

**Family Forest Landowners' Interest in
Forest Carbon Credit Programs:
Focus Group Findings from the Lake States**

by

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Abstract

Focus groups were organized with individuals owning 20+ acres in the Lake States region (Michigan, Minnesota, and Wisconsin) to discuss various issues related to forest carbon offsetting. Focus group participants consisted of landowners who had responded to a mail-back survey on forest carbon offsets in 2010. Two focus groups were held per state with an average of eight participants each (49 total). While landowner participant types varied, overall convergence was reached on several key issues. In general, discussion results found that the current payment amounts offered for carbon credits are not likely, on their own, to encourage participation in carbon markets. Landowners are most interested in **other** benefits they can attain through carbon management (e.g., improved stand species mix, wildlife, trails). Interestingly, landowner perceptions about the condition of their **own** forest land were most indicative of prospective interest in carbon management. Landowners who felt their forest was currently in poor condition, or did not meet their forest ownership objectives, were most interested in participating. While the initial survey sought landowner opinions about carbon **markets**, a majority of focus group participants expressed interest in carbon management as a means to achieve reduced property taxes.

KEY WORDS: Carbon Management, Offsets, Carbon Market Focus Groups

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1. Background

Storing carbon by enhancing tree growth is one of our nation's most promising techniques for increasing domestic carbon sequestration ability (Pacala & Socolow 2004; US EPA 2005). Forestry activities have great potential as one of the largest-volume and lowest-cost means of sequestering carbon and generating offsets (Galik, Mobley, & Richter 2009; Gorte & Ramseur 2010). There are a number of forestry activities that can sequester additional carbon and are therefore able to offset emissions of carbon made elsewhere. *Afforestation* and *reforestation* are methods used to sequester carbon in unforested areas. *Avoided deforestation* is typically used as a carbon sequestration technique outside of the United States or in areas experiencing intense development pressure. *Improved forest management* is the most likely method family forest landowners would employ as it enhances the sequestration ability of currently forested areas. Improved forest management techniques may include but are not limited to: thinning of diseased or suppressed trees, reduced removal of dead biomass, increased harvest rotations, improved tree stock, stimulated tree growth, and establishment of fast growing trees.

Participation in forest carbon credit projects can be a complex undertaking. Typically, a landowner would be required to do the following:

- Sign a contract for a specific time period (typically varies from 5 to 100 years).
- Obtain an initial forest inventory from a professional forester.
- Obtain and follow a forest management plan.
- Certify their forest.
- Manage land consistent with carbon storage principles.
- Keep a written record of the land management activities undertaken.
- Allow verification and periodic monitoring of forestry practices by a third party.

Family forest landowners own a substantial percentage (42%) of the forested land within the United States (Butler & Leatherberry 2004) and therefore could be important contributors to domestic carbon sequestration efforts. While many family forest owners (FFOs) are already managing their woodland consistent with carbon management principles, to qualify for carbon credits most forest carbon offset protocols require that in addition to the above requirements, all sequestration activities be **in addition to** “business as usual” (BAU) management (i.e., the level or type of forest management currently occurring on the forest parcel).

The few previous studies that have investigated FFOs' willingness to participate in carbon markets have produced mixed results. Two studies conducted in Massachusetts found that a small percentage (< 7.5% of the study sample population) of landowners would be interested in selling carbon credits at payment levels recently offered for carbon credits on the voluntary market (Markowski-Lindsay, Stevens, Kittredge, Butler, Catanzaro, & Dickinson 2011; Dickinson, Stevens, Lindsay, & Kittredge 2012), while two other studies, conducted in Texas and the Great Lakes area, found that a substantial percentage would be interested in carbon market participation (> 40% of the study sample population) (Simpson and Li 2010, Miller, Snyder, & Kilgore 2012). These particular geographic regions have a number of dissimilar forest landowner/parcel characteristics (e.g., parcel size, forestry practices and attitudes).

To improve our understanding of the role FFOs may play in future carbon sequestration efforts and their potential to supply forest carbon offsets, it is essential to gain further insight concerning the factors they consider and the decision process they engage in when deciding whether to undertake carbon offset projects. We suggest there are additional nuances and details regarding FFOs attitudes toward carbon management and carbon markets that were not uncovered in the earlier survey studies and which may explain the discrepancies in their findings. It is essential to understand the forest land ownership objectives, goals and intentions of this audience in order to determine whether or not they would consider participating in such projects. Understanding the extent to which FFOs might be suppliers of forest carbon offsets requires information on questions such as: Does forest carbon management fit with their ownership objectives? If so, what types of incentives or compensation would best encourage participation? What do FFOs view to be the primary barriers presented by forest carbon management?

1.1. Initial study results using quantitative analysis

In fall of 2010, we conducted a mail-back survey of 2,208 randomly selected family forest landowners in the Lake States owning 20 or more acres (Miller et al. 2012). This initial survey provided a wealth of feedback from Lake States landowners and allowed a quantification of willingness-to-accept (WTA) payment amounts for forest carbon credits. Our initial Lake States landowner study showed a high projected participation rate, even at low payments for carbon credits (with a percentage expected to be willing to participate with no remuneration). We found that a sizable portion would be willing to participate in carbon credit markets under certain financial and contractual conditions.

Our study findings differ from those of Dickinson et al. (2011) who evaluated the willingness of Massachusetts family forest landowners to sell carbon credits, yet agree with the findings from a study of carbon offset project participation conducted with FFOs in Texas (Simpson & Li 2010).

1.2. Extension of initial study using a qualitative approach

In order to test the reliability of our earlier survey results and allow us to further describe and clarify the various viewpoints expressed in the survey, we conducted an additional investigation of FFOs in the Lake States region using a focus group methodology. Using other methodological approaches, or mixed methods procedures, to investigate the same question can increase the robustness of initial findings or illuminate factors that challenge previous results (Creswell 2003). While quantitative survey studies allow researchers to collect vast quantities of data from a certain population, focus group discussions allow researchers to add context to survey results and increase the depth of their understanding about certain topics (Krueger & Casey 2009). Focus group interviews allow a “cross examine” of early survey results, help to explain survey participant responses and further reveal opportunities and barriers from a family forest landowner perspective.

1.3. Study area

The geographic focus of our study was the Lake States region which encompasses the states of Michigan, Minnesota, and Wisconsin. The amount of forest land in the Lake States region is estimated at 21.1 million acres—59% of which is privately owned (Leatherberry 2003). Of this

amount, family forest landowners control approximately 90% of all privately owned forest land in the Lake States with holdings generally ranging in size from 10 to 5,000 acres (Leatherberry 2003). Lakes States FFOs are demographically similar to family forest landowners in other parts of the country (Butler 2008). The most heavily forested counties within the three-state area and containing the highest percentage of family-owned forest land were chosen for study.

1.4. Lake State landowners familiarity with forest carbon offsets

Despite the fact that the Lake States region is home to a few early adopters of forest carbon offset projects¹, most family forest landowners are unfamiliar with forest carbon credits. Our previous research revealed that 78% of those Lake States landowners surveyed consider themselves to have “no” or “minimal” familiarity with forest carbon credits (Miller et al. 2012). While previous studies have shown that the more familiar a landowner is with a particular program, the more likely they are to participate (Kilgore et al. 2008), our earlier study found that familiarity was not a significant predictor of willingness to participate (Miller et al. 2012). A focus group discussion will provide an opportunity to present more information about forest carbon offsets to Lake States landowners and further investigate this finding.

2. Methods

2.1. Why focus groups?

A focus group format allows the collection of in-depth data from multiple individuals simultaneously (Onwuegbuzie, Dickinson, Leech, & Zoran 2009, Morgan 1998). When conducted correctly, focus groups provide a nonthreatening venue in which participants are able to share and discuss opinions, thoughts, and perceptions about a research topic. Focus group interviews are a useful tool for gaining insight into the thinking, motivations, and attitudes of family forest landowners (Kingsley, Brock, & DeBald 1988). Focus groups are an especially useful research method when clarification of earlier quantitative results is desired (Mangun, Throgmorton, Carver, & Davenport 2007) and are commonly paired with surveys (Morgan 1996). In this study, the focus group forum offered a means to test the validity of the larger mail-back survey results and gather more in-depth information regarding the reasoning behind responses to several landowner survey questions. For instance, as earlier mail-back survey results surprisingly found that a portion of landowners would be willing to participate in carbon offset projects for little or no remuneration, focus group participants were asked for their feedback regarding this finding. In addition, focus group discussions provided an opportunity to gain further insight into general landowner attitudes and perceptions and consider issues not previously addressed in the survey.

2.2. History and characteristics of focus groups

Focus group methods were initially developed by marketing researchers in the 1930s (Dichter 1950). Since this time, the method has been refined and applied to social science research

¹The state of Michigan (in partnership with Delta—a local aggregation corporation) created a pilot program to encourage participation in forest carbon markets (The Michigan Forest Carbon Project) alongside more general carbon management assistance (Working Forest Carbon Offset Program).

situations (Merton, Fiske, & Kendall 1956; Bellenger, Bernhardt, & Goldstrucker 1976; Krueger & Casey 2009). A focus group is a form of qualitative research in which a group of people participate in an organized group discussion that has a defined purpose and follows a set protocol. Interaction among focus group participants can facilitate a more in-depth understanding of the viewpoints previously analyzed in a quantitative manner.

According to Krueger (2009), there are several essential elements to focus group research. Focus groups are composed of people who possess certain characteristics and provide qualitative data in a focused discussion to help understand a certain topic. In order for a focus group to be effective, it is important that the moderator creates a permissive, nonjudgmental environment where people are able to share their thoughts in a comfortable location. Focus groups typically range in size from 4 to 12 people (with 4 to 8 recommended for more complex topics). The questions in a focus group are carefully selected and sequenced, becoming more specific and “focused” as the discussion progresses. Questions toward the end of the group typically yield the most useful information to the researcher (Krueger 2009).

2.3. Study objectives: research questions to be addressed

This qualitative study was conducted in order to obtain greater insight and understanding of the Lake State FFOs survey response data and gather in-depth perspectives on landowner interest in participating in forest carbon offset markets that could not be obtained from surveys. The specific goals of the focus group questions were to:

1. Gain insight on important forest ownership goals and challenges.
2. Assess family forest landowner’s post-survey understanding of forest carbon offsets.
3. Obtain landowner perspectives on managing for forest carbon offset projects and the associated requirements for doing so.
4. Gather feedback regarding benefits, barriers, and willingness to participate in forest carbon offset markets.
5. Assess the reliability of notable survey study results and associated study conclusions.
6. Evaluate whether being provided additional information and understanding of forest carbon offset market requirements and benefits further cements or changes a landowner’s initial opinion regarding interest in managing for forest carbon offsets.

2.4. Purposive sampling

The intent of focus group research is to collect information from certain individuals about a specific topic. Participants are not a randomly selected sample of the larger population (as in a quantitative survey study) but rather carefully selected based on certain characteristics or fitting specified study parameters (Davenport & Anderson 2005). The basic concept behind qualitative research is to purposefully select those participants that can best help the researcher understand the topic and research question (Creswell 2003). This sampling method generally requires the researcher to cluster participants according to a specific trait(s) and then to select from this pool those individuals most likely to be representative of certain types within the study population and best able to provide insight regarding the specific research questions.

2.4.1. *Purposive sampling of Lake States landowners*

The six focus groups conducted as a part of this study were designed to sample from a cross-section of survey respondents based on their responses to certain survey questions. These include their WTA the compensation offered in return for managing for forest carbon offsets, level of certainty in their response to this valuation question, size of the forest parcel they own, and their stated ownership objectives. In the mail survey, landowners were asked if they would be interested in attending a meeting to talk more about forest carbon credits. Those landowners that responded “yes” or “maybe” to this question (and who provided contact information) formed the initial focus group participant pool (563 of 850 survey respondents). From this pool, landowners were clustered by their residence zip code, gathering all respondents within a 25 mile radius of selected locations. As two focus groups were planned for each state, those landowner clusters containing the highest numbers of potential participants were chosen as meeting locations within each state.

Landowners were further clustered based on their response to the WTA survey question and their level of certainty regarding their response (Appendix C). Not surprisingly, many survey respondents who indicated they were *very interested* in participating in a forest carbon offset project (i.e. “Yes” to WTA question with a high level of certainty) also indicated a willingness to meet to discuss forest carbon offset projects. There were also numerous potential focus group participants that fit other desired landowner types: those *unsure* of their willingness to participate and those sure they were *not interested*. Potential participants were grouped according to their stated interest in participating in a forest carbon offset project, ensuring representation across a range of forest parcel sizes and ownership objectives.

Because of the complexity associated with developing forest carbon offset projects and level of feedback sought from landowners who were likely to be unfamiliar with carbon offsets, small group sizes (5 to 8 participants) were planned (Krueger & Casey 2009). Landowners were contacted by phone, a personalized hand-written letter (Appendix A), or email based on the primary contact information they provided in the earlier mail survey. To defray any travel expenses and encourage participation, all participants were told to expect a small monetary incentive (\$30), free parking, and a box lunch or dinner. Depending upon the size of the initial landowner zip code cluster, participants were over-recruited to ensure an adequate meeting size (and allow for “no-shows”).

2.5. Focus group data collection

In preparation for the focus group study, the study moderator participated in separate two-day and week-long instructional workshops conducted by Krueger and Casey (2011). Throughout the Lake States region, the largest towns within each zip-code cluster (containing the most potential participants) were chosen as meeting locations. Meeting facilities were found within the various towns that provided a convenient, comfortable and quiet place to have a discussion—generally a library or small community conference room (Krueger & Casey 2009).

Two focus groups were held in each state for a total of six meetings. All focus groups were conducted in August of 2012. Each session lasted approximately 90 to 120 minutes and incentives (i.e., honorarium and refreshments) were provided. The focus groups were recorded

using paper notes and digital audio recorders and transcribed verbatim. The same question format was used to stimulate discussion for each group. Using a focus group questioning technique suggested by Kruger and Casey (2009), new questions were not introduced until responses to the preceding question were exhausted or wandered off-topic.

Each focus group started with a welcome and general introductions that included meeting logistical matters (e.g., confidentiality, location facilities, moderator duties, and ground rules). Landowners were instructed that the meeting was for research purposes (i.e., not in any way a promotion of forest carbon offset projects) and all opinions (both negative and positive) were welcome. Furthermore, participants were informed that they each were chosen to represent the views of a certain cross-section of landowners from the Lake States. Landowners were encouraged to speak out and share their perspectives, whether the same or different than those already expressed, as their views potentially represented those of many other landowners within the region. Landowners were assured that they would not be identified in any reports.

The entire questioning route and individual question phrasing were carefully developed to enable researchers to meet the study objectives (Appendix B and Section 2.3). The participant meeting discussion began with landowners introducing themselves, telling where their forest land was located, and describing what they most like about owning forest land. Landowners were subsequently asked if they experienced any challenges to owning forest land. This information was collected in order to gain insight into the primary forest ownership goals and challenges experienced by the participants. In order to gain a better understanding of the level of familiarity with carbon offsets post survey and to test their initial understanding of forest carbon offsets, landowners were asked a series of questions related to their first impressions and sources of information regarding carbon offsets.

One of the primary objectives of the focus groups was to test whether increased knowledge of forest carbon markets and offset projects changed landowner attitudes toward them and to gain further insight on the drivers for these changes in perspective. To better familiarize landowners with forest carbon offsets, the moderator presented an overview of forest carbon offset projects partway through the meeting. An effort was made to present all information in a neutral, nonbiased manner. The PowerPoint presentation was approximately 10 to 12 minutes long and included information about carbon credits; the current voluntary carbon market; the science of forest sequestration; typical carbon market requirements; and an example of potential carbon credit revenues.² The presentation was followed by a chance for participants to ask questions.

Participants were given the opportunity to reflect on the information presented before commenting on any changed impressions. The moderator then guided participants through a series of open-ended questions aimed at gathering in-depth information about the potential benefits and barriers presented by carbon markets and landowner perspectives on certain survey results. The questions focused more narrowly on specific study questions as the meeting progressed. At the end of each focus group meeting, participants again assessed their interest in forest carbon offset projects and shared those aspects most important in their decision.

² “Typical” carbon market scenarios presented were demonstrated using carbon credit prices recently seen in the voluntary market and sequestration rates typically seen using forest management techniques (1MT/year). [Example given: For a 40 acre landowner, at \$8/Ton, possible to generate a revenue of \$8 X 40 Acres = \$320/year.]

2.6. Data analysis

The digital audio tapes for all focus group meetings were transcribed verbatim into Microsoft Word 2010 documents. All notes and other documentation written by meeting note takers were also transferred to Microsoft Word documents. For each focus group, questions and responses were organized under consistent question headings and transferred into the NVivo software analysis program (Version 10; QSR International). Using NVivo, responses for all six focus groups were aggregated according to question heading. In addition to NVivo, an Excel spreadsheet was constructed listing all focus group participants alongside their survey responses and focus group answers to key questions.

2.6.1. *Qualitative analysis to identify emergent themes*

Qualitative analysis to identify emergent themes is an iterative process that focuses on (1) interpreting and coding themes, (2) categorizing major themes and subthemes, (3) winnowing themes to a manageable few, and (4) linking themes into theoretical models (Ryan & Bernard 2003). Using open coding³, major themes and subthemes in response to specific questions of focus group participants were identified. In this analysis, major themes were considered to be those perspectives or opinions that were shared: (1) by a majority of participants *within a certain focus group*, or (2) consistently in a *number of focus groups*. Using open coding, potentially important subthemes were also identified when it appeared such information could prove useful to future programs or policy. Important subthemes were considered to be: (1) perspectives and opinions of landowners having characteristics found to be significant variables in the initial survey study, (2) unique perspectives potentially able to have a significant impact on forest carbon offset participation if shared by a large number of other landowners, and (3) perspectives not previously considered that offer deeper insight into landowner survey responses/behavior.

2.6.2. *Comprehensive analysis: Exploring landowner decision patterns*

In addition, the data were examined using comparison and pattern analysis in order to refine and relate categories and uncover potential relationships between landowner characteristics and attitudes (Bazeley 2009). An Excel spreadsheet was constructed to assist in this process, as the spreadsheet provided a means to compare survey and focus group responses for each participant and determine whether certain patterns exist that could help predict FFOs participation in forest carbon management and/or carbon markets. The spreadsheet listed all focus group participants (by assigned number and meeting location) alongside information from the initial survey and traceable⁴ responses to specific focus group questions.

Throughout the focus group discussions, landowners shared many of their feelings and attitudes toward their forest land and the question topic. At some point within the discussion, either following a direct question or in discussion, all participants generally shared the following information:

³ A code is a descriptive word or phrase that describes a piece of data. “Coding” is a way of gathering all the references relating to a specific topic or theme within a dataset. While working in a dataset, data segments can be assigned a descriptor (code) then stored in a node (collection of codes relating to certain theme). Coded data segments can be collected into a variety of nodes.

⁴ Traceable responses refer to the ability of the researcher to reliably link certain discussion responses to a specific individual—supported by transcript identifiers, note-taker identifiers, question/landowner response sequencing and/or moderator documentation.

- The primary enjoyment provided to them by their forest land (i.e. “ownership focus”)
- Their perceptions of the quality of the trees on their land (i.e. “forest quality”)
- Whether they planned or wanted to change the condition of their property (i.e. “improvement desired”)
- Their attitudes toward the requirement that carbon offset projects be in addition to BAU (i.e., [+] = viewed favorably; [-] = viewed negatively)
- Assessments of their interest in carbon offset projects (initial interest and interest at meeting conclusion)

Data were analyzed for linkages and patterns within and across all participant survey and focus group responses, following the methods described by Richards (2005). For each focus group participant, focus group responses were linked back to mail-survey responses to create a combined dataset including parcel size, mail-survey responses, ownership objectives, and before/after carbon offset project interest ratings (including their rationale). Participant responses were compared across different landowner/parcel groups and across variations in initial attitudes toward carbon offset projects (i.e., landowners whose self-assessment of interest in participating in carbon offset projects varied from low to high) (Miles and Huberman 1994; Bazeley 2009). Using the combined database, each individual’s responses to survey and focus group questions were used to examine patterns in behavioral characteristics, and key questions could be followed through to their final assessment of interest in forest carbon offset projects. This analysis was used to build a visual diagram of key study findings and predictable patterns of behavior (Miles and Huberman 1994). Thus, focus group data were examined for predominant themes and the combined database was analyzed for key decision making patterns and linkages between themes.

3. Findings

3.1. Lake States focus group attendees—description of participants

There were a total of 49 participants for all six focus groups with an average of eight participants per focus group. The largest focus group was held in Ontonagon, MI (11 participants) with the smallest group held in Iron River, MI (3 participants)⁵. Parcel sizes for all focus group participants ranged from 37 to 800 acres (Mean: 157 acres; Median: 110 acres; Mode: 40 acres). While Ontonagon, MI landowners had the highest average parcel size (225 acres) and Superior, WI had the smallest (97 acres), a range of parcel size owners (40 to 200+ acres) were represented in each focus group. Most landowners considered themselves to be unfamiliar (“none” to “minimal” familiarity) with forest carbon offsetting based on their self-assessment from the initial survey. Purposely included in each focus group were one or more participants who considered themselves to have “extensive” familiarity with forest carbon offsets.

Average “overall carbon market interest” levels, based on self-assessments from the initial survey study, varied among the focus groups. Average overall initial interest ratings ranged from a high of 8.30 in Ontonagon, MI to a low of 5.00 in Iron River, MI, based on a Likert score of 1

⁵ Participant turn-out was excellent with the exception of Iron River—due in large part to the necessity to schedule the Iron River meeting during the work day. However, the Iron River focus group participants comprised a unique subset of family forest landowners (timber-focused/highly engaged owners) that were able to provide important insights.

(“Not interested”) to a score of 10 (“Very Interested”). Average interest scores for the other four focus groups were Superior: 8.29, Shell Lake: 8.20, Cloquet: 7.4, and St. Paul: 5.88. Within the various focus groups were participants whose initial interest in forest carbon offsetting ranged from 1 to 10.

Adhering to purposeful sampling objectives, individuals within each of the landowner pool clusters indicated in Section 2.4.1. (i.e., both Yes and No to WTA survey question with varying levels of certainty) were invited to participate in each of the six focus groups. Fortunately, actual meeting attendee turnout resulted in a variety of landowner types being represented in each of the focus groups except Shell Lake, WI where all participants answered “Yes” to WTA question. As a whole, a purposeful sampling of all intended landowner types was accomplished.

Participants most often stated they owned their forest land for hunting, followed by general recreation and hiking, scenic beauty and privacy, firewood, and as a cabin or residential setting. While this pattern of ownership focus was similar for all six groups, the Iron River, MI group contained landowners predominantly focused on timber. The primary challenges to owning forest land cited by landowners were: taxes (mentioned repeatedly and by all groups); having enough time to maintain or improve land; insect and disease infestations; and pressure from local loggers to harvest timber.

3.2. Familiarity with forest carbon offsets and first impressions

Focus group participants were asked if they had heard of forest carbon offsetting or forest carbon credits before receiving a copy of our forest carbon credit survey questionnaire. Twelve of the 49 participants indicated that they had heard of them before receiving the questionnaire (at least one individual was familiar with carbon credits in each group). Most of the more familiar participants had received carbon credit information via various media outlets. These same individuals often mentioned that they had not heard much regarding carbon credits from these venues lately. A few participants had received information from other landowners or family members. Only one participant had received information from their local forester even though several landowners indicated that they had asked their forester about them.

When landowners were asked about their first impressions of forest carbon offset projects, someone in each group generally offered that they understood forest carbon offset projects to be a means to offset excess industrial/company carbon emissions or pollution by using trees (St. Paul, Cloquet, Iron River, Ontonagon, Superior). In many groups, this led to a discussion of whether they agreed or disagreed with the ethics of such a scenario. Each time these discussions occurred, participants offered possible rationale both for and against the ethics of carbon offsetting as summarized below:

Representative opinion of a landowner who potentially disagrees with ethics of carbon offsetting:

*“Business would want somethingcarbon offsets would trade with me for not doing something—leaving the land wooded—and I have mixed feelings about it. I think we are too generous, too lenient with letting business or whomever.....I just BUY my way out of whatever I am doing bad here, so that I can continue to do **this** here...and I don’t agree with that necessarily.” ~ St. Paul*

Representative rationale potentially in favor of carbon offsetting:

“I think the best way to look at it is....if you fly someplace, like South America, and see what happens when they start stripping off [forests] there—how massive these sections are. A broader view of this is how all these things can be interrelated to the outcome. These little sections of property that are in where we deer hunt, and how all this stuff interrelates, you don’t understand it. It is getting a more and better environment and I think no one has really taken that on yet.” ~ St. Paul

In general however, most landowners indicated that they felt too unfamiliar with carbon credits to comment about their overall first impressions:

“I heard about them but I knew zilch about the details of carbon offsets.” ~ Ontonagon

3.3. Common participant questions

When asked about their first impressions, many participants indicated that they had lots of questions. At this point in each discussion, the moderator presented a brief overview of carbon credits and described the typical requirements of a forest carbon credit project (see Section 2.5). Participants asked questions during and after the presentation. Questions that surfaced frequently are organized by topic headings with emphasis given to those questions asked by participants in each of the six focus groups (indicated by bold-face type) (Table 1).

Table 1: Common participant questions about forest carbon offsets.

<p>Related to the science of forest carbon offsetting:</p> <ul style="list-style-type: none"> • <i>How much additional carbon can be sequestered on an acre of land through management?</i> • <i>Which tree types are better at sequestering carbon—hardwoods or softwoods?</i> • <i>Are young trees as good at sequestering carbon as old growth?</i>
<p>Related to offset project eligibility and implementation:</p> <ul style="list-style-type: none"> • <i>Do you have a specific example of the type of changes that would be required of a landowner (i.e. aside from delayed harvest)?</i> • <i>Would hybrid poplars be allowed (i.e. against No-GMO requirement)?</i> • <i>Is carbon management compatible with participation in Wisconsin’s MFL program?</i> • <i>Can carbon management and timber management co-mingle?</i>
<p>Related to costs and revenue:</p> <ul style="list-style-type: none"> • <i>Are carbon credit payments made annually - \$/Ton listed is for one year?</i> • <i>What costs would a landowner have to pay?</i> <ul style="list-style-type: none"> ○ <i>Would the landowner have to front these costs?</i> ○ <i>How long would it take to make a profit over your costs?</i> ○ <i>Could you participate in other cost-share programs to help with the requirements needed to participate in a carbon market?</i> • <i>Wouldn’t a federal cap on carbon increase the price for carbon credits?</i>
<p>Related to administration of a carbon market program:</p> <ul style="list-style-type: none"> • <i>What type of entity would I be signing a contract with for a carbon offset project?</i> <ul style="list-style-type: none"> ○ <i>State, federal, private foresters, NGO’s, combination?</i> • <i>What happens if a landowner wants/needs to withdraw from the program?</i> • <i>What are your contract obligations if a catastrophic event like a forest fire occurs?</i> • <i>Are all states beginning to document carbon emissions from industry?</i> <ul style="list-style-type: none"> ○ <i>Are they getting ready to regulate?</i> • <i>Will GIS or other satellite tracking be used to see what you implement on your property?</i>

3.4. Do landowner opinions change after receiving more information?

After the presentation and general question period, participants were asked to reflect on the new information they had received. The moderator then asked the following question:

“Now that you have more background information, is there anything about a forest carbon offset project that is different than you first thought?”

3.4.1. Major theme: understanding of “BAU” changes landowner opinions

In every focus group, many participants initially seemed to believe that carbon credits are offered as a reward for present management or simply for owning forest land. The realization that carbon credit qualification requires one to undertake some type of management activity *in addition to BAU* had a variety of effects on landowner interest as exemplified in the following quotes from three of the six groups:

“I initially thought that the credits would exist for things that already exist. Meaning, my forest is already there, and it is doing its job, and now someone is going to give me something for really doing nothing, which I am not real pro on. But if it is...I am a little more interested if it is going to make people do more for forests and those sorts of things. I think it has more value personally. So, even if it is little things that I do, and I let it go for another 10 years before we decide what we are going to do, but to know that it is an option. Or maybe plant an area that maybe isn’t planted. But I like that term, not for “business as usual.”~ St. Paul

“I guess I would expect it. I mean I would think I would have to do something... [not a problem] as long as someone else was doing the work.” ~ Ontonagon

“This is sounding like you guys are basically screwed [comment directed at other landowners practicing “old growth” forest management] because it is “business as usual.” And what they are looking for is what they can change to make it better—to sequester more carbon.” ~ Cloquet

Upon further reflection, some landowners decided that if carbon market participation required changes in management, they would rather continue their present management without contractually obligating themselves to a particular program:

“Well, quite frankly I am thinking if the land sits as it is today, we are still sequestering carbon and we don’t have to do anything. Well, what is wrong with that?” ~ St. Paul

“I think the trade off in my mind is, well my 40 acres is doing a pretty good job of sequestering carbon all by itself without doing anything. And so how much time and energy do I want to put into PERHAPS improving how much carbon it is sequestering when it is already doing a good job just sitting there. That is what I am trying to figure out—and I don’t have an answer right now.” ~ Superior

“I already practice pretty good management, I put in wildlife ponds and this and that, and right now, they are getting mine for free. And I am good with that.” ~ Cloquet

“The idea that somebody else is going to tell me what I have to do, and I am going to pay for it, they are going to come back and make sure it was done, to forgive a corporation for putting dirt in the air....that doesn’t interest me at all! I would rather do it because it needs to be done.” ~ St. Paul

3.4.2. Major theme: low carbon credit payments influence landowner opinions

Following the presentation containing sample carbon project payments (based on recent voluntary carbon market prices and typical land management sequestration rates), several landowners had comments about carbon prices. Most of these landowners were concerned that revenues from the sale of carbon credits were much lower than they had expected. A common comment was that carbon credit prices alone are most likely not sufficient to induce participation:

“How about your sticker shock?! No one else sat here and thought on 40 acres you could make \$320?! I mean—I am going to do all that for \$320?! That is quite the negative sticker shock!” ~ Ontonagon

“I think that the payback is not that great to go through the disturbance.”~ St. Paul

“Well, I can tell you right now that that is not worth it. That is not worth my trouble. For most people, that is not even going to cover their taxes, so they are not going to do it. I can make more growing timber than doing that.” ~ Iron River

“Well, that is one of the things that would keep me out. I am saying, geez, it is not worth it for all that trouble.” ~ Ontonagon

“I don’t see it being cost effective for a little guy like me with 40 acres...” ~ Superior

The general consensus in all of the six focus groups was that carbon credit payments were lower than landowners had expected.

3.4.3. Subtheme: opinions about corporate responsibility can be a factor

Some landowners were most influenced by what they felt were the overarching goals behind such programs and the ethics of carbon offsetting (i.e., whether or not companies should be able to pay other entities to offset their carbon emissions). The ethics of carbon offsetting were not discussed in the presentation or the initial survey study in an effort to present all information in a neutral and unbiased manner. However, after receiving more information about carbon offsets, some landowners most wanted to discuss both the positive and negative aspects of corporate involvement in forest carbon markets:

Representative comments from landowners having a negative view of corporate involvement:

“What is the program trying to do—trying to accomplish? I mean, is it the concern that we have got this excess carbon and we are just trying to figure out how to minimize it, or offset it more? There is nothing mentioned about trying to get the ones who are polluting to clean up their act—other than the fact that it is going to become more expensive to do so because of some of the penalties or costs of buying credits like this. Some of my conflict is, I like the idea of improving, just in general, but I still really have problems with selling my credits to

[Corporation] so that they can keep spewing. I would rather see ways of encouraging them to spew less and not be able to buy the credits.” ~ St. Paul

“There are places down in Wisconsin where they burn nothing but coal. If they don’t want to do anything to reduce their carbon footprint, they just want to go out and buy carbon credits to offset that. Well, I don’t agree with that. I don’t think that that is right. I don’t know.”~ Ontonagon

“There is something fundamentally wrong, in my mind, with producing a product—like we’ll burn coal or do whatever we want—and throw smoke up into the atmosphere ...and will continue to do that. But we will buy carbon credits over here and continue to operate instead of fixing our problem and making a cleaner environment. I will just buy offsets, and then it is a wash, because we are carbon neutral. And, fundamentally, I don’t know ideally if that is where we need to be going.” ~ Iron River

Representative comments from landowners having a positive view of corporate involvement:

“ The woods are going to get smaller and I think that this perception that we need to try to figure out a way, when the market starts to dictate these costs might go up for these other companies, it is probably more of them that will need to do it. I don’t want to live in China, but I see China being a very tough place to be if their industrialization continues—that air has got to go someplace. So I think that you have to start having a vision. It might be our heirs that gain from this so called speculation of what we are observing today. And I think that that is what this project is about—speculation.” ~ St. Paul

“Until there is another source of energy that is available, readily available in this country to provide the energy that is required, I don’t see anything wrong with offsetting carbon emissions with carbon credits. Just for the other side of the argument.” ~ Ontonagon

3.4.4. Initial survey: information presented with survey was adequate

While some of the above quotes reveal that the impressions of some focus group participants changed upon receiving more information (most notably the understanding that carbon offset projects must be in addition to BAU), many landowners indicated that they felt that their first impressions were accurate. Several participants across all focus groups stated that nothing presented had changed their overall understanding of forest carbon offsetting in a notable way. This finding indicates that many landowners who responded to the initial survey fully understood forest carbon offsets.

3.5. How do landowners feel about carbon market requirements?

After participants had been given the opportunity to share any changed impressions, group discussion was redirected toward the requirements of a “typical” carbon offset project. Participants were again shown the requirements generally needed to sell forest carbon credits (Table 2). Landowners were asked to carefully consider each requirement and comment if they viewed any of the requirements as beneficial or especially problematic.

Table 2: Typical requirements of a forest carbon offset project.

Carbon Market Requirements
<ul style="list-style-type: none">• Have land inventoried by a professional forester• Obtain a forest management plan• Certify forest• Sign a contract (for a specified time period)• Manage forest land in specified ways• Keep a written log of forest management• Allow third-party verification and periodic monitoring of forestry practices

Consensus opinion was generally achieved across focus groups in respect to the following requirements:

3.5.1. *Major Theme: inventory and forest management plan are beneficial*

Of all requirements, landowners most often viewed the forest inventory and forest management plan as very beneficial. In each focus group, one or more individuals had already obtained a forest management plan and each of these individuals spoke favorably about the experience:

“This stewardship plan that I have was done by the Aitkin county forester. And he came out and basically we went from one end to the other. We covered everything. He was there for over 3 hours. And while we were out in the woods he was telling me that this was this and that was that. And that could be done. And this is what is going to happen here. I mean, we went over it head to toe. And then he went back to work and he put together all this information on our property—all the different types of soils, the land and everything else. And then put together a plan of what we should do. Do this, cut that. This will be good, this will become that. It is very interesting and I liked all of it. But the plan itself was like \$700—for the whole thing. I guess I just thought it was worth that just to know because he really did give me a ton of information. And it could be less for some people. But that’s how much that plan was.” ~ St. Paul

After hearing about how a forester would conduct a forest inventory and the types of information that is contained in a forest management plan, other landowners expressed great interest in having both a professional forester walk their property with them and acquiring a forest management plan. **In each of the six focus groups**, general landowner attitudes toward forestry assistance in the form of a walk-through inventory and forest management plan were favorable.

“Well, I have trees. I have no idea what they are. I just have trees. I think it would be fascinating! For someone to walk with me and tell me what they are. The average age of them and how to tell the difference—what is going to fall over....” ~ St. Paul

3.5.2. *Major Theme: forest certification not well understood or of limited value*

Few landowners appeared to view forest certification as something that would provide benefit to them. The short presentation period did not allow for a full description of forest certification benefits; therefore landowners were unable to fully consider possible benefits. Landowners who were familiar with forest certification still seemed to consider it of little benefit to them:

“That certification could be a bit of a nuisance. I mean, I don’t know much about it.” ~ St. Paul

“The only way to be certified is to join the tree farm. You can’t afford, with a 40 acre parcel, to get certified with FSC. So the only way, with a 40 acre parcel to get certified is to join[a] group... and fall under that so that they can certify your property.” ~ Iron River

“No, I looked over my land and then I looked over the certified land, and mine is in way better shape than most of the certified properties.” ~ Iron River

“Michigan does not have chain of custody and I’m not sure how you could, moving forward, prove chain of custody. If you can’t prove chain of custody, you can’t take credit for the sale. I don’t know how that would work for carbon credits—if you have your land certified, maybe it is a moot point? I mean, it is not leaving your property so maybe from a carbon standpoint that’s fine. But from a pulp or timber standpoint, you have to prove chain of custody.” ~ Iron River

The comment from the St. Paul focus group participant was most representative of the general comments of landowners across all Lake States focus groups. Most landowners, having little background knowledge on the topic and presented with limited information at the meeting, did not consider themselves adequately informed about forest certification to comment as to it being a benefit or barrier. In contrast, participants in Iron River, MI were quite familiar with forest certification. However, based on their past experience and the unique circumstances in Michigan, they felt it offered little benefit to most FFOs—those who were timber focused or otherwise.

3.5.3. Major Theme: most favor short and/or flexible contract lengths

While landowners generally favored shorter and/or flexible contracts, consensus was not reached across all focus groups. Contract lengths and other contract details, such as withdrawal penalties and remedies in the case of catastrophic events (e.g., forest fires), were an important consideration for landowners in each of the groups. As participants were asked to consider potential contract options rather than deliberate on the specific features of an actual contract, some participants felt that it was difficult to accurately measure which attributes would be most important to their decision making process. However, participants generally appeared to shy away from long contract lengths or contracts that would potentially burden their heirs or prevent the sale of their property:

“When I first looked at the pamphlet I thought, what a can of worms it would be if I decided to sell the property. And that just stopped me in my tracks—that was it.” ~ Cloquet

“But really, I can see a thing where I sign a contract to manage it the way I want to manage it and then I decide to sell it to someone who wants to cut it, then they got to pay extra to buy it...that is not a very good incentive to the landowner. I have a 100 year contract for my management plan! I think the [buyer] would go like...”Next!” I would think that that could be a scary place to be.” ~ Ontonagon

“Is there any age at which...well, at certain ages, a 20 year contract is not realistic. You can’t sign up someone for 20 years when they are 80—you ain’t going to make it probably! I think that is an awful long haul for the average age here.” ~ St. Paul

“Yeah—how about you want to just buy a 1 year plan and see how it goes. Instead of signing up for a 25 year plan and then you don’t like what they are doing. Or you don’t like any part of it. Then what? I may not want any part of it. It has to be variable. You can’t lock people into something that is forever.” ~ Ontonagon

“I’m not sure that I should even be making decisions about contract length. My son is 50 years old—he should be a part of the discussion. I mean—how much longer am I going to live?” ~ Shell Lake

In contrast, a few landowners in the Shell Lake focus group who were interested in making decisions that would have a long lasting effect on their property, as demonstrated in the following comments:

“MFL’s are for 15-25 years. So it [contract length] is not an issue for me. I do not intend to move. My ashes are going to be scattered all over this property. So I’m fine with it. 50 years and then have my children deal with it would be fine with me.” ~ Shell Lake

“Yes, but you are talking to a group of people that are interested in long term management. I don’t see anyone here that appears to want to participate only for the short term” ~ Shell Lake

While the preceding comments were met with general group agreement in Shell Lake, when analyzing the comments from all six focus groups, landowners appeared to be very reluctant to commit themselves to long-term contracts and/or contracts with substantial withdrawal penalties.

3.5.4. Major Theme: management changes pose a major barrier to some

While some landowners found the need to apply some management changes to qualify for carbon credits very appealing, other landowners did not. The carbon offset requirement to “manage land in specified ways” (concurrent with the requirement that changes be in addition to BAU) posed the most substantial barrier to certain landowners across all focus groups. The reasons why some landowners were enthusiastic about making improvements to their forest land or did not wish to do so also varied. Representative comments from landowners on each side are as follows:

Management change requirement seen as beneficial:

“My thought is—I don’t know what would be best to make my trees grow faster. So if he [a forester] comes in and says “You cut this tree down and cut that one down, and the rest of these will take off in 5 years”—Hey—I’m all for it! Right now—I am at a standstill.” ~ Shell Lake

Management change requirement pose a barrier:

“I would have a little bit of a problem with “manage forest in specified ways” ...The management plan that they give me is going to say, well you have to do this and this to stay enrolled in the program. And if that is over a long period of time, and things change, maybe I want an area that isn’t old growth and so I want to cut it. So, they come out to check it and then they say, we told you not to cut that and you did. So that gives me some concern.” ~ St. Paul

“I think what bothers me the most is, you know, if you work with a professional forester, maybe it is a one shot deal and stuff, but that 5th point there: “manage land in specific ways.” As a tree farmer, I know what that takes. I mean—that’s a lot of work!” ~ Superior

The number of landowners who viewed the need to make management changes as a benefit compared to those who viewed it as a barrier was split fairly evenly across all focus groups. In an effort to concisely report study findings, the subsequent analysis within this section will focus on the barriers presented by requiring management changes.

In analyzing the comments of all landowners who expressed the opinion that requiring management changes would pose a barrier, it was found that all comments related to one or more of the following issues:

1. Current management already achieves ownership objectives—no change desired.
2. Would resent any loss of control over management decisions.
3. Implementation of management changes could be cost prohibitive.
4. Do not have any extra time to put toward forest management.

1) Current management already achieves ownership objectives—no change desired.

A variety of different landowner types fell into this category. Some landowners were already managing their land as an “old-growth” forest and did not wish to change their management in any way. These landowners were concerned that because they had already been employing carbon sequestration techniques for many years, their parcel would not qualify as additional sequestration above BAU management. These landowners indicated the requirement of management changes above BAU would pose a significant barrier unless they were allowed to be “grandfathered in” to a program or somehow rewarded for their present management strategy.

Other landowners within this category were already following a management plan for another purpose (i.e., timber management) and were not willing to forgo the benefits of this management strategy unless it could be designed to coincide with carbon management as shown by the following comment:

“I mean, if you are going to have carbon offset programs, you should have timber management programs—such as growing timber to create the offsets. You have to have a sustainable resource in order to generate the offsets. It should be part of the production process. I mean, if you don’t have a viable timber program, than to me you are just sort of blowing smoke.” ~ Iron River

Finally, some participants enjoyed their forest land “as is” and implementing management changes of any sort would conflict with their ownership objectives and/or disrupt their present enjoyment:

“Now, like I have a mature 40. So, what they would probably suggest to me is to start going in and thinning the trees and taking out some of these mature guys and letting the younger stuff come. Well, who is going to do that? Well, what if they say—well you have to do that? Well, I am not going to go out there and do it. You know—I enjoy my 40 but I am not going to go out and start cutting down.... My weekends are my weekends! I’ve got my family and my

interests. So what does that mean? Well, that means A. I have got to hire somebody or B. I have to get all my buddies over there and bring a case of beer or whatever, and hope that nobody gets hurt. Do you see where I am going?” ~ Superior

2) Would resent any loss of control over management decisions.

Some landowners acknowledged the requirement to manage land in specified ways would make them resentful toward a loss of control over their land. Representative comments of landowners sharing this opinion are as follows:

“In the mindset of people, you buy land so that you can do what you want with it. And so the scary part is that you buy land—and now someone else is going to tell you what you can do with it? That is the mindset we have when we purchase it. It was ours and we could do what we please. And the thought of turning that over to somebody else is not good.” ~ Ontonagon

“I have a little problem with people coming in and telling me what to do—even my wife sometimes—and she’s my boss! I don’t know...” ~ Shell Lake

“Some of the property that I have, I put in a trail and I couldn’t cut close to the river. And I understand that but I just don’t like people telling me what I can and can’t do on my own land.” ~ Cloquet

“You know, it seems like, we all own our land because we love it. And we love the lifestyle that it gives us. And as soon as we sign a contract and agree to do it their way, it becomes a business. And \$200 a year is not much money to give up however you want to use your land.” ~ St. Paul

3) Implementation of management changes could be cost prohibitive.

A majority of the focus group participants expressed concern regarding the potential costs of implementing changes in the management of their forest land. Participants were informed that early forest carbon project adopters generally had all of their costs covered through cost-share or other assistance programs. In such instances, any carbon credit revenue would be considered a net gain. Without such assistance, participants were told they could expect these initial costs could approximate 1½ years of revenue from carbon credit sales. Understandably, participants had some difficulty adequately contemplating their likelihood of participating under the varying cost/revenue scenarios. All focus group participants indicated that costs would play an important role in their decision to manage for carbon credits. However, many also indicated that costs would not prevent them from participating if they were able to obtain some assistance and/or offset costs with the management activities undertaken for the project (i.e., thinning leading to lumber/pulp sales). The following statement is representative of landowner deliberation over the aspect of forest carbon credit cost:

“Well, the question would be, would it be economically practical? Because, if I were to envision how they typically do this, you [landowner] would be the fellow putting the money up front, and you would be getting a return if they did do a harvest on there and you would be getting a return if they were able to sell carbon credits, but my guess would be that you would be the first one putting the money in there and then you would have to wait your time to get it

back out of there. Now, whether it balanced out or not as to whether it was economical or not.”~ Superior

4) Do not have any extra time to put toward forest management.

Finally, in regard to making management changes, several landowners indicated that while they may have the desire to manage their property differently, they simply do not have the time to put toward such efforts:

“Not enough hours in the day to get all of the stuff done that I would like to get done. That would be my primary barrier.” ~ Cloquet

3.5.5. Subtheme: landowners object to extra paperwork

In four of the six focus groups, landowners stressed they would like to see the process streamlined and require as little paperwork as possible. While allowing periodic monitoring of management activities did not appear to pose problems for those interested in participating, excess paperwork did. Even retired landowners were reluctant to add to their paperwork burden:

“One of the things we don’t need is more paperwork in our lives—our table fills up twice a week and we don’t need more of it.” ~ Shell Lake

“Keep it simple—we are retired—we don’t want to start up a huge project with a lot of work and forms to fill out.”~ Superior

3.5.6. Subtheme: periodic third-party verification/monitoring is a non-issue

When asked whether allowing third parties on their property to verify carbon additionality would pose problems, no landowners indicated that allowing individuals access to their property for this purpose would be an issue for them. Periodic third-party monitoring was not considered problematic for landowners who decide to enroll in a carbon project. The words of one St. Paul landowner appeared to express the sentiments of most participants:

“Well, if you are doing it with the expectation of getting paid for it, then you would expect that that is how they would verify it.”~ St. Paul

3.6. Most important to landowners—monetary vs. nonmonetary benefits

At this point in each focus group discussion, participants were asked to consider the possible nonmonetary benefits of carbon market participation (e.g., professional forester assistance, forest management plans, improved wildlife habitat or quality of woodlands) in comparison to the monetary benefits that would come from the sale of carbon credits. Landowners were asked the following question: “Would these non-monetary benefits be as important, more important, or less important than the financial benefits of carbon management?”

3.6.1. Major Theme: nonmonetary benefits “more important” to most

In four of the six focus groups, the general group consensus was that nonmonetary benefits far outweighed the monetary returns of carbon management (St. Paul, Ontonagon, Cloquet, Shell Lake). This is not to say that all landowners of this persuasion would be willing to contractually

obligate themselves to participate in a carbon credit project if they did not receive any payment, but that the nonmonetary benefits provided a greater incentive:

“Well, the carbon credits will be one of the side effects/benefits of it. But the appeal to the landowner—is the potential to better understand their property.” ~ St. Paul

“I guess with me [nonmonetary benefits] are more important. That is one thing for our land and the land we have in our family. I want to leave it better than when we got it. I think everybody in here really cares about their land and they are going to do everything that they can to improve it. It’s a no-brainer.” ~ Ontonagon

“More important. We want to improve our land. We want to leave our kids and children’s children with land that is better than what we found.” ~ Shell Lake

While timber-focused participants in Iron River valued nonmonetary benefits more than the monetary benefits of carbon market participation, they were less inclined to be incentivized by nonmonetary benefits because they felt that such benefits were already being realized by their present management:

“Well, I think all of those benefits can be derived from good timber management. There is no reason why you can’t have improved habitat, walking trails, berry picking... Those are all things that can be improved through timber management.” ~ Iron River

“If you are asking me if I would prefer these other benefits or the money from carbon credits, I would have to say, based on the figure you showed me of \$320, I would take these other benefits over that any day.” ~ Iron River

For these landowners (and one timber-focused owner in Shell Lake), nonmonetary benefits without a substantial financial incentive, or the ability to “piggy-back” carbon payments onto timber management, would be unlikely to induce participation.

“Now, if you give me a program that piggy backs on my timber and I make \$320, then I would say—‘Well yeah’.” ~ Iron River

In the Superior focus group, while most participants agreed nonmonetary benefits were desirable, some indicated that in order to induce their participation, the monetary benefits would be an equally important aspect.

“Well, it is kind of like these managed forest crop where you get a tax break if you let them manage your property for habitat and all that stuff. But you get a tax break. I guess that is where I am thinking the money... if I am going to do all that work—I want some money too” ~ Superior

“It is a yes from me too. I would want the quality of my woods improved but I would also want some money for it.” ~ Superior

Landowners who were satisfied with their present management strategy or were content to leave their property “as is” were also much less inclined to be incentivized by the nonmonetary benefits of carbon management.

“You know, we have the woods there, they have been there, they will continue to be there...and we don’t want to do a lot of expensive things just to keep them doing what they are doing” ~ St. Paul

3.7. Do focus group participants confirm initial survey findings?

In the study debriefing session following the third focus group, it was decided that the focus group setting would provide an excellent opportunity to gather participant reflections on one of the more remarkable results of our earlier survey study. Therefore, in each of the three remaining focus group discussions, participants were given the following information about the results of the earlier study and asked to reflect upon it: “In evaluating the responses to our earlier survey, we found that a significant number of landowners indicated that they would be willing to participate in carbon offset projects for little or no compensation. Why do you think we got that response?”

3.7.1. Major Theme: focus group participants corroborate survey findings

In both the Shell Lake and Ontonagon focus groups, participants did not appear surprised at the study result and felt their earlier discussion comments reflected the same sentiments and explained the survey respondent behavior. The Shell Lake focus group participants felt it was a reflection of the desire of many landowners to be good stewards of their land. There was overall group agreement to the following statement from one landowner:

“Because we care about the planet. We care about our woods. We are reaching that tipping point with global warming and stuff. We are only a few years away from it. But we are the grassroots—we care.” ~ Shell Lake

Another participant added further to this perspective and was also met with group agreement:

“It gets to the point that money can’t bring back the things that are gone.[woods and wildlife are] all interconnected. It is not a singular thing. It is not just the human species; it is not just the trees. If we don’t do one, we lose everything. So that is why it is not the money that is keeping it. Yes, we want to keep our costs down, and we are willing to do what is necessary. But we don’t need to be compensated to the level of support because 1. That can’t happen and 2. We don’t necessarily want government subsidies all the time for everything that we do. But, we do want to be involved.” ~ Shell Lake

An excerpt from the Ontonagon focus group transcript after the moderator asked the above question gives further evidence of the general group consensus regarding earlier study results. Any group reactions to participant statements are bracketed in bold.

Landowner (5): *I think we have already answered that.* **[agreement from others]**

Landowner (7): *Yeah, I think we have already answered that.*

Moderator: *But, if you really did not receive any compensation for your efforts. Like you mentioned [landowner X]—the sticker shock over the payment amount—it doesn't seem like very much to begin with.*

Landowner [5]: *The thing is, you could go into other programs that would give you more financial benefit. You could get this if you were to go into the forest management plan.*

Landowner [X]: *So are you saying—sign up for 5-10 years for no money?*

Moderator: *Well, basically, many of the respondents seem to indicate that the money wasn't the primary benefit to participation.*

Landowner [X]: *Well, I wouldn't sign a contract then if I wasn't going to get any money.*

Landowner (5): *But our answer to the previous question answers this.*

Moderator: *So this result doesn't seem surprising to you?*

Landowners: **No [agreement from group]**

Landowner: *If someone is willing to come in and help me with a forest management plan for free then, yeah, I would do that.*

Landowners: *Yeah—I would agree with that.*

Landowner: *Because I would like to be doing that for the next 25 years anyway.*

Landowner: *Wouldn't bother me.*

Landowner (9): *As long as you had someone come in every so often and give you a select cut and you got money for that, that wouldn't bother me. It would be beneficial actually. I would have trails and such.*

Moderator: *So that aspect would be a real benefit to you.*

Landowner (9): *Oh, absolutely.*

3.7.2. Subtheme: timber-focused owners may respond differently

Further discussion with participants in the Ontonagon group regarding the initial survey findings brought up a potentially important point. Forest land owned by participants in the Ontonagon group contained predominantly second-growth timber such as poplar and aspen. Most of these landowners had shared at some point in the discussion that they were looking to improve the quality of their woodlands. One focus group participant asked the rest of the group: *“I am wondering, is there anyone here whose land is predominately maple or hardwoods?”* Upon getting no affirmative response from any of the other 10 participants, he added: *“See—there is nobody here. That land is more valuable. Those people might not want anything to do with something like this. ...There is some really good land that is south of me. So—for those people I don't know... you might get a different perspective from them.”*

A different perspective from landowners owning “higher-quality” forest land containing a large percentage of merchantable hardwoods was provided by the Iron River focus group participants. Two of these owners had been managing for timber for decades and were very satisfied with the quality of their woodland. The other participant was also managing for timber but was in the process of improving the quality of hardwoods. When asked to reflect upon our earlier study results, these timber-focused participants indicated they definitely would not participate without receiving compensation as they already had a timber management plan and, as the result of following it, were being compensated through the sale of timber. They also stated low-carbon credit payments would not induce timber managers to change to carbon management unless a carbon program *“went hand in hand with timber management”* and all project costs were covered. In this regard, the participant who was hoping to improve the quality of hardwoods was

most inclined to participate at lower carbon credit payment amounts if all of participation costs were covered and the carbon payment produced a profit.

3.8. Would a tax program for carbon management interest landowners?

Taxes are a significant burden for many forest landowners. While some focus group participants had already enrolled in a tax-reduction program and voiced satisfaction with the level of tax relief provided, other landowners stated high taxes were their biggest concern. In each of the six focus groups, participants expressed a fear that increasing or already high property taxes put them and/or their heirs in danger of losing their forest land.

“Yeah—so the tax thing is a big issue. It gets to the point where people my age and a little older, if they do have property like that and they have really taken care of it and there are trees in there and it is good for the environment, they usually don’t retire with that land. They dump it. They dump it because it is just too costly with the taxes and what not.” ~ Superior

Landowners often mentioned that reduced taxes would be a desirable monetary benefit for carbon management. Participants were asked to share their attitudes toward potentially receiving a tax reduction for practicing carbon management with the following discussion question: “If, instead of selling carbon credits on the open market, landowners could participate in a tax program that gave landowners tax benefits/relief for practicing carbon sequestration management on their forest parcel, would such a program interest you?”

3.8.1. Major Theme: potential carbon management tax programs are appealing

The majority of focus group participants indicated that participating in a carbon management program to receive a reduced property tax rate appealed to them. Many landowners stressed that if a carbon management tax program was developed, it would be important to “streamline it” and “keep it simple.” Those landowners that were already participating in a forest management program were concerned that such a program would conflict with their present tax program, and felt it would be beneficial if multiple tax programs worked together. Other landowners cautioned participants that encouraging forest carbon tax programs could increase other costs or lead to negative reinforcement (i.e., carbon management becoming a requirement in lieu of a tax increase). In general, when focus group participants considered the potential revenue from the sale of carbon credits alongside the requirements of the typical carbon credit program, a tax program for carbon management appealed to several landowners as voiced in the following comment:

“Well, my point is that if we are thinking about doing this, and we are thinking about benefits or tax relief, that in my mind is an issue. And a huge benefit if it can go that direction.” ~ Superior

3.9. Special considerations: sequestration techniques in the Lake States

One issue mentioned in all focus groups that would directly affect recommended carbon management techniques in the Lake States area related to the predominance of poplars and aspen in the region. These fast-growing, short-lived northern hardwood species quickly regenerate once cut and create an extremely dense forest landscape. Participants felt they are not conducive to

creating new old-growth-type forest areas, nor are they likely to qualify for a delayed harvest management scenario due to their short life spans. Many of the focus group participants had forests that consisted primarily of such cover types. Some of these landowners were most interested in improving the quality of their forest by introducing longer-lived hardwood species and reducing the density of the tree growth to create a more traversable forest floor (for both landowner and wildlife).

“I have noticed just this year with the mild winter and spring when I walked back on my property—the 1st 40 used to just be pasture land when I first bought it. Now it is all grown up. I try to cut the jungle back, to keep some edges to it, but walking through the spots that have grown over, I swear it has doubled just this year. The growth is incredible! And if we are going to have some more mild winters/springs, it is going to grow like crazy. Areas I used to be able to walk through I have to crawl through and areas I had to crawl through now I can’t even get to. It’s so the—the deer can’t get through to munch on it. Now I don’t have deer trails, they can’t get through it.” ~ Ontonagon

Other landowners felt the fast-growing, autoregenerative nature of many local tree species could be used to benefit both carbon sequestration and the local community. Since the Lake States region is highly conducive to the production of biomass via fast growing tree species, several landowners hoped carbon credit projects might be designed that would coincide with an activity such as hybrid poplar tree farming. In some areas (e.g., Ontonagon, MI), focus group participants felt that the ability to combine carbon market participation with the production of forest biomass (for energy use within the community) could be a boon to the local economy and would greatly increase potential landowner participation.

A few focus group participants were primarily timber-focused owners. These landowners were very knowledgeable about the life cycle of the northern hardwood species and felt strongly that carbon management on such parcels should employ the same strategies used for timber management.

“As far as sound timber management vs. the most carbon you could sequester on a parcel? I don’t think they are that different in this environment here. They are closer than you think. I really believe that.” ~ Iron River

“If you try to grow “Old Growth Forest” here out of northern hardwoods, you are going to degrade the value of your timber. So you are going to lose economic value on your timber. So now what you have are opposing views. You want it to grow longer because it is sequestering carbon but yet from a value standpoint, I am losing a lot of value of the tree. Now, if the carbon people want to pay me to lose my value in the tree, that is fine, but I don’t think that that benefits your program. What you need is a program that is going to induce the NIPL landowner to manage their timber, have a place to recreate, multiple use—have a camp or wildlife—and manage his timber.” ~ Iron River

To elaborate on that, if you took an absentee landowner who owned property up here, and he is from the urban area, and just recreates here. And you told him that [carbon management] ...is going to grow you big trees. Well then, he’s going to say “Good—sign me up! I like

looking at big trees!” If you are going to manage hardwood, it is a 12-15 year rotation. You have to educate the people.”~ Iron River

When designing carbon credit projects for the Lake States region, it would be very important to consider the specific tree types that are common to the area and the carbon management techniques that could be employed to optimize carbon sequestration alongside helping landowners to realize some of the other goals that they have for their property (e.g., wildlife habitat, trails, longer-lived species) or possibly coincide with the production of biomass or sustainable wood products.

3.10. Meeting “round robin”: are Lake States landowners interested?

Before the conclusion of each focus group meeting, participants were asked to reflect on the suitability of carbon offset projects for their particular forest parcel and give an assessment of their interest in participating. Using a scale of 1 to 5, with a “1” indicating someone who is “not interested at all” and a “5” indicating someone who is “very interested,” landowners were asked to give a response to the following two questions:

1. Given what you knew about forest carbon offset projects before this meeting started, how interested were you in participating in Forest Carbon Offset projects?
2. Now that you have heard more about Forest Carbon Offset projects, how interested are you?

After disclosing their pre- and post-meeting interest-level ratings, each participant was given the opportunity to identify those factors that were most important in their decision. Almost all participants appeared to feel comfortable revealing their “final” interest rating and explaining the reasoning behind their decision. This round robin group share was very informative.

3.10.1. Major Theme: interest levels changed significantly for some landowners

In the St. Paul focus group, initial interest ranged from a low of “0” (note: the “0” landowner was aware that the rating scale began at 1 but really felt totally uninterested at the start) to a high of “4.” Upon meeting conclusion, the landowner’s interest ranged from 1 to 4. Three landowners indicated that they had the same or a similar level of interest upon meeting conclusion as they did at the beginning (2|3; 3|4; 4|4).⁶ A majority of St. Paul participants indicated that their level of interest had changed quite notably—some becoming much less interested, some becoming much more interested (4|1; 4|1; 4|1; 0|4; 1|4). Landowners shared why they felt the way that they did. The rationale of two landowners, whose initial interest levels changed significantly, each in opposing directions, is included:

Landowner starting as a “4” and ending as a “1”:

“You know, it seems like, we all own our land because we love it. And we love the lifestyle that it gives us. And as soon as we sign a contract and agree to do it their way, it becomes a business. And \$200 a year is not much money to give up however you want to use your land.”
~ St. Paul

⁶ First number indicates landowners rating of initial interest and second number indicates landowners rating at meeting conclusion.

Landowner starting as a “0” and ending as a “4”:

“Well, I probably came in as a 0...I know, but I truly had not thought or looked at it at all from a positive, broad prospective—what it can accomplish. And now I truly can see the pros and cons of it. I am very interested as we were talking in just the whole general idea of promoting land management that will benefit many levels. Wildlife, and literally the land itself, and then carbon offsets—even if I am not getting paid, getting more information on how to do it and disseminating that information to everybody.” ~ St. Paul

In Shell Lake, some landowners were reluctant to ascribe a rating to their initial interest level as several landowners felt they did not know enough about them to really know what they thought. Consequently, two described their initial interest level as “well—I had questions.” However, in this focus group all participants indicated their post-meeting interest level had increased—in many cases quite notably. The Shell Lake focus group had the highest overall post-interest ratings as follows: 2|5; 2|4-5 (but only if is compatible with MFL); 1|3-4; 3|5; 3|5. These landowners were very interested in improving the quality of their woodlands and felt a carbon credit program might be a good vehicle to assist them in attaining the forest land conditions they desired.

“I was a 3 to a 5 because it fits in with everything I want to do. I want the trees to grow better and bigger and I want to be able to cut out the dead stuff so that I still have wood to burn.” ~ Shell Lake

Landowners stressed that to do so would require assistance, both technological and financial (i.e., to cover program costs). However, landowners in this group also stressed education of the public would be an important component in the success of carbon management on family forest lands. These participants decided at meeting conclusion they would like to come up with a concise summary of their thoughts as a group, which resulted in the following:

“Quality woodlands. We are interested if there are programs to help us improve our woodlands.” ~ Shell Lake group summarization

In Cloquet, initial interest in forest carbon offsetting was relatively low—ranging from a “1” to a “3”—many indicating that they “didn’t know much about it” initially. Four of the five participants indicated their post-meeting interest level was higher than their initial interest—one only slightly and three notably. The Cloquet round robin ratings were as follows: 2|4; 1|4; 3|1.5; 1|2.5; 2|4-5. The landowner giving the highest rating to the parting level of interest indicated they would only be interested in participating if their existing management (i.e., old-growth forest management) qualified them to receive carbon credit payments. The landowner having the highest interest level initially (“3”) had the lowest interest level at meeting’s end. Landowner starting as a “3” and ending as a “1.5.”

“Mine is still there. Why do we have to get it in writing if we are going to keep the trees? I am not going to cut them. I don’t think anyone here would just go and clear out their forest.” ~ Cloquet

3.10.2. Major Theme: some landowners would only participate in a tax program

In the Superior focus group, the first landowner in the round robin indicated being unsure of where on the rating scale they fell initially but would categorize themselves as “inquisitive.” Other landowners in the group felt that was a good descriptor for their initial interest level as well and also assigned their initial interest level the rating of inquisitive. Following in this fashion, many of these landowners preferred to give a description (with a qualifier) for each rating rather than a number. The interest ratings for participants were as follows: Inquisitive/2-3 but only for a tax program; inquisitive/interested; inquisitive/possibly interested if a tax program; inquisitive/4-5; 2/4; inquisitive/possibly interested if a tax program.

As revealed by their ratings, several landowners in this group were not interested in participating in a carbon market, but would consider carbon management if it meant they could receive a tax benefit. Those who were interested in a carbon management as a tax-reduction method felt the typical compensation amount from the sale of carbon credits in a voluntary carbon market was not high enough to induce participation. These landowners were hopeful a tax program for carbon management might be more in line with the level of compensation they would require for their efforts:

“But, there has got to be some financial benefit in this. Because we are both retired now, taxes keep going up, up, up. We aren’t going to be able to keep up with it—your pensions don’t go up like that.” ~ Superior

“And I consider myself a small time landowner with 40 acres. That is like a big yard in Northern Wisconsin. But I can see if you get into 100’s or 1,000’s of acres, than I could see it. With these figures that you gave us—\$10 - \$12/acre. Than that would be. It is like the small town dairy farmer doesn’t exist anymore, now you have to have 100’s and 100’s of cows—but they are making millions. But you can’t make it with just 15. And so I think that that is where it might end up. So, I would have to say that we are probably a 2-3 on your scale because I just don’t think it will be cost effective for us [unless it was a tax program].” ~ Superior

When considering the pre- to post-meeting interest levels of the group as a whole, the average interest level of these participants appeared to move in a positive direction. However, aside from those participants whose interest level rose if it was a tax program, participants cautioned that they would need more information before making any final assessments.

Landowner starting as a “2” and ending as a “4”:

“I would certainly be interested in pursuing it more, finding out more as everyone else is. Financial reward—not as important to us. That other question about whether or not it would beautify the forest or make it more useable.... I mean, it was fascinating walking through the forest with a professional forester. I mean, I knew what his purpose was, but he...like when you mentioned that bug that you saw in the woods... information like that. I would have never known that. So that kind of information and knowledge, to learn more about the land, would be very helpful to me. That would be a reward that would be very valuable to me as well.” ~ Superior

3.10.3. *Major Theme: some landowners are very interested in learning more*

In the Ontonagon focus group, the majority of landowners indicated their parting interest in carbon markets was pretty “middle-of-the-road.” While one landowner came to the meeting very interested in carbon market participation and left just as interested, all landowners indicated they would need more information on specific contract details in order to decide whether or not they would participate. Understandably, the intentionally vague and nonbiased presentation necessary for research purposes (i.e., description of typical project types and requirements) did not allow participants to weigh the costs and benefits of a specific contract. These landowners indicated they were very interested in hearing more about carbon offset projects but were not comfortable ascribing a rating to their current level of interest without being able to contemplate a specific contract or management project (including costs and payments). As one landowner stated succinctly—“If I look at a contract and I like it, I will sign it. If I don’t—I won’t.”

Very important to this group is a carbon market program’s ability to enhance the local community by providing jobs and related economic activity, as represented by the following comment:

"Local industry. Are my carbon credits going to Los Angeles, where they make the smog so thick you can't drive through it, or are they going to be staying here? So we can have an industry here that we can use—I want it to stay here. Where would the money be going? Will it help keep our power plants going here? Will it help the mining industry here? Or refining? Or whatever. The stuff that stays here." ~ Ontonagon

To a person, landowners in the Ontonagon group indicated they would like to know more about forest carbon offsetting and would appreciate the opportunity to get potential project specifics.

3.10.4. *Major Theme: timber-focused owners not interested unless compatible with timber management*

As mentioned previously, all participants in the Iron River focus group were managing their forest land for timber. While one landowner indicated they did not know anything about carbon offsets before the meeting (and ascribed a “1” rating to initial interest level) the other participants considered themselves extensively familiar with forest carbon offsetting. The landowners very familiar with carbon offsets felt their opinions toward them had not changed pre- and post-discussion. Both of these owners stressed that unless a carbon market program could be designed to coincide with their current timber management, they were not likely to be interested in participating.

“Well, I don’t think my opinion has changed a whole lot. I think I am interested but not that interested...For anybody that has bought property recently, this amount of money doesn’t even fit on their horizon. It isn’t even a drop in the bucket.” ~ Iron River

The other focus group participant who managed for timber was less satisfied with the current condition of their forest and described their parting level of interest in the following way:

“Well, in my case, I would say a 3. But I am not so interested in income off my property like these guys are. I am more interest in the development of my woods and the health of it.” ~ Iron River

To summarize, timber focused landowners stressed that many of the native hardwoods in their region are not suited to delayed-harvest, old-growth management scenarios. They also suggested that, going forward, it would be advantageous for entities certifying both carbon sequestration and timber management to work together:

“The thing up here, as far as bringing other species in, there hasn’t been a lot of success up in the UP....our native species tend to be about the best tree we have here. If this is going to be a successful program it has got to be timber management and carbon management together.....and maybe, managed by the same body. Because, as [landowner] said, if you are going to bring different certifications in, one for carbon sequestration and one for sound timber management, then you got another third party involved, and... Well, I think that is going to be a hard sell for a lot of people.” ~ Iron River

3.10.5. Major Theme: overall interest in forest carbon offsets increased

When grouping all participant round robin responses, 68% indicated they were more interested in managing for carbon offsets after the discussion than they were initially. When those that qualified their answers (i.e., for a tax program only) are counted, 76% of all landowner participants indicated their interest in forest carbon offset projects had increased. While the overall trend showed that landowners tended to become more interested in forest carbon offset participation upon receiving more information, this upward trend was slight for some (i.e., parting interest was still relatively low). Seven landowners (19%) indicated that their interest level had not changed pre- to post-meeting and three landowners (8%) indicated that their interest level had decreased upon receiving more information (raised to four landowners (11%) when changing “present management” qualifier).

Interestingly, some landowners who had high interest initially had very low interest after learning more, whereas others who initially had the lowest interest ratings had the highest interest levels upon learning more. This finding is in contrast to other studies that found focus group participants often gravitate more strongly to their initial opinions when their familiarity with a topic is increased (Leahy, Kilgore, Hibbard, & Donnay 2008). Increased familiarity with forest carbon offsetting did strengthen the initial opinions of several participants (19%).

Table 3 contains a listing of all focus group participants’ round robin interest ratings both at meeting start and end. Initial-interest rating refers to participant assessments of their interest in forest carbon offsetting prior to the focus group. Parting-interest rating refers to participants’ assessments of interest in forest carbon offsetting after receiving more information and parting from the meeting. The Likert scale used in the rating ranged from a low of 1 (“not interested”) to a high of 5 (“very interested”). Some individuals chose to rate their interest level as “inquisitive” or indicated they still had many questions (notated as “?”). In the parting interest levels, some individuals wanted to qualify their interest level (notated in parenthesis) or preferred to give a descriptor rather than a numeric rating.

Table 3: Landowners' round robin assessments of interest in participating in forest carbon offsetting.

Focus Group Location	Initial Interest Rating	Parting Interest Rating
St. Paul, MN	2	3
St. Paul, MN	3	4
St. Paul, MN	4	4 (1 if no credit for present mgmt.)
St. Paul, MN	4	1
St. Paul, MN	4	1
St. Paul, MN	0	4
St. Paul, MN	1	4
Superior, WI	Inquisitive	2-3 (Tax program)
Superior, WI	Inquisitive	Interested
Superior, WI	Inquisitive	Possibly (Tax program)
Superior, WI	Inquisitive	4-5
Superior, WI	2	4
Superior, WI	Inquisitive	Possibly (Tax program)
Cloquet, MN	2	3.5-4
Cloquet, MN	1	4
Cloquet, MN	3	1.5
Cloquet, MN	1	2.5
Cloquet, MN	2	4-5
Shell Lake, WI	?	5
Shell Lake, WI	?	4-5 (if MFL compatible)
Shell Lake, WI	1	3-4
Shell Lake, WI	3-4	5
Shell Lake, WI	3	5
Ontonagon, MI	2	3
Ontonagon, MI	1	3
Ontonagon, MI	1	3
Ontonagon, MI	3	3
Ontonagon, MI.	3	4
Ontonagon, MI.	?	More comfortable now
Ontonagon, MI	3	3
Ontonagon, MI	5	5
Ontonagon, MI	1	3
Ontonagon, MI	3	3
Ontonagon, MI	1	3
Iron River, MI	1	3
Iron River, MI	2-3	2-3
Iron River, MI	2-3	2-3

3.11. Putting it all together: comprehensive analysis findings

Study findings reported thus far have focused on the major themes, or consensus opinions, that emerged during the course of six focus group discussions with family forest landowners across the Lake States region. Major themes were determined based on the frequency certain opinions or ideas were expressed across all focus groups. Subthemes were considered to be potentially important issues mentioned by a few or sentiments groups appeared to share. Identifying and describing the consensus opinions (or themes) of FFOs toward forest carbon offset projects

provides important information for stakeholders interested in pursuing forest carbon sequestration and/or developing carbon policy.

Stepping back from detailed analysis (question to question), the data was examined as a whole to see if any patterns or linkages exist that could explain landowner decisions toward forest carbon offsets. Using the spreadsheet information, each participant's responses to key questions were followed through to their final assessment of interest in forest carbon offset projects. This allowed the data to be examined for consistent patterns in the decision making process.

3.11.1. *A consistent landowner decision pattern appears*

When landowner responses to all questions are examined, from ownership focus through to individual final assessments of carbon offset participation interest, a consistent pattern emerges (Figure 1). Many landowners initially entered the focus group meeting believing they were interested or not interested in carbon offset projects for a variety of reasons. Landowners may have been interested in carbon offsetting because they felt their current management/plans were consistent with carbon offset goals (e.g., old-growth forest) or would allow them to receive a return on their forest simply because they plan to keep it in a forested condition. Some landowners entered the meeting believing they were not interested in carbon offsetting because they disagree with the ethics of such programs (e.g., feel offsets allow corporate entities to bypass consequences of production). Still others came to the meeting unsure of how they felt about forest carbon offsets but interested in the topic and on a quest for additional information.

However, regardless of the initial attitudes landowners had toward carbon offset projects, their parting interest in pursuing offset projects appeared to be directly related to two important issues: (1) their attitude toward the “undertake activities in addition to BAU” requirement and (2) their opinions about the quality of their own forest land. An analysis of all focus group responses found that landowners who expressed the greatest interest in pursuing carbon offsets were not content with the quality of their forest land. These landowners wanted to improve their land's forest conditions and felt the nonmonetary benefits of carbon management and assistance provided by a carbon program could help them achieve their forest land goals. Such landowners had a positive view of the “in addition to BAU” requirement. They already wanted to make changes to their present management but most did not know how to go about making changes. These landowners felt a carbon market program would assist them in making changes that would improve the quality of their forest.

Those landowners who believed they had high-quality woodlands (old-growth, well-managed, timber focused) or were content with their forest “as is,” were much less interested in carbon credits once they received additional information. They were particularly averse to the requirement that carbon credit activities must be undertaken “in addition to BAU.” These landowners were not interested in changing their current management and did not appear to be incentivized by carbon market revenues that they considered to be low. Rather than selling carbon credits, these landowners indicated that they would be most interested in a tax program for carbon management—one that potentially would help to reduce the tax burden often placed on owners of high-quality forest land and provide a reward for their current management.

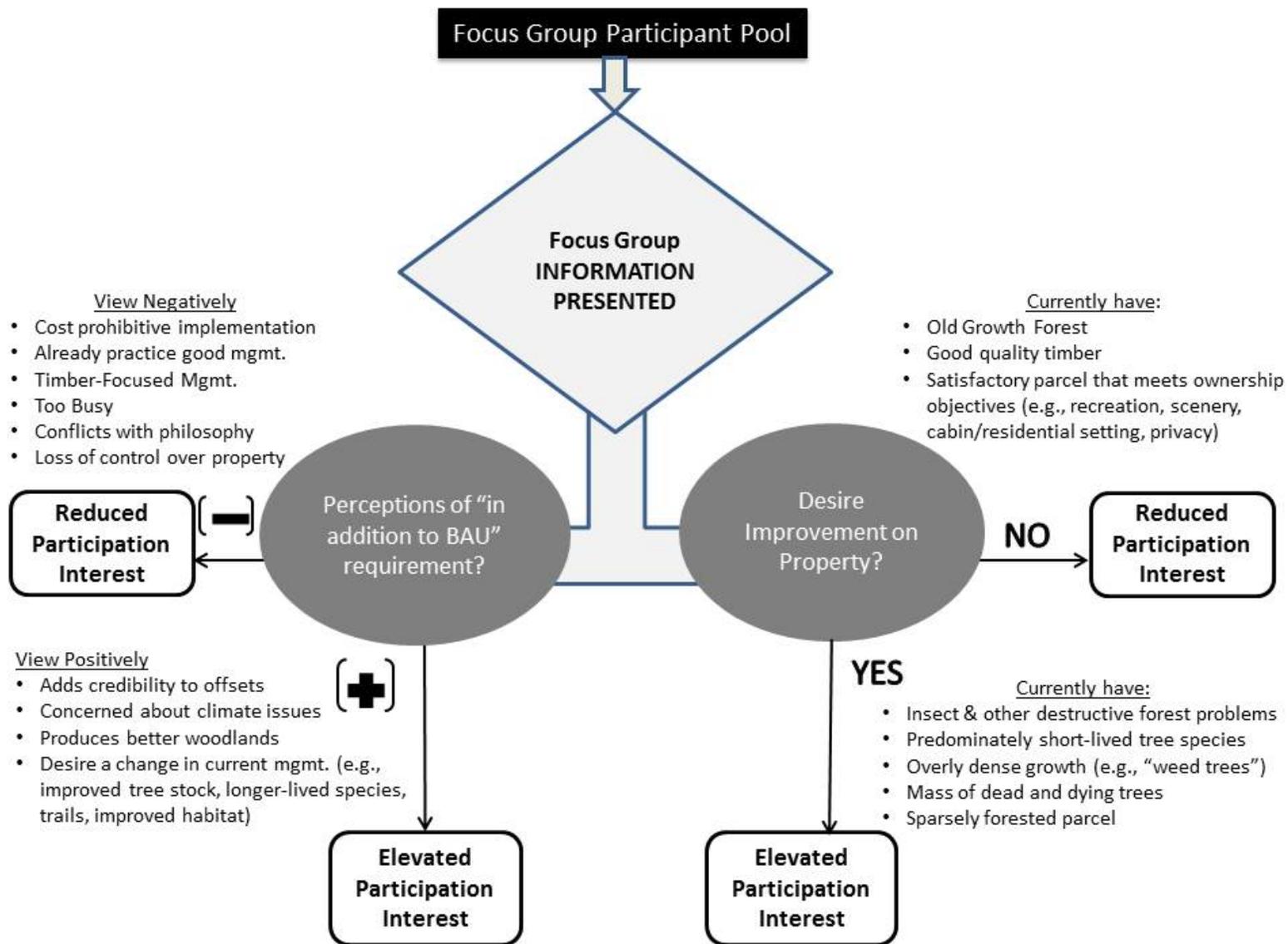


Figure 1: Conceptual diagram of landowner decision process when considering participation in forest carbon offset projects.

4.0. Concluding Remarks and Recommendations

In conducting this qualitative investigation of Lake State forest landowners' interest and attitudes toward forest carbon offsets, participants were purposefully chosen to represent a cross section of those landowners surveyed in the initial quantitative study. While all selected participants shared unifying attributes (i.e., owned forest land in the Lake States area and were willing to take part in a focus group), they also were carefully chosen to differ in certain characteristics such as the size of their parcel, ownership focus and overall interest in offset projects (based on the initial survey). The primary study objective was to gain greater insight on family forest landowner attitudes toward forest carbon offset projects and to test whether, given more information, landowners initial attitudes change.

One primary finding resulting from focus group discussions with forest landowners across the Lake States region is that many landowners are interested in forest carbon offset projects. However, while some landowners exhibit concern about excess carbon emissions and the effect it may have on climate change; this does not appear to be the driving force behind landowner participation interest. Landowners are most interested in the more tangible benefits they can attain through carbon management (e.g., improved stand-species mix, old-growth forest, wildlife habitat, and trails). As one landowner aptly stated:

“I would be interested in doing it but I don’t know if I would be doing it for the reasons that are being advertised....the carbon credits and the money part and all that. I don’t know, as far as small landowners go, if that is the priority for them or if it is more just trying to do the best we can with what we have.” ~ St. Paul

While landowners sincerely wish to be good land stewards, their interest in carbon management appears to stem more from how such management or programs could enhance other aims rather than a desire to reduce excess carbon. In essence, carbon market participation would be the vehicle by which other forest goals could be achieved.

Irrespective of the fundamental reasons why they are interested in carbon offsetting, family forest landowners could make important contributions to carbon reduction efforts. However, in order to induce participation, it would be important for those promoting carbon offset or carbon management program to understand the factors truly motivating this audience's forest management decisions. Successful carbon management programs would need to address sound forest sequestration techniques yet also provide landowners with assistance in achieving other tangible forest objectives. Carbon market revenue alone is not sufficient.

A consensus opinion across all focus group discussions is that landowners will need substantial professional forestry/program assistance if they are going to be able to participate. As these focus groups revealed, those most interested in participating are those who will need the most help. Landowners already practicing good forest management and feel competent in their management skills going forward are not likely to participate in a carbon market program. The possibility of receiving professional forestry assistance was found to be the most compelling reason landowners would want to participate in a carbon offset project. As voiced by one focus group participant:

“I would just be happy, if it didn’t cost me anything, to have a forester come out and say—you know what—if you would do this it would be better. I would do it. Just because.” ~ Shell Lake

It appears the key to successful carbon programs going forward is the ability to provide professional forestry assistance and other forestry support (e.g., loggers trained in carbon sequestration methodologies, landowner education programs) to willing FFO participants. If increasing carbon sequestration through forest carbon offsetting is a desired goal, the challenge would be to find economically efficient methods of providing needed assistance. In order to facilitate a more complete understanding of the potential supply of carbon credits that could be provided by the nation’s FFOs, it would be important to conduct an investigation of the types of carbon assistance that is currently available across the nation. Having such information will assist in determining whether forest carbon sequestration programs may be a viable response to the problem of global climate change.

5.0. References

- Bazeley, P. 2009. Analysing qualitative data: more than ‘identifying themes.’ *Malaysian Journal of Qualitative Research* 2:6-22.
- Bellenger, D.N., Bernhardt, K.L., & Goldstrucker, J.L. 1976. Qualitative research techniques: focus group interviews. In *Qualitative research in marketing*. Chicago: American Marketing Association.
- Bryman, A. & Burgess, R.G. 1994. *Analyzing qualitative data*. London/New York: Routledge.
- Butler, B.J. 2008. *Family forest owners of the United States*. U.S. Forest Service Gen. Tech. Report. NRS-27.
- Canadell, J.G., & Raupach, M.R. 2008. Managing forests for climate change mitigation. *Science* 320:1456.
- Creswell, J.W. 1998. *Qualitative inquiry and research design: Choosing among five designs*. Thousand Oaks, CA: Sage.
- Dickinson, B.J., Stevens, T.J., Lindsay, M.M., & Kittredge, D.B. 2012. Estimated participation in U.S. Carbon sequestration programs: a study of NIPF landowners in Massachusetts. *Journal of Forest Economics* 129-137.
- Ednie, A., and Leahy, J. 2006. Forest certification for northern Minnesota’s family forest landowners: knowledge, interest, and preferences for education. In *Proceedings, 2006 Northeastern Recreation Research Symposium*. GTR-NRS-P-14, 532-538.
- Galik, C., Mobley, M., & Richter, D. 2009. A virtual “field test” of forest management carbon offset protocols: the influence of accounting. *Mitigation and Adaptation Strategies for Global Change* 14:677-690.
- Gorte, R., & Ramseur, J. 2010. Forest Carbon Markets: Potential and Drawbacks. CRS Report for Congress. Congressional Research Service. Report 7-5700, 1-17. Online: www.crs.gov.
- Kingsley, N.P., Brock, S.M., & DeBald, P.S. 1988. Focus group interviewing applied to retired West Virginia private forestland owners. *North. J. Appl. For.* 5:198-200.
- Krueger, R.A., & Casey, M.A. 2009. *Focus groups: A practical guide for applied researchers*. 3d ed. Thousand Oaks, CA: Sage.
- Krueger, R.A., & Casey, M.A. 2011. PUBH 7250 Designing and Conducting Focus Group Interviews. University of Minnesota-Twin Cities. Spring 2011.

- Leahy, J., Kilgore, M., Hibbard, C., & Donnay, J. 2008. Family forest land owners' interest in and perceptions of forest certification: focus group findings from northern Minnesota. *Northern Journal of Applied Forestry* 25(2):73-81.
- Leatherberry, E. 2003. *Family forestland owners of the Lake States: timber harvest activities and implications for sustainable forest management*. Ontario Forest Research Group. Forest Research Information Paper #155, 53-55.
- Mangun, J.C., Throgmorton, K.W., Carver, A.D., & Davenport, M.A. 2007. Assessing stakeholder perceptions: listening to avid hunters of western Kentucky. *Human Dimensions of Wildlife* 12:157-168.
- Markowski-Lindsay, M., Stevens, T., Kittredge, D., Butler, B., Catanzaro, P., & Dickinson, B., 2011. Barriers to Massachusetts forest landowner participation in carbon markets. *Ecological Economics* 71:180–190.
- Merton, R.K., Fiske, M., & Kendall, P.L. 1956. *The focused interview*. Glencoe, IL. Free Press.
- Miles, M.B., & Huberman, A.M. 1994. *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Miller, K.A., Snyder, S.A., & Kilgore, M.A. 2012. An assessment of forest landowner interest in selling forest carbon credits in the Lake States, USA. *Forest Policy and Economics* 25:114-122. Online: <http://dx.doi.org/10.1016/j.forpol.2012.09.009>
- Morgan, D.L. 1997. *Focus groups as qualitative research*. 2d ed. Thousand Oaks, CA: Sage.
- Onwuegbuzie, A., Dickinson, W., Leech, N., & Zoran, A. 2009. A qualitative framework for collecting and analyzing data in focus group research. *International Journal of Qualitative Methods* 8(3).
- Pacala, S., & Socolow, R. 2004. Stabilization wedges: solving the climate problem for the next 50 years with current technologies. *Science* 305(5686):968-972.
- Richards, L. 2005. *Handling qualitative data*. London: Sage.
- Ryan, G.W. & Bernard, H.R. 2003. Techniques to identify themes. *Field Methods* 15(1):85-109.
- Simpson, H., & Li, Y. 2010. *Environmental Credit Marketing Survey Report*. Texas Forest Service Sustainable Forestry Department.
- Sohngen, B. n.d. *An analysis of forestry carbon sequestration as a response to climate change*. Copenhagen Consensus On Climate. Online: http://aede.osu.edu/sites/drupal-aede.web/files/AP_Forestry_Sohngen_v_2_0.pdf
- Thompson, D.W., & Hansen, E.N. 2012. Factors affecting the attitudes of nonindustrial private forest landowners regarding carbon sequestration and trading. *Journal of Forestry* 11-010:129-137.
- US EPA. 2005. *Greenhouse gas mitigation potential in U.S. forestry and agriculture*. Online: http://www.epa.gov/sequestration/pdf/ghg_part3.pdf.

Appendix A

Sample Landowner letter and Invitation

August 14, 2012

Dear [REDACTED],

Thank you for accepting our invitation to talk about your forest land and carbon offset projects. While we are not promoting carbon offset projects, we are very interested in hearing your opinion regarding them. Don't worry if you are not currently familiar with them, we will provide background information at the meeting. Your input will help to advance science and forestry research.

Attached please find a bulletin containing information on the meeting, along with a map to the West Iron County District Library in Iron River, Michigan. If you have any questions, please do not hesitate to give me a call.

If for some reason you are unable to attend – please give me a call or send me an email.

I look forward to meeting you!

Best Regards,

Focus Group Invitation

Forest Carbon Offsets



Topic:

Are Family Forest Owners interested in participating in Carbon Offset Projects?

We would like YOUR perspective!

You are invited to attend a meeting with a small group of family forest owners like yourself. We would like to hear what you have to say regarding your forest land and whether or not forest carbon offset projects fit with your ownership objectives.

Date: Tuesday, August 21th

Time: Noon – 1:30 PM (Local Time/CST)

Location: West Iron County District Library (see map below)

We will be meeting in the library conference room (please follow signs to forestry meeting).

We will be serving lunch from The Station during the meeting.
(Each participant (one/parcel) will also receive \$30.00)

Please join us!

Call [REDACTED] to participate.

This research project is funded by the U.S. Forest Service

Appendix B

Landowner clusters:

<p>Yes to WTA Highly Certain (7-10 rating) Yes to Meeting: 129 owners Maybe to meeting: 119 owners</p>	<p>Yes to WTA Medium Certainty (4-6 rating) Yes to Meeting : 41 owners Maybe to meeting: 83 owners</p>	<p>Yes to WTA Very Uncertain (1-3 rating) Yes to meeting: 11 owners Maybe to meeting: 22 owners</p>
<p>No to WTA Highly Certain (7-10 rating) 29 landowners (Yes to meeting) 73 landowners(Maybe to meeting)</p>	<p>No to WTA Medium Certainty (4-6 rating) 14 landowners (Yes to Meeting) 36 landowners(Maybe to Meeting)</p>	<p>No to WTA Very Uncertain (1-3 rating) 4 landowners (Yes to meeting) 16 landowners (Maybe to meeting)</p>

Appendix C

Focus Group Question Set

INTRO: I would like to start by having each of you tell us your name, where your land is located and the most important reason you own forest land.

QUESTIONS:

- 1) What do you feel are the greatest challenges to owning forest land and being able to enjoy it as you wish?
- 2) You were asked to attend this meeting to discuss Forest Carbon Offset projects. Had any of you heard of forest carbon offsetting or forest carbon credits before receiving our survey back in 2010? If so, how did you hear about it? [5 min]
- 3) When you hear the phrase Forest Carbon Offset Project, what first comes to mind? [5 min]

***** Forest Carbon Offset Presentation – 7-10 minute

- 4) Now that you've heard a bit more about forest carbon offset projects, is there anything about a forest carbon offset project that is different than you first thought? If so, what was different?

*****Show list (PPT slide) of 5 Typical Project
Requirements*****

- 5) What are your initial thoughts about the typical requirements of a carbon offset project? Are there any listed that are real deal-breakers for you? If so, why? [10 min]
- 6) Aside from allowing you to be able to participate in a carbon offset project, could some of these requirements provide other benefits to you? If so, which ones?

- 7) In many cases, managing for carbon will produce other non-monetary benefits to your forest land (e.g. improved wildlife habitat). Would these non-monetary benefits be as important, more important, or less important than the financial benefits of carbon management? Why?
- 8) In evaluating the responses to our survey, we found that a significant number of landowners indicated that they would be willing to participate in carbon offset projects for little or no compensation. Why do you think we got that response?
- 9) If, instead of selling carbon credits on the open market, landowners could participate in a tax program that gave landowners tax benefits/relief for practicing carbon sequestration management on their forest parcel, would such a program interest you?
- 10) ROUND ROBIN: On a scale of 1 – 5 (1=not interested at all; 5 = very interested) [5 min.]
 - a. Given what you knew about forest carbon offset projects before this meeting started, How interested were you in participating in Forest Carbon Offset projects?
 - b. Now that you have heard more about Forest Carbon Offset projects, how interested are you?
- 11) Is there anything important regarding forest carbon offset programs that you feel we have not touched upon today that you would like to discuss? [5 min]