MA Forest Conservation Practitioner Survey: Summary of Results

Information sources and tools for forest conservation (protection and stewardship)

Scott Jackson, Melissa Ocana, Ezra Markowitz, Lee Halasz & Nischal Neupane
UMass Amherst Extension & Department of Environmental Conservation

Project overview

UMass Amherst Extension research team received a four-year McIntire-Stennis Capacity Grant from U.S. Department of Agriculture to **study the resources used by Massachusetts organizations to assist with forest conservation decision making**.

The project focuses on tools and information sources (resources) developed to support forest protection (land conservation), forest stewardship (land management) and climate adaptation.

The study aims to understand **how these resources are used (or not used) by forest conservation practitioners**. We expect that our work will help inform future resource design and outreach, and ultimately improve the prospects for our forests.

The initial phase of the project involved conducting a **web-based survey of relevant practitioners.** Results of that survey are presented here.

Survey methods: Sample construction

The research team aimed to invite as many relevant practitioners as possible to complete the survey. We used a targeted recruitment approach that aimed to recruit diverse and broad participation from five key stakeholder groups:

Land trusts: The primary MassLand (Massachusetts Land Trust Coalition) contact for each MA land trust was invited to participate in the survey, and/or nominate other people from their land trust to do so.

Municipalities: Each MA Conservation Commission Chair was invited to nominate the most appropriate people from their municipality to participate. Also, an email was sent by the MA Society of Municipal Conservation Professionals to their contact list inviting nominations.

Private consultants: All MA licenced foresters were invited to participate, and almost all respondents who listed their primary organization as *Private consultant* were from this group.

Regional planning authorities: A land use/environment staff member at each RPA was asked to provide details for the most appropriate people in their organization to take the survey.

State government agencies: Key people at the MA Department of Conservation and Recreation, and the MA Department of Fish and Game, were invited to nominate the most appropriate people in their organization to participate.

Target information sources and tools (resources)

After extensive research and discussion, the research team identified ten existing information sources and tools that have been developed to guide forest conservation decision-making in (and beyond) Massachusetts. These resources were the focus of the survey:

- **Adaptation Workbook**/Forest Adaptation Resources (Northern Institute of Applied Climate Science/US Forest Service)
- **BioMap2** (MassWildlife & The Nature Conservancy)
- **CAPS** - Conservation Assessment & Prioritization System (UMass Amherst)
- **Climate Action Tool** (UMass Extension, MassWildlife, Northeast Climate Adaptation Science Center)
- **Forest Carbon:** *An Essential Natural Solution for Climate Change* (UMass Extension)
  - **Note:** Forest Carbon was only included in a version of the survey received by 60 of the 227 respondents, all of which were MA Licensed Foresters.
- **Increasing Forest Resiliency** *for an Uncertain Future* (UMass Extension, UMass Amherst)
- **MAPPR** - Mapping & Prioritizing Parcels for Resilience (Mass Audubon)
- **Nature's Network**, or its predecessor, Connect the Connecticut (UMass Amherst & US Fish & Wildlife Service)
- **NELF Explorer** - New England Landscape Futures (Harvard Forest)
- **Resilient & Connected Landscapes** (The Nature Conservancy)

General survey descriptives

We sent the survey to 783 individuals representing the five organization types. We received 227 complete survey responses, which represents a 29.0% response rate.

Respondent work focus: Participants were asked about the focus of their role in their primary forest conservation organization:
- Most work on **Forest protection and stewardship (51.1%)**.
- Some work only on **Forest stewardship (23.0%)**.
- Fewer work only on **Forest protection (12.8%)**.
- A reasonable number work on **Neither forest protection or stewardship (11.5%)**.

General survey descriptives

Participants were asked to respond to the survey from the perspective of the forest conservation organization that they are primarily associated with. We received responses from all the targeted organization types.

- **Land trusts**: 44 responses (19.4% of responses)
- **Municipalities**: 88 responses (38.8% of responses)
- **Private consultants**: 46 responses (20.3% of responses)
- **Regional planning authorities**: 9 responses (4.0% of responses)
- **State government agencies**: 32 responses (14.1% of responses)
- **Other**: 8 responses (3.5% of responses)

Resource survey response highlights

Survey respondents were asked a variety of questions associated with their use of each resource. BioMap2 was the most prominent resource by most measures.

BioMap2*:*
- was the resource with highest **awareness** and **use**
- had a high **proficiency** rating
- was considered the most **important** resource
- was the primary resource used associated with most **forest conservation goals*****
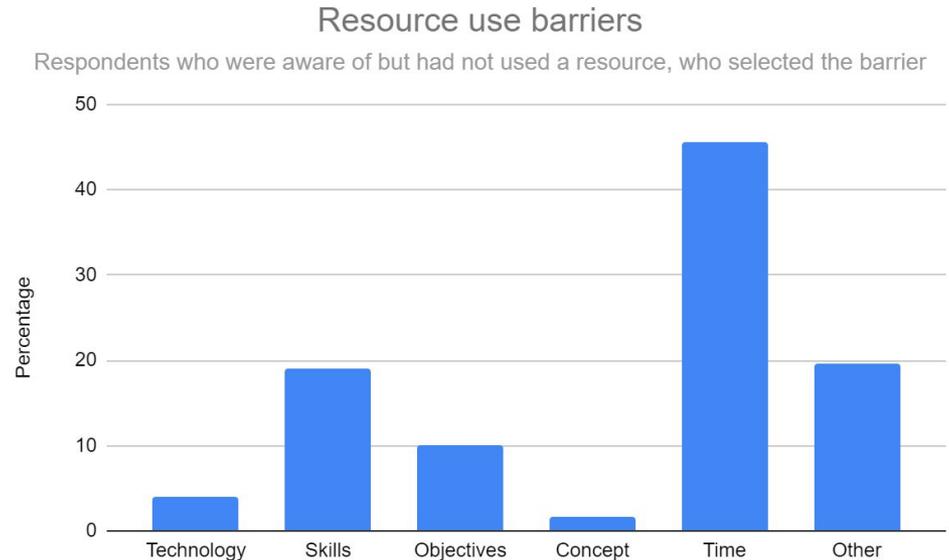
*****The forest conservation goals included in the survey were: *Rare species and communities conservation, Wildlife management, Landscape-scale conservation, Climate adaptation, Forest production, Forest diversity* and *Watershed management.*

Resource use barriers

Survey prompt: Respondents that were aware of but had not used a resource were asked why. Select all that apply. Options: *Lack of necessary technology* (Technology), *Lack of necessary understanding, skills or confidence* (Skills), *Not suited to organizational objectives* (Objectives), *Disagree with conceptual basis* (Concept), *Lack of time* (Time) and *Other.*

Response summary: ***Time* is easily the major barrier**, with *Other* and *Skills* also being main barriers. *Objectives* is a minor barrier. *Technology* and *Concept* were very minor barriers.

Note: Open-ended responses associated with ***Other*** were mostly related to the resource not being suited to the respondent's needs, or the respondent having other sources or methods that achieve the same or a similar purpose.

Resource use barriers

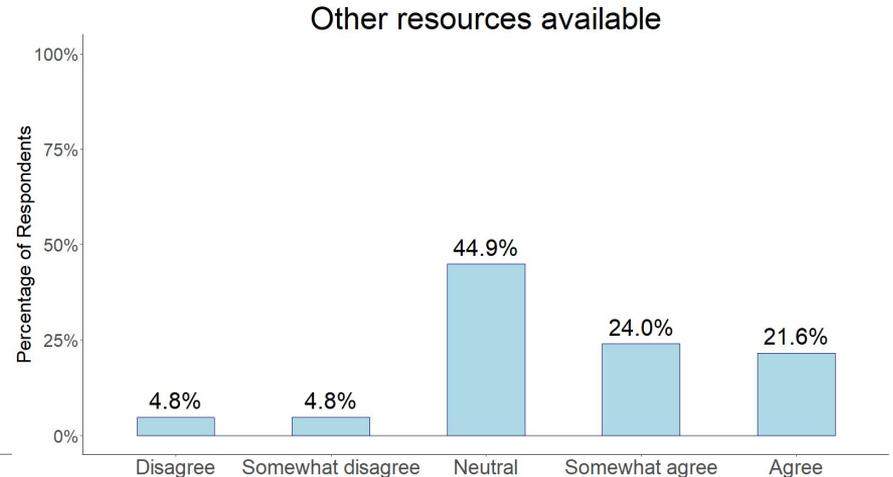Respondents who were aware of but had not used a resource, who selected the barrier
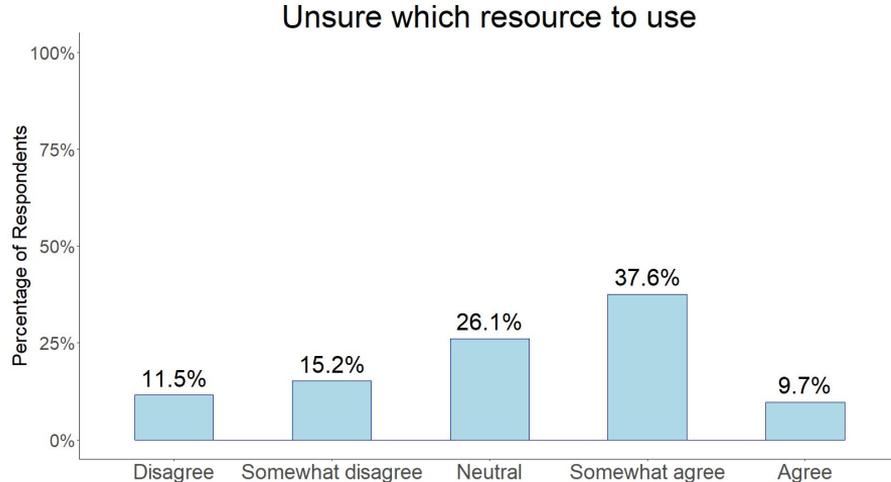
General resource questions

Survey prompt:

- I am unsure which of these resources to use.
- I would like other resources to be available.

Response summary:

- **Respondents are unsure which of these resources to use.**
- **Respondents would like other resources to be available.**

Unsure which resource to use

Percentage of Respondents

Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree
11.5%	15.2%	26.1%	37.6%	9.7%

Other resources available

Percentage of Respondents

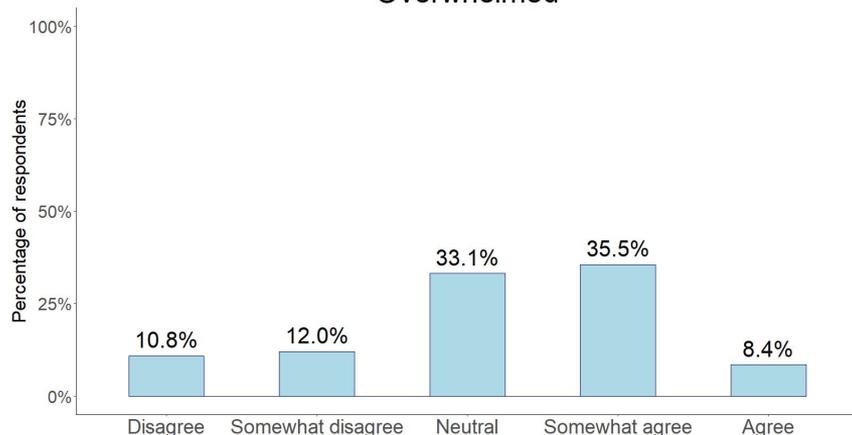| Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree
4.8%	4.8%	44.9%	24.0%	21.6%

General resource questions

- I feel overwhelmed by the number of resources available.
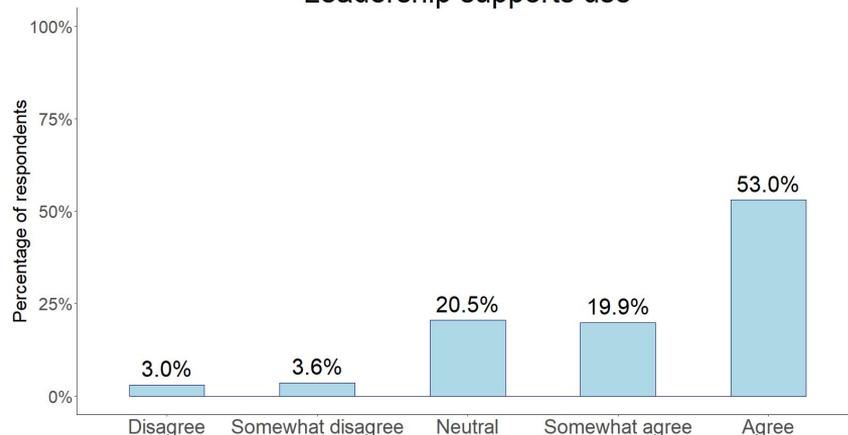- My organization's leadership supports the use of these resources.

Response summary:

- **Respondents feel overwhelmed by the number of resources available.**
- **Organization leadership supports the use of these resources.**

Overwhelmed

Percentage of respondents

Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree
10.8%	12.0%	33.1%	35.5%	8.4%

Leadership supports use

Percentage of respondents

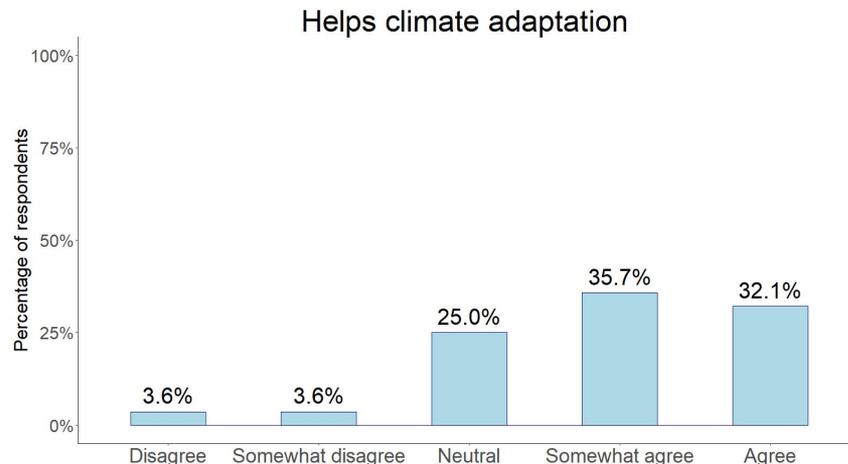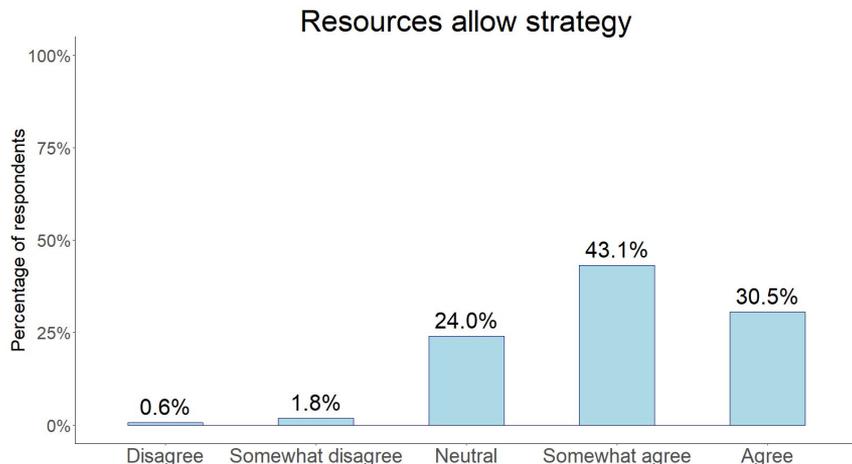| Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree
3.0%	3.6%	20.5%	19.9%	53.0%

General resource questions

Survey prompt:

- These resources allow me to be strategic and proactive in my forest protection and/or stewardship work.
- Data from these resources helps our organization incorporate climate adaption into our work.
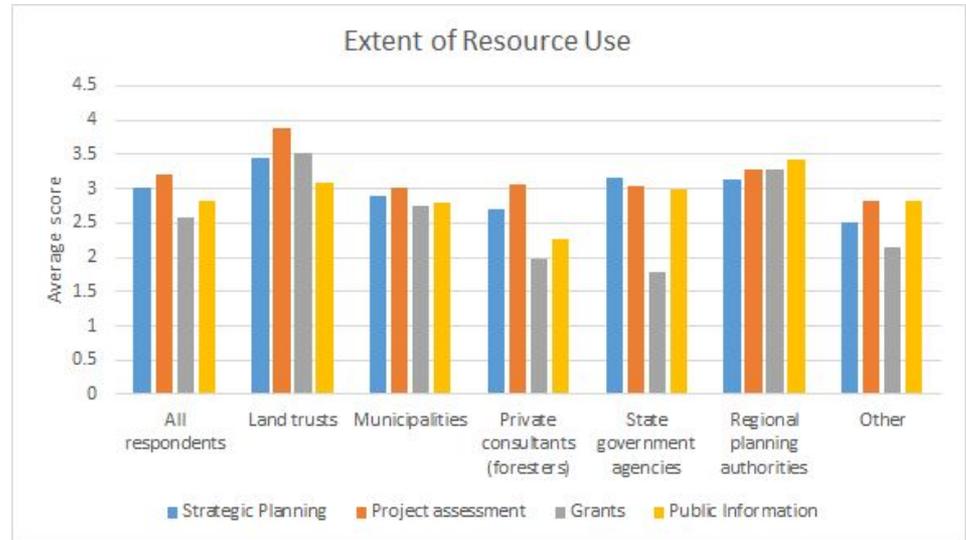
Response summary:

- **The resources allow respondents to be strategic and proactive.**
- **The resources help organizations incorporate climate adaptation into their work.**

Resources allow strategy

Percentage of respondents

| Disagree | Somewhat disagree | Neutral | Somewhat agree | Agree |
| 0.6% | 1.8% | 24.0% | 43.1% | 30.5% |

Helps climate adaptation

Percentage of respondents

| Disagree | Somewhat disagree | Neutral | Somewhat agree | Agree |
| 3.6% | 3.6% | 25.0% | 35.7% | 32.1% |

Resource use extent

Survey prompt: In your primary organization, to what extent do you use the resources for the following purposes? Options: *Strategic planning, Project assessment/selection/planning, Grant applications* and *Developing public information*. Options: *1 - Not at all, 2 - Minimally, 3 - Moderately, 4 - Considerably, 5 - Extensively.*
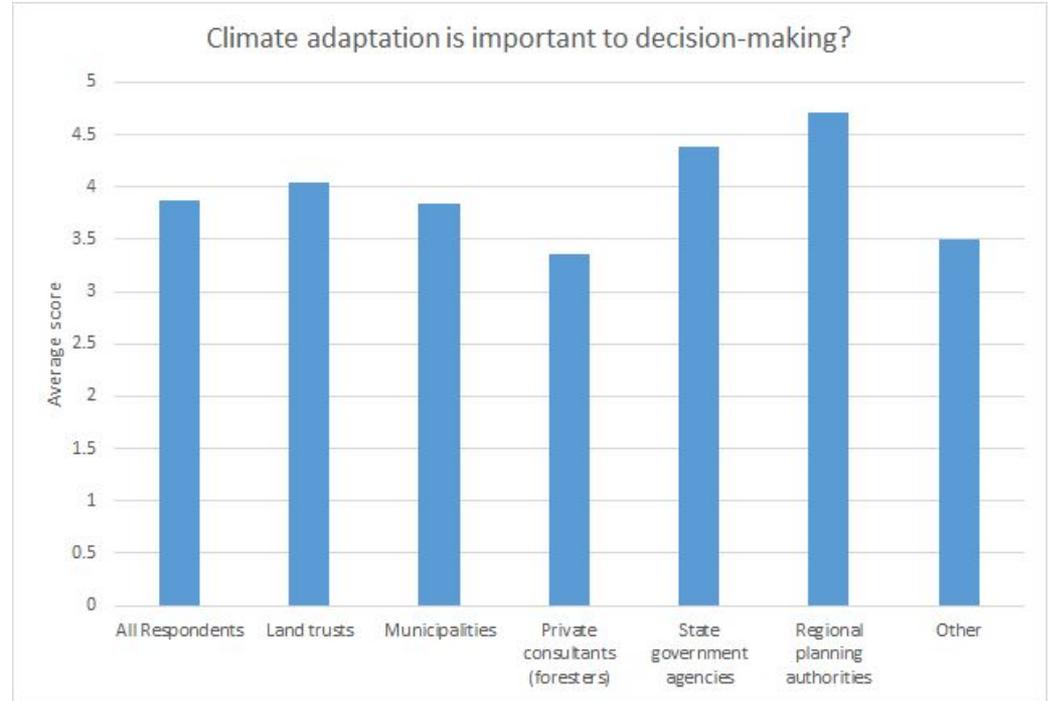
Response summary: **The resources were most often used for *Project assessment/selection/planning*,** followed by *Strategic planning,* then *Developing public information,* **and were used least for Grant applications** (though *Land trusts* and *Regional planning authorities* often used these resources for grant applications)**.**

Climate adaptation

Survey prompt: Respondents were asked if climate adaptation is an important component of their organization's decision making process: Options: *1 - Disagree*, *2 - Somewhat disagree, 3 - Neither agree nor disagree, 4 - Somewhat agree, 5 - Agree.*

Response summary: **Climate adaptation is an important component of all organization's decisions**, especially for *Regional planning authorities* and *State government agencies*, but least so for *Private consultants.*

Climate adaptation is important to decision-making?

Open-ended responses about similar resources used

Respondents were invited to indicate if they use a forest conservation resource other than the ten that were specifically included in the survey. If so, they were invited to elaborate about the resource:

- **The largest category of comments related to using MassGIS/Oliver**, or similar platforms.
- **Land trusts or similar organizations were also an important resource.**
- There were a wide variety of scientific data sources that were accessed.
- Various forest plans and handbooks, and similar resources were another significant category.
- General plans, especially municipal planning efforts, were another resource mentioned.

Open-ended responses about other resources desired

Respondents were invited to indicate any other forest conservation resources that they would like to have available:

- **Most comments related to wanting better access to and awareness of the resources included in the survey (and any other similar resources), and that the resources are updated.**
- Other comments were typically not strictly about a desired resource, and were more about the subject matter topic that is desired.
- There were several comments about wanting prescriptive forest management guidance, seemingly associated with climate adaptation.
- There were also several comments related to a need for better information related to forests and carbon.

Open-ended responses associated with forest conservation goals

Respondents were invited to outline any primary organizational forest conservation goals in addition to the options provided in the survey***.

Survey responses indicated several additional goal categories:
- **Wetland management**
- **Recreation**
- **Open space/land conservation** (perhaps independent of considering *Landscape-scale conservation*)
- **Forest stewardship** (perhaps in a broader sense than the options provided)

***The forest conservation goals included in the survey were: *Rare species and communities conservation, Wildlife management, Landscape-scale conservation, Climate adaptation, Forest production, Forest diversity* and *Watershed management.*

Thanks for your interest!