



Research

Regionalizing the sustainable development goals: interpretations of priorities and key actors for creating sustainable island futures

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ABSTRACT. The 17 United Nations sustainable development goals (SDGs) are an important step in defining what sustainable development looks like in practice. However, to make concrete progress toward the SDGs, it is essential to understand how they are perceived and can be acted upon locally or regionally. In this study, we draw on survey and focus group research carried out in Newfoundland and Labrador, on the east coast of Canada, to analyze how the SDGs are interpreted in a regional context. Our research questions are as follows: Which SDGs have the highest salience for participants and may be leveraged for sustainability policy and practice? Which political actors are seen as having the capacity to implement the goals into policy and practice? Sustainable development goals aligned with economic sustainability are emphasized and seen as particularly important. However, economically oriented SDGs are viewed as compatible with a broad range of SDGs. Overall, respondents view the provincial government as the most salient actor with the capacity to implement sustainability policy and practice for the region. However, despite its perceived importance, participants assess provincial government performance very poorly regarding SDG implementation. In terms of the governance dimension of sustainability, our results highlight the importance of attending to the roles of mid-level political actors, as well as their relationships with national and local/municipal governments, in pursuing regional sustainability.

Key Words: *Canada; governance; local; sustainability; sustainable development; sustainable development goals*

INTRODUCTION

Implemented in 2015, the *2030 Agenda for Sustainability* was an essential step in addressing long-standing critiques of sustainable development as too abstract and nebulous (Griggs et al. 2014, Norström et al. 2014). The articulation of 17 United Nations sustainable development goals (SDGs) sketched a blueprint for a sustainable future that addresses a variety of challenges humanity faces, including poverty and hunger, social inequality, peace and justice, climate change, and economic growth. Although some observers remain skeptical about the utility of the SDGs, the 17 goals come closer to defining and concretizing what sustainable development looks like in practice (Lim et al. 2018, Santika et al. 2019, Singh et al. 2021). In this study, we draw on survey and focus group research carried out in Newfoundland and Labrador, on the east coast of Canada, to explore how the SDGs are interpreted in a regional context. It is important to examine how the SDGs are interpreted and adopted at the national, regional, or local level because although the 17 goals are meant to be complementary, they are not a unified, coherent package. Rather, they embody many potential interactions and trade-offs that need to be navigated by decision makers in specific contexts (Pradhan et al. 2017, Horn and Grugel 2018, Nilsson et al. 2018, Lusseau and Mancini 2019, Bennich et al. 2020). We discuss sustainability with an emphasis on its multi-dimensional nature and the interactions among these dimensions. In the horizontal dimension, we study sustainability as a synergy of, but also with potential tensions between, economic, environmental, social, and institutional/governance dimensions. In the vertical dimension, we study sustainability in a multi-level political sphere and highlight the importance of mid-level political actors in translating sustainability policy and practice.

The context for our data collection is important for considering how interpretations of the SDGs align with the dimensions of full-spectrum sustainability. Our survey and focus groups were

conducted in 2020-2021, during which time Newfoundland and Labrador was in an ongoing financial crisis driven by two major issues. First, the province's mega-hydro project Muskrat Falls was excessively over budget and behind schedule. Despite early optimism about the project as force for economic development, it has become an economic burden to the province and ratepayers. The Muskrat Falls project has been labelled a "boondoggle" (Roberts 2016) and subject to a public inquiry due to governance failures (Stoddart et al. 2021). Second, as a heavily oil-dependent region, the province was hit hard by global oil price volatility, which dramatically reduced oil royalty revenues. The province is facing difficult questions and decisions about economic sustainability (Bedford 2020, Stoddart et al. 2021). In this context, we expect to see higher salience among our research participants for SDGs that are strongly related with the economic dimension of sustainability. This leads to our first research questions: Which SDGs have the highest salience for participants and may be leveraged for sustainability policy and practice? Is the economic dimension of sustainability viewed as a higher priority over, or as complementary to, other dimensions in ensuring a sustainable future for the region?

The SDG framework evolved within the framework of "Rio Environmentalism," a term used critically by Park et al. (2008) to refer to the centrality of the United Nations and the Rio Declaration to a globally oriented program for social-environmental change. According to critics like Park et al. (2008) and Dimitrov (2020), the international institutions and political arenas of Rio environmentalism have largely failed to deliver on the promise of sustainable development as a global eco-political project. For critics, the limited capacity of international institutions for policy making and implementation is part of this failure (Dimitrov 2020), as is the inadequacy of conventional interstate regime approaches to global environmental governance (Park et al. 2008). The SDGs are promising because they offer

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more clearly defined goals and pathways to sustainability than earlier versions of Rio environmentalism. However, the process of translating SDGs into local or regional policy and practice is essential to successfully implement the SDG framework and to avoid the failures of previous iterations of Rio environmentalism. To make concrete progress toward the SDGs, therefore, it is important to understand how they are perceived and can be acted upon locally or regionally (Hilson and Maconachie 2020, Szetey 2021, Tandrayen-Ragoobur et al. 2021). This is important for adapting global sustainability ambitions to fit local needs and considerations. As such, we also focus on the issue of political scale and ask our second question: Which political actors are seen as having the capacity to implement the goals into policy and practice? An analysis of policymakers' activities to do the work of translating the SDGs, i.e., a focus on the policy process, is beyond our scope. Rather, we are interested in which institutions and political actors our research participants see as essential to doing the work of translation. Our results contribute to an emerging literature on the social dynamics that shape processes of translating the SDGs.

Overall, our results indicate that (consistent with expectations) SDGs aligned with economic sustainability are emphasized. However, economically oriented SDGs are viewed as compatible and consistent with a broad range of SDGs and the full spectrum of dimensions of sustainability. In other words, economic sustainability is not seen as a trade-off with other dimensions, but as connected with other dimensions of sustainability. Furthermore, by attending to political scale and actors, our results provide vital insight on the institutional/governance dimension of sustainability. Respondents tend to view the provincial government as the most salient actor with the capacity to implement sustainability policy and practice for the region. However, despite the perceived importance of the provincial government, participants assess its performance poorly in relation to implementing the SDGs.

THEORETICAL FRAMEWORK

Several researchers provide analyses of the synergies, or co-benefits, and trade-offs across the different SDGs, for example between SDG goals for climate action, inclusive development, reducing social inequality, or ensuring ecological integrity of oceans (Lim et al. 2018, Singh et al. 2018, Nerini et al. 2019). However, localizing the global agenda, i.e., making it relevant to local communities and integrating it into policy and practice, is necessary to connect the SDGs more effectively with regional needs, capacities, and action (Schmidt et al. 2021, Szetey et al. 2021). In their meta-analysis of the literature on SDG interactions, Bennich et al. (2020) found that most research has focused on policy integration and coherence, and there is a need for more research on how the SDGs are contextualized in different geographic scales, as well as more attention to the diverse "actors responsible for implementing the SDGs" (Bennich et al. 2020:12). Attention to how the SDGs can be strategically localized is important because this provides opportunities to integrate valuable local knowledge, to address social barriers of "skepticism in top-down planning and change," and to increase the chances of successful implementation (Szetey et al. 2021:16). As such, it is important to study the varying interpretations among decision makers and publics regarding perceived trade-offs and synergies

between the different SDGs, as well as priorities among the SDGs, all of which may be influenced by regional or local social dynamics (Horn and Grugel, 2018, Guan et al. 2019, Szetey et al. 2021, Tandrayen-Ragoobur et al. 2021).

Researchers have examined how the sustainable development goals might be localized and translated into policy and practice. Schmidt et al. (2021) focused on Portugal and found a leading role for municipalities in identifying priorities and indicators that can be used to implement the SDGs. For example, they highlighted cycling path infrastructure, renewable energy conversion and CO₂ emissions reductions for city buildings, and issues of water use and wastage as key priorities for action toward the SDGs at the municipal level. Moore and Woodcraft (2019) examined community-level interpretations in East London and found that community members prioritized the security of livelihoods and housing as measures of prosperity and social sustainability in the face of neighborhood gentrification, increasing house prices, and job instability. Others highlighted the possibilities to leverage local tourism development to advance the SDGs (Gössling and Hall 2019). Grilli et al. (2021), for example, found that as small island developing states (SIDS) cultivated sustainable tourism, there were local co-benefits that also made progress toward the SDGs. This includes protection of coral reefs and other natural habitats, as well as urban planning that better protects cultural heritage.

A global view without considering local imperatives can obscure the tensions between competing demands across SDGs, which can be difficult to reconcile at the level of regional or local policymaking, such as between ensuring energy access (SDG7) and climate action (SDG13; Adenle 2020, Tàbara et al. 2020). However, by attending to the local level, we see how innovation involving entrepreneurs, NGOs, and other stakeholders might create win-win micro-solutions that simultaneously help ensure community energy security and low-carbon energy transitions (Tàbara et al. 2020). These win-win innovations can also provide social support and help diffuse "transformative" narratives that challenge forms of climate inaction that are rooted in economic anxieties (Hinkel et al. 2020). Similarly, Adenle (2020) examined the uneven uptake of solar energy development in Ghana, Kenya, and South Africa. He concluded that solar energy development has the potential to reconcile competing demands for expanding community energy accessibility (SDG7) and climate action (SDG13) in ways that are locally relevant.

Our analysis is also informed by the full-spectrum sustainability framework (Stephenson et al. 2019, Foley et al. 2020). Developed through fisheries research, full-spectrum sustainability emphasizes the interdependence of four dimensions of sustainability: environmental, social-cultural, economic, and institutional or governance. Although the first three dimensions of environmental, social-cultural, and economic sustainability are commonly invoked in "three pillars" approaches, we agree with Foley et al. (2020) that sustainable institutions and processes of governance, including institutionalized "good management structures, effective decision-making approaches, and legal obligations," are a vital fourth dimension that ensures the other dimensions (Foley et al. 2020:1). The full-spectrum sustainability framework is well aligned with a cross section of the SDGs (Foley

et al. 2020). At the same time, the emphasis of this framework on institutional or governance sustainability helps address the criticism that the SDGs are insufficiently attentive to the transformations needed in governance or planning processes to make progress on meeting the SDGs (Singh et al. 2021). For example, Singh (2020) argued that although the SDGs have successfully defined what sustainable development should look like, they largely remain a “destination without a clear path” in terms of providing guidelines around which goals should be prioritized in a particular context, or which political actors or institutions should be responsible for strategic implementation of the SDGs. Governance issues are important, but also particularly tricky because making progress across the SDGs “forces engagement and debate across government departments, something that in many jurisdictions is very rare” (Nilsson et al. 2018:1495).

Relatedly, governance processes are spaces for carrying out the necessary translation from the global framework of the SDGs into national and subnational policy and practice. Using the case of Indonesia, Sanders et al. (2017) invoked this concept of “translation,” which is rooted in actor-network theory (ANT), to analyze the contested processes whereby global eco-political projects like REDD+ are made comprehensible and actionable for subnational and local political actors. For Sanders et al. there is a top-down process of translation whereby the objectives of REDD+ are integrated into national and subnational policy and planning, but there is also a bottom-up process of translation in which local interests and needs can be mobilized and used to shape decision making at national levels. This concept draws our attention to how different political actors engage with the SDGs.

Andrews et al. (2021) demonstrated the importance of the governance dimension of sustainability in their overview of tensions between oil development and fisheries in coastal zones. As communities pursue livelihoods and economic development opportunities through oil extraction and fisheries (as well as other modes of development), the result is often a “coastal squeeze” that has negative impacts on long-term environmental and social sustainability for coastal communities. As such, effective governance for coastal and ocean spaces is essential to mediating among competing interests and achieving SDG 14 (Life Below Water). Singh et al. (2021) focused on coastal systems and offered an integrative governance approach, which they argue is necessary because coastal zones are particularly subject to “direct and more complex tradeoffs and co-benefits” across SDGs (Singh et al. 2021:2). Similarly, Nilsson et al. (2018) used the examples of SDGs related to oceans and energy to highlight the importance of governance for determining whether policy implementation creates synergies across SDGs, or conversely whether it amplifies the trade-offs between different SDGs.

We extend this literature by examining stakeholders’ perceptions about the SDGs and political actors in implementing the goals in the case of Newfoundland and Labrador. As such, our results help us better understand the influence of regional context in shaping stakeholders’ views of SDGs, as well as the social factors that may facilitate (or impede) the translation (Sanders et al. 2017) of the SDGs into action at the regional or local scale.

METHODS

In their meta-analysis of literature on SDG interactions, Bennich et al. (2020) noted that the majority of this research is based on document analyses or conceptual modeling using scientific literature as data sources. They conclude that SDG research would benefit from greater use of participatory methods (e.g., interviews, surveys, focus groups), which draw on expert and stakeholder knowledge. Our study helps address this knowledge gap. We carried out an online survey with 109 stakeholder participants, followed up by three focus groups with a sub-set of 15 of the survey participants. This project is nested within a broader multi-team project, “Sustainable Island Futures,” which examines interpretations of (and relationships among) multiple dimensions of sustainability, including how the SDGs are interpreted and implemented at regional and local scales (Randall 2021). The Sustainable Island Futures project includes 12 case study teams working across 6 small island states (Cyprus, Grenada, Iceland, Mauritius, New Zealand, Palau, and St. Lucia) and 6 subnational island jurisdictions (Guam, La Réunion, Lesbos, Newfoundland and Labrador, Prince Edward Island, and Tobago). We focus our analysis on the subnational case of Newfoundland and Labrador. We mention the broader project to note that case study teams adopted parallel approaches to sampling and participant recruitment, as well as using shared research instruments.

Survey recruitment used a purposive sampling strategy. Instead of sampling the general public to demographically represent the province’s population, we focused on various “interested publics” in issues of public policy and sustainability (broadly defined). Our participants reflect stakeholders across six sectors that were selected to represent a broad range of interests: academic (23% of participants), business and industry (21% of participants), government (8% of participants), NGO (31% of participants), union/labor (1% of participants), and youth/students (14% of participants). The same six sectors were used to structure the sampling frames of all teams in the broader Sustainable Island Futures project because they represent a spectrum of interested publics whose perceptions have the potential to influence SDG implementation in island jurisdictions (Randall 2021).

The sampling frame was constructed by all members of the research team, who bring a diversity of experience across several community engagement projects in the province. Our community partners also reviewed and elaborated the sampling frame. Overall, our survey and focus group participants are knowledgeable about economic, social, or environmental issues and debates in Newfoundland and Labrador. The majority of participants are over 40 years old (71%), while individuals over 54 years old account for almost half of our participants (47%). There are slightly more male (56%) participants than female participants. All our participants have received post-secondary or higher education, with a majority having completed a Master’s or PhD degree (63%). Most participants report their income at about the same or higher than the average in their community (88%). As such, our stakeholder sample tends to be older, has more formal education, and is a higher-income group than the general public in this region. Because the sample is demographically non-representative of the province’s population, we do not generalize the results beyond the participants in this study. Despite limitations in generalizability, the data provide

valuable insight into how interested publics across key stakeholder groups perceive the SDGs and dimensions of sustainability, as well as how they assess the institutional/governance dimension of implementing the SDGs.

The survey instrument contained five sections. The first section focused on interpretations and assessments of various social and political institutions, including the provincial government, civil service, municipal/local governments, police, and judiciary. This section also asked about provincial relationships with the national government, as well as international relationships. The second section asked participants for their assessments of the importance of each of the 17 SDGs, as well as their assessments of how the province is making progress towards each of the 17 SDGs. These questions address perceptions of the importance of the SDGs, as well as participants' views of how well they are being implemented in the region, thereby providing data on how the SDGs are interpreted and on how the SDGs are being acted upon. The third section asked participants about their own values and actions toward sustainability-oriented activities, as well as their assessment of government performance on ensuring community sustainability. The fourth section focused on a suite of questions that delved more deeply into issues of economic sustainability. We chose to focus on economic sustainability because of the province's current financial crisis. We are engaged in ongoing comparative work with the Icelandic team of the Sustainable Island Futures project, who are similarly concerned with issues of financial sustainability in response to the 2008 financial crisis. This comparative analysis is outside the scope of this paper. We singled it out to see whether our participants prioritize economic imperatives over other dimensions of sustainability. The final section asked for participants' demographic information.

The second author analyzed the survey data. We primarily focused on descriptive statistics of participants' responses. A significant qualification of our statistical data analysis is that we used a purposive, non-random sample that includes small numbers within some participant groups. This limits the possibilities for generalizing the results to the province's wider population. We used the R likert package (Bryer and Speerschneider 2016) to visualize the distribution of participant responses. In addition to presenting survey results, we also examined relationships among sustainability interpretations and practices and participants' sectoral affiliation. We used Kruskal-Wallis H Test (Kruskal and Wallis 1952) to test variances across participant groups (in terms of sectoral affiliation). As a nonparametric test, Kruskal-Wallis H test helps to compare the mean rank across participant groups without assuming a normal distribution of the residuals. This fits well with our likert-type small-n survey data. For survey questions that show statistically significant group variance, we further conducted a Dunn-Bonferroni post hoc test (Dunn 1964) to identify specific participant groups with diverging opinions. We conducted the Kruskal-Wallis and Dunn-Bonferroni tests using SPSS version 27. Group variance results are reported in Appendix 1.

After the survey, we organized follow-up focus groups among a sub-set of our survey participants. Focus groups provided space to generate further qualitative insight into our survey findings by drawing on the "interactional expertise" (Nerini et al. 2019) generated through conversation among research participants. Of the survey participants, 34 indicated their willingness to be

contacted in follow-up focus groups and of these, 15 participated in the follow-up focus groups. Due to the COVID-19 pandemic, focus groups were held online via Zoom and were co-moderated by the first author and two other members of the research team. In their research on participant experiences of Zoom interviewing, Archibald et al. (2019) concluded that most participants found Zoom to be a next-best alternative to face-to-face participation compared with other digital or remote options. Although their participants noted occasional challenges related to technical issues, Zoom has several advantages, which include: the ability to bring together geographically disparate research participants, accessibility, and reduced time requirements for research participants. Zoom features such as screen sharing and real-time file sharing were also seen as benefits of the platform and added to a sense of rapport with researchers (Archibald et al. 2019).

We held three focus group sessions, each lasting approximately 90 minutes. The first group included participants whose affiliations were with business, government, or unions/labor. The second and third focus groups included participants whose affiliations were with academia, NGOs/civil society, or students/youth. The focus groups were semi-structured, with several open-ended guiding questions on the following topics: how participants assess the performance of the provincial government; the ways in which provincial-federal relationships have or have not benefited the province; the benefits (or not) of provincial relationships with governments around the world; whether the physical environment of the province is being preserved in a responsible manner; participants' assessments of provincial progress toward the SDGs; and assessments of economic sustainability in the province and what might be done to ensure future economic sustainability. Narrative data on the linkages between how the SDGs are interpreted and how they are acted upon was provided by the discussion questions: "What do you know about the United Nations' sustainable development goals and what is your assessment of how Newfoundland and Labrador has done in trying to meet these sustainable development goals?"

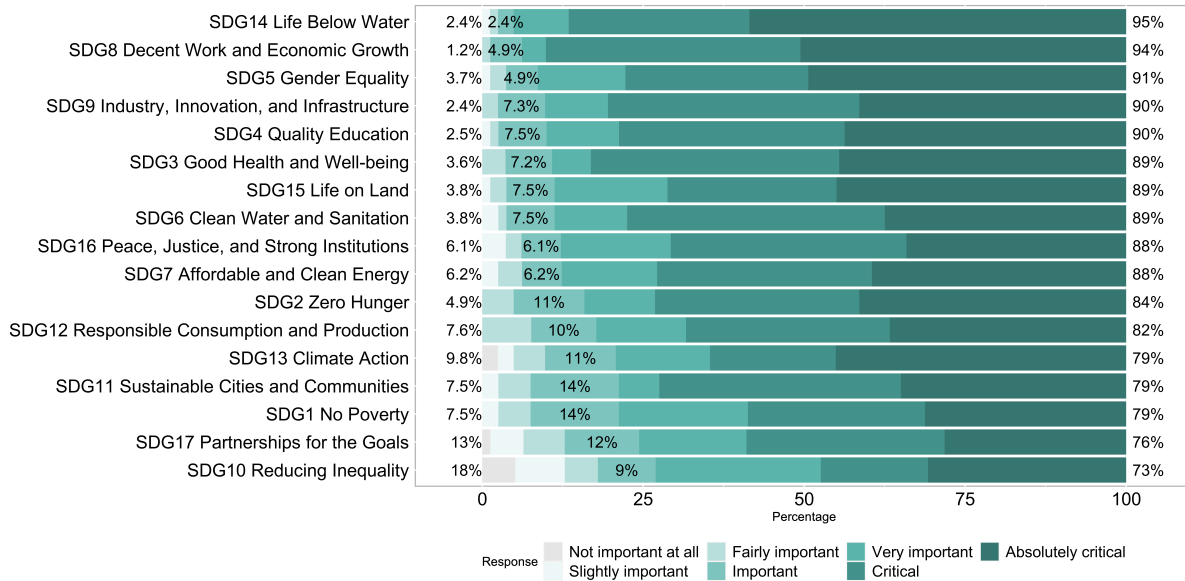
The focus groups were transcribed by a research assistant and inductively analyzed by the first author using NVIVO software for qualitative analysis. The coding scheme was structured around the following analytical categories: performance of the provincial government; provincial-federal government relationships; provincial-international relationships; views on protecting the physical environment; economic sustainability; and views on the SDGs and their implementation in the region. Within this framework, a semi-structured approach was used to manually code and inductively generate secondary thematic categories from the focus group data (Ryan and Bernard 2003). Once focus group transcripts were coded, the coding scheme was reviewed and revised. We used the matrix query function in NVIVO to explore connections across the various thematic codes.

RESULTS

Support for sustainable development goals (SDGs)

Regional and local social dynamics influence the interpretations of the SDGs by publics and decision makers (Guan et al. 2019, Moore and Woodcraft 2019, Szetey et al. 2021). In Newfoundland and Labrador, the social and economic context includes a financial crisis driven by the Muskrat Falls hydroelectric project.

Fig. 1. Participants' assessment of the importance of the UN sustainable development goals to Newfoundland and Labrador. Note: listed percentages are the total percentages of lower (left), middle (middle), and higher (right) rating responses to a survey item. Survey items are ordered by the percentage of higher ratings.



Our focus groups highlight this context, in which the main theme elicited by questions about economic sustainability is that Newfoundland and Labrador is not currently economically sustainable. Other recurrent focus group themes further illustrate the range of economic and social issues facing the province: Muskrat Falls is an example of poor planning for economic sustainability; the government makes poor decisions regarding private sector support and investment; there is a lack of a legacy fund from oil extraction in the province; and the province has plenty of natural resources (oil, fisheries, mining), but these are not well-used. When asked about pathways toward greater economic sustainability, recurrent focus group themes include the need for more long-term planning; the need for greater accountability for decision makers; the need to increase immigration to the region to support economic sustainability; and the need for more educational supports for entrepreneurship.

As we might expect in the context of these economic and social issues, the SDGs that relate to the economic dimension of sustainability are focal points. However, survey results show that participants indicate high levels of support across all SDGs (see Fig. 1). We asked survey participants to assess how important they think each of the sustainable development goals is to the province. Their evaluations of all the 17 SDGs are predominately positive. The five most highly valued, in terms of importance to the province are: SDG14 Life Below Water (rated by 95% participants as very important, critical, or absolutely critical); SDG8 Decent Work with Economic Growth (94%); SDG5 Gender Equality (91%); SDG 9 Industry, Innovation, and Infrastructure (90%); and SDG4 Quality Education (90%). It is worth noting that three of these five goals relate (directly or indirectly) to the provincial economy. This is consistent with our

participants' overarching concerns with economic sustainability as the most important facet of sustainable development for Newfoundland and Labrador. Although the majority of participants view all the SDGs as important to the province, the two goals that are assessed as less significant are SDG10 Reducing Inequality within and among Countries (73%) and SDG 17 Global Partnerships for the Goals (76%).

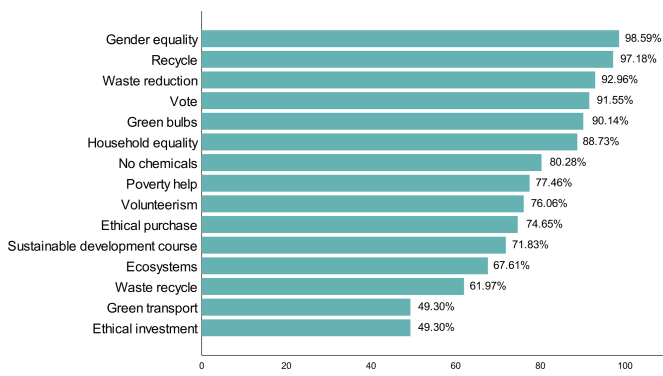
Focus group participants also asserted the importance of the SDGs for the region. For example, a participant in our third focus group described the following connections between the SDGs and the needs of Newfoundland and Labrador as follows:

And of the 17 goals that stuck out to me are about the zero hunger, and you would think well, what does that have to do with us? We're the so-called developed world but of course you know we've got ... food security movements and Food First Newfoundland and Labrador. We're trying to promote sustainable agriculture. So, I think that's something that we have a very deep connection with. And then the good health and well-being that's goal number three. And I think about all the, you know, right now just even the [proposed] sugar tax on pop. And I'm really struck with the mental health aspect especially the conversations within this province. So, we do have a connection to goal number three... And of course, goal number 14 is life under the water. I think that's a really, really big one for all island conversations. And all the development goals of course, we can work on, you know, gender equity. I think the pandemic showed that we're not as equal as we think, like to think that we are in terms of gender equity (focus group 3, speaker 6).

In this focus group, these comments led to further conversation about food security and the necessary connections between economic sustainability and SDGs related to health and well-being.

Participants also indicate high levels of personal commitment to beliefs and practices related to multiple dimensions of full-spectrum sustainability (see Fig. 2). We asked survey participants about their personal experiences with 15 kinds of sustainability activities, covering environmental protection, sustainable education, public participation, gender equality, and sustainable consumerism. Most participants report involvement with 11 to 13 practices in their daily lives. Participants' wide engagement with various activities reflects the idea of full-spectrum sustainability. As shown in Figure 2, almost all participants report they try to ensure that there is gender equity in their home, their work, and their volunteer environments (98%), try to recycle as much as they can (97%), and have changed their personal lifestyle to reduce waste (93%). Other most reported sustainability practices include voting in municipal elections (92%), using environmentally friendly light bulbs (90%), and equally sharing household tasks among family members regardless of gender (89%). Participants' practical involvement with these sustainability activities align with their perceptions of the high importance of gender, environmental, and governance related SDGs.

Fig. 2. Participants' involvement with sustainability practices in their daily lives.



Overall, results indicate that the SDGs oriented around economic sustainability are viewed as particularly important. However, the salience of economic-oriented SDGs does not overshadow the importance of other SDGs. Rather, there are also high levels of support across the SDGs that address issues of environmental, social, and institutional sustainability. This suggests that our participants are open to viewing sustainability through a full-spectrum lens, rather than seeing a trade-off between economic sustainability and other dimensions. Although this interpretation of commensurability across SDGs is noteworthy, it is important to highlight that this interpretation may not reflect the reality of aligning the economic and growth-oriented SDGs with other goals. For example, Pradhan et al. (2017) examined synergies and trade-offs across SDGs and found that SDG 8 (Decent work and economic growth) and SDG 9 (Industry, innovation, and infrastructure) are particularly challenging to pursue without negative trade-offs across other goals. Lusseau and Mancini (2019)

also found that synergies and trade-offs between SDGs must be understood in terms of the economic status of particular countries. For high-income countries (such as Canada), strategies to reduce economic inequality are likely to have co-benefits across other SDGs, whereas the pursuit of growth-oriented SDGs is more likely to have negative trade-offs with other SDGs. Nilsson et al. (2018) similarly examined positive and negative interactions across multiple SDGs and noted the importance of institutional and governance context, scale, and time frame for whether there are positive or negative interactions between SDGs. As such, participants' interpretations of the compatibility of economic and other dimensions of sustainability may be read as aspirational and dependent on how the SDGs are implemented through policy and practice. This leads us to the next subsection in which we focus on issues of political scale and the institutions that can implement the SDGs.

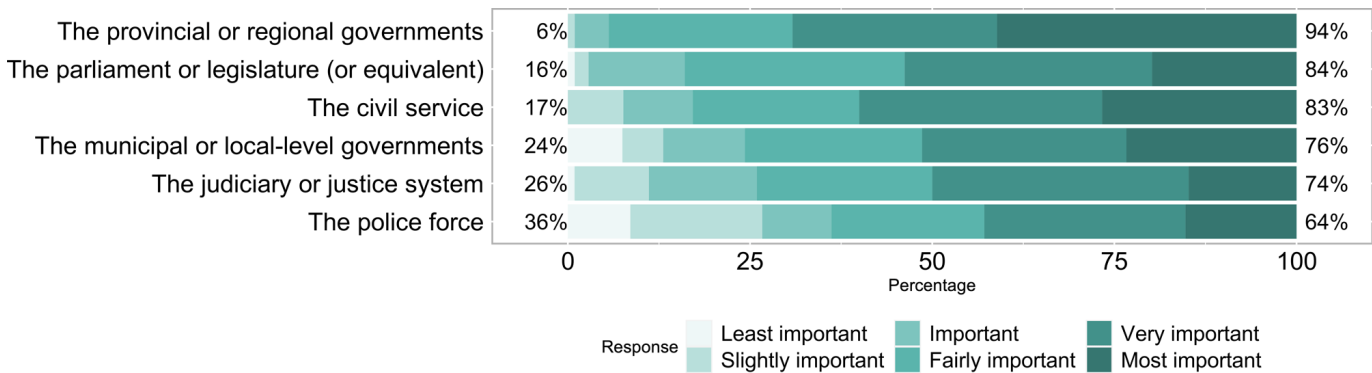
Political scale and performance on sustainable development goals (SDGs)

The second part of our study focuses on issues related to political scale in translating the SDGs. Although discussions about the SDGs often focus on the national level, regional and municipal governments often have jurisdiction over issues like community planning and development, public transportation, education, or natural resource development, which are inherently tied up with various SDGs. As such, regional or municipal institutions are vital for translating the SDGs into policy and practice (Simon et al. 2015, Schmidt et al. 2021, Singh et al. 2021). Similarly, the multi-level interplay between national and local political actors, such as municipalities, can also shape which SDGs are prioritized and how they are implemented (Horn and Grugel 2018). This underlines the significance of the governance or institutional dimension of sustainability, i.e., having "effective, accountable, and inclusive institutions," as per the language of SDG 16, for meeting the other dimensions of sustainability.

In this part of the analysis, we examine participants' views about the organizational actors who are seen as important for ensuring sustainability, and their roles in implementing SDGs into policy and practice. On this basis, we discuss the interactions between the institutional/governance dimension of sustainability and other dimensions. By attending to participants' views on the SDGs as well as their views on which political actors or scales are most relevant, we highlight the relationship between the institutional/governance dimension of the full-spectrum sustainability framework and the other dimensions. The importance of institutional/governance sustainability is stressed because we see an emphasis on the provincial government in helping ensure economic, environmental, and social sustainability.

We asked survey participants' opinions about the importance of (and their satisfaction with) six public institutions: the justice system, the legislature, the civil service, the police force, the provincial government, and municipal or local-level governments. As shown in Figure 3, most participants highly evaluate the importance of all six of these institutions, among which the provincial government is viewed as the most important institution (positively rated by 94% participants). Such a focus on the provincial government is noteworthy. Much of the scholarship on the SDGs focuses either at the national or the municipal level.

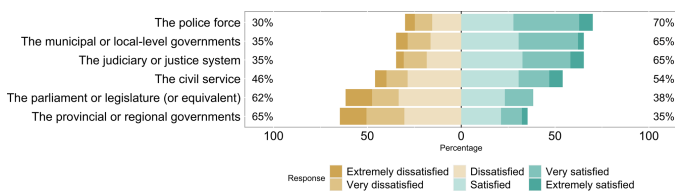
Fig. 3. Participants' assessment of the importance of six public institutions in Newfoundland and Labrador. Note: listed percentages are the total percentages of lower (left) and higher (right) rating responses to survey items. Survey items are ordered by the percentage of higher ratings.



However, our results highlight that for federalist and decentralized polities such as Canada (Lijphart 2012), it is important to attend to regional political arenas as spaces for translating the SDGs into policy and practice.

Although all these institutions are seen as important, participants' satisfaction with these public institutions shows greater variation (Fig. 4). The provincial government is seen as especially important, but its performance is viewed critically. Participants are largely dissatisfied with the performance of the provincial government and the legislature (dissatisfaction rates at 65% and 62%, respectively). The other four institutions receive generally positive assessments from most participants. Interestingly, the more important an institution is considered, the less satisfactory it is rated by participants. The provincial government is considered the most important public institution yet is also assessed as having the most unsatisfactory performance. Conversely, although participants rate the police force as the least important public service when it comes to the smooth running of the province, most participants give positive evaluations to the performance of the police (70%).

Fig. 4. Participants' satisfaction with six public institutions in Newfoundland and Labrador. Note: listed percentages are the total percentages of negative (left) and positive ratings (right). Survey items are ordered by the percentage of positive ratings.



We asked participants to assess the performance of the Newfoundland and Labrador government in striving to meet SDGs by the 2030 target date (Fig. 5). The provincial government's performance toward the SDGs is generally viewed as insufficient. Performance toward only two SDGs, i.e., SDG5 Gender Equality and SDG4 Quality Education, is seen as successful by a small majority of participants (both with 51% positive ratings). By contrast, with only 10% positive ratings, progress toward SDG13

Climate Action is viewed as the least successful in terms of government performance.

This divergence between the perceived importance of the provincial government, on one hand, and its poor performance on the SDGs, on the other, also comes up in our focus groups. Echoing the survey results, the focus group discussions provided critical assessments of the provincial government. Related themes include that provincial government decisions are often based on political interests, rather than the public interest; that the lack of coordination across government departments is an issue; and that the province is currently falling behind other regions on issues of climate change, decarbonization, and energy transitions.

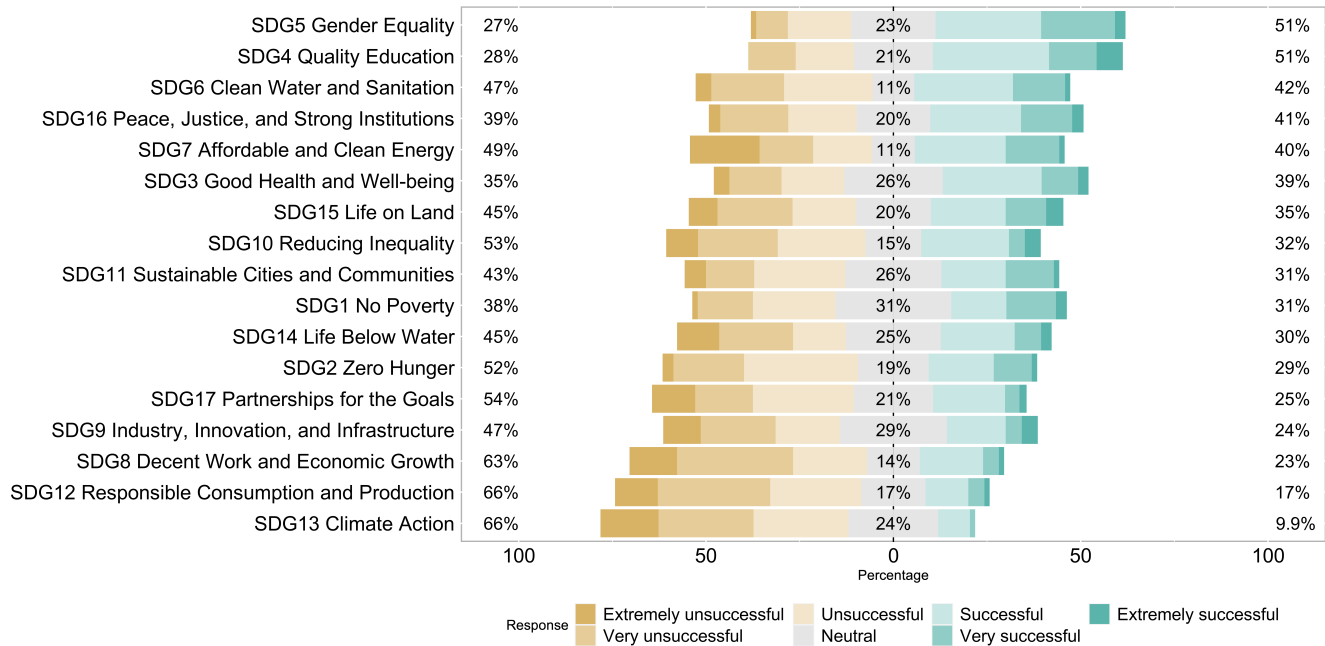
Similarly, a recurring focus group theme is that the provincial government is disengaged from the SDGs. From this perspective, any positive movement toward the SDGs is coincidental and not purposefully guided by the SDG framework. For example, a participant from our third focus group states:

There's no evidence to me that the province deliberately or strategically refers to the UN sustainable development goals. I don't think that factors into decision making at any level and that's not a criticism that's just an educated observation. We aren't there yet. We don't think global on a lot of these things (focus group 3, speaker 4).

Other recurring comments are that the province is doing poorly on achieving the SDGs, with access to clean drinking water flagged as a vital issue for many communities, especially because many rural communities experience periodic or ongoing boil water advisories. For example, a participant from our second focus group states:

If you look at each one of those goals, I will venture a guess that if an outside agency came in and to rate us that we would be receiving failing grades in almost every one of them. We have so many communities that don't even have clean drinking water for their citizens. If you can't have clean drinking water, you're not even meeting the most fundamental of those needs of our population. So, I think that speaks loudly. I think we're doing very poorly. I think what [participant name] has pointed out

Fig. 5. Participants' assessment of the Newfoundland and Labrador government's performance to date in striving to meet the UN sustainable development goals by the 2030 target date. Note: listed percentages are the total percentages of negative (left), neutral (middle), and positive (right) ratings. Survey items are ordered by the percentage of positive ratings.



is that these goals need to be made front and center so that people can get on board and realize that they provide a rational target where, you know, at least where we could aspire to be. So, I think they could be aspirational, but if nobody knows about them, then we're going nowhere fast (focus group 2, speaker 3).

This focus on ensuring community water quality is noteworthy because it highlights an area that lies within municipal and provincial jurisdiction. This is a good example of how the governance dimension of sustainability, i.e., having effective and accountable institutions, directly impacts the ability to translate SDG 6 Clean Water and Sanitation into a regional and local context.

Participants' assessments of the provincial government in relation to economic sustainability are also largely critical. Questions about the integration of economic sustainability into government policy and management across several sectors elicit generally negative response among participants. As shown in Figure 6, only a minority of participants (21%) agree that the province's fiscal policies and strategies promote economic sustainability (while 57% disagree and 22% hold a neutral view). Similarly, a large majority of participants do not believe that climate change issues are fully addressed in provincial economic policies and strategies (73%).

We also asked respondents to assess the degree to which economic sustainability is effectively integrated into the management of five sectors: tourism; fisheries and aquaculture; heavy industry; renewable energy; and oil and gas (Fig. 7). The management of the tourism sector is viewed as having the most effective

integration of economic sustainability (with 40% positive ratings), though many participants also disagree with this statement (40% negative and 19% neutral ratings). This is consistent with other research that points to the potential to leverage tourism development to advance the SDGs at the community level (e.g., Gössling and Hall 2019, Grilli et al. 2021). By contrast, the majority of participants hold pessimistic views of the integration of economic sustainability into the other four sectors. The oil and gas sector received the most negative assessment, with 65% of participants disagreeing or strongly disagreeing with the statement that economic sustainability is effectively integrated into the management of the oil and gas sector.

Participants' responses further underscored the relationship between institutional/governance and economic dimensions of sustainability, which aligns with the full-spectrum sustainability framework. Our survey responses indicate the need for greater governmental transparency, accountability, capacity building, and the need to provide advice to other sectors on issues related to economic sustainability (see Fig. 8). A substantial majority of participants agree or strongly agree that the province's economic sustainability would benefit from greater fiscal transparency (91%) and greater fiscal accountability (91%). A somewhat smaller majority believe there is public demand for increased fiscal transparency (85%) or increased fiscal accountability (85%).

Focus group participants were also asked for their views on potential pathways forward toward greater economic sustainability. Recurring themes included: the need for more long-term planning; the need for greater accountability for decision makers; the need for proactive policies to support immigration to improve economic sustainability; and the need to better foster

Fig. 6. Participants' views on the economic sustainability situations in Newfoundland and Labrador. Note: listed percentages are the total percentages of negative (left), neutral (middle), and positive (right) ratings. Survey items are ordered by the percentage of positive ratings.

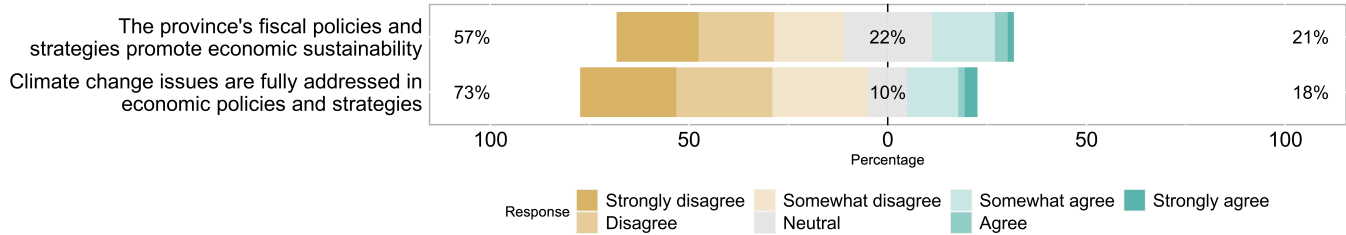
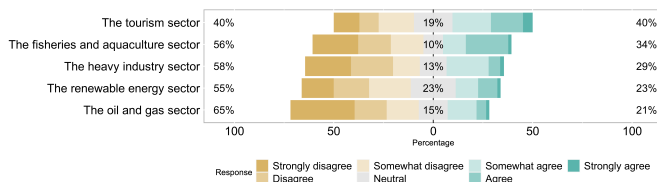


Fig. 7. Participants' views about economic sustainability in five sectors in Newfoundland and Labrador. Note: listed percentages are the total percentages of negative (left), neutral (middle), and positive (right) ratings. Survey items are ordered by the percentage of positive ratings.



local economies and entrepreneurship. In other words, ensuring effective and accountable institutions (the governance dimension of sustainability) goes hand-in-hand with developing regional economic sustainability and pursuing goals related to SDG 8 (Decent Work and Economic Growth) or SDG 9 (Industry, Innovation, and Infrastructure). The emphasis on the need for government to engage in long-term planning for economic sustainability can be contextualized in reference to Newfoundland and Labrador's history of short-term boom and bust economies (fisheries, oil, mining), which often overshadow long-term economic development strategies.

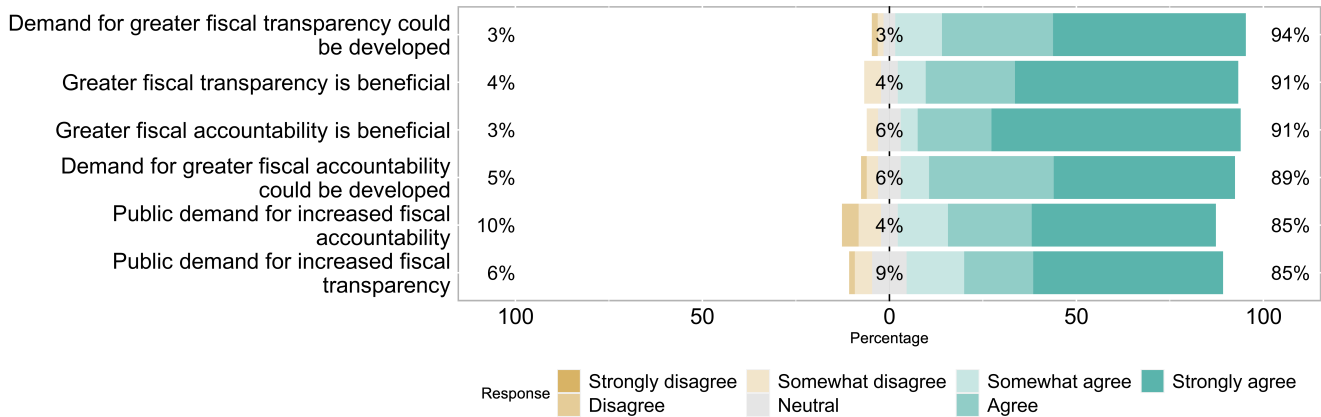
DISCUSSION

The SDGs provide a global framework for implementing sustainable development into policy and practice (Griggs et al. 2014, Norström et al. 2014, Singh et al. 2021). Part of the promise of the SDGs is that they provide a potentially integrative framework to address multiple forms of sustainability including the environmental, social, economic, and institutional/governance dimensions that are captured by the full-spectrum sustainability model (Stephenson et al. 2019, Foley et al. 2020). However, to successfully translate and localize the SDGs, we need to understand which goals are interpreted as most salient for decision makers and publics in particular regions and communities, as well as how the potential synergies or trade-offs across the goals are interpreted (Horn and Grugel 2018, Guan et al. 2019, Moore and Woodcraft 2019, Bennich et al. 2020, Szetey et al. 2021, Tandrayen-Ragoobur et al. 2021; Schmidt et al. 2021, *unpublished manuscript*). In this study, we focus on the case of Newfoundland and Labrador to

examine interactions among different dimensions of sustainability. Our survey and focus group results suggest that economically oriented SDGs are seen as highly salient. However, even in the context of financial crisis, participants generally do not see economic sustainability as a trade-off against other dimensions of sustainability. Rather, they tend to see them as complimentary and mutually important. As such, the answer to our first research question is that economic sustainability is prioritized, but it is seen as a “yes-and” with other dimensions of sustainability, not as an “either-or” trade-off between economic-oriented SDGs versus the others. However, we note that critics like Fletcher and Rammelt (2017) are skeptical of the central “fantasy” of the global view of the SDGs that continued economic growth is compatible with the ecologically oriented goals around climate action and ensuring biodiversity and ecological well-being on land and water. By focusing too much on local or regional solutions to bridging the goals, we risk losing sight of these larger underlying tensions embedded in the SDGs.

Another key component of successfully localizing the SDGs is to understand the political scale and actors that are seen as having the capacity and efficacy to translate the SDGs into policy and practice (Singh 2020, Singh et al. 2021). As others have noted, although SDG indicators are generally applied at the national level, municipalities and local arenas are also particularly important sites for translating the SDGs into policy and practice (Horn and Grugel 2018, Tabara et al. 2020; Schmidt et al. 2021, *unpublished manuscript*). However, in contrast to other literature that emphasizes the national or local scales, our survey and focus group results highlight the importance of the provincial/regional sub-national scale as a vital arena for implementing the SDGs. At the same time, our results identify a gap between seeing the provincial government as the most important institutional arena for implementing sustainability at the local/regional scale versus assessments of their poor performance on the SDGs and economic sustainability more broadly. Notably, the gap between the perceived importance of sub-national governance institutions and the perceived poor performance of these institutions is a common finding across case studies of the broader Sustainable Island Futures project and is not unique to Newfoundland and Labrador (Russell et al. 2021). This finding has important broader implications for sustainability governance research because it highlights that the perceived importance of governance institutions may often go together with a high level of

Fig. 8. Participants' assessment of fiscal transparency and accountability in Newfoundland and Labrador. Note. Listed percentages are the total percentages of negative (left), neutral (middle), and positive (right) ratings. Survey items are ordered by the percentage of positive ratings.



dissatisfaction with those same institutions. As such, future research should consider the practical challenges that sub-national governance institutions face in translating the SDGs into regional contexts, including how to build social buy-in to the work of translating the SDGs. Further research could also attend to the roles sub-national governance institutions could play in leading local and regional progress on sustainability, and how barriers at the sub-national scale reflect larger problems in the global political economy in which the SDGs are envisioned and enacted.

Our results are pertinent to wider debates on multi-level governance that examine how global environmental regimes and goals (such as those concerned with climate action, biodiversity protection, deforestation and forest protection, or the SDGs) are translated into national and local policy and practice (e.g., Francesch-Huidobro 2012, Bulkeley and Betsill 2013, Sanders et al. 2017, Di Gregorio et al. 2019, Ehnert 2019). Much of this work focuses the interplay of global regimes with either national or municipal political spheres. However, attention to the sub-national/regional scale is particularly important in the political context of federalist and decentralized polities (Lijphart 2012). In the Canadian context, provincial governments have a great deal of power, including in many areas that are relevant to the SDGs, such as natural resource management, health care, and other provincial matters as determined by s.92 of the Canadian Constitution (Harrison 2013). As such, it is unsurprising that the provincial government is seen as the key arena with the potential to translate sustainability goals into policy and practice, even if it is simultaneously seen as largely failing to do so effectively. For federalist or decentralized polities, this highlights the importance of attending to the sub-national political sphere (provincial, state, or prefectural governments) as distinct arenas for implementing the SDGs. Therefore, in addition to national and local/municipal governments, which tend to receive more attention in scholarship on the SDGs, it is important for future studies to direct more attention to under-researched mid-level political scales and actors.

We also draw on the full-spectrum sustainability framework as a mid-level framework (i.e., sitting in between the more abstract discourse of “sustainable development” and the more precise framework of the SDGs and related targets) that defines sustainable development through four key dimensions: environmental, economic, social, and institutional. Connecting the SDGs with the full-spectrum sustainability framework is productive to help analyze how the SDGs may be translated into policy and practice, as well as to identify gaps and challenges to implementing the SDGs at regional/local scales. This is illustrated in the talk about sustainability solutions that our research participants offer. Although critical of current government efforts on implementing sustainability, proposed solutions tend to focus on the intersections of economic sustainability and the institutional/governance dimension of sustainability, including the need for greater fiscal transparency and accountability, as well as capacity-building across sectors. As our results suggest, pursuing economic sustainability is seen as closely connected with building institutional sustainability. Consistent with Foley et al. (2020), our results highlight that the “effective, accountable and inclusive institutions” promoted by SDG16, defined as the institutional/governance dimension of full-spectrum sustainability, are interpreted as co-requisites for making progress on the other dimensions of environmental, social, and economic sustainability and so deserves greater attention (also see Singh 2020, Andrews et al. 2021).

CONCLUSION

We used the case of Newfoundland and Labrador to discuss the social dynamics and the influence of local context in shaping stakeholders’ interpretation of how the sustainable development goals are translated into policy and practice. We discuss sustainability as a full-spectrum project (Foley et al. 2020) encompassing economic, environmental, social, and institutional dimensions. In the context of the province’s ongoing financial crisis, we first explored the relationship between economic and other dimensions of sustainability. Our results show that economy-related SDGs are seen as particularly salient. However,

even in the context of financial crisis, the salience of the economy-related SDGs does not overshadow (but is viewed as complimentary with) the SDGs that address other dimensions of sustainability. Study participants perceived complementarity across SDGs, rather than focusing on perceived trade-offs. Our results also highlight the importance of the sub-national political sphere as a vital, yet often overlooked, arena for implementing the SDGs. In future studies, it is important to direct more research attention to the roles played by mid-level political actors, as well as their relationships with national and local/municipal governments, in pursuing regional sustainability.

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Data Availability:

The data that support the findings of this study are available on request from the corresponding author, MS. Yang. None of the data are publicly available because of restrictions that protect the privacy of research participants. Ethical approval for this research study was granted by the Memorial University Interdisciplinary Committee on Ethics in Human Research [#20210019-EX].

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Appendix 1.

From the Kruskal-Wallis H Test and Dunn-Bonferroni post hoc test results, we find that significant opinion variances exist between business-affiliated stakeholders with other groups of interested publics.

This is first reflected in between business-affiliated participants' evaluation to the performance of the province's public institutions. When asked about the importance of municipal government (Figure 1) and satisfaction with the civil service (Figure 2), participants from the youth/student group give predominately positive assessments (89% and 56% positive ratings respectively) while business-affiliated participants give mostly negative assessments (15% and 7% positive ratings respectively). These business-affiliated participants also tend to be more satisfied with the police force (71%), compared with academic-affiliated participants (14%) (Figure 3).

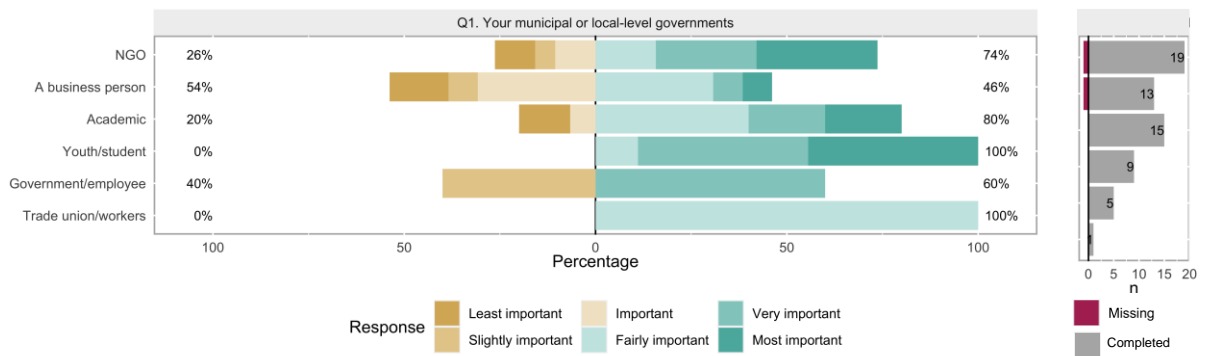


Fig. A1.1. Opinion variation across stakeholder groups regarding municipal and local-level governments in Newfoundland and Labrador.

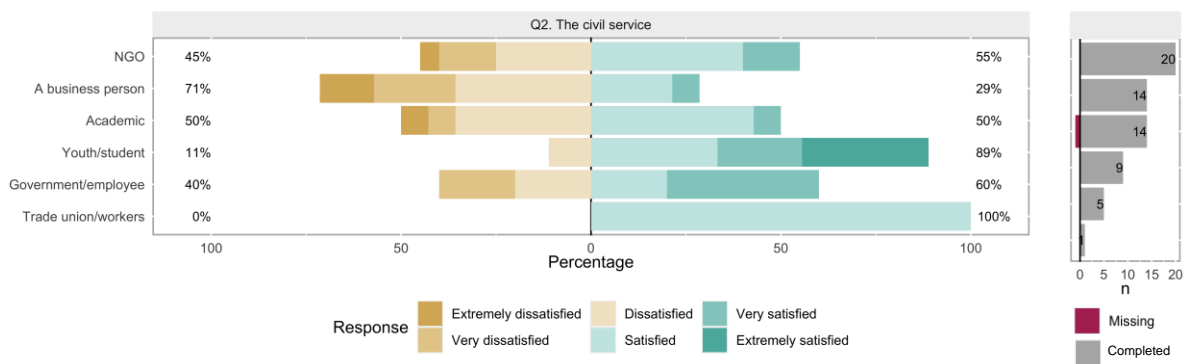


Fig. A1.2. Opinion variation across stakeholder groups regarding civil service in Newfoundland and Labrador.

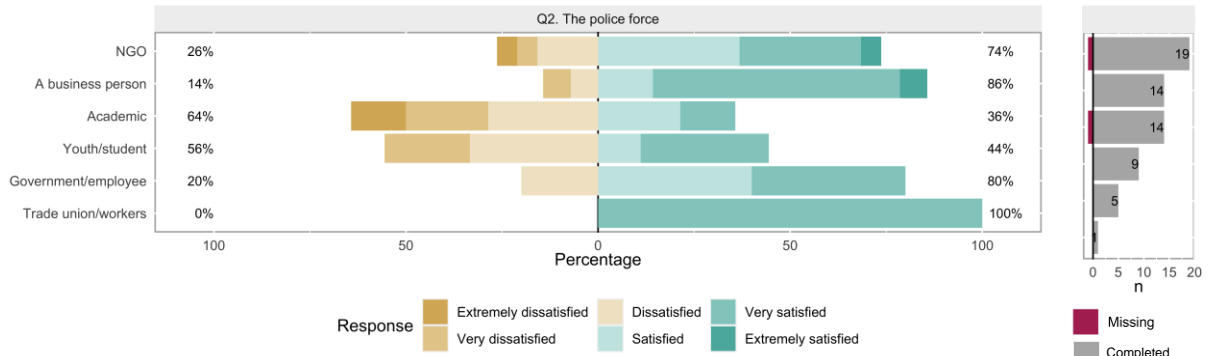


Fig. A1.3. Opinion variation across stakeholder groups regarding the police force in Newfoundland and Labrador.

Business-affiliated participants also show significantly different views about the importance of SDGs. Overall, their evaluations tend to be lower than other stakeholder groups. Figure 4 lists the distribution of business-affiliated participants' assessment of the importance of the 17 SDGs to the province. Particularly, business-affiliated participants tend to give much lower assessments to SDG10 *reduce inequality within and among countries* and SDG11 *make cities and human settlements inclusive, safe, resilient, and sustainable* (Figure 5). While the majority of youth, academic, government, NGO, and trade union participants highly value these two SDGs, a large group of business participants think these goals are only slightly important, or not important at all (57% and 36% respectively). The SDG that is most highly valued by business-affiliated participants addresses the economic dimension of sustainability (SDG8 *promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all*).

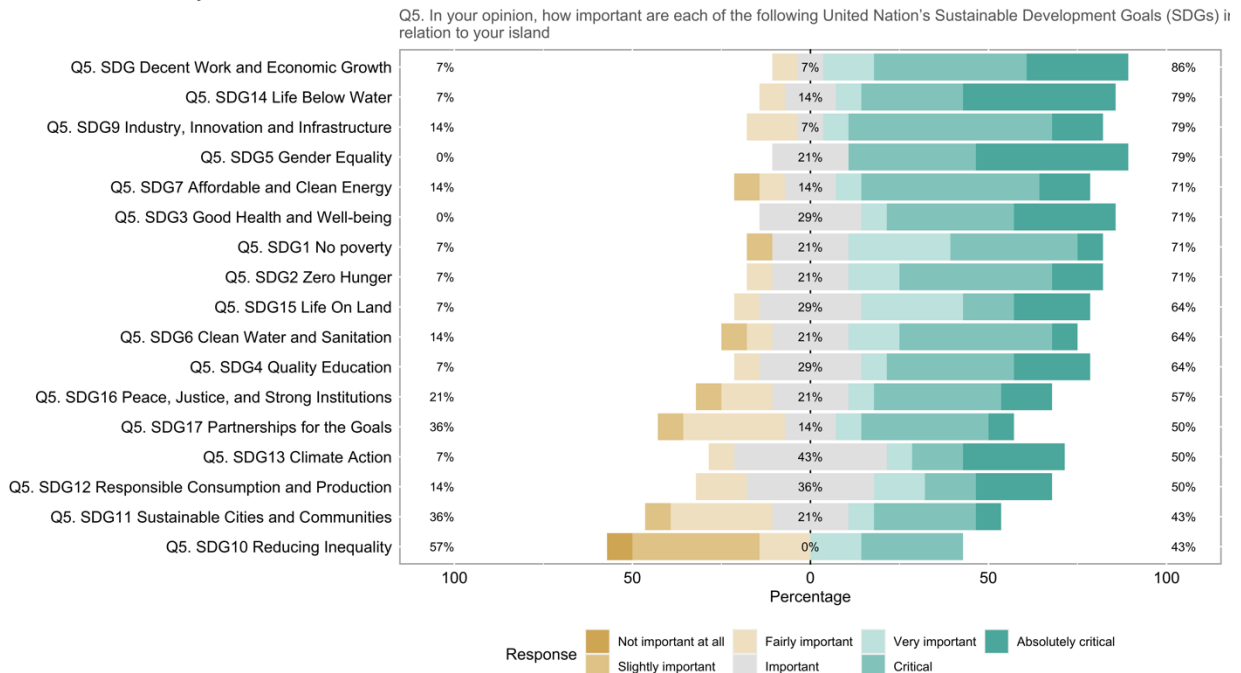


Fig. A1.4. Business-affiliated participants' evaluation to the importance of SDGs.

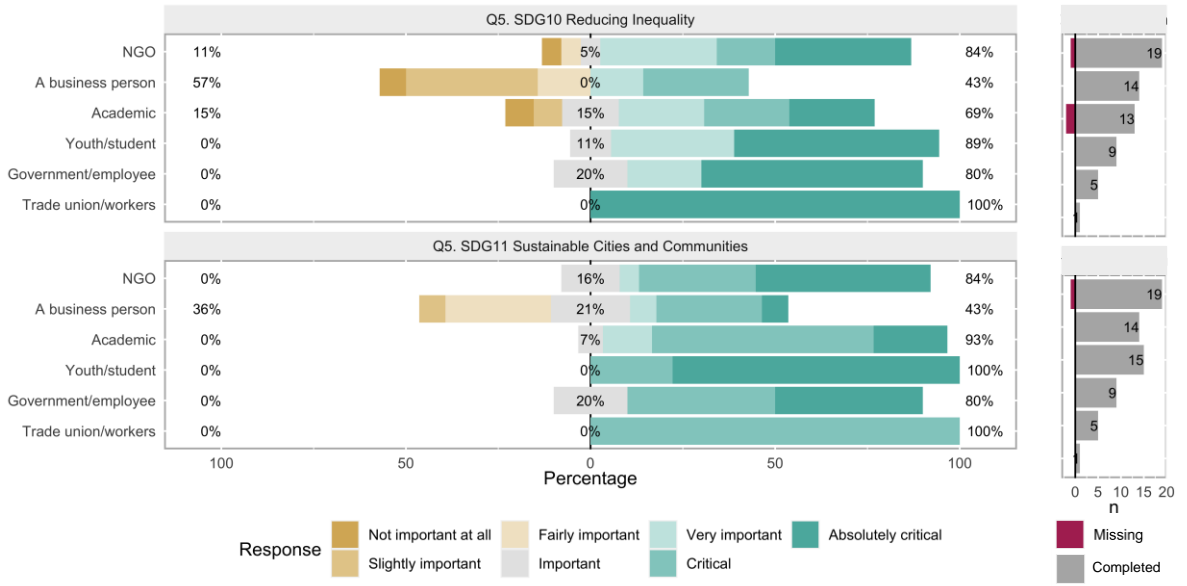


Fig. A1.5. Participants' evaluation to the importance of SDG10 and SDG11 by affiliation group.