



Stakeholder Needs Assessment

10 YEAR SCIENCE AND PROGRAM REVIEW

Stakeholder Needs Assessment Workshop Summary

Forestry

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Alberta Room, Lister Centre, University of Alberta



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1.0 Introduction

In 2017, the Alberta Biodiversity Monitoring Institute entered its 10th year of formal operations. Over the past decade, the ABMI has developed valuable baseline data on biodiversity and land cover to support natural resource management in Alberta. Initial decisions about the ABMI's scope and direction were based on stakeholder feedback gathered between 2002 and 2006—a time when Alberta lacked a comprehensive biodiversity monitoring program. Ten years later, as part of the ABMI 10-year Science and Program Review, a series of stakeholder needs assessment workshops are being run again to collect feedback on the performance of the Institute to date and gather input on a range of emerging initiatives. This stakeholder input will inform decision-making on ABMI operations going forward.

2.0 Background

To formally engage its stakeholders across a range of sectors, this past spring the ABMI launched a 10-year Science and Program Review. The Review has two components: 1) a Science Review to evaluate the Institute's scientific framework and the extent to which it has delivered on its initial scientific objectives; and 2) a Stakeholder Needs Assessment to evaluate the range of products and services provided by the ABMI and how they meet stakeholder needs. The Stakeholder Needs Assessment primarily comprises a series of facilitated workshops, with a survey administered before each.

The Science Review and Stakeholder Needs Assessment receive strategic oversight from the Science Expert Committee and Stakeholder Advisory Group, respectively. Each committee is responsible for assessing the results of their respective review processes and developing a final report, which is then submitted to the Steering Committee overseeing the whole process. The Steering Committee will submit recommendations to the Board of Directors by March 31, 2018. The Board of Directors will then assess and prioritize those recommendations to guide future operations.



3.0 Pre-Workshop Survey

3.1 Summary

In the past ten years, most ABMI operations have focused on monitoring and reporting on the status and trend of Alberta's species, habitats, and human footprint across the province. The key output of this activity is the largest publicly available collection of environmental monitoring data in Alberta. We currently provide province-wide information on human footprint and land cover, and a range of data products, such as species abundance, on hundreds of Alberta's plants and animals. The pre-workshop survey was designed to assess the value and uptake by stakeholders of these particular data products.

The pre-workshop survey was distributed to six of nine stakeholder and partner groups engaged during the evaluation process prior to their workshops to support the workshop design process. The questions in the survey focused on the following ABMI products:

- Access to raw data
- ABMI Human Footprint Inventory (HFI)
- ABMI Land Cover Inventory (LCI)
- ABMI Biodiversity Intactness Index (BII)
- ABMI Species' Profiles

The questions were designed to first assess the general level of interest and/or need for the five product areas for work activities, regardless of where this information is accessed. The questions then tried to glean the level awareness of ABMI products, whether respondents utilize ABMI products to meet work activity needs, and why or why not.

The survey was completed by sixty-four individuals across six groupings arranged by the date of their workshop. Average time spent on the survey across sectors was sixteen minutes, and there was an average completion rate of 79%. The survey was only distributed to workshop invitees and, as a result, findings do not reflect the broad cross-sectoral needs of each group. These results will not be submitted to the 10-Year Review Steering Committee to use during their final evaluation and prioritization exercise.

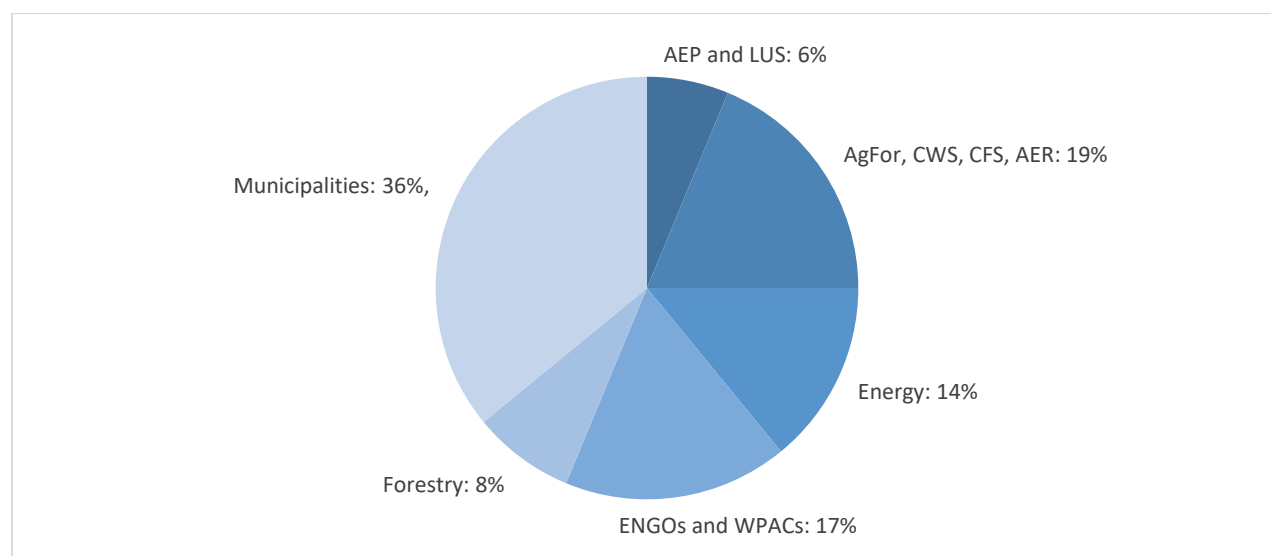


Figure 2 Percentage representation of which sectors responded to the pre-workshop survey out of a total of 64 respondents

3.2 Results

Five representatives from the forestry sector completed 80% of the survey in 22 minutes. Feedback suggested general information about human footprint, land cover, species abundance and species-specific information to be between “moderately important” and “very important” to work activities. Despite this, only 40% of respondents currently use ABMI HFI in their work activities (Figure 3), 0% access raw data, 40% use ABMI LCI (Figure 4), and 40% use ABMI BII (Figure 5).

Forestry Respondents

What is the general value of human footprint information to your work activities?

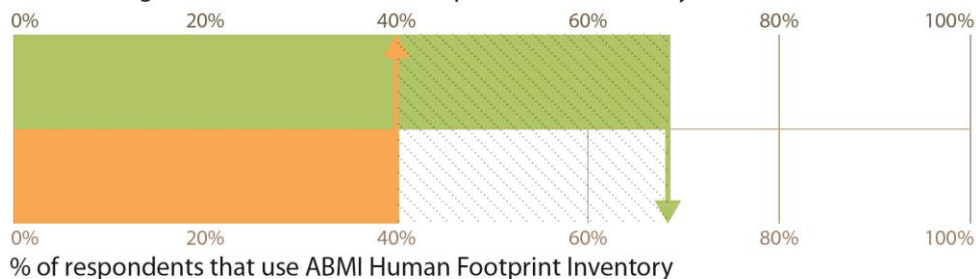


Figure 3. Value of general human footprint information compared to the % of respondents that use ABMI Human Footprint Inventory

Forestry Respondents

What is the general value of land cover information to your work activities?

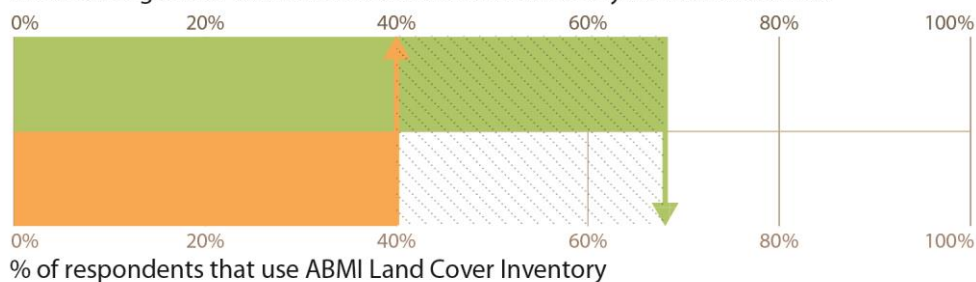


Figure 4. Value of general land cover information compared to the % of respondents that use ABMI Land Cover Inventory

Forestry Respondents

Importance of species abundance information for work activities

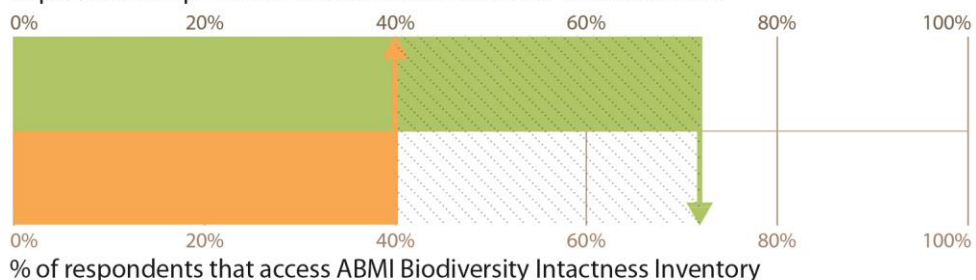


Figure 5. Value of general species abundance information compared to the % of respondents that use ABMI Biodiversity Intactness Index

Of the individuals that do not use ABMI FHI, LCI, or BII, there was varying levels of awareness of the products. Contrary to other groups polled, the forestry sector had a high level of awareness of ABMI products; 75% of respondents were aware of the HFI, 67% were aware of the LCI, and 100% were aware of the BII. Respondents were also asked to indicate whether or not, based on the brief information provided by the products in the survey, they now believed the product would add value to their future work activities. Only 25% of respondents believed the HFI would add value (Figure 6), 33% the LCI would add value (Figure 7), and 33% the BII would add value (Figure 8).

Forestry Respondents

% of respondents who don't use ABMI Human Footprint Inventory who were aware of its existence

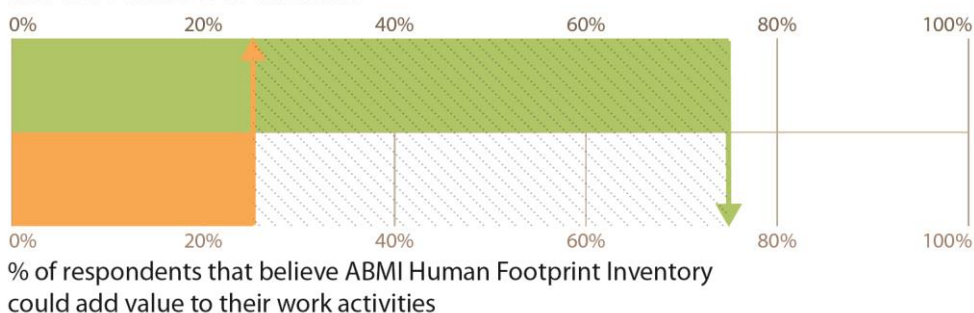


Figure 6. % of respondents not using ABMI Human Footprint Inventory compared to the % of respondents who believe it could add value to their work activities

Forestry Respondents

% of respondents who don't use ABMI Land Cover Inventory who were aware of its existence

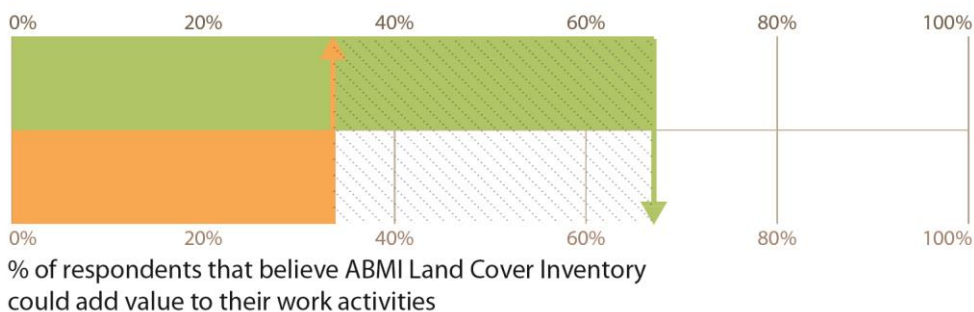


Figure 7. % of respondents not using ABMI Human Land Cover Inventory compared to the % of respondents who believe it could add value to their work activities

Forestry Respondents

% of respondents who don't use ABMI Biodiversity Intactness Index
who were aware of its existence

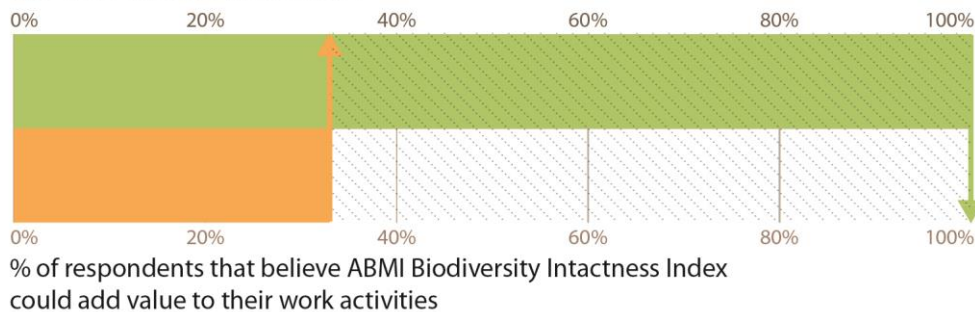


Figure 8. % of respondents not using ABMI Human Biodiversity Intactness Index compared to the % of respondents who believe it could add value to their work activities

4.0 Stakeholder Needs Assessment workshops

As a first step in developing the stakeholder needs assessment workshops, the ABMI identified various stakeholder groups to engage. These include groups with a historical relationship with the ABMI, as well as additional groups that would likely be interested in using ABMI data to meet their own strategic priorities. Representatives of each of these stakeholder groups were invited to join the Stakeholder Advisory Group (SAG) that oversees the Stakeholder Needs Assessment process. In turn, the SAG membership nominated specific individuals to participate in the workshop process. In total, 10 facilitated workshops were held over the fall of 2017.

4.1 Workshop objectives

The objectives for the 9 facilitated workshops were to:

- assess the ABMI's range of products and services, and the extent to which they meet stakeholder needs;
- understand stakeholders' current and emerging biodiversity information needs; and
- solicit feedback on the ABMI's products under development and how they address stakeholders' needs.

The workshops were designed to assess the value and limitations of the ABMI's core monitoring program, as well as emerging ABMI products and services, and the extent to which they fulfill stakeholder biodiversity information needs now and into the future. The objectives were also partially achieved by distributing a pre-workshop survey with specific questions designed to assess the value and uptake by stakeholders of the ABMI's core status and trend monitoring products (province-wide information on human footprint and land cover, and a range of data products, such as species abundance, species responses to human footprint, species habitat associations, and more, on hundreds of Alberta's plants and animals).

5.0 Workshop methods

This facilitated 5-hour session included:

- Part 1 – Background presentations
- Part 2 – Pre-workshop survey results review followed by question and answer period
- Part 3 – Needs and challenges facilitated discussion
- Part 4 – ABMI species monitoring and land surface monitoring
- Part 5 – ABMI innovation presentations and World Café

5.1 Who was there?

ABMI Stakeholder Needs Assessment workshops were targeted, sector-specific sessions. One of the goals of the workshops was to engage with as broad a cross-section of the sector as possible. This session's participants comprised five representatives from forestry companies, the Ministry of Agriculture and Forestry, and one consultant. Participants remained for the duration of the session.

5.2 What did the different sessions look like?

A) Background presentations

There were two presentations delivered by Tara Narwani:

- *Welcome and introduction to the review process*
- *ABMI structure, governance and evolution*

The presentations were designed to provide a background and rationale for the ABMI's 10-Year Science and Program Review, and a brief overview of the ABMI's core monitoring activities.

B) Survey results review followed by question and answer period

Prior to the workshop, participants were asked to fill out a survey administered online through SurveyMonkey. In the past 10 years, most ABMI operations have focused on monitoring and reporting on the status and trend of Alberta's species, habitats, and human footprint across the province. The key output of this activity is the largest publicly available collection of environmental monitoring data in Alberta. We currently provide province-wide information on human footprint and land cover, and a range of data products, such as species abundance, species responses to human footprint, species habitat associations, and more, on hundreds of Alberta's plants and animals. This survey was designed to assess the value and uptake by stakeholders of these particular data products.

Key results from the survey suggested:

- Strong awareness of ABMI products, but low uptake; range of issues presented.
- Relatively few respondents reported that a particular data type is "very important" or "extremely important."

C) Needs and challenges group discussion

Following a presentation of key survey results, participants were invited to contribute to a question and answer session. The ABMI posed the following questions to workshop participants in response to the survey results:

- What data/biodiversity information are extremely important to your work activities? Why?
- How can we increase uptake of ABMI data and information products? What are the current limitations that need to be addressed?

The discussion lasted approximately 45 minutes, during which facilitators encouraged discussion from all participants and recorded feedback to ensure no information was missed.

D) ABMI Species and Land Surface Monitoring

Following the discussion, there were two presentations designed to provide a more detailed synopsis of the ABMI's core monitoring and science activities to date:

- *ABMI Species Monitoring and Outcomes* – Jim Schieck
- *ABMI Land Surface Monitoring and Outcomes* – Jahan Kariyeva

E) ABMI innovation – World Café

In the afternoon, participants were asked to gather for a series of presentations regarding emerging ABMI products and services. The five ten-minute presentations were:

- *Science for caribou recovery* – Tara Narwani
- *Ecosystem services assessments* – Tom Habib
- *Knowledge translation* – Tara Narwani
- *Enhancing regional monitoring: WildTrax* – Corrina Copp
- *Creating a biodiversity network: from citizens to institutions* – Joelle Chille-Cale

After the presentations, participants were invited to visit associated stations set up in the foyer outside the room. Each station was marked by a poster reminding participants of products introduced in each presentation, and a knowledgeable ABMI staff member was present to answer questions. Workshop participants were invited to visit each station to provide feedback on the specific questions posed at each by recording information on a sheet of paper. The objective of the World Café session was to gather feedback from participants on each emerging ABMI product through the following questions:

- Is this tool useful to you and your work activities? (i.e., will it address the needs and challenges mentioned in the previous activity?)
- How could we tweak/modify this product/tool to better meet your biodiversity information needs?
- What do you see as the primary barrier to using this product/tool?

Feedback was recorded by participants on sheets of coloured paper, with a different colour representing each different station. The World Café session lasted about 50 minutes, and facilitators gathered the papers at the end of the session to ensure no responses were lost.

F) Closing

For the final moments of the workshop, ABMI staff thanked participants for their engaged attendance. Facilitators announced that pre-workshop survey results and a workshop summary would be shared as soon as completed.

6.0 Workshop summary

Feedback from each of the participant activities was synthesized and evaluated to draw out common themes under the banners of “Needs” and “Challenges”.

In addition, feedback on new and emerging ABMI products was tabulated (see below).

6.1 Needs

The “Needs” identified during the workshop fell into three broad themes:

- Collaboration
- GIS and monitoring information; and
- Communication

The data that make up these themes have been provided in brief in Table 1 – Summary of Needs.

Collaboration

A need for increased collaboration between the ABMI, forestry industry companies, and the provincial government was brought up at several points during the workshop. In addition, participants showed interest in the collaborative work done between the ABMI and AIPac.

GIS and monitoring information

Participants explained that to improve its uptake, ABMI data will need to be provided at a finer spatial resolution. They noted that their own data from their FMAs is at a much higher resolution. In addition, participants requested ABMI to release its seismic-LiDAR data so that it can be incorporated into their operational planning for restoration.

Communication

Visualization aids with easily digestible information to enable companies to share information with the public and their other stakeholders was identified as a need. In addition, participants requested that the ABMI regularly share updates about new and existing products and tools.

6.2 Challenges

In their responses, participants indicated that the challenges they face in meeting their biodiversity needs fall under two main themes:

- silos; and
- “unknown unknowns”

The data that make up these themes have been provided in brief in Table 2 – Summary of Challenges.

Silos

Lack of communication and information sharing between government, companies and the ABMI has led to duplication of effort, and frustration.

“Unknown unknowns”

Registrants recognized they have “unknown unknowns” with regard to environmental monitoring, but acknowledged an opportunity for the ABMI to demonstrate leadership by sharing with industry what is changing on the landscape, and what they should be monitoring to increase their social license to operate.

6.3 ABMI emerging products – Innovation

Participants provided feedback on five new and emerging products in the World Café. Below, we have categorized these for each product:

1. Enhancing regional monitoring: WildTrax

Of three respondents, two felt that this tool would be beneficial to work activities, for example for engaging with employees, hunters and other stakeholders. The third respondent simply said it presently would not support work activities. Respondents felt that although the ABMI seems to be on the right “trax” with this product, enabling download by species or specific area, and having broad-scale buy-in by many sectors such that users can access a larger database, will be important for its success.

2. From citizens to institutions: building a biodiversity network

Respondents had mixed feelings regarding the usefulness of this tool to their current work activities, ranging from “yes—it would be useful,” to “currently no it is not.” To get forestry company buy-in, one respondent suggested that a connection needs to be made to “how the information would get used to support some of the bigger management questions.”

3. Geospatial innovations

Of the two respondents at this station, only one uses ABMI geospatial data. The other noted that the data is “not accurate enough to meet [their] planning needs.” Higher spatial resolution and more attributes would be needed to increase use of these products.

4. Knowledge translation

Communications and knowledge translation were identified as one of the most important needs for this industry. Participants acknowledged the forestry industry needs to do more knowledge translation activities.

5. Science for Caribou Recovery

One respondent noted that they already do similar work in-house, and the other stated this would only be useful to their work activities if the GoA “buys into the concept of ‘recovery’ on Human Footprint and adopts it into their regional plans.”

7.0 Moving Forward

Throughout the session, our conversations highlighted areas where the ABMI can invest effort to continue to meet the needs of the forestry industry in Alberta. Results of the workshop will be incorporated into the Stakeholder Needs Assessment Report, and used by the 10-year Review Steering Committee to develop a series of recommendations for the ABMI Board of Directors. The Board of Directors will use these recommendations to make decisions about ABMI operations going forward. Your feedback is invaluable in helping to shape the ABMI's next ten years of operations. Thank you.

Theme	Data
Collaboration	Increased collaboration between various players in the province (ABMI, forestry companies, GoA); ABMI and AI-Pac convergence information collaboration; Government of Alberta buy-in; Gain industry trust to access their GIS data.
Communication	Visualization tools; Easily digestible information; Regular updates about changes to, and new ABMI products; Continuous engagement with stakeholders; Information on how to integrate data into process for sharing with stakeholders.
GIS and Monitoring Information	Species coefficients habitat types mapped throughout the province; Higher spatial resolution; More attributes available in Mapping Portal; GPS coordinates for site locations; Ability to input custom areas for analysis in Mapping Portal; ABMI to share seismic-LiDAR data

Table 1 Summary of needs

Theme	Data
Silos	Limited communication between GoA, forestry companies and ABMI.
"Unknown unknowns"	Uncertainty about important species to prioritize monitoring efforts for; Confidential site locations.

Table 2 Summary of challenges

Appendix 1 – Workshop attendees

Appendix 2 – Workshop notes

Appendix 3 – Workshop evaluation forms

Appendix 4 – Pre-workshop survey results

Appendix 5 – Workshop presentations

Appendix 6 – Workshop information package