Tracking Progress on Sustainable Jobs in Canada

A how-to guide

IISD GUIDE

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International Institute for Sustainable Development

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International Institute for Sustainable Development

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Key Messages

- The success of Canada's energy transition depends not only on reducing emissions but also on clearly demonstrating that the transition is creating good, durable, and well-paying jobs for workers and communities. Tracking progress on sustainable jobs is essential to sustaining public and worker support for the transition and informing the Sustainable Jobs Action Plan.
- Effective monitoring strengthens accountability, improves decision making, and enables governments to course-correct when progress is off track.
- Canada does not need to start from scratch. This report draws on interviews with experts in countries at the forefront of just transition monitoring, including Scotland, South Africa, and Ireland.
- The analysis assesses data availability, data collection, and benchmarking for 19 indicators that measure progress toward a just transition in Canada.
- Key recommendations from the report emphasize strong data collection and coordination, sharing lessons learned, transparency, and clear public communication. We recommend the following:
    - governments build on existing data and systems rather than waiting for a perfect framework, while being transparent about current data gaps;
    - monitoring approaches that rely on a focused and manageable set of indicators aligned with institutional capacity that are expanded over time as systems mature;
    - incorporating qualitative data and lived experience to effectively capture how the transition is affecting workers and communities;
    - clear, accessible communication about both successes and challenges to build public trust and sustain buy-in.

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1.0 Introduction

Protecting and strengthening the well-being of workers and communities through the economy-wide transition away from fossil fuels is an incredibly complex challenge. Canada's federal sustainable jobs legislation sets up some key governance mechanisms to advance an equitable transition and create good, long-term jobs in low-carbon industries. Ensuring that policies are effectively progressing toward sustainable jobs goals and learning lessons to course correct along the way are essential.

While the literature and community of practice on tracking just transition progress is relatively young, many principles can be drawn from the well-established body of knowledge on monitoring, evaluation, and learning (MEL) more broadly, and MEL approaches in climate mitigation and adaptation. For example, in 2017, Scotland's International Development Alliance published a useful MEL guide for monitoring and evaluating international development organizations and projects that has many general principles relevant to just transition (Scotland's International Development Alliance, 2017). A fundamental principle of MEL is the importance of building monitoring and evaluation into policy processes from the beginning, which also holds in the case of just transition (Beutel et al., 2022).

Tracking progress on just transition has many functions and benefits, allowing government to

- provide transparency on public policy and investment of taxpayer funds
- understand policy outcomes in relation to just transition principles
- gather information that can feed back into the policy process to improve outcomes
- communicate externally to build public and stakeholder buy-in and increase understanding of the broader societal benefits of the transition
- communicate internally to build buy-in and coherence of just transition aims across government
- align objectives and expectations of various stakeholders through the process of developing a monitoring and evaluation framework
- ensure accountability and allow Canada to assess and communicate its progress vis-à-vis international peers
- prioritize funding and resource allocations to specific regions and/or sectors identified through monitoring and evaluation indicators.

One of the most sophisticated resources on just transition MEL is the recently published Just Transitions Monitoring Guide from the World Resources Institute's Initiative for Climate Action Transparency (ICAT) (Singh et al., 2025). This tool was designed to support governments in monitoring social, economic, and environmental changes that occur as countries decarbonize their economies. The guide differentiates between policy assessment tools (which attribute impacts to specific policies) and monitoring tools (which monitor trends but do not track causal

relationships). As it describes, "monitoring may help identify where greater policy attention is needed when progress is off track, but it does not identify how specific policies affect people." The ICAT Guide was informed in part through case studies monitoring just transition in Nigeria and South Africa, and it is now being applied in Brazil.

The Guide proposes a methodology for monitoring the state of a transition to inform policy and practice through five steps: (1) develop just transition-related goals or priorities; (2) formulate targets and key social, economic, and environmental indicators; (3) establish a data collection process; (4) analyze data to understand trends and progress; (5) communicate information to reflect progress.

Similar to Canada, a number of other jurisdictions are currently developing just transition monitoring frameworks. To identify lessons learned to inform Canada's approach, we surveyed the literature from other jurisdictions and conducted interviews with members of governments or agencies in other countries.

2.0 International Best Practices on Measuring Just Transition

Through a review of just transition monitoring in other jurisdictions, we found that most countries that are thinking of monitoring and evaluation are at the stage of developing indicators and identifying available data. Given the complexity and far-reaching nature of the just transition, it is beneficial for Canada to learn from the approaches and lessons of other countries. The following sections include several in-depth case studies and additional examples of monitoring processes in other jurisdictions.

2.1 Case Studies

Based on our literature review, we identified Scotland, South Africa, and Ireland as three countries with some of the most advanced published work regarding just transition monitoring. On this basis, we reached out to these three jurisdictions to conduct interviews to learn more about their processes. Interviewees also recommended that we reach out to peer countries working in this area, including Spain, Chile, and Brazil, but further outreach was beyond the scope of this report.

A brief summary and discussion of the experiences of Scotland, South Africa, and Ireland is included below, based on published documents and interviews with representatives and experts from these countries.

2.1.1 Scotland

Scotland has been working on developing indicators and monitoring systems for just transition for over 3 years. Scotland's approach to just transition planning, and thus monitoring, is two-pronged, including (a) whole-of-Scotland just transition and (b) sector-specific approaches.

At the national level, the Scottish Just Transition Commission,[1] an independent advisory body to the Scottish government, commissioned guidance on this topic, which was published in the recent report, *Measuring and Evaluating Success in the Scottish Just Transition* (Drabble et al., 2024). The report proposes a theory of change for guiding and monitoring just transition work, with a framework developed with input from workshops with the Just Transition Commission and government representatives, 12 interviews with stakeholders and underrepresented groups, and a review of relevant documentation and data.

This proposed theory of change includes a shared set of activities, outcome areas, and mechanisms across sectors and regions, with a corresponding evaluation framework. The authors identified eight key outcomes, with indicators for each. For example, Outcome 1, to

[1] https://www.justtransition.scot/

"Avoid entrenching old injustices or creating new ones," includes indicators of Gini coefficient (no reduction from baseline measure of wealth inequality) and maintenance of environment (no further reduction in biodiversity, air quality, or water pollution). They also propose six mechanisms that could produce the key outcomes, with indicators to monitor each mechanism. For example, Mechanism 1 of "Embedding the Just Transition across all policy areas and levels" includes indicators such as proportion of Scottish public bodies that report and act upon just transition outcomes in their area, and proportion of relevant private investors who report and act on just transition outcomes. Other mechanisms include "Identifying and safeguarding vulnerable and affected groups" and "Stakeholder participation in Just Transition decision making," with corresponding indicators.

Additionally, the report developed an **"ultimate impact" statement for Scotland's just transition**, with five components and related indicators:

1. Achievement of environmental aims (Measure: Progress from 1990 baseline toward zero net CO_2 emissions as a percentage and toward biodiversity targets [Global Biodiversity Framework and upcoming Natural Environment Bill]);
2. Scotland is more just (Measure: Percentage of people in Scotland who agree that "Scotland is a fair place to live");
3. People have more purposeful lives (Measure: Average score of people in Scotland of the Meaningful Life Measure);
4. People have higher well-being (Measure: Mean Warwick-Edinburgh Mental Well-being Scale score);
5. Scottish society is more cohesive (Measure: Social cohesion score).

Alongside this work to develop a national JT monitoring framework, Scotland is also developing sector-specific just transition plans. Draft plans have been published for the energy (Scottish Government, 2023) and transport (Scottish Government, 2025) sectors, and are in development for agriculture. The transport plan includes a proposed set of outcomes and indicators specific to the sector, which were developed with government and external stakeholder consultation and are now open for a public comment period. The indicators include a quality assessment based on how well available data or proposed methods for gathering data are able to capture the indicator (for example, see Table 1).

Table 1. An example of just transition outcomes and indicators at the national level (upper) and specifically for the transport sector (lower)

NATIONAL

Key outcome: Increased trust in local institutions and decision making

Measure	Currently available data	Data source	Relevance to measure	Comments
5.1 Percentage of people who agree with the statement: "My local council is good at listening."	Percentage of people who respond, "Strongly Agree" or "tend to agree" to "Can you influence local decisions?"	Social capital and community well-being in Scotland	Proxy measure	This data is available broken down by demographic characteristics.

TRANSPORT SECTOR

Outcome 1: The net-zero transition supports new and existing well-paid jobs across Scotland, within transport services supply chains and in the wider economy

Indicator 1:1	Description	Source	Quality assessment	Quality indicator rating
Total transport employment	Total employment in the transport sector (using a 5-digit SIC code definition of the transport industry)	Business register and employment survey	A measure of new jobs in transport. Publicly available and annually updated data. The source is survey-based, so limitations to data collection and annual comparison.	Moderate

Source: Scottish Government, 2025.

Given these two levels of work—national and sector-specific—the just transition team within the Scottish government is currently working to identify starting points for using some of the proposed indicators and adapting the proposed national monitoring framework to match departmental capacity and jurisdiction. The department is exploring the idea of **developing a set of core metrics to start with, and then secondary indicators** that can provide more nuance over time. They are also working to ensure their monitoring complements existing monitoring

under Scotland's National Performance Framework and integrates with monitoring under the Climate Change Plan's annual report. They have not yet established targets for indicators but will be working on this in future.

Lessons Learned

- **Gaps and limitations in available data** should not prevent the work from proceeding. Scotland is starting with the indicators and proxy measures they do have, and being transparent about where more work is needed, given limited resources for new data collection and a lack of qualitative data. Existing national data is often not disaggregated by affected areas or groups, making it difficult to capture important nuances (Drabble et al., 2024).
- **Transparency is key** for accountability and building and maintaining a participatory process. Trust building with the public is a key motivator for tracking progress in Scotland.
- **The report to the JTC recommends establishing clear interim targets** for indicators and using a "distance-travelled" approach to measure how activities are progressing toward outcomes, given the long-time horizon of just transition targets.

2.1.2 South Africa

South Africa's just transition aims to create an equitable, low-carbon, and climate-resilient economy by 2050. The framework, developed by South Africa's Presidential Climate Commission (PCC), seeks to address the complex challenges posed by climate change while ensuring fairness, particularly for vulnerable communities in sectors like coal, agriculture, and tourism. By aiming for net-zero emissions and poverty reduction, the just transition framework focuses on mitigating the social impacts of climate change, including unemployment and inequality, which have disproportionately affected South Africa's most marginalized populations (PCC, 2022).

Highlights of South Africa's progress on just transition are as follows:

- **South Africa Just Transition Framework:** Blueprint for South Africa's transition toward a low-carbon economy, with strong commitments to the principles of procedural, restorative, and distributive justice (Presidential Climate Commission, 2022).
- **MEL system:** The monitoring and evaluation system for the Just Energy Transition Implementation Plan is a framework designed to monitor and evaluate the progress of the just energy transition. It ensures accountability by tracking the outcomes and impacts of implemented programs and projects, providing feedback for improving policies, decision making, and the effective allocation of resources (PCC, 2023b).
- **Rapid evaluation exercises:** Ad hoc studies of specific communities or facilities undergoing transition that are used to provide rapid results that help guide future work in communities. (PCC, 2023a).

- **Voices of Transition:** This project collects stories from communities across the country to humanize the data and provide valuable insights into the real-world impacts of the transition. These stories not only complement the technical indicators but also offer a deeper understanding of the day-to-day struggles faced by affected communities (PCC, 2022).
- **State of Climate Action report:** Assessment of climate action in South Africa, assessing the progress toward multiple priority indicators of change (PCC, 2024).

South Africa has developed a MEL system to assess the success of the JT framework. This system is based on a theory of change and includes a set of outcomes, indicators, and adaptive measures to ensure a just transition. The indicators are designed to capture both short-term outcomes and medium-term outcomes. The short-term outcomes focus on immediate goals, such as ensuring transparent funding flows, establishing effective stakeholder coordination mechanisms, and confirming a robust intervention portfolio. On the other hand, medium-term outcomes are aimed at achieving broader, long-term goals, including mobilizing finance for transition initiatives, fostering stakeholder support, and aligning government planning with just transition objectives (PCC, 2023b).

Key indicators tracked include the following:

- new renewable energy generation/transmission/distribution
- greenhouse gas emissions reductions
- increased economic diversification and inclusive growth
- social, economic, and environmental co-benefits
- just transition interventions implemented, demonstrating the spread of benefits

These indicators are aligned with South Africa's climate and development goals and are intended to ensure that the transition is not only environmentally sustainable but also socially inclusive. Data collection initially takes place at the national level, with plans to expand to regional measurements over time. This approach aims to capture a comprehensive understanding of progress at various scales, from national targets to localized, community-specific impacts (PCC, 2023b).

One of the key features of South Africa's MEL framework is its feedback mechanism. The data collected from the monitoring indicators is intended not only to track progress but also to influence policy direction. Regular reports and stakeholder input allow for the adaptive management of the transition process, ensuring that policies can be adjusted in response to new challenges or emerging opportunities. This dynamic approach helps maintain alignment with the overarching goals of the transition, ensuring that it remains equitable and sustainable over time (Connolly, 2022).

Despite these efforts, South Africa faces several challenges in the implementation and measurement of the just transition framework. As we heard from a local official, there is a lack of data disaggregated by race, gender, youth, and vulnerable groups. This would ensure that the

impacts of JT are equitably distributed and that the vulnerable groups are adequately supported. Another challenge is data available for measuring progress on indicators; it is important to start with indicators for which data is already available.

Additionally, South Africa struggles with limited institutional capacity at subnational levels and faces challenges in securing adequate financing for the transition, including through the Just Energy Transition Partnership (JETP) (Strambo et al., 2024). To help with the limited capacity, the Just Energy Transition Project Management Unit was established to help find innovative solutions to JET problems. This ensures that transparent monitoring and evaluation will then mobilize and guide sources of finance to address JET IP needs.

On the positive side, the country has made substantial progress in engaging a wide range of stakeholders, including civil society, business, and labour, through workshops, public hearings, community visits, and policy briefs. The PCC prioritizes transparency by livestreaming meetings, publishing reports like the National Employment Vulnerability Assessment, and ensuring that key documents are accessible to the public (PCC, 2022). The government also uses various communication platforms to ensure the broad dissemination of information, aiming to reach diverse audiences and foster a collective sense of ownership in the transition process (South African Monitoring and Evaluation Association, 2024). The PCC also publishes weekly op-eds in local newspapers highlighting different themes of just transition.

Lessons Learned

- **stakeholder engagement and transparent communication:** Stakeholder engagement is critical for all aspects of the just transition. The PCC employs broad engagement strategies, aiming for consensus building and transparency in its meetings, which are accessible online, as well as developing an international community of practice to facilitate learning and sharing experiences. The public needs to be kept informed about decision-making processes, especially concerning the selection of beneficiaries and resource allocation.
- **effective monitoring and evaluation systems and inclusion of the right number of indicators:** It's essential to develop clear, standardized indicators for tracking progress and to disaggregate data in ways that reflect the country's socio-economic context. The system includes a balance of indicators to avoid being too onerous while ensuring sufficient information is collected. Indicators were chosen based on the availability of existing data from national statistics or other organizations to ensure practicality, especially for a developing country like South Africa.
- **rapid evaluation exercises:** South Africa has gained unique insights from rapid evaluation exercises conducted on some just transition case studies, such as the decommissioning of the Komati Power Station. These exercises have helped to identify issues and lessons learned—such as the importance of early stakeholder engagement, considering broader value chains, and ensuring transparency—which can be applied in other cases or regions to ensure a smoother transition.

2.1.3 Ireland

Ireland's approach to just transition is outlined in Chapter 7 of its Climate Action Plan, requiring all ministers to consider it in policy decisions (Government of Ireland, 2023). The plan outlines a principles-based approach to just transition, with four key principles related to an integrated, structured, and evidence-based approach; equipping people with the right skills; ensuring an equitable share of impacts and costs; and social dialogue. Ireland has recent experience with transition in peat energy in the Midlands, in which many communities were negatively affected by the abrupt shutdown of peat energy operations, and the country is reflecting on lessons for better planning the current low-carbon transition. It has also made strides in translating just transition principles into specific recommended actions and policies with regard to the agriculture sector (which accounts for nearly 40% of national emissions), through a process that engaged business, environmental NGOs, and farming representatives: see National Economic & Social Council (2023) report *Just Transition in Agriculture and Land Use*.

The Climate Action Plan commits Ireland to developing just transition indicators, guided by existing measurement tools and existing processes for reporting on progress toward the United Nations' Sustainable Development Goals (Government of Ireland, 2021). Ireland's Just Transition Commission—set up in 2024 and including representatives from business, unions, and civil society—is mandated to develop this set of just transition indicators (Government of Ireland, 2021).

An indicator framework is currently being developed, with a report forming the basis of Ireland's just transition indicators expected to be published within the next few months. The framework is informed by research commissioned to identify existing data sets and gaps. Next steps will be to conduct stakeholder consultations to confirm and refine the set of indicators. The indicator framework primarily focuses on government outputs and outcomes rather than external stakeholder actions. The government is also beginning to consider how to measure long-term well-being and the legacy of just transition policies, citing Wales's Future Generations Office as a model for foresight-driven policy.

The Government of Ireland is considering just transition monitoring along two parallel processes: monitoring for policy-makers (internal) and to inform public communications (external). A central focus is the internal work of communicating about just transition to integrate and mainstream the topic across government departments. In terms of data collection, Ireland's Central Statistics Office and Eurostat will play key roles in providing well-being and statistical insights. Interviewees noted that data reliability and frequency are key concerns, as well as embedding justice measures into existing metrics rather than treating them as a separate category. Adaptation is a key area lacking sufficient data, brought to light through a recent storm in Ireland that exposed vulnerabilities.

As far as communication progress to the public, the Just Transition Commission will play a key role in translating technical data into a public-friendly format. For the time being, updates on just transition progress will be included in the Climate Action Plan annual progress reports.

The government is considering longer-term plans for the Central Statistics Office to develop a dashboard displaying just transition-specific indicators.

With respect to benchmarking and targets, Ireland's Climate Act sets long-term targets and a vision for 2050, but interviewees noted that making that concrete is challenging. Benchmarking is likely to come at a later stage, after the indicators and framework are confirmed through stakeholder engagement. But it was noted that insights into benchmarks and targets might come through the discussions with stakeholders on indicators. The interviewees raised the distinction of whether just transition frameworks are simply aspirational or if they should include a concrete commitment to achieving minimum standards, such as job protection.

Lessons Learned

- **adapting indicators:** Irish officials noted that current indicators are based on today's policy priorities (e.g., agriculture and transport), but policies will evolve, potentially creating new vulnerable groups. Tracking how vulnerabilities shift over time will be a key focus in the second phase of indicator development. Governance structure needs to allow for indicators to be reviewed regularly, while also noting that changing indicators too frequently could undermine consistency and usefulness.
- **developing a positive narrative:** One gap noted in Ireland's principles-based approach was the emphasis on negative impacts and a lack of focus on opportunities and how to ensure they are shared equitably. For example, economic diversification, such as transitioning from livestock farming to renewable energy or peatland restoration, should be framed as a just transition opportunity. Providing a clear vision for future opportunities is key to engaging affected communities.
- **departmental and stakeholder buy-in:** Two challenging but important elements of this work were ensuring buy-in on just transition within government departments as a policy norm, as well as securing stakeholder buy-in. Engaging the public on the indicators was deemed essential.

2.2 Other Examples of Just Transition Monitoring in Various Jurisdictions

In addition to the case studies above, a number of other countries or regions are starting to work on just transition monitoring, or preliminary studies have been conducted to inform this work. A summary of examples found in the literature is included in Table 2.

Table 2. Examples of just transition monitoring in other jurisdictions

Country	Description of just transition monitoring work	Source
Nigeria	Nigeria's Just and Gender Inclusive Transition Monitoring, Reporting and Verification (MRV) project involved developing a monitoring framework for key sectors, including the oil & gas, agriculture, forestry, transport (road) and other transport (rail, water, and air) sectors (2022). A follow-up report gathered insights for applying the monitoring framework through widespread engagement with stakeholders to assess sectoral impacts of the transition and capacities to collect data (2024). The full list of indicators was not found online, but insights from the work informed the ICAT Guidebook.	Tarfa et al., 2024
Brazil	In 2024, Brazil launched a project with ICAT on transparency, which aims to establish a just transition monitoring framework for its national Climate Plan. Work is underway to develop MRV frameworks to track progress in three sectors—land use, land-use change, and forestry, industry, and cities (with a focus on urban mobility). An early report from this project proposes dividing just transition indicators into four types: input indicators, activity indicators, output indicators, and outcome indicators. Recommendations for selecting indicators include establishing a scope for monitoring; selecting impact categories based on their potential to be significantly affected by climate transition policies and their relevance to the just transition vision and objectives, the national context, and stakeholder priorities, and the selection and monitoring of indicators used to measure progress toward desired outcomes in key impact areas.	ICAT, n.d.

Country	Description of just transition monitoring work	Source
New Zealand	New Zealand's Guide to Just Transitions highlights the importance of transparent monitoring for building confidence in the process among stakeholders, and the complexity of identifying the best indicators. The guide suggests appointing "guardians of the principles" to monitor whether the just transition principles set out in the plan are being applied appropriately. The Taranaki 2050 Transitions Pathway provides an example of a fairly developed metrics and evaluation plan with detailed timelines for developing and implementing accountability; however, it does not include a full set of indicators. It incorporates metrics and evaluation from the outset, establishing clear criteria for success through a variety of perspectives, including Māori worldviews of well-being. Regular assessments are planned, featuring annual public updates and detailed reviews every 5 years to monitor progress on the identified actions.	Krawchenko, 2022; New Zealand Government, n.d.; Venture Taranaki, 2020
Germany	Germany's coal transition efforts involve prioritizing funding for affected areas based on four indicators: unemployment rate (weighted 45%), annual salary per employee subject to social insurance contributions (weighted 40%), employment forecast (weighted 7.5%), and level of infrastructural development (weighted 7.5%). Germany's Coal Commission also proposed specific benchmarks related to environmental impact, market viability, and social acceptance in areas including general assumptions, structural policy, employment protection, environmental remediation, climate protection, energy markets, and reliability.	Furnaro et al., 2021

Country	Description of just transition monitoring work	Source
Spain	Spain's just transition strategy also includes directions to develop indicators that can be used to assess vulnerability and direct investment in different regions (Government of Spain, 2020). Key indicators used to identify impacted communities were employment (number of workers affected by mine and power plant closures) and wages (Government of Spain, 2023). Spain's Institute for Just Transition includes a focus on monitoring, including publishing an annual report on how just transition agreements are being implemented. Spain's Just Transition Agreements adopt the objective of achieving zero impact on employment and population through their implementation, so measuring impacts on these elements can serve as indicators.	Instituto Para la Transición Justa & Gobierno De Espana, n.d.; Instituto Para La Transición Justa, 2022
Wales	The Welsh Government is working to monitor and address vulnerabilities related to climate change mitigation through a tool developed by Miller Research. This tool aims to help policy-makers assess and mitigate the negative impacts of climate policies while maximizing the opportunities of the transition to a low-carbon economy. The research identifies key factors, including wealth and security, that influence resilience and vulnerability, emphasizing the importance of access to wealth and assets in addressing these issues. The approach involves identifying social, personal, and environmental factors that impact individuals' ability to prepare for and recover from disruptions. It also includes exploring existing theoretical models, indicators, and data sets to assess vulnerabilities, with a focus on refining these tools as new evidence and data emerge. This iterative process is designed to help decision-makers create place-based solutions and provide targeted support to those most vulnerable to socio-economic disruptions linked to climate change mitigation policies.	Oliver et al., 2025

Country	Description of just transition monitoring work	Source
Romania	Monitoring efforts for the Just Transition Mechanism in the Jiu Valley of Romania focus on tracking the implementation of projects aimed at creating new jobs in greener industries, retraining the labour force, and fostering economic diversification. The monitoring process ensures that transition plans are followed, funds are used effectively, and progress is measured against established goals. It also includes risk management, transparency, and long-term impact assessment to evaluate both immediate and sustained outcomes.	Boatca et al., 2024
European Union and United States case studies	This study was conducted by the European Commission in 2020 and includes best-practice case studies from Scotland, the United States, Sweden, and the United Kingdom, covering indicators such as access to green and blue spaces, environmental justice screening, public transport use, and food insecurity. Some conclusions from these case studies include the following: a) indicators and measurement systems will be informed by regional goals and contexts; b) the importance of keeping indicators and monitoring systems flexible and adaptive; c) observatories and monitoring bodies are essential, with principles such as transparency and inclusion; d) be aware of risks that could undermine justice, such as exclusion of an affected group.	Heyen et al., 2021

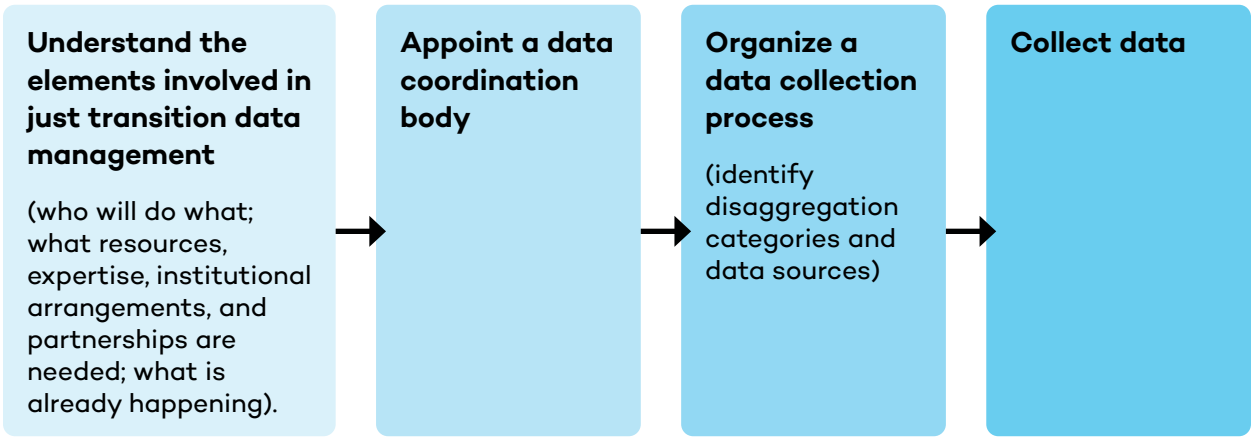
Source: Authors' compilation based on a review of relevant literature.

3.0 Data Collection and Transparency

3.1 Data Coordination and Collection

The ICAT Guide outlines steps for establishing a data coordination and collection process, illustrated in Figure 1.

Figure 1. Steps for establishing a just transition data coordination and collection process



Source: Author's recreation of figure in the ICAT Guide (2025).

It is widely agreed that just transition monitoring systems should build on existing monitoring processes as much as possible and having a central coordinating body (e.g., national statistical office or other entity) that can coordinate functions such as identifying data sources for existing and new social, economic, and environmental indicators; allocating resources; establishing data-sharing arrangements; and regularly collecting data at the required level of disaggregation (ICAT, 2025). ICAT recommends that this coordinating body also include members of relevant departments, academic and technical institutes, research organizations, sector associations, civil society, and other stakeholders. It is important to have clear identification of which departments or bodies are responsible for which data collection and the frequency with which it will be collected.

Data collection is important to inform both the development of just transition plans and the implementation and monitoring (Bird et al., 2024a). Indicator data can show trends over time and can also assess progress toward a target (if a target is set). Bird et al. (2024a) emphasize the importance of aligning just transition data collection with international data standards on data accuracy, validity, completeness, consistency, integrity, timeliness, reliability, confidentiality, availability, etc.

Monitoring should evolve and become comprehensive over time, for instance, by adding more indicators or enhancing data collection methods. This was emphasized by interview participants we spoke with in terms of being pragmatic in the face of a complex problem, starting with the data that is available and manageable and evolving as resources allow.

3.2 Transparency and Publishing

A key driver of just transition monitoring is to be able to provide transparency and communicate progress to the public. Interview participants from Scotland and South Africa both emphasized the importance of transparency.

We find that most countries are still developing their data collection systems and determining how best to share the information. Scotland's Just Transition Commission report recommends a live and updated cross-directorate dashboard to track progress toward just transition outcomes, which would include historical and current national data and present national progress on just transition key performance indicators to improve accountability and prioritization (Drabble et al., 2024). However, our interviews indicate that may require more capacity than is currently available within the government.

It is also important to share information that is easily understandable by the public, which raw indicator data may not be. Compiling multiple indicators into indices can illustrate the interconnection between indicators and provide information that might be more accessible for the public than individual indicator values (ICAT, 2025).

Examples of transparent data sharing across other areas of sustainable development can also inform just transition systems. For instance, the Sustainable Cleveland Progress Dashboard (City of Cleveland, n.d.) shares data across a range of indicators related to sustainability in business, society, the building environment, and nature. The Climate Action Tracker provides another example of dashboards summarizing progress, such as through Canada's country profile (Climate Action Tracker, 2023). The European Commission developed a Transitions Performance Index that is measured on four dimensions: economic, social, environmental, and governance. Based on those four dimensions, each country is given a score, which can be accessed on an interactive map (European Commission, 2022).

4.0 Applying Just Transition Indicators in Canada's Sustainable Jobs Approach

IISD research has identified a preliminary set of recommended indicators for monitoring sustainable jobs policies in Canada, based on a review of indicators in the literature and assessment against Canada's sustainable jobs legislation (Duennenberger et al., 2025).

This section builds on that previous research and provides information on how these indicators could be measured and applied. For each indicator, we provide context and a description, assess data availability, briefly outlining where relevant information can be found and highlighting any gaps. Where gaps exist, we propose an approach for data collection, including quantitative methods (e.g., surveys, official statistics) and qualitative methods (e.g., interviews, focus groups, document review).

4.1 Deep Dive Into Indicators

This section explores each of the 19 proposed indicators in detail. A summary of this information is provided in Table 3, followed by an in-depth discussion of each indicator. While the majority of indicators currently have partial or no data available, this is to be expected given that Canada's sustainable jobs work is relatively new, and data collection will need to grow and adapt over time.

Table 3. Summary of indicators, descriptions, data level, and data availability

✅ Available/easy access ➖ Partially available/medium ❌ Difficult/not available

	Indicator	Description	Recommended level(s) of data collection	Data availability/Gaps
Risks and readiness				
1	**Community susceptibility:** Workforce disruption based on employment in high-emitting industries and transition-vulnerable sectors	This indicator measures community vulnerability to workforce disruptions during the low-carbon economy transition using three core metrics: facility susceptibility (FS), intensity susceptibility (IS), and market susceptibility. Together, these metrics help identify areas needing targeted support and guide interventions based on community-specific challenges.	Census division	✅ Available via Institute for Research on Public Policy (IRPP) (Chejfec et al., 2025)
2	**Fossil fuel revenue dependence:** Percentage of total government revenues derived from fossil fuel-related activities	Measures government reliance on fossil fuel activities, including direct income from royalties and taxes, as well as indirect income from industry workers. While Canada's economy is generally diversified, regional dependence on fossil fuels varies, and areas heavily reliant on fossil fuel revenues may face budget shortfalls if those revenues decline.	Provincial, census division	➖ Overarching data on government revenues from oil and gas is available, but integrated reporting in relation to total GDP, indirect contributions, and regional or municipal-level details are lacking.

	Indicator	Description	Recommended level(s) of data collection	Data availability/Gaps
3	**Social protection coverage:** Share of the population covered by Employment Insurance by equity-deserving group and by sector.	Employment Insurance in Canada supports those who lose their jobs or cannot work due to illness or caregiving. An effective just transition should ensure broad Employment Insurance coverage across all groups and sectors, addressing both eligibility and benefit take-up to avoid leaving anyone behind during Canada's decarbonization process.	Provincial, census division	Employment Insurance eligibility rates are regularly tracked nationally with breakdowns by gender, age, and province, but data by race, Indigeneity, disability, sector-specific coverage, and quality of benefits are lacking.
Response				
4	**Governance capacity:** Level of resources allocated to a formalized government body(s) responsible for advancing sustainable jobs.	This indicator evaluates the government's resources and infrastructure for managing the transition to sustainable jobs, including dedicated bodies like commissions or task forces. It examines the funding, staffing, training, and authority allocated to these bodies to support just transition programs and investments, typically through reviews of budgets and organizational structures.	National, provincial, community	Federal funding and structures for sustainable jobs exist, but data on staffing, provincial bodies, and effectiveness is limited.
5	**Indigenous Partnership in governance:** Extent of Indigenous partnership and decision-making authority in sustainable jobs governance processes, as assessed by Indigenous Peoples.	This indicator assesses the level of Indigenous People's involvement in decision making for sustainable plan initiatives. A high score indicates co-design and implementation of transition plans, while a low score suggests tokenism or exclusion.	National, provincial, community	Policy commitments and select initiatives support Indigenous inclusion, but systematic, quantitative data on Indigenous decision-making roles and perspectives is limited.

	Indicator	Description	Recommended level(s) of data collection	Data availability/Gaps
6	**Social dialogue engagement:** Number of workers and community members engaged in tripartite social dialogues and stakeholder forums held in the design, monitoring, and implementation of sustainable job policies.	This indicator tracks the involvement of workers and community members in planning and implementing sustainable jobs policies through mechanisms like consultations and forums. Higher engagement suggests a more democratic, fair transition, fostering better public support and policy fairness.	Regional, community	Factual data from coal transition dialogues exists, but no centralized or demographic breakdown of sustainable jobs engagement data is available.
7	**Private sector transparency regulations:** Presence and strength of regulations requiring corporate disclosure and participation related to the transition.	This indicator evaluates whether laws and regulations require companies to support a just transition for workers and communities, such as giving advance notice of layoffs, reporting affected worker profiles, and providing additional support like retraining or severance. It involves renewing labour laws, employment standards, and environmental disclosure regulations.	National	Labour laws on layoffs exist federally and provincially, but specific just transition regulations and data on corporate transition actions are lacking
8	**International cooperation:** Number of international engagements to foster strengthened global efforts regarding sustainable jobs and exchange lessons learned to inform Canada's approach.	This indicator tracks Canada's involvement in global just transition efforts, including participation in international initiatives, government exchanges, and contributions to partnerships, such as the JETPs in developing countries.	National	Records of international climate pledges and alliances are available, but data on Canada's international just transition engagements is fragmented and subjective.

	Indicator	Description	Recommended level(s) of data collection	Data availability/Gaps
9	**Policies managing declining industries:** Presence of policies to manage the impacts of declining industries, including the fossil fuel industry, and mandate emissions reductions.	This indicator assesses whether governments have policies to manage the socio-economic impacts of declining industries while ensuring they reduce emissions in line with climate goals. It looks at strategies for economic adjustments, including planned industry phasedowns, and evaluates the scope and presence of these policies.	National	Policies exist for coal phase-out with worker support, but no equivalent policies or detailed assessments exist for oil and gas or other vulnerable sectors.
Results				
10	**Climate alignment:** Extent to which sustainable jobs plans commit to the Paris Agreement and national or regional climate objectives.	This indicator assesses whether sustainable jobs and just transition plans align with climate goals, such as the Paris Agreement and Canada's targets of limiting warming to 1.5°C and achieving net-zero emissions by 2050.	National	National climate commitments and sustainable jobs plans align broadly, but data measuring the emissions impact of sustainable job initiatives is not yet available.
11	**Relative GDP growth:** GDP in low-carbon industries, compared to GDP in high-carbon industries and overall GDP.	This indicator compares the growth of low-carbon industries to high-carbon industries, relative to overall GDP growth, to assess the progress of the economic transition.	National, provincial	GDP data is available for environmental and clean technology (ECT)/clean tech and fossil fuel sectors, but consistent definitions distinguishing high- and low-carbon industries are lacking.

	Indicator	Description	Recommended level(s) of data collection	Data availability/Gaps
12	**Net-new sustainable jobs:** Number of net-new sustainable jobs created by sector and region per 1,000 jobs.	This indicator measures the number of net-new sustainable jobs, capturing job growth in sustainable sectors minus losses. It shows if the green economy is creating enough employment to absorb workers from declining industries, reflecting successful diversification and decarbonization.	National, provincial	Employment data for sustainable jobs is available and growing, but standardized definitions and comprehensive tracking, including job losses in fossil sectors, have gaps remaining.
13	**Workforce retraining:** Number of employees receiving training to transition into sustainable jobs by equity-deserving group.	This indicator tracks the number of workers receiving training or upskilling for sustainable jobs, including those transitioning from high-carbon sectors. It also breaks down training by equity-deserving groups to ensure inclusivity, with interpretation focusing on comparing trained workers to overall needs.	National, provincial	Funding and targets exist for retraining initiatives, but detailed data on participant outcomes, equity-group disaggregation, and clear training definitions are limited.
14	**Displaced worker support:** Proportion of displaced workers with access to social security, relocation assistance, and affordable housing	This indicator tracks the proportion of displaced workers from the transition who have access to critical support systems, such as social security, relocation assistance, and affordable housing. A high value for this indicator means that the vast majority of displaced workers are catching a safety net.	Provincial, regional	Basic data on worker support programs (e.g., Employment Insurance coverage) is available, but systematic tracking of relocation assistance, housing support, and indirect impacts on displaced workers is missing.

	Indicator	Description	Recommended level(s) of data collection	Data availability/Gaps
15	**Sustainable job compensation:** Annual (average) compensation in sustainable jobs (by sector) compared to average compensation across all jobs.	This indicator compares the pay in sustainable jobs to overall job pay, typically using median annual compensation, to assess if green economy jobs offer competitive, decent incomes.	National, provincial	Data shows ECT sector salaries exceed national averages, but ongoing time-series data and inclusion of sustainable roles outside ECT are limited.
16	**Sustainable job retention rate:** Proportion of sustainable jobs employees who retain their jobs for one year or more.	This indicator measures the stability of sustainable jobs by tracking the percentage of employees who stay in their position for 1 year or more.	National, provincial	General job tenure data exists, but specific retention statistics for sustainable jobs, including reasons for turnover, are not collected.
17	**Collective agreement coverage:** Proportion of workers in sustainable jobs covered by a collective agreement, relative to the average across the sector and the economy-wide average.	This indicator measures the proportion of workers in sustainable jobs covered by collective agreements compared to the overall economy and sectoral averages. It assesses whether the transition to a net-zero economy maintains strong worker protections and bargaining power or leads to more insecure, less-unionized jobs, especially as sustainable jobs grow in emerging sectors.	National, provincial	Union coverage data exists broadly but does not distinguish between sustainable and non-sustainable sectors.

	Indicator	Description	Recommended level(s) of data collection	Data availability/Gaps
18	**Employment equity:** Employment rate of underrepresented groups.	This indicator evaluates how inclusive sustainable jobs are by measuring the employment rate (or representation) of underrepresented groups (Indigenous Peoples, women and gender-diverse peoples, people with disabilities, Black and other racialized individuals, 2SLGBTQI+ and other equity-seeking groups) in sustainable industries, compared to their representation in the overall workforce. Ideally, sustainable sectors should be as diverse as or more diverse than the general economy, ensuring equitable access to sustainable jobs and the benefits of transition.	National, provincial	Basic equity data (gender, Indigenous, immigrant) exists in sustainable jobs, but detailed information on racialized groups, disabilities, LGBTQ2+, and trends over time is scarce.
19	**Income inequality:** Distribution of income across the population, indicating the extent of inequality (Gini coefficient).	Tracking the Gini coefficient helps monitor whether the benefits of the transition are widely shared or if certain groups are being left behind. A rising Gini value could indicate increasing inequality, signalling potential social justice concerns during the transition.	Provincial, census division	Canada regularly tracks the Gini coefficient nationally and provincially, but attributing changes specifically to climate transition policies is challenging.

Source: Authors' compilation based on a review of relevant literature.

4.1.1 Risk and Readiness

Economic Exposure

Indicator 1. Community susceptibility: Workforce disruption based on employment in high-emitting industries and transition-vulnerable sectors.

Description/guidance: This indicator measures how vulnerable/susceptible different communities are to negative workforce disruptions caused by a transition to a low-carbon economy. It is assessed through three core metrics (from the IRPP's methodology [Chejfec et al., 2025]):

- facility susceptibility (FS): Ranks communities based on emissions from large industrial facilities in the area divided by the size of the community's labour force. A high FS suggests a significant portion of local employment could be affected if that high-emitting facility downsizes or closes in the transition.
- intensity susceptibility (IS): Ranks communities by the average carbon intensity of the industries that employ workers there, weighted by each industry's share of local employment. A high IS indicates many local jobs are in fields that will need to cut emissions, implying potential job transformation or loss.
- market susceptibility (MS): Ranks communities by the share of workers in industries that are exposed to major global market shifts under decarbonization. A high MS means a community's employment is concentrated in export-oriented industries with high direct emissions (like oil extraction, coal mining, petroleum refining, chemical production, or vehicle manufacturing) that will undergo significant global change.

Together, these three metrics provide guidance on where transition support is most urgently needed. Breaking it into FS, IS, and MS makes it possible to tailor interventions: e.g., a high-FS community might need plans for a single employer phase-out, while a high-MS community might focus on attracting new industries to replace declining ones (IRPP, 2025).

Data availability: This is an already fully applicable indicator with data and benchmarking available here: https://irpp.org/map-of-community-susceptibility/. Key data sources that IRPP draws from are as follows:

- Environment and Climate Change Canada's Greenhouse Gas Reporting Program.
- Census (and Labour Force Survey) 2021 by geographic area and industry and at the census division (county) level.
- National Inventory Report on Canada's GHG emissions and economic data (GDP by industry) can be combined to derive emissions per output for sectors.
- Canadian emissions intensity database leveraged to get a carbon intensity value for each industry.

- International Energy Agency's World Energy Outlook scenarios to identify industries likely to decline or transform.

Data gaps: The data set and map available from IRPP are comprehensive, based on the most recent Statistics Canada (StatsCan) census. If IRPP does not plan to keep this data updated, then it will become stale over time.

Data collection method: If IRPP does not plan to keep this database updated with future census information, Natural Resources Canada (NRCan) could consider replicating the methodology as updated data becomes available (NRCan, 2025).

Indicator 2. Fossil fuel revenue dependence: Percentage of total government revenues derived from fossil fuel-related activities (including direct revenues from fossil fuel taxes and royalties, and indirect from income taxes of fossil fuel workers).

Description: This indicator measures how reliant government finances are on fossil fuel activities. It includes direct income (e.g., oil and gas royalties, fossil fuel-specific taxes such as income taxes from fossil fuel workers) and indirect income (income taxes from fossil industry workers). If oil, gas, or coal revenues shrink, heavily dependent regions can face budget shortfalls. Nationally, Canada's economy is relatively diversified, with lower overall dependence on fossil fuels as an economic driver than some peer producers (Beedell & Corkal, 2021); however, regional differences are significant and need to be considered.

Data availability: Data on total governmental revenues derived from oil and gas activities is publicly available. According to the Energy Fact Book published by, Canada's revenues from the oil and gas industry totalled CAD 19.3 billion between 2018 and 2022. Of this, approximately CAD 19 billion (98%) came specifically from the petroleum sector, with upstream oil and gas extraction and associated support activities alone contributing CAD 17 billion. Corporate income tax payments from the oil and gas industry peaked notably in 2022, reaching around CAD 11 billion, driven primarily by oil and gas extraction and petroleum/coal manufacturing sectors. Over the entire 2018–2022 period, income taxes paid amounted to CAD 4.7 billion, accounting for roughly 24% of total energy revenues, with a significant portion linked to fossil fuel (oil and gas) workers. Royalties formed the largest share, contributing CAD 14 billion or approximately 72.5% of total revenues during this period. For some provinces, such as Alberta, data on royalties from oil and gas, as well as total governmental revenue, is available (Alberta Government, 2023) Federally, direct fossil revenues are smaller (e.g., about CAD 295 million in federal oil and gas royalties for 2021 [Statista, 2025a]). In Canada, these royalties are typically paid by energy companies to provincial governments because natural resources are primarily under provincial jurisdiction.

Data gaps: A key gap is the integrated reporting of all fossil-related revenues as a share of total revenues. Currently, figures must be assembled from disparate sources (royalty reports, tax data, etc.). Indirect contributions—for instance, the personal income tax paid by oil and gas workers—

are not routinely broken out in government statistics. Additionally, granularity by region or municipality is lacking: local governments in resource towns may rely on property taxes from fossil infrastructure, which isn't captured at a high level.

Data collection method: Given that fossil fuel workers' income data is readily available from StatsCan, it should be feasible to calculate their income tax contributions using the annual tax rate. In that scenario, the primary task would simply be to perform this calculation and integrate the resulting data with royalty revenues and other sources of government revenues from the sector. Provinces should continue to report royalties and could include a percentage of the total revenue figure in budget documents.

Institutional Preparedness

Indicator 3. Social protection coverage: Overall share of the population eligible for Employment Insurance, disaggregated by equity-deserving groups and by sector.

Description: Employment Insurance in Canada provides temporary financial aid to those who lose their jobs, are unable to work due to illness, or are caring for a child or ill family member, while also offering job search support (Kagan, 2023). Analysis should consider coverage across equity-deserving groups (such as women, Indigenous Peoples, racialized communities, persons with disabilities, etc.) and by sector or occupation. Proper application considers both eligibility (who qualifies for Employment Insurance) and take-up (who actually receives benefits). An effective just transition aims for high coverage across all groups so that no one falls through gaps while decarbonizing Canada's economy.

Data availability: Canada tracks Employment Insurance coverage through surveys and administrative data. StatsCan's Employment Insurance Coverage Survey provides overall eligibility rates: in 2023, about 83.1% of unemployed Canadians who had paid into Employment Insurance and had a valid job separation were eligible for regular benefits (StatsCan, 2024). This data also highlights disparities: for instance, women's eligibility was only 76.4% vs. 88.6% for men (StatsCan, 2024), reflecting that women more often don't accumulate enough insurable hours (often due to part-time or precarious work). Eligibility is also typically lower for youth (only 57% of unemployed people aged 15–24 qualified in 2023) (Statscan, 2024). By region, coverage varies—Atlantic Canada had the highest rates (over 95% in Newfoundland and Labrador and Prince Edward Island), while Alberta was lowest at 74.7% due to different employment patterns (Employment and Social Development Canada, 2025). Basic breakdowns by gender, age, and province exist in Employment Insurance monitoring reports.

Data gaps: Despite available Employment Insurance monitoring data, there are notable gaps in disaggregation. Information on Employment Insurance coverage by race, Indigeneity, disability status, or other equity groups is not available. Similarly, coverage by sector (say, comparing a declining sector like oil and gas to the national average) is not straightforward to obtain, and quality of coverage (e.g., duration and adequacy of benefits) is not captured by a simple coverage

rate. Moreover, there is no government data regarding early retirement schemes; reports such as Hayes (2021) and others may explore the concept, but do not provide a number or retirement date of early retirees.

Data collection method: To improve this indicator, targeted data collection and integration are needed. StatsCan could enhance its Labour Force Survey or Employment Insurance Coverage Survey by including questions that allow analysis by race, Indigenous identity, disability, etc. (for example, leveraging the expanded demographic information now collected in the census and linking it to Employment Insurance claimant data).

Useful Definition

- Eligibility: Employment Insurance coverage depends on meeting specific eligibility criteria, such as having contributed to the program through payroll deductions and accumulating a sufficient number of insurable hours. Certain groups, like self-employed workers (unless they've opted into Employment Insurance) and some independent contractors, may not automatically qualify.

4.1.2 Response

Governance and Processes

Indicator 4. Governance capacity: Level of resources allocated to a formalized government body(s) responsible for advancing sustainable jobs

Description: This indicator evaluates the resources and infrastructure within government dedicated to steering the transition to sustainable jobs and assesses the government's institutional readiness to adequately advance targets set under the Sustainable Jobs Act. It looks at whether formal bodies (commissions, secretariats, task forces) are in place dedicated to sustainable jobs governance and measures the level of funds and resources (funding, staffing, training, and authority) allocated to governing bodies and distributed by them to support just transition programs and investments. In practice, interpreting this indicator involves reviewing government budgets and organizational structures: for example, is there a ministry or secretariat for sustainable jobs? What is the per capita spending on just transition in affected regions?

Data availability: The federal government established a Sustainable Jobs Secretariat in 2024, and some funds have been allocated to this work (e.g., the 2022 Fall Economic Statement earmarked CAD 250 million over 5 years for sustainable jobs initiatives) (Government of Canada, 2023a). Budget documents and official announcements are the primary data sources quantifying this indicator (e.g., the amount of dollars and number of staff dedicated to the sustainable jobs file).

Data gaps: While the existence of a Secretariat and initial funding commitment is known, details on the level of resources (beyond headline funding), including the number of staff, should be

collated. Moreover, governance capacity isn't only federal: provinces and territories may also need formal bodies, but information on subnational just transition governance varies. Few provinces have dedicated just transition offices or clear data on any provincial resources allocated. Another gap is measuring the effectiveness of these bodies: an institution might exist, but does it have the necessary authority and interdepartmental clout to advance the work?

Data collection method: Collecting and publishing information on staffing, budgetary expenditures, and other measures related to sustainable jobs will be important. A survey of provincial and territorial governments could be conducted, asking about transition task forces or dedicated units, and what resources are allocated? Additionally, independent audits or assessments could periodically evaluate whether the resources are adequate relative to the task. Finally, Indigenous groups or labour unions could be invited to assess if the just transition is sufficiently resourced from their perspective.

Indicator 5. Indigenous partnership in governance: Extent of Indigenous partnership and decision-making authority in sustainable jobs governance processes, as assessed by Indigenous Peoples.

Description: This indicator examines how meaningfully Indigenous Peoples are involved in decision making for sustainable jobs initiatives and governance processes. A strong score would mean Indigenous nations and organizations co-designing and implementing transition plans, whereas a weak score might indicate "tokenism" or exclusion.

Data availability: Canada's recent policy developments provide some evidence of Indigenous inclusion, such as through the Sustainable Jobs Partnership Council and Regional Energy and Resource Tables. However, inclusion in formal governance structures does not indicate how Indigenous perspectives are taken into account or the role of Indigenous Peoples in decision making. For direct measurement, there have been instances of Indigenous-led evaluation: for example, Indigenous groups have periodically assessed federal engagement quality through forums or reports (though not in a standardized indicator format) (Government of Canada, 2021). Another example is the Indigenous-Led Clean Energy initiative by NRCan (2024b), which supports projects with meaningful involvement from Indigenous governments, communities, or organizations.

Data gaps: Despite policy commitments and some examples of Indigenous involvement, there is a lack of quantitative or outcome-based data on this indicator that captures whether Indigenous partners feel they are equal decision-makers. While the data should reflect Indigenous perspectives, mechanisms to regularly gather those perspectives do not currently exist.

Data collection method: This indicator should be assessed by Indigenous Peoples themselves, or at least in collaboration with them. Some potential methods could include a survey to assess how many Indigenous participants felt their input shaped policy outcomes or how many recommendations from Indigenous partners were adopted. Another method is to embed

evaluation criteria in formal agreements: if a new transition initiative is launched with Indigenous communities, include performance indicators (like "Indigenous co-development of project"). Moreover, Canada could report on how it incorporated Indigenous advice in future Sustainable Jobs initiatives (for instance, recommendations from Indigenous partnership council members).

Indicator 6. Social dialogue engagement: Number of workers and community members engaged in tripartite social dialogues and stakeholder forums held in the design, monitoring, and implementation of sustainable job policies.

Description: This indicator tracks how many workers and community members are actively engaged in the planning and implementation of sustainable jobs policies, particularly through social dialogue mechanisms like consultations, advisory forums, townhalls, or committees on sustainable jobs. A higher number of stakeholders engaged would suggest a more democratic and just transition process, which can improve public support and the fairness of policies.

Data availability: Given that the sustainable jobs process is in the early stages, available data is limited. Some data is available from the consultation process that led to the interim Sustainable Jobs Plan in February 2023 and informed the Sustainable Jobs Act. Additionally, engagement also took place related to the coal power transition, led by the Just Transition Task Force for Coal Workers, which could provide an example for current sustainable jobs work. The Coal Task Force visited 15 communities, met with over 80 stakeholders, and held eight public town hall sessions in affected coal regions (Environment and Climate Change Canada, 2019). Data from the Sustainable Jobs Partnership Council engagements, as well as the Regional Energy and Resource Tables, would be relevant, including a breakdown of what specific stakeholders were involved.

Data gaps: There isn't a centralized or ongoing count of engaged participants in sustainable jobs consultations and dialogues. Another gap is demographic detail, which is important to understand whether those engaged represented all affected groups and a diverse cross-section of society.

Data collection method: To improve this indicator, Canada could implement a tracking system for participation in just transition dialogues. One approach is to maintain a registry of consultation activities: each time social dialogue on sustainable jobs is held, the number of attendees, affiliations, region, demographics, etc. should be documented. Another method is partnering with labour and community organizations to report their outreach: unions might report how many members were consulted in developing their positions on just transition, which adds to the count of voices indirectly heard.

Indicator 7. Private sector transparency regulations: Presence and strength of regulations requiring corporate disclosure and participation related to the transition (e.g., data on laid-off workers, advanced notice of facility closures, requirement to contribute funds for retraining, etc.).

Description: This indicator assesses whether there are laws and regulations compelling companies to contribute to a just transition for their workers and communities. Examples include requirements for employers to give advance notice of major layoffs or plant closures, to report the number and profile of workers who will be affected (including age, gender, etc.), and potentially to provide or finance support like retraining or severance beyond minimum standards. For example, governments could mandate that companies in emissions-intensive sectors file "worker transition plans" alongside environmental transition plans that would detail anticipated workforce impacts and how to mitigate them. Interpreting this indicator involves looking at labour laws, employment standards, and environmental or disclosure laws.

Data availability: In Canada, there are some existing laws that touch on these issues, though they are not framed specifically as "just transition" rules. Under the Canada Labour Code, federally regulated employers must give at least 16 weeks' notice to the government for group terminations (50 or more employees) and are required to establish a joint planning committee with employee representatives to help affected workers (Government of Canada, 2024). They also must provide workers with information on severance and other benefits and cooperate with the Canada Employment Insurance Commission in supporting re-employment. Many provinces have similar provisions in their labour standards legislation. Additionally, there are emerging requirements for corporate climate disclosure (the Canadian Securities Administrators and Office of the Superintendent of Financial Institution are moving toward mandating climate risk reporting) (Barlow, 2024), which indirectly pushes companies to plan for transitions, though they still focus on financial risk rather than worker outcomes.

Data gaps: While general layoff and disclosure laws exist, specific just transition regulations are not yet comprehensive. Moreover, private sector rules around decarbonization are still voluntary, with no legal requirement for companies to proactively participate in regional transition efforts. Moreover, data on corporate behaviour in transitions (like how many companies offer early retirement or relocation support beyond legal minimums) is not collected in any official way. Thus, the indicator can currently be rated only by examining laws on the books, not by measuring corporate performance.

Data collection method: To strengthen this indicator, we should first catalogue existing regulations and then monitor their implementation. To get data on enforcement and compliance, labour ministries could publish statistics on group terminations and other worker protective regulations.

Indicator 8. International cooperation: Number of international engagements to foster strengthened global efforts regarding sustainable jobs and exchange lessons learned to inform Canada's approach.

Description: This indicator tracks Canada's international engagements that strengthen global efforts on just transition and sustainable jobs. It covers participation in global just transition initiatives, government-to-government exchanges to share lessons and best practices, and contributions to international partnerships, for instance, in developing countries through the JETPs.

Data availability: Canada signed the Paris Agreement (2015), which recognizes "the importance of a just transition" and acts on the adverse impacts of mitigation policies on the workforce (e.g., through the Just Transition Work program). Canada also co-launched the Powering Past Coal Alliance (2017), committing to support coal workers in the transition. Records of such alliances and conferences (e.g., UN climate change conferences [COPs]) can be used to count Canada's pledges, memberships, and leadership roles. Moreover, Canada is part of multi-country JETPs (for example, the Indonesia JETP announced in 2022), and joint statements and press releases provide data on these engagements.

Data gaps: Data on Canada's just transition engagements abroad is not yet gathered in one place. Moreover, determining what counts as "international engagement" can be subjective. Canada's contributions range from high-level dialogues to funding partnerships: each varies in significance.

Data collection method: Global Affairs Canada or a Sustainable Jobs Secretariat could maintain an annual list of Canada's engagements, including conferences attended, alliances joined, leadership roles, and funding in relation to international just transition activities. Perspectives on international peers and partners on Canada's just transition progress and participation would also be useful data to collect.

4.1.3 Result

Climate and Environmental Protection

Indicator 9. Policies managing declining industries: Presence of policies to manage the impacts of declining industries, including the fossil fuel industry, and mandate emissions reductions.

Description: This indicator examines whether governments have put in place specific policies to manage the socio-economic impacts of declining industries while also ensuring those industries reduce emissions in line with climate goals. These policies might include strategies to deal with sudden economic shocks or policies to enforce slow, planned economic wind-downs of industries. Regulating emissions reductions or phase-down pathways for the fossil fuel industry can help give workers and employers time to plan and allow for a smoother transition than if left unregulated

and up to the company. Interpreting this involves looking at both the presence of such policies and their scope.

Data availability: The federal government implemented a policy to phase out coal-fired electricity by 2030, which is accompanied by programs to support workers and communities. In 2018–2019, a Just Transition Task Force for Canadian Coal Power Workers and Communities issued recommendations, prompting dedicated funding of CAD 185 million for coal transition (Government of Canada, 2023a), showcasing active policy measures to manage coal's decline. However, no such policies exist yet to manage the decline of oil and gas production, though the potential emissions cap and methane regulations for the sector are an important step for regulating the sector's pollution (Williams et al., 2024).

Data gaps: The presence or absence of policies can be easily determined. Conducting an assessment on the stringency of existing policies would be useful to provide more detail, as well as evaluating the efficacy and success of previous policies (such as those related to the coal phase-out). Identifying the major sectors that are vulnerable to the transition and where regulations are needed to help manage the transition will also help identify gaps.

Data collection method: Identifying policies for managing economic declines or shocks and conducting an assessment of gaps should be done by government, with input from external experts and affected workers. It would also be useful to track provincial policies, as they interact with federal activities.

Indicator 10. Climate alignment: Extent to which sustainable jobs plans commit to the Paris Agreement and national or regional climate objectives.

Description: This indicator checks whether plans for sustainable jobs and just transition are in line with climate change goals such as the Paris Agreement and Canada's own climate targets, including objectives of limiting warming to 1.5°C and achieving net-zero emissions by 2050. A just transition should not only help workers but also advance decarbonization. If a plan aimed to preserve jobs in a way that undermines emissions targets (for example, subsidizing continued fossil fuel extraction without abatement), that would indicate misalignment.

Data availability: Canada has explicit climate commitments through its nationally determined contributions to the Paris Agreement, as well as through its net-zero emissions accountability legislation. These commitments are referenced in its sustainable jobs interim strategy and legislation. The Sustainable Jobs Act includes advancing Canada's nationally determined contribution within the guiding principles and definition of a net-zero economy. Moreover, the Sustainable Jobs interim plan emphasizes growth in low-carbon sectors like clean energy and pledges not to undermine climate objectives (it references phasing out unabated coal and supporting climate solutions jobs) (Government of Canada, 2023a). Future sustainable jobs plans and policies should also be assessed for alignment with climate commitments and the emissions reduction plans.

Data gaps: While the plans are supportive of climate goals, analysis is needed to ensure that the policies that flow from the sustainable jobs plans directly contribute to achieving the emissions reductions required. However, measuring this interconnection between fostering sustainable jobs and emission reduction is complex. Data on the emissions impact of sustainable jobs initiatives is not yet available, but should be collected as policies are implemented over time.

Data collection method: To strengthen this indicator, Canada could develop a checklist or scoring system for climate alignment of just transition plans. Criteria might include references to international climate agreements, explicit incorporation of national GHG targets, and no contradictory measures (such as support for expanding high-emission activities).

Indicator 11. Relative GDP growth: GDP in low-carbon industries compared to GDP in high-carbon industries and overall GDP.

Description: This indicator compares economic growth in low-carbon industries versus high-carbon industries relative to overall GDP growth. It provides insight into whether the economic transition is underway. A positive trend (low-carbon GDP rising while high-carbon stagnates or falls) indicates progress toward a greener economy. If high-carbon industries still dominate growth, the transition may be lagging. It's important to consider regional contexts as well, as some regions' GDP is more tied to high-carbon sectors.

Data availability: StatsCan produces data on GDP by industry, including the ECT sector (Jiang, 2023), which can be used as a proxy for this indicator. In 2021, Canada's ECT sector accounted for 2.9% of national GDP (Global Affairs Canada, 2023) and is responsible for about 1.6% of employment. From 2011 to 2021, the ECT sector's real GDP grew 21%, outpacing the overall economy's growth of 15% in that period (Global Affairs Canada, 2023). Meanwhile, high-carbon sectors like oil and gas extraction have had volatile performance but remain a larger portion of GDP. In 2023, the contribution of the oil and gas extraction industry to total GDP was 1.52% (CAD 33,384 million). Those data solely focus on the extraction industry, without parts of the oil and gas supply chain. The overall share of GDP attributed to oil and gas production in Canada in 2023 is 10% (Statista, 2025d). Regional data is also available: provinces like Ontario have sizable clean tech GDP contributions (Government of Canada, 2023b), whereas Alberta's GDP still skews heavily to high-carbon (though Alberta is seeing clean sector growth too) (StatsCan, 2024a).

Data gaps: The challenge with this indicator is defining which industries count as "low-carbon" and which as "high-carbon." The clean tech account used by StatsCan is a good proxy for low-carbon, but it may not capture everything. Similarly, high-carbon typically includes fossil fuel extraction and perhaps fossil power generation, but what about heavy industries dependent on fossil fuels? Setting consistent definitions and adapting data collection where needed are crucial.

Data collection method: To improve clarity, Canada could adopt a standardized classification of low-carbon vs high-carbon industries and regularly report their GDP. Building on the

Environmental and Clean Technology Products Economic Account, Canada might expand the definition of low-carbon industries to include, say, public transit operations, circular economy activities, etc., and similarly clarify high-carbon ones. To capture regional differences, data should be broken down by province.

Employment and Decent Jobs

Indicator 12. Net-new sustainable jobs: Number of net-new sustainable jobs created by sector and region per 1,000 jobs

Description: This indicator measures the number of net-new sustainable jobs. "Net-new" means jobs gained in sustainable sectors minus any jobs lost in those sectors. It essentially captures job growth attributable to the transition and allows us to see where the low-carbon economy is generating employment opportunities at a significant scale. This indicator assesses if sufficient employment emerges to absorb workers from declining industries, indicating successful diversification and growth of a decarbonized economy.

Data availability: According to the latest data, the ECT sector employed approximately 354,257 workers in 2023, accounting for 1.7% of all jobs in Canada. This represents a 4.3% increase from 2022, surpassing the overall national job growth of 3.0% during the same period (StatsCan, 2024b). Projections indicate that Canada's clean energy sector (another non-exclusive list/definition of sustainable jobs) is expected to grow by nearly 50% between 2020 and 2030, adding approximately 208,700 jobs. In contrast, the fossil fuel sector is projected to experience a decline of about 125,800 jobs in the same period, resulting in a net gain of approximately 82,900 sustainable jobs by 2030 (DEC, 2021).

Data collection method: One challenge is defining "sustainable jobs" comprehensively. To robustly track this, Canada can build on its labour market surveys by tagging sustainable jobs. StatsCan could enhance the Labour Force Survey or census by identifying occupations and industries considered sustainable. To ensure we account for losses in unsustainable sectors, one could separately track jobs lost in fossil fuel industries. Moreover, Canada could partner with organizations within the clean energy and environmental sectors to gather detailed employment data and identify emerging trends. As Canada moves forward with the Sustainable Jobs Action Plan and subsequent policy implementation, it could also establish a target for creating sustainable jobs (like X per 1,000 by 2030) and use it as a baseline to monitor progress accordingly.

Indicator 13. Workforce retraining: Number of employees receiving training to transition into sustainable jobs by equity-deserving group.

Description: This indicator tracks how many workers are receiving training or upskilling to move into sustainable jobs (either transitioning from high-carbon sectors or entering the workforce directly into green sectors). It also calls for a breakdown by equity-deserving groups (such as

women, Indigenous Peoples, racialized individuals, people with disabilities, etc.), to ensure training opportunities are inclusive and equally distributed. To interpret it, one should compare the number of trained workers in relation to the needs.

Data availability: The Canadian government has launched several initiatives aimed at retraining/upskilling for sustainable jobs, and some targets or figures are available from those. For instance, the Sectoral Workforce Solutions Program was allocated CAD 960 million over 3 years to help key sectors address workforce needs by connecting workers with needed training (Government of Canada, 2023a). While the program is broad, a portion is clearly for green sectors, such as the Sustainable Jobs Training Centre, set to help 15,000 workers gain net-zero economy skills, and the Upskilling for Industry program, with CAD 250 million to retrain 15,500 workers in clean tech, digital, and advanced manufacturing. On the labour side, the Union Training and Innovation Program now includes a sustainable jobs stream, targeting 20,000 apprentices and journeypersons with green skills training (Government of Canada, 2023a). Collecting numbers of actual workers trained and employed will be important to compare with the estimated targets for these investments.

Data gaps: Disaggregation of data on retraining by equity group is often lacking. Moreover, there is some grey area regarding the definitions of training and retraining that need to be clarified (e.g., is a construction worker taking a course in energy-efficient building techniques included?). Tracking the outcomes of trainings (i.e., do these trainees actually enter into sustainable employment?) is a layer beyond just counting training recipients, and data on that is often missing but important for evaluating effectiveness.

Data collection method: Government should ensure that training providers report the number of individuals trained in programs that have a sustainability or clean economy focus funded by government. Key demographics of participants should be included in reporting (gender, Indigeneity, etc.) to get the equity breakdown. It would also be helpful to gather data on the previous occupation of the workers receiving training (e.g., are they coming from a high-carbon industry?).

Indicator 14. Displaced worker support: Proportion of displaced workers with access to social security, relocation assistance, and affordable housing

Description: This indicator looks at the proportion of workers who lose their jobs due to the transition and have access to critical support systems, such as social security (unemployment benefits, pension bridging), relocation assistance (help moving to find new work), and affordable housing. On average, displaced workers in fossil fuel-dependent industries experience a 36% drop in earnings over 6 years, compared to a 29% loss for those in low-emission sectors (Organisation for Economic Co-operation and Development, 2024). A high value for this indicator means that the vast majority of displaced workers have a safety net that helps them relocate if their skills are needed elsewhere and facilitates access to affordable housing.

Data availability: Certain support measures can be tracked through administrative data. Employment Insurance coverage for unemployed people is known (as discussed in Indicator 2). For relocation assistance, data is scarcer, even though specific programs exist, such as the coal transition in Alberta, where workers were offered a relocation allowance and other benefits. While Canada does not have a public percentage of how many took up relocation aid, programs such as the Alberta Coal Workforce Transition Program indicate some workers did get help moving to new jobs.

Data gaps: This indicator is currently one of the most challenging to quantify. We lack a routine accounting of what happens to workers after displacement beyond basic Employment Insurance stats. Specifically, relocation assistance is often ad hoc. The same goes for housing support, which is typically means-tested and not tied to displacement events, so a displaced worker might end up on a waitlist for social housing or struggle in the private market, which the data doesn't directly capture. Identifying workers displaced due to transition versus general unemployment in the data is also challenging. Lastly, equity within displaced worker support is a concern, particularly tracking whether workers indirectly impacted by the transition (i.e., hospitality workers in an oil-producing region) are also supported.

Data collection method: One approach would be to implement a displaced worker survey whenever there's a known transition event. For example, if a coal plant closes, affected workers could be surveyed or followed (with consent) over the next year or two to see what supports they use. That would give a direct measure of what percentage got Employment Insurance, who moved and whether they got help to do so, and whether they found housing in the new location. The Sustainable Jobs Partnership Council could also do some of this data collection on a regional basis. Importantly, data collection should be disaggregated by group to see if, for example, Indigenous workers have lower support uptake due to accessibility issues.

Indicator 15. Sustainable job compensation: Annual (average) compensation in sustainable jobs (by sector) compared to average compensation across all jobs.

Description: This indicator compares the pay in sustainable jobs to the pay across all jobs, typically using median annual compensation (or wages). It helps assess whether jobs in the green economy are providing decent, competitive incomes. A sustainable transition should ideally create quality jobs, not just any jobs. If median compensation in sustainable sectors is on par with or higher than the national median, it suggests these jobs are good for workers' livelihoods (potentially helping draw more people into them). If significantly lower, it could signal issues such as sustainable jobs being lower-skilled or undervalued, which might deter workers from transitioning.

Data availability: StatsCan data indicates that ECT sector jobs in Canada tend to offer higher pay than the average job. In 2019, the average salary in the ECT sector was about CAD 75,816, compared to the national average salary of CAD 56,783 (StatsCan, 2021). Two years later, in 2021, average annual compensation in the ECT sector was about CAD 96,000 (Global Affairs

Canada, 2023). ECT jobs paid roughly 39% more than the economy-wide average (Global Affairs Canada, 2023). Another example is within clean tech, certain provinces had especially high averages: a Natural Resources Canada report noted Ontario's cleantech sector had an average salary of around CAD 101,000, well above provincial averages (NRCan, 2024a). While sustainable jobs' salaries may be lower than the traditionally very high wages in oil and gas, they are largely on par or higher than the economy-wide average salaries.

Data gaps: The ECT sector definition is a good proxy, but some sustainable jobs reside in conventional industries (e.g., an environmental manager in a transportation company). If those aren't counted in ECT, we could be missing some. Moreover, time-series data specifically highlighting the sustainable jobs would help, but we mostly have snapshots (like 2019). Canada needs to ensure ongoing data collection to see if the pay advantage holds

Data collection method: StatsCan could incorporate a standard classification of "Sustainable Jobs" in its labour statistics and might also gather data through employer surveys in low-carbon industries. Ensuring that data can be broken down by region and demographic would add insight (e.g., whether women's sustainable jobs pay as well as men's). Additionally, tracking how this evolves as the scale of sustainable employment grows is important. This could be complemented by comparing compensation to equivalent roles in legacy industries.

Indicator 16. Sustainable job retention rate: Proportion of sustainable jobs employees that retain their jobs for one year or more

Description: This indicator measures how stable sustainable jobs are by looking at the percentage of employees in sustainable jobs who remain in their positions for 1 year or more. Longevity is an important aspect of job quality; if sustainable jobs have very high turnover, that could indicate issues like precarious contracts or a mismatch of skills. Conversely, strong retention means workers are building experience and staying, which is good for both workers (stable income) and employers (lower training costs, higher productivity). When interpreting, one would compare this rate to the national average retention or to that in other industries.

Data availability: At present, there is no direct published figure for "1-year retention" specifically in sustainable jobs. However, some related data can inform it. Generally, Canadian labour statistics can tell us about job tenure—for example, median job tenure in various industries—but not specifically for low-carbon industries (Statistics Canada, 2024).

Data gaps: There is no regular survey or statistic capturing retention in the subset of "sustainable jobs." Job tenure data by industry exists, but industries aren't neatly split into sustainable vs. not sustainable. There's also no distinction being made between voluntary turnover (people leaving for other opportunities) vs. involuntary (job ended) in simple retention, which could be important: high turnover might be due to poaching in a booming sector or due to new job opportunities. This cannot be said at the moment about sustainable jobs.

Data collection method: Job retention data should be collected with sector-specific information so that it can be disaggregated by low-carbon industries. Alternatively, the Sustainable Jobs Secretariat could coordinate with employers in key sectors to obtain human resources metrics such as turnover rates. Over time, as sustainable jobs become a bigger part of the economy, StatsCan might develop indicators on job stability in these sectors. Disaggregating by contract type (permanent vs contract) is also a useful indicator of precarity. Ultimately, by collecting such data routinely, we can verify that new sustainable jobs are indeed providing lasting careers and not just short-term work, which is a core element of making the transition just and attractive to workers.

Indicator 17. Collective agreement coverage: Proportion of workers in sustainable jobs covered by a collective agreement, relative to the average across the sector and the economy-wide average.

Description: This indicator measures the proportion of workers in sustainable jobs covered by a collective agreement compared to coverage in the overall economy and sectoral averages. It highlights whether the transition to a net-zero economy maintains strong worker protections, fair wages, and bargaining power or results in a shift toward less-unionized, less secure jobs. Given that GHG-intensive industries tend to have higher unionization rates, the growth of sustainable jobs in new and emerging sectors (e.g., battery plants, renewable energy, EV manufacturing) raises concerns about a potential decline in bargaining coverage.

Data availability: StatsCan's Labour Force Survey provides data on union membership and collective bargaining coverage across the economy. In 2023, about 30.4% of employees in Canada were covered by a collective agreement (StatsCan, 2024). This source also provides insights into collective bargaining coverage by regions, gender, race, age, level of education, and provinces. Although StatsCan (2024) presents coverage per sector, there is no distinction between "low-carbon" sectors and others. Cavalluzzo (2023) notes that traditionally carbon-intensive sectors (oil and gas, utilities) have higher unionization rates than many clean tech sectors: this highlights that sustainable jobs must also be unionized jobs to ensure that workers have fair and safe working conditions.

Data gaps: Currently, Canada does not publish union coverage differentiated by sustainable jobs or low-carbon industries.

Data collection method: An approach could be to engage labour unions, which have membership data, and employers' associations in sustainable industries, to gather information. For example, conduct an annual survey of major clean economy employers about whether their workforce is unionized and the share of workers under collective agreements.

Indicator 18. Employment equity: Employment rate of underrepresented groups (Indigenous People, women and gender-diverse peoples, people with disabilities, Black and other racialized individuals, 2SLGBTQI+ and other equity-seeking groups) in sustainable jobs by sector.

Description: This indicator evaluates how inclusive sustainable jobs are by measuring the employment rate (or representation) of underrepresented groups in sustainable industries, compared to their representation in the overall workforce. Ideally, sustainable sectors should be as diverse as or more diverse than the general economy, ensuring equitable access to Sustainable Jobs and the benefits of transition. For example, if women make up 50% of the overall workforce but only 25% of the sustainable job workforce, that's a gap that needs to be addressed. Interpreting this involves comparing percentages: e.g., what percentage of sustainable jobs are held by Indigenous People versus what percentage of the labour force is Indigenous? A narrow gap or overrepresentation might signal good inclusion, whereas a wide gap indicates the need for targeted action.

Data availability: In 2019, women held about 36% of jobs in the ECT sector (StatsCan, 2021), compared to roughly 47% of jobs in the economy held by women in 2019. (Trading Economics, 2025). This indicates women are underrepresented in those sustainable sectors. Indigenous People made up around 6% of the ECT workforce (StatsCan, 2021) in 2019, which is slightly above their share of the overall Canadian workforce, where they accounted for 4.6% of the labour force in 2021 (Indspire, 2023). Immigrant workers were about 33% of the ECT sector (StatsCan, 2021). Data specific to other racialized groups (like Black and Asian people, etc.) isn't directly given in those sources. However, the federal government has started initiatives to promote inclusion: for example, the Opportunities Fund for Persons with Disabilities (CAD 272 million over 5 years) is partly aimed at helping persons with disabilities train for and get jobs in emerging sectors (Government of Canada, 2023a). Also, the Sustainable Jobs Plan emphasizes increasing engagement of underrepresented groups in training. These are qualitative indicators that equity is recognized as an issue and efforts are underway to improve, but current numbers still likely reflect those historic imbalances in employment equity.

Data gaps: There is relatively solid data on gender, and some data on Indigenous and immigrant status. However, we don't have a breakdown of Black and other racialized communities specifically in sustainable jobs. Similarly, data on people with disabilities and LGBTQ2+ in these sectors is scarce. The Canadian census collects some of this (e.g., visible minority status, Indigenous identity, and disability to some extent via separate surveys), but without connecting it specifically to "sustainable jobs." Also, if we broaden "sustainable jobs" beyond the ECT definition, data availability becomes scarce. For now, there is also a lack of a time series, such as whether workforce diversity in sustainable jobs is improving.

Data collection method: StatsCan could use the census (which asks about occupation and industry, as well as demographics) to inquire about the share of underrepresented groups in sustainable jobs. Additionally, programs under the Sustainable Jobs initiative could require

reporting on participant demographics, which would feed this indicator (e.g., training program participation by group, hiring program uptake by group).

Indicator 19. Income inequality: Distribution of income across the population, indicating the extent of inequality (Gini coefficient).

Description: This indicator measures income inequality within the population, summarized by the Gini coefficient. The Gini ranges from 0 (perfect equality where everyone has the same income) to 1 (maximum inequality where one person has all the income), meaning that the higher the value, the greater the gap between rich and poor. In a just transition context, one goal is that the shift to a sustainable economy doesn't exacerbate inequality and ideally helps reduce it. Using the Gini or similar measures allows us to track whether inequality is widening or narrowing as the transition proceeds. If inequality grows (higher Gini), it could signal that the benefits of the transition are not being widely shared or that certain groups are being left behind (or that broader economic forces are at play). This indicator thus gives a macro-level check on social justice outcomes.

Data availability: Canada's Gini coefficient for after-tax household income has been measured for years by StatsCan and international bodies. In recent years, Canada's after-tax Gini has been in the low 0.30s. For example, Statista tracks Canada's Gini index from 2000 until 2021, when the index stands at 0.29 (out of 1) in 2021 (Statista, 2025c). This indicates a moderate level of inequality. In comparison, European countries are often in the same range as Canada, India is at 0.33, China at 0.36 and the United States around 0.41 (Our World in Data, 2024). The Canadian Income Survey regularly provides Gini coefficients and other distribution measures each year. So, data is readily available at the national level and even by province (Statista, 2025b).

Data gaps: Canada's national Gini is well-tracked. One thing to improve could be the connection of Gini coefficient changes specifically to the transition, as this is not straightforward. Many factors influence inequality (globalization, technology, tax policy, etc.), so if we observe changes, attributing them to climate transition policies vs. other factors requires deeper analysis.

Data collection method: Canada already collects and publishes the needed income data to calculate the Gini coefficient.

4.2 Benchmarking and Targets

To assess progress using indicators, it is helpful to establish benchmarks or targets to understand when the indicator has reached the desired level.

Benchmarking involves selecting and applying standardized metrics or reference points to assess performance across different contexts. In other words, it means assigning a scoring system to each indicator, which helps determine progress on a specific subject. By framing certain outcomes as global "best practices," indicators can shape how actors perceive success or failure. It is also

important to ensure that benchmarking remains politically neutral and does not become an avenue for exerting political pressure or for promoting policy changes that may not be aligned with local values and needs (Broome & Quirk, 2015).

In the context of the Sustainable Jobs Action Plan, benchmarks can provide a ranking scale to determine whether the results for a given indicator meet a sufficient level of achievement. That means it is through benchmarking that indicators become operational, making it clear whether the Sustainable Jobs Action Plans are on the right track.

International organizations such as the World Bank, the Organisation for Economic Co-operation and Development, and the United Nations regularly publish benchmarks (e.g., Doing Business Indicators, Programme for International Student Assessment scores, Sustainable Development Goals monitoring frameworks), setting international standards in a variety of areas. However, established, standardized benchmarks on just transition in the reviewed literature are limited.

The experts we spoke with in other countries mostly said that they had not yet determined specific targets for each indicator, as they were still in the process of establishing baselines and starting to monitor the trends. Gathering baseline data is an important first step to determining your target or benchmark (Scotland's International Development Alliance, 2017).

An alternative to trying to determine a singular target for each indicator, particularly on those more qualitative indicators, would be to identify a spectrum of progress. For instance, in the just transition plan evaluation tool by Bird et al. (2024b), the authors use a traffic light system with a description of what a good outcome, medium outcome, or poor outcome would look like for each indicator. Harrahill and Douglas (2019) also do a qualitative assessment of indicators (social dialogue, retraining, re-employability, and role of the welfare state) across three jurisdictions, and classify outcomes as positive, negative, or mixed for each indicator.

More work is needed to establish baseline data and develop targets or spectrums of expectations for each of the indicators, in collaboration with key stakeholders.

5.0 Recommendations for Sustainable Jobs Monitoring and Evaluation

While more work is certainly needed to develop Canada's sustainable jobs monitoring and evaluation system, which must include dialogue and collaboration with Indigenous Peoples, workers, and stakeholders, the information in this report aims to provide an initial guide, as well as a foundation for future work in this direction. Below are several overall recommendations for consideration in future work, based on the interviews and research discussed above.

Collecting and Coordinating Data

1. From the outset, it is important to determine who will be involved in data collection and monitoring, who will oversee it, how much time it will take, and its cost (Scotland's International Development Alliance, 2017). In doing so, it will be important to distinguish and agree upon the role of the Sustainable Jobs Secretariat, StatsCan, Employment and Social Development, the Partnership Council, and other departments and entities. It is possible that a third-party assessment of Canada's progress will be needed at some point to provide a more objective view.
2. Monitoring on sustainable jobs should build upon and interface with other monitoring, particularly on emissions reduction plans, with attention to any areas of overlap, synergies, or conflicts.
3. It is critical to establish baseline data for all indicators at the start of the project, and make a decision around how information tracked over time will feed back in to improve performance (Scotland's International Development Alliance, 2017).
4. It is important to have both quantitative and qualitative indicators to assess different dimensions of the transition and stakeholder satisfaction. Qualitative indicators can be more time-intensive to measure, and it may not be possible to identify singular targets for them in some cases.

Starting Where You Are: Leveraging what is already in place.

Rather than delaying action in pursuit of a fully comprehensive system. Based on the interviews and research discussed above, several overarching recommendations are outlined below for consideration in future work.

1. It is recommended that future policy development better align with proposed best practices in the literature with the practical constraints and operational structures of government implementation.
2. A number of interviewees cautioned to "not let perfect be the enemy of good" in the design of indicators and monitoring frameworks. It is recommended that early-stage monitoring and evaluation efforts begin by using existing data, indicators, and reporting

processes, while being explicit and transparent about current gaps and limitations. In practice, "starting where you are" means prioritizing indicators that can be measured with available data and within existing governance and monitoring systems, rather than developing an entirely new or overly complex framework from the outset. This approach was echoed by Just Transition (JT) representatives in Ireland, Scotland, and South America, many of whom described ongoing efforts to refine large initial indicator lists into more focused, manageable sets that align with current institutional capacity and decision-making processes.

Sharing Lessons Learned

1. Given the emerging nature of just transition monitoring and evaluation, it is recommended that governments support and participate in cross-jurisdictional communities of practice to share expertise and lessons learned, building on examples such as South Africa's efforts to convene international governments through a community of practice on just transition monitoring.

Communicating Progress on Sustainable Jobs to Canadians

1. It is recommended that technical indicator data be translated into clear, accessible, and engaging formats to better resonate with the average Canadian.
2. It is recommended that governments provide regular, transparent, and honest assessments of progress to build and maintain public trust, including openly communicating when progress is slow or targets are not being met. This approach should reflect leading practice, such as Scotland's emphasis on keeping the public informed about current status, acknowledging complexity, and sharing lessons learned through an iterative, "learning by doing" approach.
3. It is important to communicate which stakeholders were involved and how their input was or will be integrated into sustainable jobs policies.
4. Canada could draw inspiration from several interesting examples of communication approaches from other regions that were shared, including:

    a. Germany's Deutsche Gesellschaft Für Internationale Zusammenarbeit developed a series of videos describing different elements and perspectives on the coal transition (e.g., looking at the coal commission process, trade union perspectives, coal regions perspectives, industry perspectives, and energy security).

    b. South Africa's Presidential Climate Commission writes regular op-eds in national and local papers to build broad public understanding and buy-in to the benefits of the energy transition.

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