily focused on the engagement of institutional timberland owners, including timberland investment management organizations (TIMOs), timberland real estate investment trusts (REITs), and large family-owned forestlands. The proceedings include a profile of large institutional forestland owners and detail the results of a survey conducted to measure their current engagement in landscape-scale conservation activities.

Participants identified the following barriers to engaging large forest landowners in conservation: the absence of an inclusive vision for the future of forest management, insufficient leadership for building diverse coalitions to address the challenges facing forests, lack of alignment of existing federal programs with respect to large ownership structures, limited understanding of the public benefits provided by large privately owned forests, lack of robust markets to sustain these benefits, and institutional business models and objectives that ultimately work against any effort to prioritize conservation outcomes.

Participants recognized the need to define a shared conservation vision, to build leadership for a broad coalition of landowners and stakeholders, and to develop and execute a national strategy recognizing the value of and providing incentives for large private landowners to cooperatively address forest threats. Much discussion centered on building the business case for conservation and on recognizing new values and expanding markets. Participants also considered opportunities for aligning incentives of funding agencies with those of forestland owners, including incentives and disincentives for conservation sale transactions.

A steering committee was formed to pursue next steps in this dialogue. This group will consider developing specific strategies to incentivize engagement of large forestland owners and to build strategic alliances with partners working on similar goals.

INTRODUCTION

On March 8, 2016 a group representing large, private forestland owners and managers, federal agencies, conservation organizations, and policy institutions convened to discuss the challenges of and opportunities for engagement of large forestland owners in landscape-scale conservation—that is, preservation, protection, and restoration of the natural environment through the sustainable and responsible management of working forestlands. Landscape-scale goals will be difficult, if not impossible, to achieve without their engagement, given their role and influence on the landscape.

The concept of all-lands conservation has gained traction among conservation organizations and federal agencies, and the U.S. Department of Agriculture (USDA) has taken on a leadership role in advancing its implementation. The USDA's recent support of coordinated conservation of natural resources across all lands and types of land ownerships has given rise to programs that successfully coordinate and support conservation action on small "family-owned" lands—including a host of Farm Bill programs—as well as development of state-wide forest action plans, identification of forest priority areas, and engagement of small-forest owners through USDA State and Private Forestry and similar programs. On federally managed forestlands, the all-lands concept is manifested through aspects of the USFS Planning Rule and subsequent directives, including the Cooperative Forest Landscape Restoration Program (CFLRP 2010), the Good Neighbor Authority, and the National Cohesive Wildland Fire Strategy, as well as through collaboration with the Natural Resources Conservation Service (NRCS) through "joint chiefs" projects.

However, consistent engagement of private owners of large forestlands (10,000 or more acres) in landscape conservation planning, prioritization, and implementation has remained elusive. Factors include real and perceived limitations on the role of government programs in collaborating with corporate enterprise and large family ownerships. Outside of the Regional Conservation Partnership Program (RCPP) with NRCS, large landowners have had few institutionalized or sanctioned means—and fewer incentives—to engage constructively in the attainment of landscape-scale goals. Even within the RCPP, a waiver of the adjusted gross income (AGI) eligibility limitation is required for many large owners to be able to participate.¹ Though forest certification programs can motivate participation—for example, the 2015 to 2019 Sustainable Forestry Initiative (SFI) Certification Standards and Rules require SFI program participants to seek avenues for engagement in landscape-scale conservation actions—many large landowners have not historically been involved in conservation across ownership boundaries (SFI 2015). One noteworthy exception is the Partnership for Southern Forestland Conservation, which is a loose coalition of interested conservation non-profit, government, and private entities seeking innovative approaches to ensure the permanent conservation of forest cover in large, working forests in the Southeast United States (www.pfsfc.org).

Forests face a host of stresses from conversion to other uses and spread of invasive species to climate change and drought stress, which is already significant in the west and growing in the east (Clark et al. 2016). These stresses put at risk not only traditional wood-based products but also a host of essential services such as filtration and moderation of water flows, provision of wildlife habitat, support of genetic diversity, climate stabilization, and opportunities for recreation. Which forest-produced benefits increase and which decline will depend in part on the policies implemented to manage urban expansion and incentivize conservation and growth of forestlands (Lawler et al. 2014).

Wide-ranging species, migratory birds, large watersheds, ecosystem restoration, wildfire risk management, and other conservation interests require coordination at a scale and in geographies often strongly influenced by large forestland owners. These landowners and other stakeholders share some

¹ In general, the limitations are \$500,000 average nonfarm AGI for commodity programs; \$750,000 average farm AGI for direct payments under the Direct and Counter-cyclical Program or ACRE program; \$1 million average AGI (all income, both farm and nonfarm) for 2012 and 2013 DCP and ACRE direct payments; and \$1 million average nonfarm AGI for conservation programs. http://askfsa.custhelp.com/app/answers/detail/a_id/1379/.

management considerations, providing an opportunity for coordinated management. Incentives for coordination with and engagement of large forest landowners thus have the potential to increase the efficacy of conservation efforts.

ENGAGEMENT DIALOGUE

Certain landscape values and benefits derive specifically from large land ownerships and contribute to landscape goals of common interest. Large landowners contribute regularly to conservation attributes associated with assurances such as forest certification. *Landscape* attributes and collaboration were the specific focus of the dialogue initiated at the March 8 event hosted by the U.S. Forest Service (USFS), the Sustainable Forestry Initiative, Inc. (SFI), and Duke University's Nicholas Institute for Environmental Policy Solutions (NIEPS). The 33 participants included representatives of some of the largest private landowners and managers in the country; federal agencies such as the U.S. Forest Service, the USDA Natural Resources Conservation Service (NRCS), and the U.S. Fish and Wildlife Service (FWS); and NGOs such as The Conservation Fund (TCF), the National Alliance of Forest Owners (NAFO), The Nature Conservancy (TNC), and the Forest Landowners Association (FLA). A full list of attendees is presented in Appendix C.

The workshop began with perspectives on the all-lands approach from the USFS, a private large forestland manager, and a conservation group that works closely with large land owners. The next session provided an overview of large institutional landowners, their interests, activities, and constraints and the results of a survey describing how they view partnering on conservation actions on their lands. Subsequent discussion covered examples of large private landowner participation in conservation. In two afternoon breakout sessions, participants explored barriers to large private landowner participation in conservation and then suggested solutions to address these barriers.

THE USFS ALL-LANDS APPROACH TO CONSERVATION

Recognizing the increasing need to engage all landowners to protect and maintain forests, the USDA has adopted an all-lands approach focused on collaboration among all types of landowners (Vilsack 2009). As described by USFS Chief Tom Tidwell (2012), "An all-lands approach brings landowners and stakeholders together across boundaries to decide on common goals for the landscapes they share. It brings them together to achieve long-term outcomes."

The all-lands concept has increasingly been used to frame USDA program structures and activities in the realm of landscape-scale conservation. Further paradigm shifts in management and agency focus, including increased emphasis on system restoration and resiliency and emergence of new authorities and business practices, have been consistent with this theme. To build successful landscape-scale results will require diverse support and institutional buy-in emphasizing the importance of engaging large, private landowners in landscape-scale conservation activities and planning. According to one participant, "We need to figure out how to restore ecological functions and do it in a way that is consistent with economics, investments, and ownership models."

Most of the nation's forestland is privately owned. Private lands—and therefore the actions of private landowners—play an important role in sustaining the benefits provided by forests. These benefits include essential habitat for endangered wildlife, almost 30% of surface drinking water for cities and rural communities, and more than 90% of domestically produced forest products (USFS 2011).

Whether desired outcomes will be achieved will depend on coordination and efficiencies at a scale achievable only with the participation of large forestland owners. Ultimately the success or failure of programs to address current and future threats will be based on our ability to collaborate across boundaries at watershed or ecological scales.

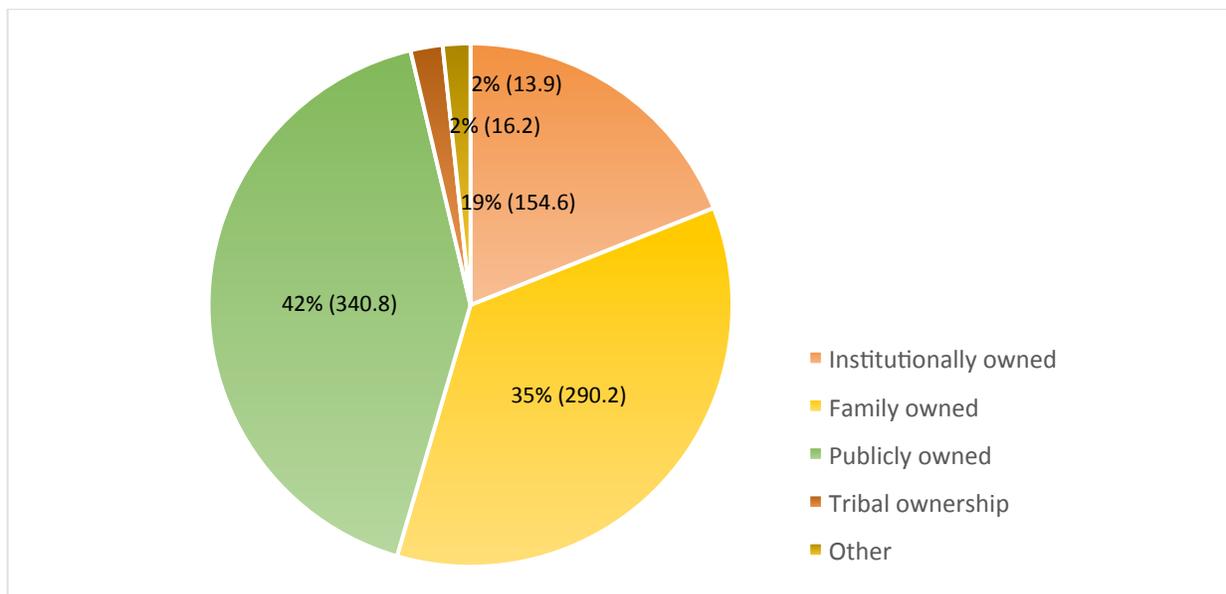
LARGE FORESTLAND OWNERS DEFINED

Large forestland owners, defined here as private ownerships of 10,000 or more acres, make up fewer than 1% of forestland owners, but they hold more than 22% of private forestlands (some 100 million acres; Figure 1). These owners are primarily institutional investors and integrated companies that manage land for commercial purposes (Oswalt et al. 2014). Understanding the structure and business perspectives of large private forestland ownerships is critical to identifying barriers to and opportunities for engagement of those ownerships.

The ownership structures and motivations of institutional forestland owners differ from those of family forest owners, the traditional focus of many federal and state conservation programs.

TIMOs and timberland REITs have different tax structures and thus different incentives for profitable management.

Figure 1. Percentage of total forestland and total area in millions of acres by ownership in the United States



Source: Bulter et al. 2016.

Since the late 1990s, forestland ownership has increasingly shifted from integrated forest product companies to institutional owners through TIMOs and REITs largely as a result of tax legislation and market forces (Li and Zhang 2014). Since 2000, more than 55 million acres of institutional-level timberland transactions have occurred across the United States (Timbermart 2015).

This change in ownership has implications for engaging large landowners in all-lands management. Management objectives for institutional landowners are ultimately driven by return on investment, which requires maximizing profit or value. Publicly traded REITs must strive to achieve profitable dividend targets. Similarly, TIMOs have a fiduciary responsibility to maximize returns for their investors. The types of goods and services (including environmental amenities) produced on properties of institutional owners are ultimately determined by various markets. Timber sales tend to be the main source of income for both TIMOs and REITs, and land sales also drive strong returns. Other income streams such as recreation and hunting fees have also become revenue sources. Ecological service markets for carbon and water may emerge as important sources.

TIMOS and REITS as ownership entities understand the importance of responsible forest management. They also understand that they must demonstrate strong environmental performance to retain their social license to operate and to meet customer and public expectations. As a result, virtually all of the large TIMOs and REITs validate sustainability and environmental performance through one or more of the credible forest certification programs recognized in the U.S. marketplace: the Sustainable Forestry Initiative (SFI®), the Forest Stewardship Council (FSC), and the American Tree Farm System (ATFS). These programs provide assurances of conservation-related performance, ranging from watershed protection to biodiversity conservation. In the past few years, opportunities to address landscape-scale conservation have increased. As a result, new programs and strategies that include ways to engage institutional landowners are growing in importance and urgency.

FORESTLAND OWNER SURVEY RESULTS

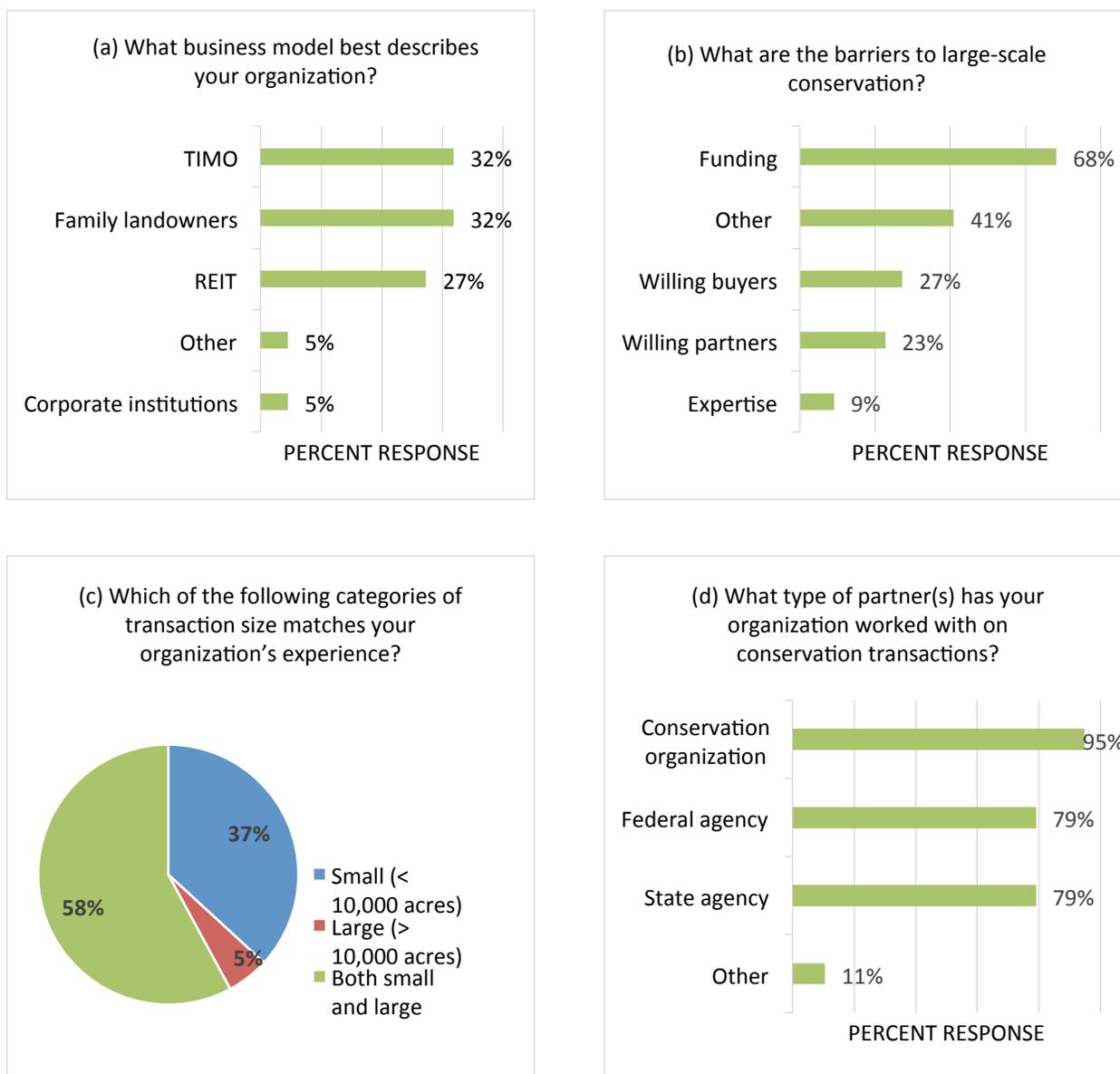
Prior to the workshop, steering committee members Brian Kernohan of Hancock Natural Resources Group and Chris Zinkhan of The Forestland Group conducted a survey of institutional forestland owners. The survey measured current levels of participation and respondents' willingness to engage further in conservation actions or transactions, and it sought to identify barriers to their engagement in conservation. It was conducted through the National Association of Forestland Owners (NAFO), an organization of institutional landowners, and was sent to 32 members; 22 responded for a 69% response rate.

Ninety-six percent of the survey respondents represented institutional entities, the types of organizations represented at the workshop (Figure 2a). According to 68% of the respondents, the greatest barrier to large landowner participation in conservation activities is lack of funding (Figure 2b). Other barriers that respondents wrote on the survey form included a desire to maintain future options for land use, valuation models that fail to recognize conservation values, fragmented landscape-level ownership and landowner objectives, regulation and insufficient regulatory assurances, management practices geared toward working forests and not conservation, and time.

Nevertheless, survey responses signaled strong support for future engagement: 91% of the respondents have engaged in collaborative conservation planning, and 100% of those involved would participate again. Similarly, 100% of the respondents have participated in conservation transactions (a material exchange), and 95% said they would participate again. However, many of the respondents still struggle with the idea of conservation as a business model.

Those respondents who had participated in a conservation transaction had engaged in both small and large transactions (Figure 2c). This result is encouraging because it suggests that large forestland owners are able to participate in conservation activities at large scales. Although conservation organizations (mainly land trusts) were the primary partner organization for conservation transactions, respondents are also working with federal and state agencies in landscape-scale conservation transactions (Figure 2d). Transactions, or sales of conservation lands and conservation easements, were only a subset of the range of conservation actions under consideration at the workshop.

Figure 2. Survey responses of institutional landowners



Conservation organizations (primarily land trusts) were the primary partner organization for conservation transactions, but respondents also showed they are working with federal and state agencies in landscape-scale conservation transactions (Figure 2d). However, “transactions,” or sales of conservation lands, conservation easements, or both were only a subset of the range of conservation actions under consideration at the workshop.

BARRIERS TO ENGAGEMENT

Workshop participants engaged in a structured dialogue to identify the factors limiting successful engagement of large forestland owners in conservation outcomes.

Lack of Inclusive Vision and Leadership

Participants highlighted the lack of a shared understanding of the public values provided by privately owned forests and of the challenges facing management and conservation of these forests. The absence of

such an understanding prevents development of a collective vision that a coalition, inclusive of large landowners, can support.

Creating this common vision may be made more difficult by the multitude of issues that forests face, the manner in which most planning activities have been conducted, and the resulting sense that there is no common understanding of the problem that we are trying to solve. Without a unified framework to address a specific set of challenges, it will be difficult to clarify specific needs for forest conservation and to build support, resources, and policies to address them.

The forest sector also lacks cohesion and a platform for comprehensive national dialogue. Participants noted the agricultural sector and the role of the American Farm Bureau Federation in building an ongoing national dialogue and cohesive messaging and advocacy for agricultural interests. The point was made that agricultural sector interests come together to fight for resources and policy and tend to be successful. Although the National Alliance of Forest Owners does represent large forest owners with regards to policy, neither it nor other organizations have successfully advocated for the financial resources needed to address landscape-scale conservation on large private lands.

Active leadership from all parties will be needed to build a common vision and framework for the forest sector. The private sector and large landowners need new tools and opportunities that incentivize their participation in landscape-scale conservation.

Poor Understanding of the Benefits of Forests

Forests are essential infrastructure that support critical economic, environmental, and social systems, while providing many public benefits, such as wood products, forest sector jobs, protection of source waters, recreational opportunities, and habitat for wildlife. The general public generally lacks recognition of these benefits. Many people are distanced from the lands on which they depend, and many perceive that forest services are abundant and free, which has resulted in policies, programs, and markets that undervalue forests.

“The public has to understand the benefits [private landowners provide],” said one participant. “We can’t ask the landowners to give them away.”

Participants acknowledged that people are beginning to realize that their health and well-being are intricately tied to the health of ecosystems. The time may be right for collaborative efforts to quantify and communicate the broad benefits of forests and the role that private lands are playing in supporting and sustaining them.

Failure to Realize Value and Develop Favorable Markets

Another barrier to large landowner engagement, said participants, is the low value realized for conservation benefits provided by land in its current state of management. Real estate valuation mechanisms include no value for private lands’ public benefits, such as clean air and water and provision of wildlife habitat and open space, and thus no value can be reflected in appraisals and transactions. Moreover, landowners have few opportunities to participate in environmental markets.

“Economics drive conservation,” said one participant. “So why doesn’t the investment community want visibility on this issue? If large landowners had a value proposition to offer to their highest level of management and investors, they would exert conservation leadership.”

Participants said that strong markets supporting the full suite of benefits that forests provide are needed to counter the economic opportunity of land conversion for development and agriculture. Ensuring robust timber and forest product markets is essential because many of forests’ co-benefits (reduced fire threat, improved water quantity and quality, improved wildlife habitat) are provided or protected by active and sustainable forest management.

Participants also noted the potential for new income streams from emerging markets like carbon offsets, water quality trading, and endangered species banking. They also suggested that the value of domestic forests could be increased by a policy recognizing the carbon sequestration benefits of their sustainable management and of long-lived forest products. A critical question is how landowners might be able to stack benefits and generate multiple streams of income within forest systems.

The need to generate a return on investment constrains conservation engagement by institutional owners of forestland. TIMOs that manage forestland on behalf of institutional investors are required to maximize returns to those investors as part of their fiduciary responsibility. If permanent protection (e.g., perpetual easements) is the only tool available, it can be a barrier to engagement by restricting high-value transactions or land management, inhibiting TIMOs' ability to generate the highest possible returns.

Forestland investment structures typically turn over every 10 to 15 years, giving managers the opportunity to sell, buy, or reinvest in their lands. This opportunity and institutional forest managers' pursuit of the highest and best use of their assets—that is, requirement to maintain profitability—can sometimes lead to forest fragmentation.

Because the majority of capital invested in forestland is provided by tax-exempt investors, institutional forest managers have few incentives to engage in the charitable donation of high-conservation-value lands through conservation easements or to sell lands at bargain prices. For example, university endowments that invest in timberland have no incentive to make beneficial tax donations of that land given their already tax-free designation.

This lack of incentive for permanent protection, coupled with lack of recognition of the values flowing from sustainably managed forests, results in under-recognition of the role forests play in attaining landscape-scale conservation objectives as well as in few opportunities to ensure large forestland owners' engagement in conservation collaborations.

Poor Alignment of Institutional Owners' Goals and Government Program Goals

Another significant barrier to the engagement of institutional forestland owners in landscape-scale conservation is the poor alignment of the owners' goals with the goals of federal conservation programs and initiatives. Overall, large forestland ownership structures do not fit within the scope of existing federal conservation programs, most of which are designated for smaller, family-owned forests. Many programs and organizations have institutionalized the view that funding conservation actions on large landownerships tends to inure to the benefit of for-profit entities. Eligibility rules outright restrict institutional owners' participation in some programs. One example is the annual gross income (AGI) limitations of Farm Bill programs.² For example, the NRCS Regional Conservation Partnership Program (RCPP) adheres to the AGI limitation of \$900,000 for both conservation and commodity program payments and benefits (RCPP 2014).

There are also limitations on program payments. Participation in the Longleaf Pine Initiative is governed by eligibility for and rules of the USDA's Conservation Reserve Program (CRP). The CRP limits the annual non-cost share payment that an eligible participant can receive at \$50,000 per fiscal year (CRP 2016). This cap directly limits the participation of large landowners.

In addition, the scale of existing programs does not meet the needs of large landowners. Resources to implement programs at the requisite scale are lacking both from the funding and beneficiary perspective. Furthermore, current transaction structures, related to the acquisition and management of permanently protected conservation lands, are limited in their effectiveness.³ Participants discussed the need to shift

² Waivers of AGI limitations are possible.

³ Land Trust Alliance accreditation and standards and practices are predicated on the assumption of perpetuity, and thus may constitute a disincentive for certain conservation organizations to participate in alternative approaches.

from perpetual models like conservation easements to long-term payment models (i.e., endowments or trusts). In short, programs built under the traditional conservation paradigm—programs that require perpetual models and that discount non-perpetual conservation—should be changed to welcome improved forest management practices that benefit conservation objectives.

Yet another challenge regarding existing programs is that they aren't designed for effective collaboration between stakeholders and potential funders. Meeting participants spoke of their desire to cooperate on programs and initiatives with federal agencies but said that rules often prevented them from doing so. Participants agreed that the focus should be on identifying mutually beneficial outcomes and on ensuring promulgation of program rules that allow each organization to engage in activities that complement its goals and activities.

SOLUTIONS

Participants worked in small groups to discuss strategic opportunities for engaging large forest landowners in conservation.

Define a Vision, Build leadership, and Execute a National Strategy

Participants agreed that there is a need to convene an interdisciplinary group to identify specific strategies for forming a national dialogue on the threats facing our forests. They suggested convening a broad spectrum of stakeholders to move on collaborative, workable solutions supported by a shared vision of forests and their importance. They identified the need for new leaders from the forestry sector representing diverse organizations to rally around a strategic framework that details specific steps toward finding the resources and building the conditions needed to return health and resilience to forest ecosystems. This new effort would build on past work to identify priorities but would include the input of the large landowner community and others well-equipped to understand the role of market forces.

It was suggested that the forestry community look to the agriculture sector to find new tactics to increase the power and presence of the forestry lobby.

Through identification of geographic and thematic areas for investment and potential engagement opportunities, the areas of greatest impact can be targeted. Prioritizing of specific threats and the potential for loss of value and loss of the substantial benefits healthy private forestlands provide will help to define key actions and create a sense of urgency. A national strategy would be focused on the idea that working forests are a part of the solution to saving forests and the benefits they provide.

Build a Better Business Case

The goal of maintaining forestland and expanding conservation-oriented outcomes will become much easier to achieve once a value proposition has been clearly defined. A business case for maintaining large, connected forests will get attention from landowners who make economically driven business decisions every day. Conservation activities on forestlands can potentially help reduce landowners' costs and risks (related to fire, invasive species, and pests) and may result in beneficial outcomes for all key stakeholders. Models and studies could be developed to illustrate this point.

Stream-lined and balanced regulation can also be a strong incentive for landowners to engage in landscape-scale conservation or specified management activities. One participant cited the example of using third-party forest management certification to meet best management practices for water quality while reducing landowners' regulatory burden. Similarly, avoiding the cost associated with at-risk-species protection is an important incentive for engagement in landscape-scale conservation or specified management activities—hence the importance of identifying mutually beneficial pathways for landowners, investors, taxpayers, and communities to prevent listings of multiple species.

Ultimately, the business case for landscape-scale conservation must be developed by coalitions that have aligned interests, mechanisms, and funding.

Expand Value Recognition

Collective support to increase recognition of conservation values and valuation techniques will be beneficial for all stakeholders. Dialogue on the benefits nature provides to people and integration of those benefits into decision making is on the rise (EOP 2015; Schaefer et al. 2015). Methods and tools for quantifying these benefits are also advancing rapidly (NESP 2016; BSR 2014). The private sector could build on the efforts of federal agencies to develop new frameworks and refine methods for value recognition and discovery (Mercer 2014; ERS 2015).

Many studies have communicated the value of forests in southeastern states (Moore et al. 2011; Simpson et al 2013; Escobedo and Timilsina 2015). Escobedo and Timilsina (2015) estimated that Florida's Forest Stewardship program provides ecosystem services worth \$5,030 per acre; water represents 66% of the value; carbon stocks, 25%; timber production, 7%; and wildlife, 2%. Simpson et al. (2013) found that Texas forests provide ecosystem services worth \$92.9 billion annually; they include watershed regulation (\$13.2 billion), climate regulation (\$4.2 billion), biodiversity (\$14.8 billion), cultural benefits (\$60.4 billion), and air quality benefits (\$190.3 million). Determining and communicating the value of forest assets could increase public support for engagement of large landowners in conservation practices.

Market Development

Participants said the forestry community at large should support development of new and enhanced markets for the services and products of forest ecosystems. The value proposition of working forestlands will be enhanced through monetization of ecosystem services. Carbon markets, payment for ecological services, and upstream watershed protection could be built into landscape-scale conservation approaches to engage large landowners. Already, forest carbon projects designed for California's climate program are generating revenues for private forestlands across the United States. As of December 2015, forest carbon projects constituted 62% of the offsets issued by California; they have generated more than \$200 million in revenue (Krifka 2016). However, participation of private forestland owners in the carbon market has been limited in many parts of the country due to the dynamics of risk and investment in different traditional markets. Moreover, harvesting may be limited in forest carbon project areas due to restrictive project rules. Some participants stated that monetization of forest benefits needs to be more flexible and creative to accommodate transactions that allow payment for discreet forest attributes.

Modify Transactions, Align Incentives, and Create New Funding Mechanisms

Conservation outcomes could be improved by modifying transaction structures related to ownership transfers for conservation purposes. Representatives of organizations experienced in conservation transactions noted the potential for high impact on conservation if fee or easement acquisition structures could be adjusted.

If land managers can successfully communicate conservation impact and value to investors, timberland investment vehicles could be restructured as revolving funds or perpetual investment models that encourage investors to think long term. Demand is expected to increase for investments in forestlands that achieve above-market rates of return and a high conservation impact, perhaps allowing TIMOs to attain greater flexibility and incentive to exert conservation leadership.

Participants noted the need to develop new funding mechanisms and pointed to use of tax credits, like the new market tax credits, as an avenue to explore. They said existing federal programs could be updated to create flexible funding and high-conservation-impact programs. For example, the next Farm Bill could represent an opportunity to update and increase flexibility in the USFS's Forest Legacy program, allowing funding to be used for multiple conservation incentives or purchases beyond conservation easements or fee purchase (e.g. carbon).

Participants stated that the greatest opportunity lies in recognizing the public values that private forests can provide, in successfully aligning the incentives of private landowners and of funding agencies, and in changing program structures to facilitate compensation of private landowners through direct payments, incentives, or both. Although programs must meet the bottom-line requirements of landowners, they could create incentives that encourage private landowners to continue to provide public services. It is both unreasonable and impractical to think that landowners will undertake conservation and management activities without meaningful incentives. Well-designed incentives will help private landowners to underwrite the costs of conservation-oriented activities and to address the opportunity costs associated with those activities.

CONCLUSION AND PATH FORWARD

The potentially positive impact of successful collaboration with large private forestland owners in landscape-scale conservation cannot be overstated.

Meeting participants identified the following barriers to successful engagement with large forestland owners:

- Lack of an inclusive vision and leadership in building coalitions
- Poor understanding of the benefits that forests provide
- Poor alignment of the goals of landowners and of the opportunities provided by existing programs and initiatives
- Failure to recognize the multiple benefits forestlands provide and failure to develop favorable markets to assure the continuation of those values
- Institutional business models and objectives that ultimately work against any effort to prioritize conservation outcomes.

Participants discussed potential opportunities for successful engagement of large forestland owners:

- Establishment of a vision shared by all stakeholder groups and landowners
- Development of a business case for forest conservation that creates a value proposition for conservation activities and outcomes
- Realization of new values and expanding markets
- Modification of transaction structures to help alignment between incentive provided by funding agencies and the motivations of forestland owners.

A new steering committee has been formed to consider collaborative means to develop specific strategies to incentivize engagement and build strategic alliances with partners working on similar goals.

APPENDIX A: SUCCESSFUL PROGRAMS AND INITIATIVES

Workshop participants referred to numerous successful landscape-scale conservation programs, many of which are responses to conservation crises in different parts of the country. These programs often focus on small-scale conservation programs and family ownerships. These programs are described below as examples of effective engagement that may be both replicable and scalable.

America's Longleaf Restoration Initiative

America's Longleaf Restoration Initiative (ALRI) is a collaborative effort that actively supports range-wide efforts to restore and conserve longleaf pine ecosystems. Healthy longleaf pine forests are relatively resilient in the face of disease, storms, and wildfires, and they can yield good economic returns for landowners with high-end longleaf pine timber production. The ALRI includes the NRCS and partner organizations, including the National Fish and Wildlife Foundation, the Longleaf Alliance, The Nature Conservancy, the Department of Defense, USFS, and FWS.

The Longleaf Pine Initiative (LLPI) of the NRCS supports the efforts of the ALRI. Spanning nine states (Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia), the LLPI works with producers on private lands to provide financial and technical assistance to make longleaf forests both sustainable and profitable. Landowners can qualify for up to 75% repayment of their costs to restore longleaf forests and can recover much of the costs of reestablishment planting.

Programs and organizations such as the Gulf Coastal Plain Ecosystem Partnership (GCPEP) are also pursuing opportunities to enhance longleaf pine ecosystems. With the Longleaf Pine Alliance, the Nature Conservancy, and 11 other partners, the GCPEP covers 1.25 million acres of longleaf pine ecosystems and puts an equal emphasis on protection and restoration and on on-the-ground management (prescribed burns and invasive species control).

More information about this initiative can be found at the ALRI website (<http://www.americaslongleaf.org/>) and the LLPI website (http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/initiatives/?cid=nrcsdev11_023913).

Coastal Headwaters Forest-Longleaf Conservation and Restoration

Using an innovative approach, The Conservation Fund and Resource Management Service, LLC are working together to create a landscape scale (up to 205,000 acres) working longleaf forest in the lower Alabama-Florida panhandle region. This effort is part of the landscape-scale America's Longleaf Restoration Initiative, which has a goal to restore 8 million acres of longleaf pine across the historic range by 2025. Engaging large private timberland owners, which will require a new and creative approach, is imperative. Approximately 70% of the Coastal Headwaters Forest is currently comprised of loblolly pine, with a smaller amount in existing longleaf. All of the areas in loblolly will be replanted with longleaf and managed on an approximately 45-year cycle, with prescribed fire to help promote tree growth and health and to support native groundcover.

More information about this initiative can be found at the Conservation Fund website (<http://www.conservationfund.org/projects/coastal-headwaters-forest-longleaf-conservation-and-restoration>).

Keeping Maine's Forests

Maine is home to the largest unfragmented temperate forest in any state in the nation, and forests contribute more to its economy than any other industry. Keeping Maine's Forest (KMF) is a coalition of nearly 30 members, including large forest landowners, forest-dependent businesses, recreation interests,

indigenous people, land conservation and wildlife interests, and government agencies dedicated to sustainable management of Maine's forests for both forest economies and healthy ecosystems.

KMF has focused its efforts on improving aquatic connectivity, recreation, and deer habitat. Participating partners own and manage more than 1 million acres of forests in east Maine and have established cooperative relationships between neighboring forest managers.

More information about this initiative can be found at KMF's website:
<http://www.keepingmainesforests.org/>.

Sage Grouse Initiative

Dedicated to the conservation of wildlife and sustainable ranching, the Sage Grouse Initiative (SGI) is an association of ranchers, agencies, universities, non-profit organizations, and businesses. Through volunteer conservation projects funded by the Farm Bill, the SGI has managed to secure Sage Grouse strongholds across 11 western states, resulting in 1,129 ranches enrolled and over 4.4 million acres of land protected.

The SGI is supported by organizations of large landowners and ranchers, such as the Ranchers Stewardship Alliance, that support the SGI for practices that will promote ecological and economic conditions for the sustainable integrity of northern mixed grass prairie.

More information about this initiative can be found at the SGI's website:
<http://www.sagegrouseinitiative.com/>.

Blackfoot Challenge

A landowner-based organization located in Montana, the Blackfoot Challenge coordinates the management of the Blackfoot River, its tributaries, and adjacent lands. The organization was informally created in the 1970s as landowners along the Blackfoot River started to gather community support to conserve the natural resources and rural way of life.

The Blackfoot Challenge includes all watershed landowners and managers, from private landowners to state and federal managers, in consensus-based decision making. With 80% consensus, the Blackfoot Challenge coordinates the partnership and management of resources.

To date, the Blackfoot Challenge includes 1,297 members and has worked to conserve 1.5 million acres of land and 132 miles of the Blackfoot River. Seven rural communities and 8,100 residents have also been included and involved in the Blackfoot Challenge's management and conservation efforts.

More information about this initiative can be found at the Blackfoot Challenge's website:
<http://blackfootchallenge.org/>.

U.S. Forest Service Legacy Program

The Forest Legacy Program (FLP) is a partnership between the U.S. Forest Service and states to protect forests from being converted to nonforest uses. It supports state efforts to protect environmentally sensitive forestlands. The program encourages conservation through fee simple purchases and conservation easements, which are legally binding agreements transferring a negotiated set of property rights from one party to another, without removing the property from private ownership. The majority of FLP easements restrict development, require responsible forestry practices, and protect additional ecosystem services.

The FLP is federally funded through discretionary (appropriated through president's budget) and mandatory Land and Water Conservation Fund (LWCF) funds. There is a 25% match for FLP grants, but often partners bring more than 50% to the table. As of September 2015, the FLP has protected more than

2,505,000 acres in 46 states and territories. The program is leveraged through the 25% cost share requirement: \$669 million has secured land valued at more than \$15 billion.

More information about this initiative can be found at the FLP's website:
<http://www.fs.fed.us/cooperativeforestry/programs/loa/flp.shtml>.

Sentinel Landscapes

Sentinel Landscapes is an initiative launched jointly by the Department of Agriculture, Department of Defense, and the Department of the Interior to preserve the natural and rural characteristic nature of landscapes in order to conduct vital training missions. The Department of Defense is the third-largest federal land management agency and protects more than 25 million acres of land and water. The Sentinel Landscapes seek to encourage private participation with monetary incentives and recognition.

More information about this initiative can be found at the initiative's website:
<http://sentinellandscapes.org/>.

U.S. Endowment for Forestry and Communities: Forest to Faucet in Virginia and Upper Neuse North Carolina Clean Water Initiative

The U.S. Endowment for Forestry & Communities, Inc. has invested in partnerships to improve the functions of forests and watersheds with a multitude of programs. The Virginia Department of Forestry Forest to Faucet program in Virginia was a joint effort with the USDA's Natural Resources Conservation Service pilot program to link upstream water producers (forest landowners) with downstream consumers.

The Virginia Department of Forestry did not reach its ultimate goal of creating a sustainable funding source from water consumers. Regardless, 8,126 acres were improved by conservation practices.

The Upper Neuse North Carolina Clean Water Initiative is another USEFC-funded partnership in which the Conservation Trust for North Carolina engages with non-industrial forest landowners and encourages adoption of conservation methods to improve forest management and overall forest cover to help improve the water quality of the Upper Neuse, Raleigh's drinking water supply. The Clean Water Initiative has had more than 1,000 landowner contacts and 38 forest stewardship plans affecting 5,412 acres.

More information about this initiative can be found at the U.S. Endowment for Forestry & Communities partnership website: <http://www.usendowment.org/ntmnrscpartnership.html>.

Outcome-based Forestry in Maine

In 2001, the Maine's legislature enacted a bill that created the Outcome-based Forestry program, which allows for flexible conservation of forests by landowners to achieve sustainable use of Maine's forests. This voluntary program, which replaced prescriptive regulation, has been a success.

The agreements between the state and two large, private forestland owners, Irving Woodlands and Katadhin Forest Management (KFM), covers the owners' entire holdings within Maine, 1.25 million acres and 300,000 acres, respectively. The landowners benefited from optimal silvicultural practices, reduced regulatory administration, reduced cost of trucking and maintenance, and increased investment in tree planting and thinning of young spruce and fir stands.

More information about this initiative can be found at the Maine Forest Service's program website:
http://www.maine.gov/dacf/mfs/policy_management/outcome_based_forestry.html.

Regional Conservation Partnership Program

The Regional Conservation Partnership Program (RCPP) was created by the USDA's Natural Resource Conservation Service to provide assistance and funding to producers and landowners through program contracts and easement agreements to enhance the sustainable use of water, soil, wildlife, and other

related natural resources on either the regional or watershed level. The program combines four conservation programs: the Agricultural Water Enhancement Program, the Chesapeake Bay Watershed Program, the Cooperative Conservation Partnership Initiative, and the Great Lakes Basin Program. By 2016, the program had funded 84 high-impact projects, covering all 50 states and targeting all eight of the program's "critical conservation areas."

The program has benefitted producers with financial and technical assistance installing and maintaining conservation activities. The program encourages engagement with large landowners in new and creative ways, and thus differs from other USDA programs which limit such engagement.

More information about this program can be found at the NRCS's RCPP website: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farbill/rcpp/>.

Partnership for Southern Forestland Conservation

Between 2000 and 2030, USFS studies suggest that as many as 57 million forested acres—most in the South—will experience substantial increases in housing density. With changing land uses threatening the future of the South's forests, a group of conservation partners have united to "Keep Forests as Forests." The Partnership for Southern Forestland Conservation was created in 2008 after several forest conservation and management organization met to discuss growing concern about the future sustainability of large tracts of forestland in the South.

Working forest landscapes are widely acknowledged to be a vital part of the South and especially its natural resources infrastructure. They are critical not only to retention of family-supporting jobs in rural communities but also are the source of environmentally preferable building and consumer products. In addition, they contribute significantly to energy independence and security and to climate change solutions. They are vital to address human health and quality of life needs, water quantity and quality, essential wildlife habitats and recreation.

The vision of the partnership is to "develop and promote innovative approaches to ensure the perpetuation of forest cover on large forested blocks across the South, to achieve a variety of societal, economic and environmental benefits." The goal is to protect 20 million acres of actively managed forest land across the South by 2020. The partnership is active in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

APPENDIX B: WORKSHOP PURPOSE, OUTCOMES, AND AGENDA

Workshop Purpose

This workshop is intended to inform the next step in the evolution of the all-lands approach and ultimately to ensure new levels of collaboration across forest ownership boundaries. Results would include higher levels of certainty of conservation outcomes, deepened commitment from all landowners, and greater likelihood of maintaining forests as forests to ensure the broadest range of public benefits.

Anticipated Outcomes

- A white paper summarizing the outcomes of the conversation, particularly promising ideas worth further exploration
- An effort to pursue and organize continuing dialog on promising ideas with interested parties, with initial follow-through to be coordinated by the Nicholas Institute for Environmental Policy Solutions (details TBD)
- Broad support for and attention to pilot efforts
- A plan for identification of case studies of efforts offering potential solutions
- New strategies for collaboration and network expansion

Workshop Agenda

- 8:30 Welcome and Introductions, Andrea Bedell-Loucks, U.S. Forest Service
- 9:00 Introductory Panel – Perspectives on the All-Lands Approach
- Ken Arney, Deputy Regional Forester, State and Private Forestry, U.S. Forest Service
 - Jimmy Bullock, Senior Vice President of Sustainability, Resource Management Service, LLC
 - Larry Selzer, President and CEO, The Conservation Fund
- 10:00 A Summary of Large Landowners, Their Interests, Activities, and Constraints
- Brian Kernohan, Director, Policy and Environmental Advocacy, Hancock Natural Resource Group
- 10:45 Discussion – facilitated by Paul Trianosky, Chief Conservation Officer, SFI
- Is there a role to be played by large private landowners in attaining the all-lands vision, as promoted by USDA?
 - Where have these large landowners been engaged? In those examples, what were the facilitating factors for that engagement?
 - Have engagement examples been in the realm of landscape planning, implementation, or both?
- 1:00 Small Group Discussions
- What are the limiting factors to engagement of these landowners?
- Factors related to the scope or implementation of existing programs
 - Factors related to the landowners themselves – business models, priorities, etc.
 - Factors related to existing paradigms – are there easy opportunities that simply haven't been recognized?

- 2:15 Reporting from group discussions
- 2:45 Small Group Discussions
- What solutions might we envision to foster better engagement of large landowners in the all-lands vision?
 - New programs? New authorities? Addressing limitations of existing programs? New paradigms?
- 3:45 Reporting from group discussions
- 4:00 Wrap Up and Next Steps – Lydia Olander, Nicholas Institute for Environmental Policy Solutions

APPENDIX C: WORKSHOP PARTICIPANTS

Kathy Abusow	SFI President and CEO
Ken Arney	USFS
Rebecca Barnard	National Wild Turkey Federation
Bruce Beard	Texas A&M Institute of Renewable Natural Resources
Andrea Bedell-Loucks	USFS
Bob Bendick	The Nature Conservancy
Jimmy Bullock	Resource Management Service, LCC
Rick Cantrell	Partnership for Southern Forestland Conservation
Kaarsten Turner Dalby	The Forestland Group
Ken Elowe	FWS
Victor Haley	Sutherland Law Firm
Mike Houser	Potlatch Corporation
James Hubbard	USFS
Scott Jones	Forest Landowners Association
Cherie Kearney	Columbia Land Trust
Brian Kernohan	Hancock Natural Resources Group
Martin Lowenfish	NRCS
Lydia Olander	Duke University
Ryan Orndorff	DOD Readiness & Environmental Protection Integration (REPI) Program
Larry Selzer	The Conservation Fund
Suzanne Sessine	NFWF
Eric Smith	Duke University MBA-MF
Evan Smith	The Conservation Fund
Edie Sonne Hall	Weyerhaeuser
Peter Stein	Lyme Timber (TIMO)
Dave Tenny	NAFO
Paul Trianosky	SFI
Jeff Vincent	Duke University

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Nicholas Institute for Environmental Policy Solutions

The Nicholas Institute for Environmental Policy Solutions at Duke University is a nonpartisan institute founded in 2005 to help decision makers in government, the private sector, and the nonprofit community address critical environmental challenges. The Nicholas Institute responds to the demand for high-quality and timely data and acts as an “honest broker” in policy debates by convening and fostering open, ongoing dialogue between stakeholders on all sides of the issues and providing policy-relevant analysis based on academic research. The Nicholas Institute’s leadership and staff leverage the broad expertise of Duke University as well as public and private partners worldwide. Since its inception, the Nicholas Institute has earned a distinguished reputation for its innovative approach to developing multilateral, nonpartisan, and economically viable solutions to pressing environmental challenges.

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