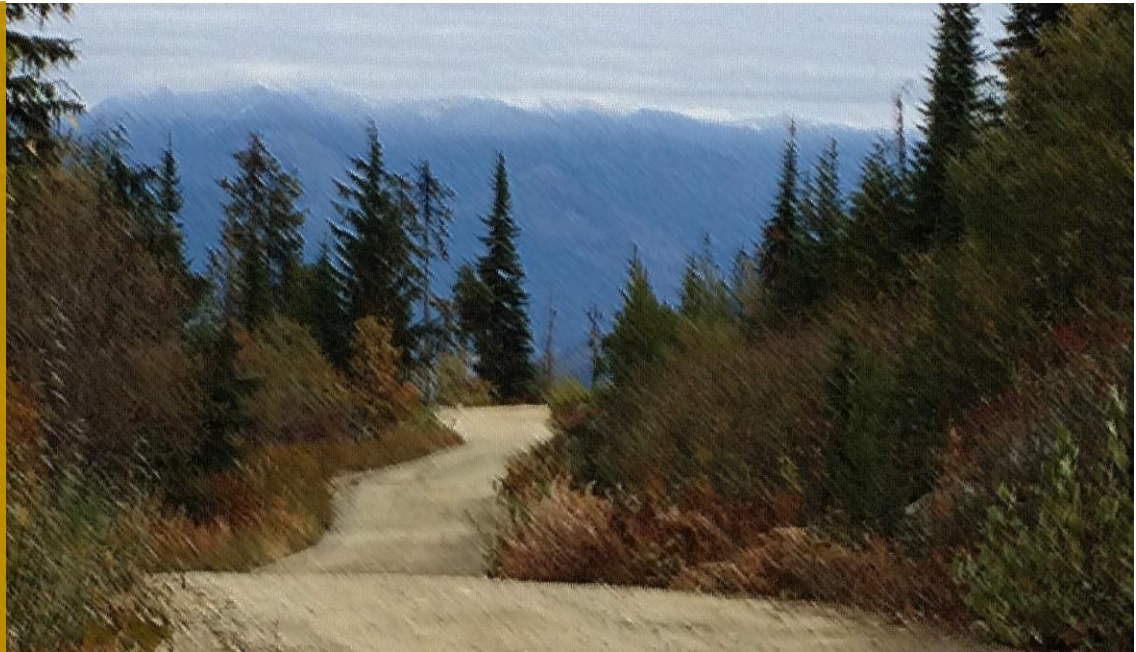


Initial Impressions: The Future of Forestry

Winter 2017



CLUSTER RESEARCH REPORT: Forestry



Introduction

The *Future of Forestry* project, part of the overarching [Regional Workforce Development in Rural BC](#) program, is focused on better understanding the fundamental issues facing the forest sector today. One of the project's objectives is to try and understand what the future of forestry looks like in British Columbia, with a particular focus on the Columbia Basin-Boundary region.

Between August and December 2017, 18 targeted interviews were completed with participants from the forest sector in the Columbia-Basin Boundary region of British Columbia (BC). Participants included representation from academic, government, industry, and other civil organizations (e.g., professional bodies). Participants were asked a range of questions related to their personal experience, the general state of the forest sector, training and education, and technology and innovation. Participants were asked to reflect on major changes they have seen in the sector, as well as their expectations for the future.

This document has two objectives:

- 1) To summarize the initial impressions of the BC and Columbia Basin-Boundary specific data; and
- 2) To provide these initial impressions to participants for their review and comment.

Findings: Areas of Focus

Throughout the course of the interviews four specific areas of focus were identified as relevant to the current and future state of forestry in BC. Each of these are discussed in detail below.

Climate Change

When participants were asked about the challenges facing the forest sector, climate change was the dominant response. The impacts of climate change were noted in both the present, particularly in relation to the 2017 wild fire season, and the future. Risk was a common element of these conversations, with participants noting the risks associated with the predicted impacts, including increasingly devastating wild fires, pests and diseases, changes to the timing and availability of water, and overall ecosystem uncertainty. Participants noted that the forest sector will have to adapt to these and other changes as a result of climate change, which will impact management decisions, particularly related to timber supply.

Climate change was also noted by participants in other responses beyond challenges. For example, in responses related to technology and innovation, climate change was noted as a driving factor around waste and emissions reduction. Climate change was also noted in relation to education and training, as an example of the importance of having a breadth of understanding of not only forestry, but related topics.

Technology & Innovation

Similar to climate change, technology and innovation was raised by participants in response to numerous questions. Beyond the specific interview questions that addressed this topic, technology and innovation was discussed by many participants in relation to the opportunities facing the forest sector, as well as in participants' descriptions of changes seen over their own careers. Of the technology and innovation related responses, there were three distinct groups of topics. Additional detail related to this topic can be found in the Technology and Innovation specific initial findings document.

First, technology and innovation was most often discussed relative to its impact on efficiency and production. Participant comments included the link between technology and innovation and decreasing cost, reducing waste, and enhancing accuracy of production. Comments most often related to planning and management, as well as processing.

Second, comments focused on the role of technology and innovation in gathering and analysing data, providing new information, particularly as it relates to planning and management. This conversation often included comments specific to resources, both in terms of information and human resources. For example, many comments noted the use of information related technology (e.g., remote sensing) as a tool to address data gaps, supplement field data, and target field crews where human resources are limited.

Third, comments linked technology and innovation to workforce, particularly around skills needs. It was noted that the changes in technology and innovation is influencing the skills and work experience employers need employees to have, and by extension, changing the size and makeup of the labour force. Comments also included the attitude and level of comfort of employees with respect to the implementation and use of new technology or innovative processes. Lastly, cost, and the cost of investments in new technology, were noted as having an influence on who employers were hiring, with experience being preferred, not only from a skills perspective, but a risk perspective.

Workforce

The overarching topic of the workforce was a prominent area of discussion across responses to the different questions. As noted above, new skills related to technology and innovation were identified by participants as changing the forestry sector workforce. However, workforce related comments went beyond the need for increased skill related to technology and innovation. The growing complexity, uncertainty, and integration of forestry in relation to the surrounding economy and environment was pointed to by participants as driving a need for a greater breadth and depth of understanding within forest sector workers. This included the need to see and understand ‘the big picture’. However, it was noted that this does not negate the need for specialization and depth of knowledge around specific topics. The need for both was identified as a challenge for education and curriculum, as well as for professional bodies.

There were many comments related to the makeup of the workforce. These included demographic factors (e.g., an aging workforce, attrition through retirement, loss of knowledge), as well as comments relating to where the jobs will be in the future and existing and potential gaps in the labour force. Some participant comments reflected the replacement of jobs with capital, but more common comments noted a shift in where workers are needed (e.g., from general labour to more specific skills sets). There were also comments reflecting a shift toward a more precarious, contractor based or seasonal workforce – one where who is responsible for investing in training and capacity building is increasingly unclear.

When asked what is needed in terms of education and training related to the forest sector the majority of participants pointed to so-called ‘soft skills’, particularly related to communication. Because of the growing acknowledgement of multiple uses and values on the landscape and the importance of engagement, participants felt that there was a need for greater emphasis on public speaking, conflict management, relationship building, and engagement and facilitation. This was noted as important related to all users, but often specifically in relation to building relationships with First Nations.

The motivations of participants for their work related to the forest sector most often reflected a desire to work in a sector that involved working outside. Other factors influencing the career choices of participants included the appeal of a complex subject, problem solving, hands-on work, and the influence of family and community. What is interesting is that these motivations were contrasted with what was often noted as a recruiting problem, a difficulty in drawing new people to the sector. Several participants noted that the perception of the industry versus the reality is pushing potential workers away, and that efforts are required to change this narrative.

Governance & Policy

Governance and policy was another area of focus that received much attention in the interviews. First and foremost were comments related to timber supply and the need for change in how the annual allowable cut is calculated, as well as reform to the tenure system itself. While participant comments differed in terms of how they believed this could be accomplished, the overarching message was that contextual and environmental changes mean we can no longer continue to take the same approach.

Next, there were multiple comments relating to the impact the shift to Professional Reliance and other policy changes (e.g., appurtenance) has had on the sector. Many participants felt

that changes are needed to the current professional reliance system, although there was a wide range of opinions as to the type and depth of the alterations needed.

The changing context of forestry governance as it relates to First Nations was noted by nearly all participants, particularly in light of the adoption of the United Nations Declaration on the Rights of Indigenous Peoples. Comments related to decision making and power were common (see Power section below), in relation to First Nations, but also related to multi-value management generally.

Findings: Overarching Themes

Beyond the specific areas of focus discussed above, there were also five overarching themes. These themes cut across the questions asked and the areas of focus, indicating the importance of these themes for consideration across the sector.

Uncertainty & Complexity

The theme of uncertainty and complexity was found throughout participant responses. There was an overarching sense that the complexity of the forest sector and its socio-economic and environmental interactions is increasingly being recognized. It was also evident to participants that conditions are evolving, which, combined with unknowns like climate change as well as unintended consequences of past actions, makes for even greater uncertainty. Examples provided included climate change, trade agreements, changing technology, and many others. Interviewees acknowledged that it is impossible to wait for certainty prior to making decisions, but that there is a need to better account for complexity and uncertainty by decreasing fragmentation in policy and management, as well as through addressing knowledge gaps and accounting for cumulative effects.

Communication & Engagement

As noted in the Workforce section above, the importance of communication and engagement skills was widely mentioned by participants. Comments also expanded beyond simply the skills aspect, with participants underscoring the importance of factors like trust, relationships, social licence, and collaboration related to the forest sector. Universally, participants stated the importance of dialogue and engagement related to forest management, while acknowledging the difficulties of doing so in practice within the context of the existing regulatory environment and resource limitations. The role that history, values, culture, experience, education, expectations, and perception play in influencing communication and relationship building was noted by several participants. The accessibility (or perceived accessibility) of sector representatives, government or industry, was remarked as critically important in terms of fostering positive (or negative) relationships with other stakeholders. While many participants spoke about communication as a two-way conversation, there were a minority of participants who addressed communication within the forest sector as a one-way public education exercise.

Power

As discussed in the governance and policy section above, participants specifically highlighted the importance of the changing role of First Nations in governance. Several other general comments were made relating to ownership and management, with participants discussing consolidation of power within industry and policy changes that shifted where the balance of power is held. It was noted by several participants that who holds the decision making power

versus who is held accountable for decisions by the public is not necessarily the same individual or agency. This links to communication and engagement, where some participants remarked that, while there is an increased drive to account for multiple values and uses, this does not translate into power sharing or co-management, with decision making authority consolidated with a small group. Such power dynamics were linked to conflict and a lack of trust as well.

Resilience & Sustainability

Participants often framed their responses and comments in relation to the future of the sector, noting those things they believed were needed in order for the sector to be viable. Chief among these was the need to identify new products and to target new markets. Many participants felt it is important for the longevity of the sector to increase the value of the outputs, not simply the volume. Several participants noted that change in policy and programs could help support development of new products and markets, particularly related to the use of residual fibre – which was by far the most oft noted potential product area by participants.

Resourcing

Lastly is the overarching theme of resourcing. Shortages in resources, both financial and human, were noted in the majority of interviews. Many participants identified different strategies to address these shortages (e.g., use of technology), however despite best efforts, gaps remain, particularly in the public sector. Several interviewees noted the potential benefit of investment in the future of the forest sector, and the necessity of this investment, as opposed to cost cutting.