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Contemporary times have been marked by the trivial and excessive use of the adjective “sustainable”, tourism has not been left out of this trend. The lauded “sustainable destination” title has become a central premise among territorial management groups. However, developing public policies to meet this status has evidenced reductionist and sometimes misguided treatments that fail to incorporate the true complexity of sustainability into tourism. The results are disconnected, one-off, ineffective actions based on guesswork or the interests of particular actors in the territory. This essay presents a simplified and didactic proposal for a territorial planning instrument (Sustainability Mandala in Tourism – TSM) to contribute to the attempt to seek sustainability in tourism development. The TSM comprises 21 indicators, defined from the analysis of international instruments and national strategies in force in tourism planning. The instrument covers the seven dimensions of sustainability (environmental, territorial, political, cultural, social, economic, and technological), and it has been developed to guide local and regional tourism management groups pragmatically.

**Keywords:** Sustainability Indicators; Tourism; Public Policy; Mandala of Sustainability in Tourism; Local Development.**Resumo / Resumen****MANDALA DA SUSTENTABILIDADE NO TURISMO**

A contemporaneidade vem sendo marcada pelo uso trivial e descomedido do adjetivo “sustentável”, e o contexto do turismo não ficou de fora. O aclamado título “destino sustentável” se tornou premissa central entre grupos gestores dos territórios. Entretanto, o processo de elaboração de políticas públicas, para atender a esta condição, tem evidenciado tratamentos reducionistas e, por vezes, equivocados, que não incorporam a real complexidade da sustentabilidade ao turismo. O resultado? Ações desconexas, pontuais e ineficazes, alicerçadas em achismos ou interesses particulares dos atores do território. O presente ensaio objetiva apresentar uma proposta simplificada e didática de instrumento de planejamento territorial (Mandala da Sustentabilidade no Turismo – MST), a fim de contribuir com o intento de busca da sustentabilidade no desenvolvimento turístico. A MST é composta por 21 indicadores, definidos a partir da análise de instrumentos internacionais e de estratégias nacionais vigentes na área de planejamento turístico. O instrumento perpassa pelas 07 dimensões da sustentabilidade (ambiental, territorial, política, cultural, social, econômica e tecnológica), desenvolvido para orientar, pragmaticamente, grupos gestores locais e regionais do turismo.

**Palavras-chave:** Indicadores de Sustentabilidade; Turismo; Políticas Públicas; Mandala da Sustentabilidade no Turismo; Desenvolvimento Local.**MANDALA DE LA SOSTENIBILIDAD EN EL TURISMO**

La contemporaneidad ha sido marcada por el uso trivial y desmedido del adjetivo “sostenible”, y el contexto del turismo no ha quedado fuera. El aclamado título de “destino sostenible” se ha convertido en una premisa central entre los grupos gestores de los territorios. Sin embargo, el proceso de elaboración de políticas públicas para cumplir con esta condición ha revelado enfoques reduccionistas y, a veces, equivocados, que no incorporan la verdadera complejidad de la sostenibilidad en el turismo. ¿El resultado? Acciones desconectadas, puntuales e ineficaces, basadas en suposiciones o intereses individuales de los actores del territorio. El presente ensayo tiene como objetivo presentar una propuesta simplificada y didáctica de un instrumento de planificación territorial (Mandala de la Sostenibilidad en el Turismo – MST), con el fin de contribuir al intento de buscar la sostenibilidad en el desarrollo turístico. El MST está compuesta por 21 indicadores, definidos a partir del análisis de instrumentos internacionales y estrategias nacionales vigentes en materia de planificación turística. El instrumento cubre las 7 dimensiones de la sostenibilidad (ambiental, territorial, política, cultural, social, económica y tecnológica), desarrollado para guiar pragmáticamente a los grupos de gestión turística locales y regionales.

**Palabras-clave:** Indicadores de Sostenibilidad; Turismo; Políticas Públicas; Mandala de la Sostenibilidad en el Turismo; Desarrollo Local.

# INTRODUCTION

In recent decades (1990 to 2020), the corporate, government, academic, media, and even social media worlds have trivialized the terms "sustainability" and "sustainable." These terms qualify political proposals, endorse products, customize narratives, create differentials for processes and services, and have gradually become popularized as an undisputed ideal (AGBEDAHIN, 2019). It would be praiseworthy if it were not for the mistakes in the frequently reductionist treatments of a historically debated concept on the part of the establishment. Guesswork and the adoption of practices aimed exclusively at particular interests have supported simplified reasoning (SOLOW, 1974) that accentuates the behaviour of individuals, social groups, or companies that publicize their commitment to an ethical code of socio-environmental responsibility (FONT; ELGAMMAL; LAMOND, 2017).

Therefore, party campaigns and government plans, products and services, practices, and narratives have taken on an image of ecological good sense, using labels such as responsible, green, certified green, bio, bio-friendly, eco, eco-friendly, 100% organic, non-toxic, chemical free, greener, earth-friendly, all-natural, recycled, zero emissions, hormone-free, and sustainable. By adopting a sustainable discourse to increase their market and political competitiveness, social relationships through greenwashing (ABRAMOVAY, 2012), and frivolous government plans, they hide blatant aggressions against nature, political strategies centered on economic progress, and chemical contamination of food for profit (SINGH et al., 2021).

Tourism also proposed to add sustainability to the territorial development process, especially in the face of multiple negative impacts caused by the sector (LEIPER, 1995; WTO, 2019). These include overtourism (MILANO; NOVELLI; CHEER, 2019), local movements based on "tourismphobia" (MARTINS, 2018), and reduced community participation in the tourism economy (FONTELES, 2008; KRIPPENDORF, 2016; SILVA; GOMES, 2008). There is a predatory use of natural assets that make up the attractions and sustain many activities (CAVALCANTE; FURTADO, 2011; CHOI; SIRAKAYA, 2006), the socio-productive exclusion of small rural producers (TASSO, 2014), the saturation of psychological load capacities (LIU, 2003), an expansion in the cost of living of residents (COSTA, 2013), and a cultural uprooting and focus on tourism "monoculture" (VALLS, 2006), among others.

Given the above, since the 1990s, destination management groups have aimed for "Sustainable Tourism" (AGBEDAHIN, 2019). However, at least three obstacles stand in the way of this attempt:

1- The inherent complexity of the concept of sustainability and its multiple dimensions make it difficult for stakeholders to understand each other and, consequently, hinder decision-making processes (AGBEDAHIN, 2019);

2- The ineffectiveness of public tourism policies based on assumptions or particular interests. They are more concerned with publicizing the so-called "sustainable destination" and do not reflect the fundamental sustainability gaps between the territory and the sector (FONT et al., 2017);

3- The lack of educational, innovative strategic tools aimed at tourism to support the planning, monitoring, and evaluation of sustainability in the sector. This challenge signifies overcoming political and theoretical proposals and achieving practical applications for sustainable tourism (TORRES-DELGADO; SAARINEN, 2014).

This epistemological challenge indicates the need for a more pragmatic understanding of destination sustainability; therefore, this essay presents a simplified and didactic proposal for a territorial planning instrument (Tourism Sustainability Mandala) to contribute to the search for sustainable tourism development. This work's importance is based on Ruhanen, Moyle, and Moyle's (2019) suggestions to generate proposals that translate into practices, policies, and actions aimed at sustainable tourism.

# SUSTAINABILITY: UNRAVELLING THE CHALLENGE

Like concepts such as democracy, happiness, and justice (VEIGA, 2019), sustainability does not have a clear and objective definition (WACKERMANN, 2008). The term's popularization gained momentum with the Our Common Future Report (UN, 1987), in which sustainability started to qualify development proposals, and the concept of "sustainable development" became established worldwide (VEIGA, 2019). Initially, sustainability was associated with the local use of natural resources, far from

the present recognition of a global problem (MARQUARDT, 2006). For decades, an attempt has been made to overcome the dichotomy between technical readings concerned with replenishment and restoration capacity and the ethical responsibility to support life and the interests of future generations (REDCLIFT, 1993).

Although sustainability and sustainable development (SD) have become synonymous in contemporary narratives, as, for example, in the remarkable article that intends to found a science of sustainability (CLARK; HARLEY, 2020), there is an incongruity in the terms. Practically and factually, development has always been associated with economic growth, which is unfeasible in the long term (CAMPAGNA; GUEVARA; LE BOEUF, 2017). Consequently, advocating the "sustainable growth" narrative underestimates the physical dimensions of the terrestrial ecosystem, which is finite, non-growing, and materially closed (LA TOUCHE, 2006).

On the other hand, sustainability is inspired by the concept of resilience, thereby referring to a sense of durability (WACKERMANN, 2008). Alternatively, it is treated as the harmonious relationship between human society and nature, which is quite incoherent since the society-nature relationship is historically maladjusted. This idea is used daily without scientific support (VEIGA, 2023). Thus, it is noted that sustainability is an objective to be achieved by people in their relationship with nature, while sustainable development is the way to achieve it.

In any case, the notion of sustainability (or SD) was received with suspicion in the political environment. Given their priorities, it met resistance from ultra-liberals who were uneasy with the progress of debates on environmental issues and worried about competition (VEIGA, 2019). However, increasing environmental degradation and the recurrence of critical global events resulting from climate change (IPCC, 2022; LOVELOCK, 2021; RIPPLE et al., 2017), as well as social movements' reactions to governmental inertia, pressured the United Nations (UN) to launch Sustainable Development Goals (SDGs), fuelling awareness of the existence of a grave threat to humanity.

It is evident that, over time, sustainability has attained the status of a value (BARBIERI et al., 2010). Companies, governments, and international organizations found themselves under pressure to adopt practices that also focused on the social system. Thus, adherence to the value of sustainability credited companies with symbolic and technical efficiency (MEYER; ROWAN, 1991). The propagation of the term "sustainability" became polysemic rather than cohesive: as a value disseminated in society (SCARANO, 2019), as a new science under construction (CLARK; HARLEY, 2020) that prevents its treatment as a "concept" and as a field of dispute of forces (NASCIMENTO, 2020). It was adopted in many discourses, complementing or opposing each other, but it always conditioned entrepreneurs, social movements, multilateral organizations, governments, and politicians' positions and decision-making (NASCIMENTO, 2012).

However, sustainability is not linked to green propaganda, published exclusively to expand companies' reputational capital (ABRAMOVAY, 2012) or to increase profits and competitiveness through misleading socio-environmental responsibility initiatives, such as greenwashing (DELMAS; BURBANO, 2011). This practice is developed by free-riders, who adopt the rhetoric of sustainability as a strategy to gain material and symbolic advantages.

Another misconception caused by the inappropriate use of the term "sustainability" is the dichotomy between "it is sustainable" and "it is not sustainable" (WACKERNAGEL; REES, 1996). Sustainability is neither an end (MCCOOL; BOSAK, 2016) nor a typology or segment (CLARKE, 1997), unlike numerous attempts to promote territories as "sustainable tourism" destinations. Strictly speaking, there is no sustainable tourism since (a) there are no appropriate tools that define, within a static standard, whether or not destinations and their practices are safely sustainable (COSTA, 2013) and (b) the operationalization of tourism implies displacement and CO<sub>2</sub> emission that, per se, compromises its adjectivization (SHARPLEY, 2020). It also highlights the most recurrent neglect in the understanding of sustainability: that of an idea branching into three "pillars", as per Elkington's (1997) concept of the Triple Bottom Line (Profit, People, Planet).

When considered as fundamental attributes to ensure sustainability, these pillars are suggested to be dissociated. This is a fundamental misconception, as sustainability's central premise recognizes that such "dimensions" coexist and are inseparable and interdependent. Given the multiple interpretations of sustainability, there is a need for a pragmatic understanding until the science of sustainability is fully

achieved (CLARK; HARLEY, 2020). The various social actors are guided by applicable assumptions, aiming to mitigate anthropic environmental effects. Thus, what elementary sustainability characteristics should be considered in formulating, monitoring, and evaluating public policies? It seems reasonable to assign some principles to practices in the quest for sustainability:

1- Sustainability is anchored in a premise: the notion of a system, which implies that it must be considered from the collective, interdependent, and equitable involvement of the entire planet to share costs and benefits between societal organization systems (global, national, regional, and local), and reaffirm the complex relationships between society and nature (atmosphere, biosphere, lithosphere, and human civilization) (FAUCHEUX; NÖEL, 1995; SACHS, 2007);

2-Sustainability is based on meeting the collective rights of access to a healthy environment and improving the quality of life, as well as fulfilling human rights (SACHS, 2008);

3-Sustainability is based on a double ethical imperative: synchronous solidarity with the current generation and diachronic solidarity with future generations (SACHS, 2008). This intergenerational ethical principle represents a dissociation between sustainability and the proposals based on unbridled economic growth and dizzying consumption, symbolized by the current mode of production, which adopts the Bruno Domestic Product as an indicator of human prosperity and degrades living conditions on the planet (NASCIMENTO, 2012);

4-Sustainability is a process (not an end in itself) driven by reaching a utopian goal capable of fostering ethical and responsible strategies for human development. Therefore, it presupposes measurements through non-monetary indicators (DALY; COBB, 1989) that assess the level of sustainability of the ecosystem in question (FAUCHEUX; NÖEL, 1995);

5-Sustainability is tangible and solid, remote from empty speeches, slogans, labels, or emotional expressions (SOLOW, 1993). It requires concrete initiatives aimed at maintaining human potential aligned with each biome's limit, the preservation of ecosystems, and the chemical, physical, and ecological elements that enable the reproduction of life;

6-Sustainability is multidimensional (SACHS, 2007). The multiplicity of ecological, economic, cultural, social, territorial, and political attributes that drive it are central aspects of interdependent and inseparable dimensions that global societies intend to achieve or maximize (FAUCHEUX; NÖEL, 1995). As a rule, sustainability comprises six dimensions (Chart 1).

DIMENSIONS	BRIEF DESCRIPTION
Social	Fair distribution of income, eradication of poverty, enabling opportunities for full employment and/or self-employment with a decent quality of life, ensuring access to social services and resources, and achieving a reasonable quality of life for all, which implies reducing social and regional inequalities.
Economic	Develop eco-efficient activities, ensuring economic viability from the technological innovation of production instruments, aiming at the decarbonization and dematerialization of the economy, and respect for nature.
Environmental	Conservation and rational use of natural resources, enhancing the resilience of ecosystems, ensuring the production of renewable resources, and limiting or prohibiting the use of non-renewable resources.
Political	Ensure citizenship and participation through democratic spaces for dialogue. Establish inclusive decision-making processes and respect for diversity and fundamental human rights.
Territorial	Balance and improve urban and rural configurations to overcome interregional disparities. Better spatial distribution of resources, populations, and activities. Create development strategies for ecologically fragile areas. Stimulate food and energy production, conscious use of water, smart mobility, and technological innovation.
Cultural	Change in values and behaviours, reversing consumption patterns (from "consuming" to "enjoying") and lifestyles (from "fashion immediacy" to "product durability"). Balance between respect for tradition/identity and innovation, striving for autonomy, and strengthening of marginalized community groups.

Chart 1 - Specifics of the Sustainability Dimensions. Source: the authors, based on this study's specific bibliography



It should be noted that many other dimensions, such as ethics and aesthetics, have already been suggested. A seventh dimension was included in the planning tool proposed here: the technological dimension, which is present in various themes, including climate issues, which require changes in the fossil fuel energy base (OLABI et al., 2022).

## SUSTAINABILITY INDICATORS IN TOURISM: BETWEEN DESIGN AND CAPACITY

Similarly to sustainability, complexity is also inherent in the field of tourism. Tourism is a social, systemic, transversal, dynamic, and multisectoral phenomenon (BENI, 2020; MOESCH, 2013) that generates multidimensional negative impacts attributed to its vertiginous growth (WTO, 2019). Destination managers face a substantial obstacle when mitigating these impacts in their territorial planning: how to apply, in practice, strategic actions (evaluation and monitoring) that incorporate the complexity intrinsic to tourism sustainability.

The use of sustainability measurement instruments, such as the Ecological Footprint (WACKERNAGEL; REES, 1996), the Sustainability Control Panel (SCIPIONI et al., 2009), and the Sustainability Barometer (PRESCOTT-ALLEN, 2001), assist managers in understanding the multidimensionality of sustainability. The need to develop new tourism indicators is emphasized to recognize destinations' degree of sustainability and the actions needed to strengthen them (BLANCAS et al., 2011; LANDFORD, 2009; TORRES-DELGADO; PALOMEQUE, 2014).

Historically, efforts have been continuous in this debate (BELL; MORSE, 2001; HEZRI, 2004; INNES; BOOHER, 2000). Gradually, tourist inventories, load capacity studies, demand surveys, and guest and overnight records have given way to newly proposed indicators (AGYEIWAH; MCKERCHER; SUNTIKUL, 2017; BLANCAS et al., 2011; DEDUCE CONSORTIUM, 2007; FODRANOVÁ; KUBIČKOVÁ; MICHÁLKOVÁ, 2015). These are more holistic, based on multidimensional criteria, certifications, and best practices, and more attentive to stakeholder participation in decision-making (MATIKU; ZUWARIMWE; TSHIPALA, 2021).

There is no shortage of models ranging from simple evaluation structures to more complex versions with numerous indicators. The Global Sustainable Tourism Council has developed a framework of ten criteria to be adopted as global standards for sustainability in travel and tourism. These criteria have four pillars: Sustainable Management (3), Socioeconomic Sustainability (2), Cultural Sustainability (2), and Environmental Sustainability (3) (GSTC, 2023). In 2016, the European Commission presented a system of 67 primary and optional indicators, subdivided into four categories: Destination management, Social and cultural impacts, Economic value, and Environmental impacts (EUROPEAN COMMISSION, 2016).

Focusing on urban sustainability, Moussiopoulos et al. (2010) presented 88 indicators distributed in 13 thematic groups: Economy and population (5), Territorial and urban planning (6), Energy (7), Transport (9), Agriculture, Livestock and fishing (11), Industry (6), Tourism (5), Air pollution and climate change (9), Water resources and marine environment (8), Solid waste (4), Biodiversity (7), Health (3), and Education – research and technology (8). To assess sustainability in rural destinations, Blancas et al. (2011) proposed an indicator system composed of eight specific elements (such as the existence of routes in protected areas, intensive use of natural areas and agricultural land), in addition to 77 general indicators, branched into social, environmental and economic dimensions.

In the field of community tourism, Choi and Sirakaya (2006) established 125 indicators subdivided into six dimensions: Political (32), Social (28), Ecological (25), Economic (24), Technological (3), and Cultural (13). For tourism in protected areas, Trišić (2020) focused on fundamental elements, such as the role of communities, load capacity, proximity to agricultural land, and ecotourism, focusing mainly on socio-environmental aspects. Gradually, new issues have been incorporated into proposed tourism sustainability indicators, such as those related to gender issues (equal pay between women and men) and the inclusion of people with disabilities – PWDs (as a percentage of accessible attractions) (BRŠČIĆ et al., 2020). These and other initiatives reflect the perception that indicators arise from values and create values: "We not only measure what we value, but we also start to

value what we measure" (MEADOWS, 1998).

However, many of these instruments face technical and conceptual operational obstacles (TORRES-DELGADO; SAARINEN, 2014). As bringing together so many aspects became part of the common aspiration for tourism sustainability, local managers' operations have become more complicated. The overload of indicators has resulted in increasingly intricate and complex tourism sustainability assessment tools. Therefore, we propose a simplified guidance and planning tool: the Tourism Sustainability Mandala (TSM).

## THE TOURISM SUSTAINABILITY MANDALA

The TSM was conceived as a planning instrument to offer theoretical-methodological guidance to local and regional management groups. Its primary dictum is to instruct, in a simple and didactic way, those actors interested in developing tourism in their territories under the lens of sustainability. It was envisioned as a flexible tool that should be applied to the particularities of each reality and not a rigid framework whose purpose is to label destinations as "sustainable." The TSM understands sustainable tourism development as a paradigm that must adapt and legitimize various approaches according to specific circumstances (HUNTER, 2002). Thus, sustainability is not an attribute, event, or fact but a process in permanent construction, subject to constant improvements (AGBEDAHIN, 2019; COSTA, 2013).

In this sense, the TSM proposes to foster the opening of democratic spaces for dialogue and collective evaluation, allowing opportunities and problems to be identified and assisting in building sustainable paths. To this end, the instrument has seven dimensions – environmental, territorial, political, cultural, social, economic, and technological – adapted to the field of Tourism, which consider the various reflections and debates on Sustainability (Figure 1).

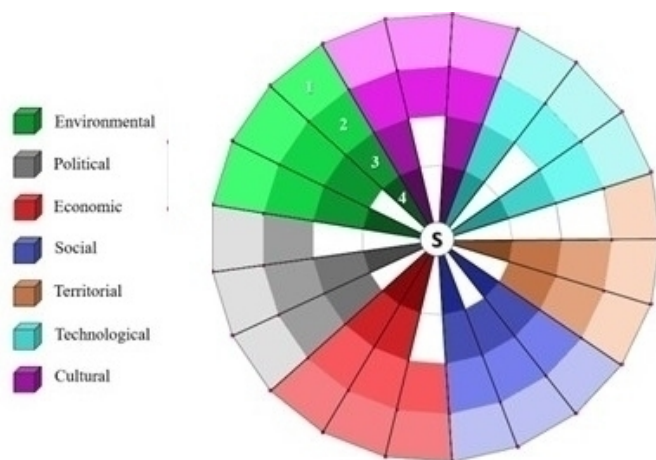


Figure 1 - The Tourism Sustainability Mandala. Source: Authors.

Notably, the coherence between the TSM's results and the territorial reality under analysis requires the effective participation of government representatives, the productive sector (entrepreneurs), local communities, the third sector, and other tourism actors in open dialogue spaces. The TSM assumes that this collective critical evaluation process must be established based on 21 indicators distributed across the seven dimensions of sustainability (Charts 2 to 8).

The 21 indicators, listed as the TSM's strategic criteria, are established according to three guiding questions. First, given the past experiences of sustainability measurement instruments applied to Tourism, and in light of the Brazilian context, what indicators should be utilized, disregarded, or potentially developed to formulate the TSM? Second, which indicators are transferable to all tourist destinations in Brazil, regardless of their segmentation and unique characteristics? (c) Third, which indicators are highly simplified in how they are proved/measured? Therefore, international publications

(GSTC, 2023; Trišić, 2020; European Commission, 2016; Moussiopoulos et al., 2010; Blancas et al., 2011; Choi and Sirakaya, 2006; Bršćić et al., 2020), current national tourism planning policies and strategies (BRASIL, 2022; BRASIL, 2018), and critical reflections from the authors' own experience were revisited to define the TSM criteria.

Each indicator should receive a rating within the four possible levels (1, 2, 3, or 4) as an evaluation. Indicators classified in Level 1 express the lack of actions aimed at sustainability in the territory. Level 2 indicators represent the adoption of still fragile and/or unsatisfactory sustainability actions. Indicators at Level 3 attest to worthy sustainability actions; however, these are limited and/or have shortcomings. Finally, level 4 indicators symbolize the concrete and satisfactory existence of actions linked to sustainability.

ENVIRONMENTAL	<b><i>Monitoring and Containment of Tourism's Environmental Impacts</i></b>	
	1	<b>Does not carry out any actions</b> to monitor and contain <u>the environmental impacts of tourism practices</u> (e.g., air and landscape pollution; the segregation between residents and productive spaces, the disturbance of ecosystems and the reduction of biodiversity from overtourism; overload of the water and energy supply system; widespread waste and garbage disposal; devastation of protected areas and urbanization of natural areas).
	2	<b>Carries out occasional and sporadic actions</b> to monitor and contain the environmental impacts of <u>tourism practices</u> .
	3	<b>Carries out regular and continuous actions</b> to monitor and contain the environmental impacts of <u>tourism practices</u> .
	4	<b>Carries out the regular and continuous actions</b> in the <u>Municipal Tourism Environmental Monitoring Plan or Program</u> .
	<b><i>Use of renewable energy sources.</i></b>	
	1	The consumption (or production) of energy from <u>renewable resources</u> (water, wind, solar, biomass, geothermal, ocean, green hydrogen and/or synthetic fuel) represents <b>less than 25%</b> of the destination's total consumption.
	2	The energy consumption (or production) from <u>renewable resources</u> represents <b>between 25% and 50%</b> of the destination's total consumption.
	3	The energy consumption (or production) from <u>renewable resources</u> represents <b>between 51% and 75%</b> of the destination's total consumption.
	4	The energy consumption (or production) from <u>renewable resources</u> represents <b>more than 75%</b> of the destination's total consumption.
	<b><i>Corporate Social and Environmental Responsibility for Climate Change Mitigation</i></b>	
	1	<b>Less than 25%</b> of companies in the tourism sector registered by CADASTUR (Register of Tourism Service Providers of the Ministry of Tourism) carry out actions aimed at mitigating the adverse effects of climate change, such as adopting ESG practices and environmental management systems and low consumption of non-renewable energy, single-use materials, and water; CO2 offsetting practices; biodiversity preservation actions; adherence to environmental seals and/or socio-environmental certifications; nationally recognized awards in the field of sustainability.
	2	<b>Between 25% and 50%</b> of companies in the tourism sector registered by CADASTUR carry out actions to mitigate the adverse effects of climate change.
	3	<b>Between 51% and 75%</b> of companies in the tourism sector registered by CADASTUR carry out actions to mitigate the adverse effects of climate change.
	4	<b>More than 75%</b> of companies in the tourism sector registered by CADASTUR carry out actions to mitigate the adverse effects of climate change.

Chart 2 - Environmental Indicators. Source: Authors.

ECONOMIC	<b>Integration between Tourism and the Local Economy</b>	
	1	No direct marketing practices are <b>identified</b> between small local producers (e.g., artisanal fishermen, family farmers, and artisans) and the tourist trade (companies). The entire marketing process <u>only</u> occurs through intermediaries (fishmongers, markets, and fairs, among others).
	2	<b>Occasional and sporadic</b> direct marketing practices between small local producers and the tourist trade are <b>identified</b> , restricted to a <u>standard purchase and sale relationship</u> (at <u>market prices</u> ).
	3	<b>Regular and continuous</b> <u>direct marketing</u> practices are <b>identified</b> between small local producers and the tourist trade, restricted to a <u>standard purchase and sale relationship</u> (at <u>market prices</u> ).
	4	<b>Regular and continuous</b> <u>direct marketing</u> practices are <b>identified</b> between small local producers and the tourist trade, distributed between <u>standard purchase and sale practices</u> (at <u>market prices</u> ) and practices through <u>solidary, collaborative, and ethical relationships</u> (at collectively defined <u>fair prices</u> ).
	<b>Enabling Jobs and Assuring Labor Rights</b>	
	1	<b>Less than 25% of</b> workers in the tourism sector have effective <u>CLT</u> (Consolidation of Labor Laws) contracts, providing for fundamental rights such as salary, working hours, vacations, paid weekly rest, 13th salary, and maternity/paternity leave.
	2	<b>Between 25% and 50%</b> of workers in the tourism sector have effective <u>CLT</u> contracts.
	3	<b>Between 51% and 75%</b> of workers in the tourism sector have effective <u>CLT</u> contracts.
	4	<b>More than 75% of</b> workers in the tourism sector have effective <u>CLT</u> contracts.
	<b>Stimulating Professional Training</b>	
	1	<b>Does not carry out</b> any <u>professional training actions</u> to work in the tourism sector.
	2	<b>Carries out</b> tourism training <u>actions</u> , defined <u>without a prior participatory diagnosis</u> .
	3	<b>Carries out</b> tourism training actions, defined with a <u>prior participatory diagnosis</u> . However, these are <u>disconnected from</u> the premises and propositions expressed in the National Tourism Qualification Policy (PNQT).
	4	<b>Carries out</b> the <u>actions in the Municipal Tourism Qualification Plan</u> in line with the premises and propositions expressed in the PNQT.

Chart 3 - Economic Indicators. Source: Authors.

SOCIAL	<b>Containment of Violence</b>	
	1	The municipal homicide rate <b>is higher than</b> state, regional, and national rates.
	2	The municipal homicide rate <b>is less than one</b> of three rates (state, regional, or national).
	3	The municipal homicide rate <b>is less than two</b> of the three rates (state, regional, or national)
	4	The municipal homicide rate <b>is lower than the three rates</b> (state, regional, and national).
	<b>Providing Opportunities for Socially Excluded Groups</b>	
	1	<b>Less than 25% of</b> companies in the tourism sector (CADASTUR) employ individuals representing <u>socially excluded groups</u> (e.g., blacks, indigenous people, quilombolas, women, people with disabilities - PwD or LGBTTQQIAAP+) in <u>middle and/or upper management</u> roles (professionals at strategic and/or tactical levels, such as directors, supervisors, coordinators, managers, chefs, etc.).
	2	<b>Between 25% and 50%</b> of companies in the tourism sector (CADASTUR) employ individuals representing <u>socially excluded groups in middle and/or senior management</u> roles.
	3	<b>Between 51% and 75%</b> of companies in the tourism sector (CADASTUR) employ individuals representing <u>socially excluded groups in middle and/or senior management</u> roles.
	4	<b>More than 75% of</b> companies in the tourism sector (CADASTUR) employ individuals representing <u>socially excluded groups in middle and/or senior management</u> roles.
	<b>Basic Sanitation Conditions</b>	
	1	<b>There is no</b> basic sanitation due to the absence of the <u>five fundamental services</u> : 1. <u>Water management and supply</u> , including treatment and reuse, either directly (for irrigation and/or industries) or indirectly (for surface and/or groundwater, that is, returning to nature);
		2. <u>Sanitary sewage</u> ;
		3. <u>Urban cleansing</u> ;
		1.5.4 <u>Urban Drainage System</u>
		5. <u>Solid waste management</u> is done through collection, transshipment, treatment, and final disposal.
	2	<b>Up to two</b> of the five fundamental services offered <u>to more than 50% of the population</u> are <b>identified</b> .
	3	<b>Up to four</b> of the five fundamental services offered <u>to more than 50% of the population</u> are <b>identified</b> .
	4	<b>The five</b> fundamental services offered <u>to more than 50% of the population</u> are <b>identified</b> .

Chart 4 - Social Indicators. Source: Authors.



CULTURAL	<b>Encouraging the Conservation and Safeguarding of Cultural Heritage (Material and/or Intangible)</b>	
	1	<b>Does not carry out any action</b> to protect, promote, conserve, and safeguard the territory's <u>tangible</u> and/or <u>intangible</u> cultural heritage
	2	<b>It carries out actions</b> to protect, promote, conserve, and safeguard the territory's <u>tangible</u> and/or <u>intangible</u> cultural heritage. <b>However</b> , these are <u>intermittent</u> and lack periodic monitoring and evaluation.
	3	<b>Carries out actions</b> to protect, promote, conserve, and safeguard the territory's <u>tangible</u> and/or <u>intangible</u> cultural heritage. These are <u>continuous</u> and periodically monitored and evaluated.
	4	<b>Carries out the actions</b> provided for in the <u>Municipal Cultural Heritage Program</u> (Material and/or Intangible), such as inventories, listing buildings, registrations, expropriations, surveillance, safeguarding, dissemination projects, projects to combat ethnocide, cultural memory conservation projects and strengthening original customs, traditions and beliefs, etc.
	<b>Support for Small Local Production (Artisanal, Familial and Community)</b>	
	1	<b>There is no technical, logistical and/or legal assistance</b> from public (Government), private (Sebrae) and/or non-profit entities (NGOs) directed to groups of small local producers.
	2	<b>There is technical, logistical and/or legal assistance</b> from public, private and/or non-profit entities directed to groups of small local producers; however, it is <u>sporadic and lacks continuity</u> .
	3	Regular and continuous technical, logistical and/or legal assistance from public, private and/or non-profit entities are directed to groups of small local producers.
	4	<b>There is technical, logistical and/or legal assistance</b> provided for in the <u>Local Community Production Assistance Plan or Program</u> , in progress, as a planning instrument that provides for training; access to credit (working capital) and equipment; approximation with the tourist trade (through fair, ethical and solidary trade practices) and with visitors (through community fairs).
	<b>Community-Based Tourism (CBT)</b>	
	1	<b>Does not carry out any actions</b> to support CBT initiatives based on intercultural experience (through the sharing of knowledge and traditions) and the community role of original groups (e.g., quilombolas and indigenous people) and/or traditional groups (e.g., artisans, artisanal fishermen and family farmers).
	2	<b>Carries out actions</b> to support CBT initiatives; <b>however</b> , these are <u>intermittent</u> and lack <u>periodic monitoring and evaluation</u> .
	3	<b>Carries out actions</b> to support CBT initiatives; these are continuous and periodically monitored and evaluated.
	4	<b>Carries out the actions</b> provided for in the <u>Municipal Community Tourism Program</u> as an instrument to support CBT initiatives.

Chart 5 - Cultural Indicators. Source: Authors.

POLITICAL	<b>Public Participation in Tourism Governance Instances</b>	
	1	<b>There are no</b> adequately formalized instances of socio-political participation in tourism (e.g., municipal tourism councils, forums, development agencies, committees, networks and/or associations).
	2	<b>There are</b> instances of formalized socio-political participation in tourism; <b>however</b> , they only meet <u>01 or 02 criteria</u> for evaluating effective participation: 1. <u>Self-determination</u> : president, members of the board of directors, and executive secretary (or equivalent) defined through an election at a meeting open to local actors and duly formalized; 2. <u>Organization</u> : collectively defined biannual agenda of meetings. Periodic meetings are held, with an agenda and support material sent in advance; 3. <u>Involvement</u> : minimum of 75% attendance (per semester) by members/representatives; 4. <u>Representativeness</u> : balanced composition between representatives of the government, organized civil society, the tourist trade (entrepreneurs), groups of small entrepreneurs/rural producers, the "S" System, educational institutions, related bodies (environmental, transport, security, health and/or infrastructure), the third sector, and local leaders; 5. <u>Deliberation</u> : language accessible to all participants and a clear voting and deliberation structure, with transparent rules democratically accepted in advance by the members.
	3	<b>There are</b> instances of formalized socio-political participation in tourism; <b>however</b> , they comply with <u>03 or 04 criteria</u> for evaluating effective participation listed above.
	4	<b>There are</b> duly formalized instances of socio-political participation in tourism, which comply with the <u>05 criteria</u> for evaluating effective participation listed above.
	<b>Public Participation in Elections</b>	
	1	<b>Voter turnout rate below</b> 70%.
	2	<b>Voter turnout rate between</b> 71% and 80%.
	3	<b>Voter turnout rate between</b> 81% and 90%.
	4	<b>Voter turnout rate above</b> 90%.
	<b>Education/Awareness for Responsible Tourism</b>	
	1	<b>Does not carry out any actions</b> to educate/sensitize tourists and residents about <u>environmental care</u> , respect and appreciation of <u>local (historical-cultural) heritage</u> , and to combat the <u>sexual exploitation</u> of children and adolescents.
	2	<b>It carries out actions</b> to educate/sensitize tourists and residents on <u>one of the three themes</u> (environment, local historical-cultural heritage, or combat the sexual exploitation of children and adolescents).
	3	<b>It carries out actions</b> to educate/sensitize tourists and residents on <u>two of the three themes</u> (environment, local historical-cultural heritage, or combat the sexual exploitation of children and adolescents).
	4	<b>It carries out actions</b> foreseen in the <u>Municipal Program of Education/Awareness of Tourists and Residents</u> on <u>all three themes</u> (environment, local historical-cultural heritage, and combating the sexual exploitation of children and adolescents).

Chart 6 - Political Indicators. Source: Authors.

TERRITORIAL	<b>Existence of a Master Plan focused on Tourism</b>	
	1	<b>There is no</b> Master Plan in the municipality.
	2	<b>There is a</b> Master Plan in the municipality; <b>however</b> , it is <u>outdated</u> (more than 10 years) and/or <u>not correctly implemented</u> , or has been prepared <u>without considering</u> the tourist context (plans, policies, inventories, and mappings).
	3	<b>There is a</b> Master Plan in the municipality, <u>updated</u> (less than 10 years) and <u>correctly implemented</u> . However, it has been prepared <u>without considering</u> the tourist context (plans, policies, inventories, and mappings).
	4	<b>There is a</b> Master Plan in the municipality, <u>updated and suitably implemented</u> (or in the process of being implemented), focusing on areas of tourist interest, considering municipal tourism policies and plans, inventory of natural attractions and cultural manifestations, mapping of supply (tourist services, groups of representative actors, tourist infrastructure, etc.) and demand (information on tourists), and encouragement of active mobility (such as creation of cycle paths and improvement of public transport).
	<b>Accessibility to Visiting Points</b>	
	1	<b>Less than 25%</b> of the points with the highest flow of local tourist visits are <u>accessible</u> to people with disabilities (PwD) and/or reduced mobility (permanent or temporary), meeting the criteria and parameters established by ABNT NBR 9050/2020 (or by another updated and current standard).
	2	<b>Between 25% and 50%</b> of the points with the highest flow of local tourist visits are <u>accessible</u> to PwD and/or reduced mobility, meeting the criteria and parameters established by ABNT NBR 9050/2020 (or another updated and current standard).
	3	<b>Between 51% and 75%</b> of the points with the highest flow of local tourist visits are <u>accessible</u> to PwD and/or reduced mobility, meeting the criteria and parameters established by ABNT NBR 9050/2020 (or by another updated and current standard).
	4	<b>More than 75%</b> of the points with the highest flow of local tourist visits are <u>accessible</u> to PwD and/or reduced mobility, meeting the criteria and parameters established by ABNT's NBR 9050/2020 (or another updated and current standard).
	<b>Improvement of Healthcare System</b>	
	1	<b>It only has</b> a Basic Health Unit (BHU), which <u>does not satisfactorily meet</u> the demands of tourists and residents. It has precarious services and physical structure.
	2	<b>It only has</b> a BHU, which <u>satisfactorily meets</u> the demands of tourists and residents. That is, the services and physical structure are adequate.
	3	<b>It has</b> a BHU and an Emergency Care Unit (ECU), which <u>do not satisfactorily meet</u> the demands of tourists and residents. That is, services and physical structure are precarious.
	4	<b>It has</b> a BHU and an ECU, which <u>satisfactorily meet</u> the demands of tourists and residents. That is, the services and physical structure are adequate. Eventually, it also has a hospital(s).

Chart 7 - Territorial Indicators. Source: Authors.

TECHNOLOGICAL	<b>Technological Development for Destination Promotion</b>	
	1	<b>It does not use any</b> of the five <u>innovative</u> technology strategies/tools listed below: 1. Official <u>website</u> of the City Hall and/or the Department of Tourism; 2. <u>Social Media</u> (Facebook, Instagram, X, etc.); 3. <u>Virtual Tours</u> (360° videos); 4. <u>Branding techniques</u> (colors, slogans, hashtags, online advertising campaigns); 5. Search Engine Optimization (SEO) techniques.
		2 <b>Uses one to two</b> of the five technology strategies/tools listed above.
		3 <b>Uses three to four</b> of the five technology strategies/tools listed above.
		4 <b>Uses the five</b> technological strategies/tools listed above.
		<b>Technological Development for Destination Management and Planning</b>
	1	<b>It does not use any</b> of the five <u>innovative</u> technology strategies/tools listed below: 1. Digital platforms for data access ( <u>Big Data</u> ); 2. Intelligent control of the <u>visitation and load capacity</u> of an attraction; 3. Applications for <u>tracking cases of endemic/pandemic diseases</u> and variants; 4. Digital mapping and monitoring of <u>control points</u> (public safety); 5. Digital mapping and monitoring of <u>support points</u> (PwD, electric cars, hospital services, etc.).
		2 <b>Uses one to two</b> of the five technology strategies/tools listed above.
		3 <b>Uses three to four</b> of the five technology strategies/tools listed above.
		4 <b>Uses the five</b> technological strategies/tools listed above.
		<b>Technological Development for the Operationalization of Tourism in the Destination</b>
	1	<b>It does not use any</b> of the seven innovative technology strategies/tools listed below: 1. Guarantee of free internet access ( <u>wi-fi</u> ) for more than 75% of the main visitation spaces; 2. Mobile network quality assurance ( <u>5G Technology</u> ); 3. Availability of <u>shopping, booking, and/or rental apps</u> (e.g., concert and/or museum tickets, subway tickets, rotating bikes, etc.); 4. Availability of <u>applications for immediate consultation</u> (on-time) on the main visitation points (e.g., information on capacity, saturated flows, location, opening hours, access values, etc.); 5. Availability of <u>QR codes</u> (Quick Response) at the main visitation points; 6. Availability of reservations and other services by <u>voice recognition</u> ; 7. Use of intelligent conversation software ( <u>chatbots</u> ) and artificial intelligence (e.g. ChatGPT).
		2 <b>Uses one to three</b> of the seven technology strategies/tools listed above.
		3 <b>Uses four to six</b> of the seven technology strategies/tools listed above.
		4 <b>Uses the seven</b> technological strategies/tools listed above.

Chart 8 - Technological Indicators. Source: Authors.

By filling in the TSM, tourist destination management groups will be able to visualize any structural gaps in each dimension (blank spaces), which should be filled through the elaboration and implementation of new, more effective, and targeted public policies and local and/or regional tourism planning oriented to sustainability.

## CONCLUSION

Fundamentally, although sustainability has become an everyday desire popularized by political and corporate narratives, polysemic reasonings continue to underpin attempts to understand it. Some are inaccurate and unrelated, while others are merely vague and simplistic. Nevertheless, they are all driven by particular interests within the same field of dispute.

The complexity inherent in understanding sustainability is exacerbated when added to the intricate planning process of a multidimensional, systemic, transversal, multisectoral, and dynamic social phenomenon such as Tourism. To contribute to the demystification of assumptions about sustainability and stimulate reflection on their application in the tourism sector, the present work has created an analytical space demonstrating that:

(a) Sustainability is polysemic (and not cohesive) and systemic (in which costs and benefits are shared in different spaces and moments). It is characterized by multiple interdependent dimensions, non-dichotomous (beyond the propagandist "is" or "is not" discourse), a means rather than an end, and leads to the common good (and not mere economic progress). Solid and applied (requiring measurement), sustainability is linked to fulfilling human, collective, political, economic, civic, and cultural rights. It is based on particular aspects of local and regional systems (and not limited only to macro-realities), guided by the intergenerational ethical principle (and not by isolated short-term achievements).

(b) As a guiding instrument for local and regional management groups, the Tourism Sustainability Mandala's proposals may contribute to tourism planning and adopting ethical and effective public policies with a view to the common good and sustainability. Its flexible structure can boost collective, participatory, and democratic debates in the territories, giving new meaning to the purposes of Tourism.

Selecting only 21 criteria to be worked on by the instrument was challenging. Many significant criteria were passed over for two pertinent reasons:

1- The impossibility of replication to any destination. Many destinations have their own segmentations (such as Ecotourism, Civic Tourism, and Community-Based Tourism), particular characteristics (such as protected areas or original communities), and different intensities of tourist flows. Criteria such as "visitation control in protected natural areas" would eventually be restricted;

2-The complexity of measuring and/or proving this aspect. By moving away from concrete elements of proof, such factors could hinder the instrument's operationalization process. For example, the "guarantee of freedom and equality in the enjoyment of areas of tourist interest," although fundamental, would be difficult to verify;

Naturally, all local actors have much to contribute to the TSM, whether through corrections, changes, or the incorporation of criteria in its proposed structure. The most important thing is that the first step has been taken: its formulation. This proposal recognizes the inherent complexity of the paths to be taken to achieve sustainability in tourism. Thus, future studies may revisit the dimensions and criteria suggested here to improve the instrument; after all, it is not set in stone, disregarding the multiple possibilities that unfold on the horizon of the search for sustainability.

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