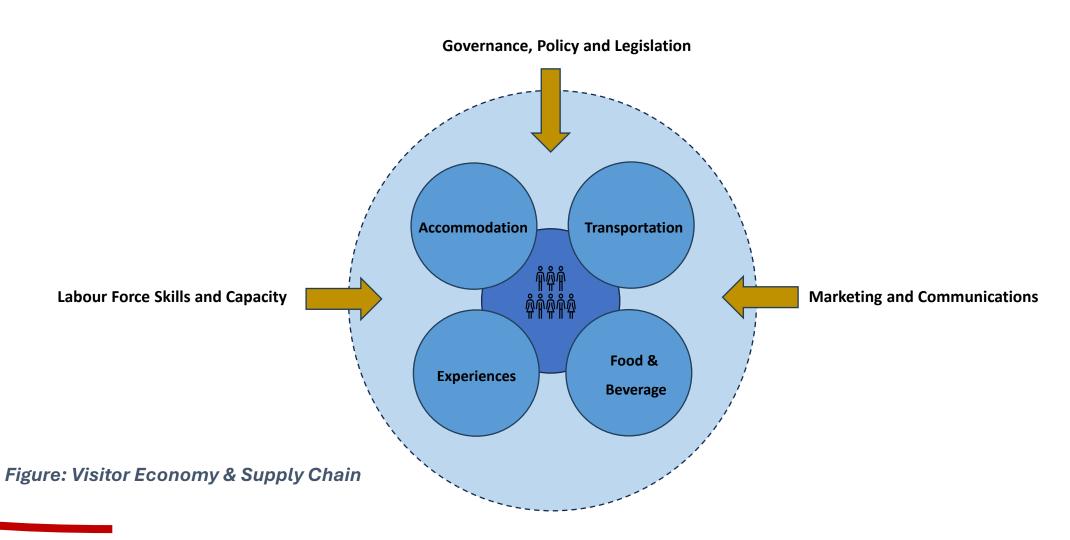
CALGARY AS A SUSTAINABLE TOURISM DESTINATION

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ABSTRACT: How does Calgary perform as a sustainable tourism destination and how can Tourism Calgary improve Calgary's score year-over-year?

Sustainability drives competitiveness for tourism destinations. When looking to either visit a location or host conventions, meetings, or events, both local and international visitors and clients are increasing their expectations of a destination's sustainability performance. This, coupled with increase of travellers putting pressure on the planet's natural resources, demands the sector re-evaluates how well its environmental, social, and cultural systems of a destination are managed and protected. This research utilized the Global Destination Movement's GDS-Index to measure how well Calgary performs as a tourism destination. Sustainability is measured across 77 indicators within four categories (social, environmental, supplier and destination management organization performance), and is aligned with the United Nation's Sustainable Development Goals. Recommendations were put forth to drive performance year-over-year, focused on program development and meaningful engagement. Overall, this research supports sustainable and regenerative motivations of Calgary's tourism industry, enabling the destination to remain competitive within a growing sector.

Calgary brings over 2.1B in revenue annually through tourism-based activities, making it one of the main drivers for economic growth (Tourism Calgary, 2023). Globally, tourism stands to be one of the most important, resource intensive and fastest growing sectors, outpacing the global economy for over the past decade (Gallego et al., 2023; Ricchini, 2022; World Travel and Tourism Council, 2020). This is a cause for concern when considering the possible impacts on natural and social systems, and the challenges faced for sustainable development. Tourism It is also considered one of the most, dynamic, and reputation-focused industries in the world (Streimikiene et al., 2021). There is an emerging demand from both business event clients as well as leisure visitors that destinations reduce their impact on the environment and foster positive social impact through activities and supply chains (Dubey et al., 2017; UNTWO, 2024). The combination of accelerated growth in the sector, coupled with increasing importance on sustainability creates motivation for Tourism Calgary to explore new tourism management practices embedded in sustainability that will in turn drive prosperity, resilience and enable the destination to remain competitive in a growing market.



Tourism is a contradictory sector that can either drive prosperity, or cause damage throughout environmental, social, cultural, and economic realms (Briassoulis, 2002; Giannoni, 2009; Hui et al., 2023; Khan et al., 2021; Streimikiene et al., 2020). It is a paradox as the natural world, the people, and the culture of a location often attracts visitors, and in turn, gets degraded through pollution and exploitation. Sustainable tourism describes responsible tourism management that takes into consideration holistic positive outcomes for both the visitor, as well as the local destination (Fergusen 2015; Torres-Delgado & Palomeque, 2014).

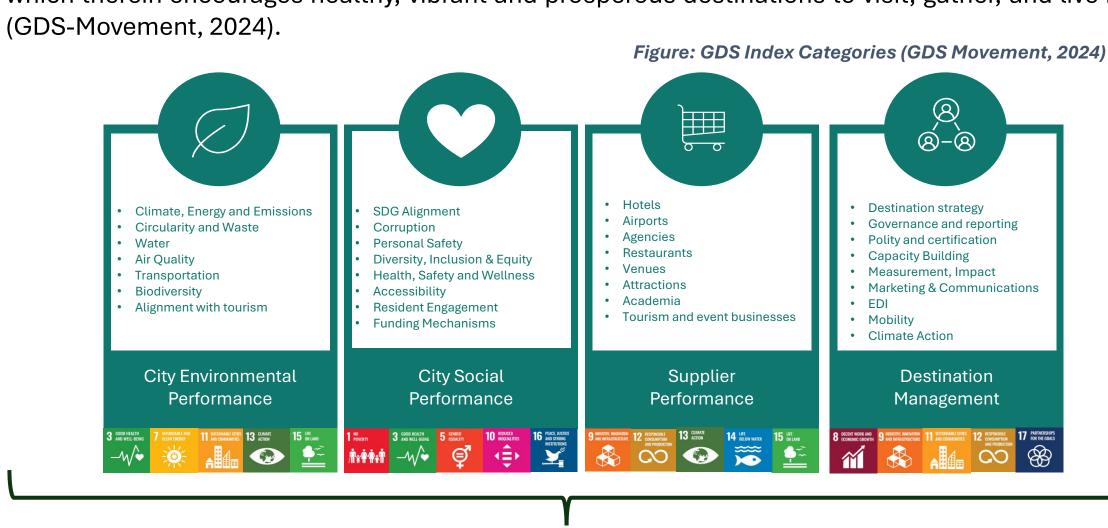
Tourism can create many positive social, environmental and economic benefits for a location ranging from global funds injected into local economies, new businesses, job creation, to improved standard of living, preservation of culture and language, enhanced intercultural understanding, as well as protection of endangered species, reduced pollution, and enhanced care for the natural world. (Bellato et al. 2022; Gasparaini, 2023; Perez-Pineda, 2017; Fergusen, 2015; Lane, 1993; DeLacy et al., 2014, Perez-Pineda, 2017, UNTWO 2024).

To drive meaningful sustainable change in the tourism sector, one first must be able to measure performance (Scutari, et al., 2023). Sustainability indicators are effective at identifying information, measuring performance, igniting dialogue between stakeholders, and driving systematic change (Kofler et al., 2018).

This research utilizes the 2024 Global Destination Sustainability Index (GDS-Index) to analyze Calgary's performance as a sustainable tourism destination.

The study was broken down into two phases, the first consisting of a performance analysis measuring and benchmarking Calgary's achievement against a set of globally recognized sustainability indicators that relate to the visitor economy including leisure tourism, meetings and events. The second phase analyzes the performance results, putting forth recommendations on how Tourism Calgary can enhance Calgary's GDS score year-over-year.

This study compares quantitative and qualitative data for 77 indicators across four major areas of sustainability to aggregate an overall score as a percent (out of 100) for the destination. The higher the score correlates to greater integration of social, environmental, cultural, and economic priorities strategic decision at the local level. The overall goal of measuring destination performance through the GDS-Index is to drive innovation, action and change at the local level which therein encourages healthy, vibrant and prosperous destinations to visit, gather, and live in.



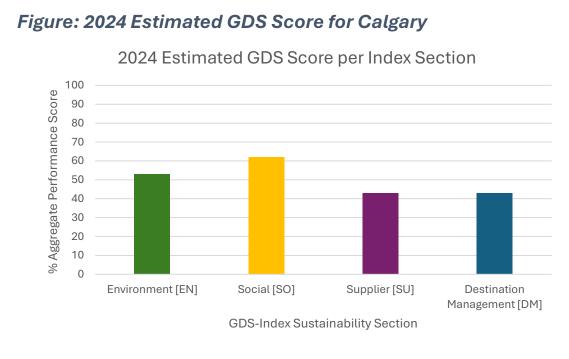
77 Performance Indicators Comprised of multiple sub-indicator criteria valued between 0.5 and 5 points each

This study consisted of a mixed-method approach including quantitative data proof points, alongside written qualitative summary for each of the sub-indicators in an effort to achieve maximum points within each of the four sections of the GDS-Index. Common examples of acceptable proof points include but are not limited to: publicly available websites, strategy or policy documents, signed commitments, financial reports, budget & grant documents, climate database reports, meeting notes, course or training materials, survey responses, and more. Outreach to secure data from external stakeholders was in the form of calls, emails, and virtual calls. Meetings and communications were completed with relevant stakeholder groups such as academic institutions, local nonprofit organizations, airports, and other.

Sustainability is driving competitiveness throughout the tourism sector, not just through individual traveler preference, but through large-scale, international meetings, conventions and event business growth within the sector driven by many factors which include changing regulatory landscape and dynamic public perception around corporate social responsibility.

ANALYSIS

Measuring performance utilizing indicators is helpful as it profiles how well organizations perform against each indicator will shed light on the efficiencies, or lack of efficiency and effectiveness of meeting specific outcomes (Herremans, 2020). Aggregated average scores are calculated for each of the four performance areas of sustainability, and then a final total destination score for Calgary is calculated by averaging the scores across the four areas. Overall, the final estimated destination score for Calgary is 2024 is 50%. Calgary's Social highest at Environmental Performance scored second highest at 53%, and both Supplier and Destination Management Performance tied at the lowest scores both receiving 43%.



Further analysis was conducted on the indicators that Tourism Calgary has direct or indirect control over (total 47 indicators, making up 61%), and did not include indicators that the organization had very distant indirect influence over 39% of indicators).

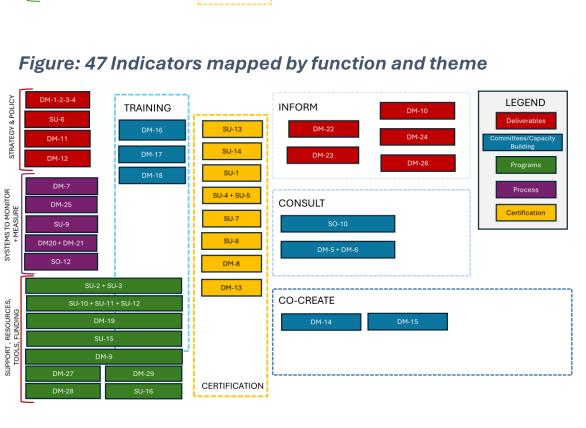
Further analysis and mapping were conducted on the 47 direct and indirect indicators. These indicators were analyzed based on what type of action was required to satisfy achieving points towards the indicator, with the following five types identified:

Committees/Capacity Building
 Programs
 Process
 Certification

1. Deliverables

TRAINING

TRAINI



Recommendations put forth to Tourism Calgary are based on themes pulled from the mapping analysis.

Briassoulis, H. (2002). Sustainable tourism and the question of the commons. *Annals of Tourism Research*. 29(4), 1065–1085

nnoni, S. (2009). Tourism, growth and resident's welfare with pollution. To*urism and Hospitality Research*. 9(1), 50-60.

rgusen, L. (2015). Tourism, the Millenium Development Goals, and Gender Equality. (2nd). Elsevier. 474-480.

World Travel & Tourism Council. (2020). Economic Impact of Travel and Tourism Report. https://www.wttc.org/

an, S., & Rehman, A. (2021), Tourism, IntechOpe

Jnited Nations Environment Programme. (2005). <u>UNEP.</u> https://www.unep.org/

ourism Calgary. (2023). Tourism Calgary Business Plan 2023-2026. www.visitcalgary.com

Bellato, L., Frantzeksaki, N., & Nygaard, C. (2022). Regenerative Tourism: a conceptual framework leveraging theory and practice. Tourism Geographies. 25(4). 1026-104

of Calgary, (2022). City of Calgary 2023-2026 Climate Implementation Plan. https://www.calgary.ca/environment/policies/climate-implementation-plan.html#plan

Lacy, T., Jian, M., Lipman, G., & Vorster, S. (2014), Green Growth and Travelism, Concept, policy and practice for sustainable tourism, Routledge

vndes, V., & Stoker, G. (2001). Trends in Public Participation: Part 1 – Local Government Perspectives. Public Administration. 79(1), 205–222.

Ricchini, E. (2022). Official statistics for measuring the sustainability of tourism: the UNWTO initiative. Firenze University Press and Genova University Press.

Sowen, F., Newenham-Kahindi, A., & Herremans, I. (2010). When Suits Meet Roots: The Antecedents and Consequences of Community Engagement Strategy. Journal of Business Ethics. 95, 297-318.

paraini, M., & Mariotti, A. (2023). Sustainable tourism indicators as policy making tools: lessons from ETIS implementation at destination level. Journal of Sustainable Tourism. 31(7), 1719-173

Streimikiene, D., Svagzdiene, B., Jasinskas, E., & Simanavicius (2021). A Sustainable tourism development and competitiveness: The systematic literature review. Sustainable Development. (29), 259–271

, J., Mooney, H., Hull, V., Davis, S., Gaskell, J., Hertel, T, Lubchenco, J., Seto, K., Gleick, P., Kremen, C., & Li, S. (2015). Systems Integration for Global Sustainability. Science. 347(6225).

nada Energy Regulator. (2024, July). Canada Energy Regulatory, Provincial and Territorial Energy Profiles – Canada. https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-canada.html#s3

ui, X., Raza, S., Waheed Khan, S., Zaman U., & Ogadimma, E. (2023). Exploring Regenerative Tourism Using Media Richness Theory: Emerging Role of Immersive Journalism, Metaverse-Based Promotion, Eco-Literacy, and Pro-Environmental Behavior. Sustainability, 15(6).

ofler, I., Marcher, A., Volgger, M., & Pechlaner, H. (2018). The special characteristics of tourism innovation networks: The case of the Regional Innovation System in South Tyrol. Journal of Hospitality and Tourism Management. 37. 68–75.

ez-Pineda, F., Alcaraz, J., & Colon, C. (2017). Creating sustainable value in the hospitality industry: a (critical) multi-stakeholder study in the Dominican Republic. Journal of Sustainable Tourism. 25(11), 1633-1649.

bour, C., Neto, A., Gobbo, J., Ribeiro, M., & Jabbour, D. (2015). Eco-innovations in more sustainable supply chains for a low-carbon economy: a multiple case study of human critical success factors in Brazilian leading companies. Journal of Production Economies. 164, 245-257.

pey, R., Gunasekaran, A., Childe, S., Papadopoulos, T., Hazen, B., Giannakis, M., & Roubaud, D. (2017). Examining the effect of external pressures and organizational culture on shaping performance measurement systems for sustainability benchmarking: International Journal of

RECOMMENDATIONS

Recommendations put forth to Tourism Calgary aim to satisfy the second part of the research question which is "How can Tourism Calgary improve Calgary's GDS-Index score-year-over year?" Breaking this down, to improve Calgary's score, Tourism Calgary would need to increase points within the lowest scoring areas (Supplier and Destination Management Performance), focus on the parts of the GDS-Index it has control over (the direct and indirect indicators), as well as understand which areas to prioritize in the short- and long-term.

RECOMMENDATION #1: Build Internal and External Stakeholder Capacity around Sustainability: Education, Awareness, and Competencies. (15 points, 12 indicators)

RECOMMENDATION #2

Bolster RED (Reduce, Enrich, Divert) Legacy
Events Program by aligning with relevant
GDS-Indicator activities
(39.5 points, 17 indicators)

RECOMMENDATION #3

Formalize Governance Structures and Lead
Consultation/Co-Creation Engagement
regarding Sustainability.
(8 points, 4 indicators)

RECOMMENDATION #4 Launch Marketing, Communications and Reporting regarding Sustainability and the Visitor Economy. (32 points, 15 indicators)

Pursue and Promote Third Party
Sustainability Certification for Tourism
Calgary and Local Tourism Supply Chain
(62.5 points, 24 indicators)

RECOMMENDATION #5

The complexity of the GDS-Index speaks to the highly interconnected, interdisciplinary, and multifaceted nature of sustainability work itself (Jabbour et al., 2015; Lui et al., 2015) Therefore, in successful attempt to pursue and accomplish the outcomes of the GDS-Index, Tourism Calgary would certainly by proxy build a highly interconnected system of stakeholder groups, connected through varying levels of engagement, constructed in a framework with layers of process, policy and programs, aimed towards numerous targets that drive benefits and require trade-offs at every step of the process.

Sustainability in tourism is a collaborative effort that requires measuring performance and engaging all stakeholders. (UNEP, 2005). Therefore, five overarching recommendations are put forth to Tourism Calgary for consideration. These five recommendations are defined by two goals 'launch programs and initiatives' and 'conduct meaningful engagement'.

Overall, these five recommendations, can strengthen Calgary's the social fabric and capitalize on opportunities emerging in the sustainable tourism market that Calgary has not actively participated in before. Through integrating sustainability into its tourism planning, Calgary canincrease its resiliency and drive value to social and environmental systems, all while maintaining competitiveness in a changing geopolitical landscape.

SHORT, MED, & LONG-TERM WORKPLAN



DISCUSSION

The success of sustainable tourism management requires extensive collaboration between numerous stakeholders across all sectors of the tourism industry (Rocio et. al., 2023). Community engagement is a critical component of any organization's sustainability work and is the process by which a firm seeks out feedback from groups of relevant stakeholders to identify solutions to issues being faced (Bowen et al., 2010). Meaningful engagement builds organizational validation, reputation, reduces risk, helps drive business competitiveness through innovation and identifies community-based problems that need solving (Bowen et al., 2010; Lowndes et al., 2001).

Engagement is the backbone of success for Tourism Calgary increasing its GDS-Index score year-over-year. This is because nearly every point awarded in the GDS-Index is directly or indirectly associated with some level of engagement, whether that be 'informing' actions, or through deeper consultation or co-creation efforts. For example, recommendations #1 (Build Capacity), #3 (Consultation/Co-creation) and #4 (Marketing, Communications and Reporting), are all direct engagement-related actions, and recommendations #2 (Programs & Initiatives), and #5 (Pursue and Promote Certification), indirectly rely on engagement tactics to successfully achieve points. Also, Tourism Calgary's role as a destination management organization is to foster relationships, market the destination, and drive business development throughout the supply chain is all built upon meaningful engagement. Therefore, it is relevant to explore widely accepted engagement models and understand the benefits of this work in relation to the driving progress in the GDS-Index.

Overall, Calgary is a sustainable tourism destination as defined by the Global Destination Sustainability Index, and Tourism Calgary as the destination management organization can continually increase the city's performance year-over-year. The destination's greatest sustainability strength was within the Social Performance area, considering areas such as personal safety, health & wellness, and corruption. Calgary's Environmental Performance also ranked quite high, with strengths in areas such as circular economy, clean water, and well-developed active transportation and soft mobility pathways. The destination scored medium in both the Supplier and Destination management performance categories. These two areas scored equal, and although they ranked lowest of the four areas, the scores weren't too much lower than the environmental score. Areas of strength for the supplier category were around conference centres being third party certified, and academic institutions offerings extensive sustainability-focused hospitality courses. For Tourism Calgary itself, which is reflected in the destination management score, the organization's launch of a sustainability strategy with clear indicators, targets and action plan to advance tourism priorities for the destination was a huge strength. Overall, the lowest performing dimension of sustainability was Energy, as Calgary has high emissions per capita due to high amounts of fossil fuels driving an emissions intensive energy grid, coupled with a lack of progress towards the Municipality meeting its 2030 climate targets (Canada Energy Regulator, 2024; City of Calgary, 2022).

One of the leading limitations with this study was the inability to receive a validated final destination GDS-Index score for Calgary due to the timing of this study and the final release date of GDS scores from Global Destination Movement. At the time of this study, the final 2024 destination score for Calgary will not be released for a few months, therefore the final score of 50% for Calgary was based on estimation data. Another limitation for this research was around the indicators Tourism Calgary did and did not have influence over. Unfortunately 30 of the 77 indicators (39%) of the total GDS score for Calgary is mostly out of control influence. Therefore, it would be very challenging for Tourism Calgary to pursue work that can enhance the outcomes of these indicators. Additional limitations within the GDS-Index are geopolitical biases. For example, the GDS-Index methodology was originally developed by a Swedish based organization, and many of the reporting frameworks or third-party certifications recommended within the Index were around European-based certifications, that were less applicable, or less prevalent or adapted to the North American or Canadian context (GDS-Movement, 2024). As well, there is some specific ways that the GDS measures data, that limits how Canada can secure points within the indicator.

Research that would complement this mixed-methods analysis nicely would be to conduct qualitative interviews with cities from across Canada who have been actively engaged in the GDS-Index for a few years and gather data regarding how effective the framework has been for them.

DISCUSSICIA

CONCLUSION, LIMITATIONS, FUTURE RESEARCH