



REPORT 1B : ENDORSEMENT OF THE STATISTICAL FRAMEWORK FOR MEASURING THE SUSTAINABILITY OF TOURISM (SF-MST)

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G20 TOURISM WORKING GROUP

DOCUMENT CREATION:

Lucimari Acosta Pereira

Leticia Bianca Barros de Moraes Lima

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Celso Sabino
Ministry of Tourism

Heitor Kadri
Head of the Office of International Affairs

Rosângela Duso
Coordinator of Multilateral Relations

Micaela Duarte
Multilateral Affairs Researcher

Letícia Bianca Barros de Moraes Lima
Working Group Coordinator and Research

Lucimari Acosta Pereira
Research and Statistics

Isabelly Carvalho
Graphic Design

João Marcos Sousa
Translation

Larissa Curado
English Review

Sarah Marroni Minasi
English and Technical Review

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1. INTRODUCTION

Tourism plays a significant role in the global economy, but it also creates environmental and social pressures that must be monitored and managed to ensure long-term sustainability. In this context, UN Tourism has developed the Statistical Framework for Measuring the Sustainability of Tourism (SF-MST) as a comprehensive tool to assess tourism's overall performance and impacts.

According to UN Tourism (2024), the Statistical Framework for Measuring Tourism Sustainability (SF-MST) is a multipurpose conceptual framework designed to support registering and presenting data on tourism sustainability. It aims to organize data on tourism's economic, environmental, and social connections and effects, considering differences on geographical scales, including the local, national, and international levels. From this perspective, this report aims to provide insights into the measures and indicators used to assess the sustainability of tourism at environmental, economic, and social levels to assist the G20 group formed by the world's major economies.

Using SF-MST metrics and indicators, the G20 will be able to assess the impact of tourism on their economies and identify areas of improvement to promote more sustainable tourism practices. Furthermore, SF-MST can base the G20 on making informed decisions and developing policies that address issues related to the sustainability of tourism at global and local levels.

It is also highlighted that implementing SF-MST by the G20 can contribute significantly to driving positive transformation in the tourism sector on an international scale. Thus, by understanding the dimensions contained in the report and exploiting these metrics, governments and other stakeholders tend to make informed decisions to promote more sustainable and resilient tourism practices in society. In this regard, this report highlights the importance of measuring the sustainability of tourism and how SF-MST can serve as a valuable guide to drive positive transformation in the tourism sector.

2. OBJECTIVES

2.1 General Objective

The overall objective of this report is to analyse and highlight the relevance of the Statistical Framework for Measuring the Sustainability of Tourism (SF-MST) as an auxiliary and comprehensive tool for assessing the sustainability of tourism at environmental, economic, and social levels, to provide insights and recommendations to promote more sustainable and resilient tourism practices, especially for the G20.

3. SUSTAINABILITY MEASUREMENT FOLLOWING SF-MST

Sustainability measurement in SF-MST includes assessing how tourist activities impact economic, environmental, and social aspects. It involves analyzing key indicators such as visitor flows, tourist expenditure, the economic performance of tourism industries, employment in the sector, investments in infrastructure, government transactions, environmental impacts like greenhouse gas emissions, and social effects on local communities and quality of life.

It is noted that this integrated approach brought by the document aims to provide a comprehensive view of the sustainability of tourism, allowing the assessment of the positive and negative impacts of tourist activities in different dimensions. The measurement of sustainability in SF-MST is based on existing statistical standards. It seeks to promote transparency and dialogue among stakeholders and develop more effective and coherent policies for the tourism sector.

The measurement of sustainability in the context of SF-MST is relevant to the G20, which consists of the 20 largest economies in the world. It is highlighted that the group brings together countries with crucial roles in defining global policies. The integrated approach of SF-MST is a valuable tool for measuring how tourist activities impact the economic, environmental, and social aspects of sustainability, which are the primary pillars of sustainability. This measurement, which is presented in a broad format, is essential for understanding and managing the impact of tourism on a global scale.

For the G20, the ability to evaluate and monitor key indicators of sustainability in tourism, such as visitor flows, tourism spending, and economic

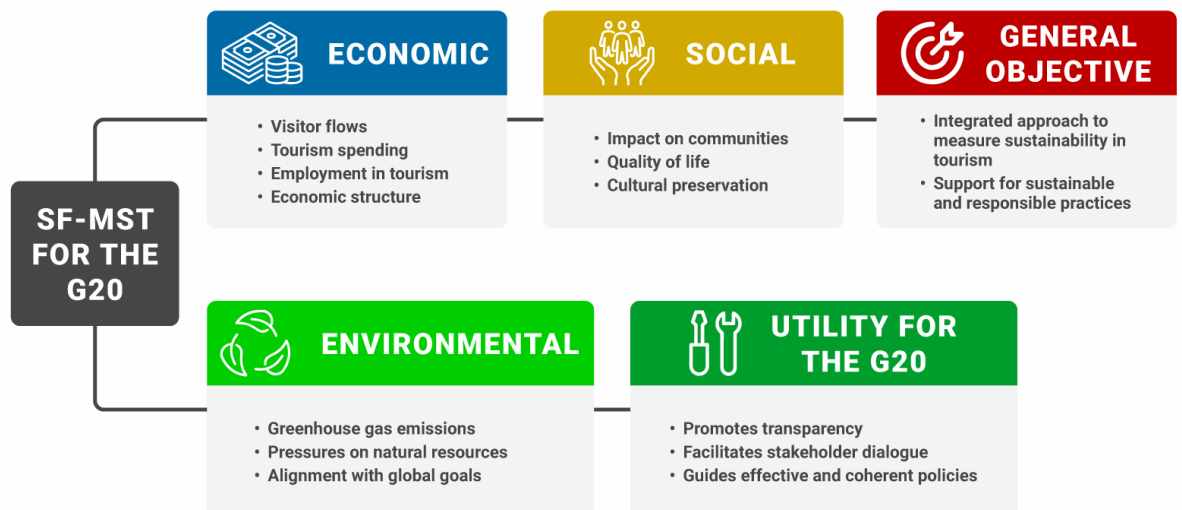
structure, is crucial for the development of balanced policies. These indicators provide a basis for analyzing the performance of tourism industries and employment in the sector, contributing to creating strategies that promote sustainable economic growth and social inclusion. The focus on investment in productive assets and tourism infrastructure allows the G20 to identify areas that need improvements to maintain sustainability in the long term.

Measuring tourism's pressures and environmental impact, such as greenhouse gas emissions, is equally important, as this group plays a significant role in the global response to climate change. By using SF-MST, the G20 can identify unsustainable practices and propose solutions to minimize tourism's environmental impact by promoting actions that meet the objectives of the Paris Agreement and other environmental targets.

SF-MST addresses the social aspects of tourism, such as its impact on local communities and quality of life. For the G20, this information is crucial in ensuring that the growth of tourism does not cause social or cultural damage and in promoting an approach that values and respects the communities involved.

In short, the G20's use of SF-MST is essential to promoting more sustainable and responsible tourism for all. The framework's statistical approach facilitates transparency, promotes dialogue among stakeholders, and enables the development of more effective and coherent policies for global sustainability goals in tourism.

Figure 1 - Application of SF-MST in the G20



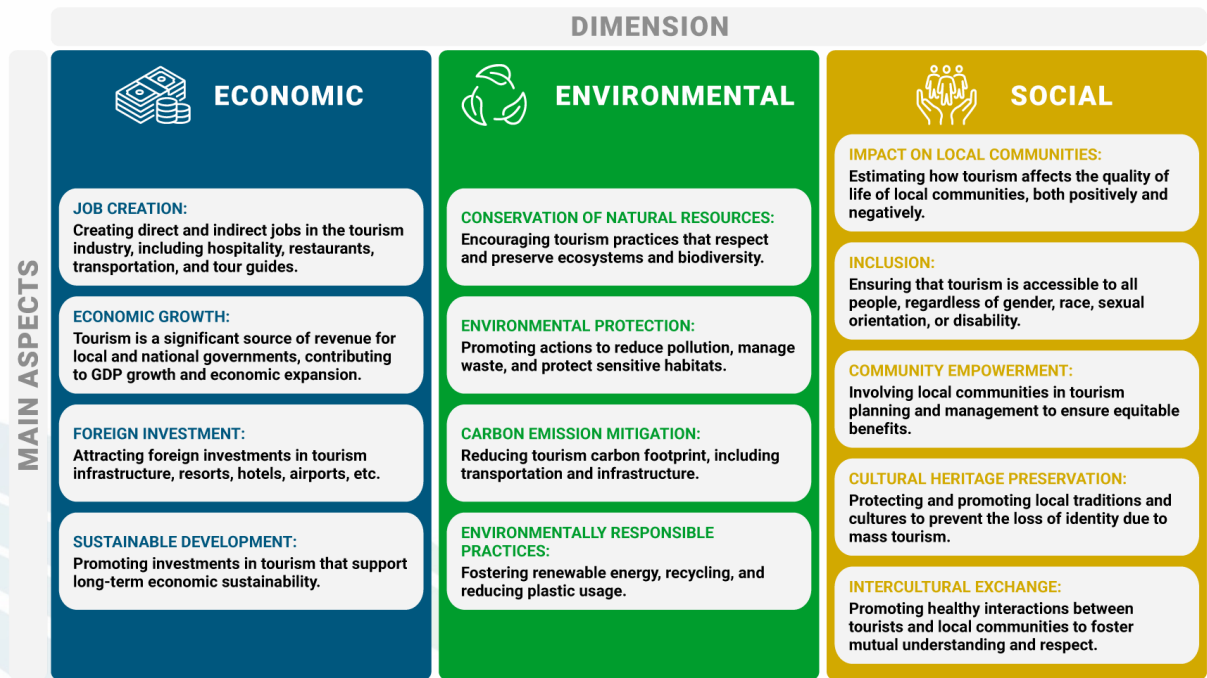
Source: UN Tourism (2024).

4. SF-MST CONCEPTUAL FOCUS

The WTO report has three dimensions: economic, environmental, and social. On the financial dimension of tourism, the WTO (2024) states that it is essential and covers aspects such as the generation of income for companies and workers, investments in tourist infrastructure, the production of tourist goods and services, and the broader economic impacts on local, national and global economies. This economic dimension is exceptional for assessing the long-term sustainability of tourism, considering the sector's ability, even in the face of crises, to obtain economic benefits in an equitable and environmentally responsible manner.

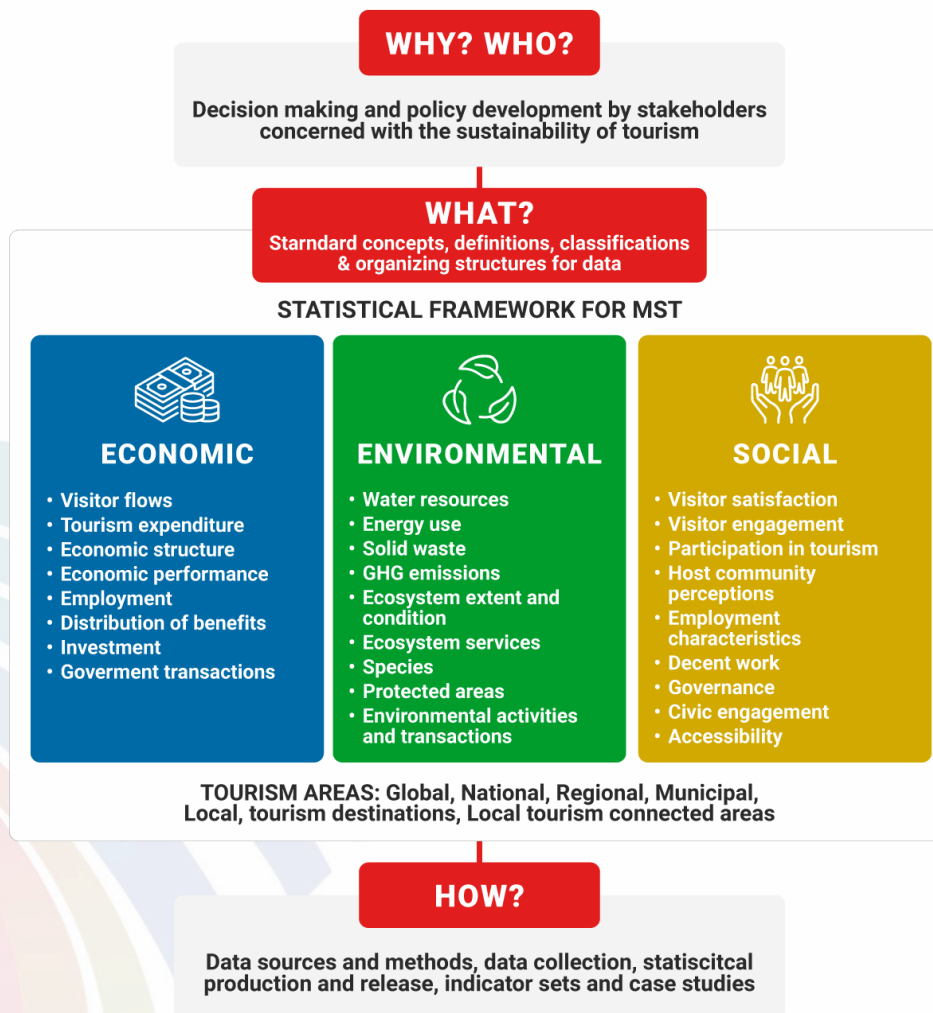
Concerning the definitions of the axes, it is highlighted that according to UN Tourism (2024), sustainability in tourism is defined as development that supplies and meets the needs of the present without compromising the ability of future generations to provide and meet their own needs. It should be noted that this definition reflects the importance and the need for commitment to balance the economic, environmental, and social aspects of tourism to ensure that tourism activities carried out globally do not harm future generations, especially natural resources. It is also pointed out that sustainability in tourism involves responsible management of natural resources, the preservation of cultural heritage, respect for local communities, and ensuring a durable and beneficial tourist development for all involved (Figure 2 and Figure 3).

Figure 2 - Dimensions of the Statistical Framework for Measuring the Sustainability Of Tourism (SF-MST):



Source: UN Tourism (2024).

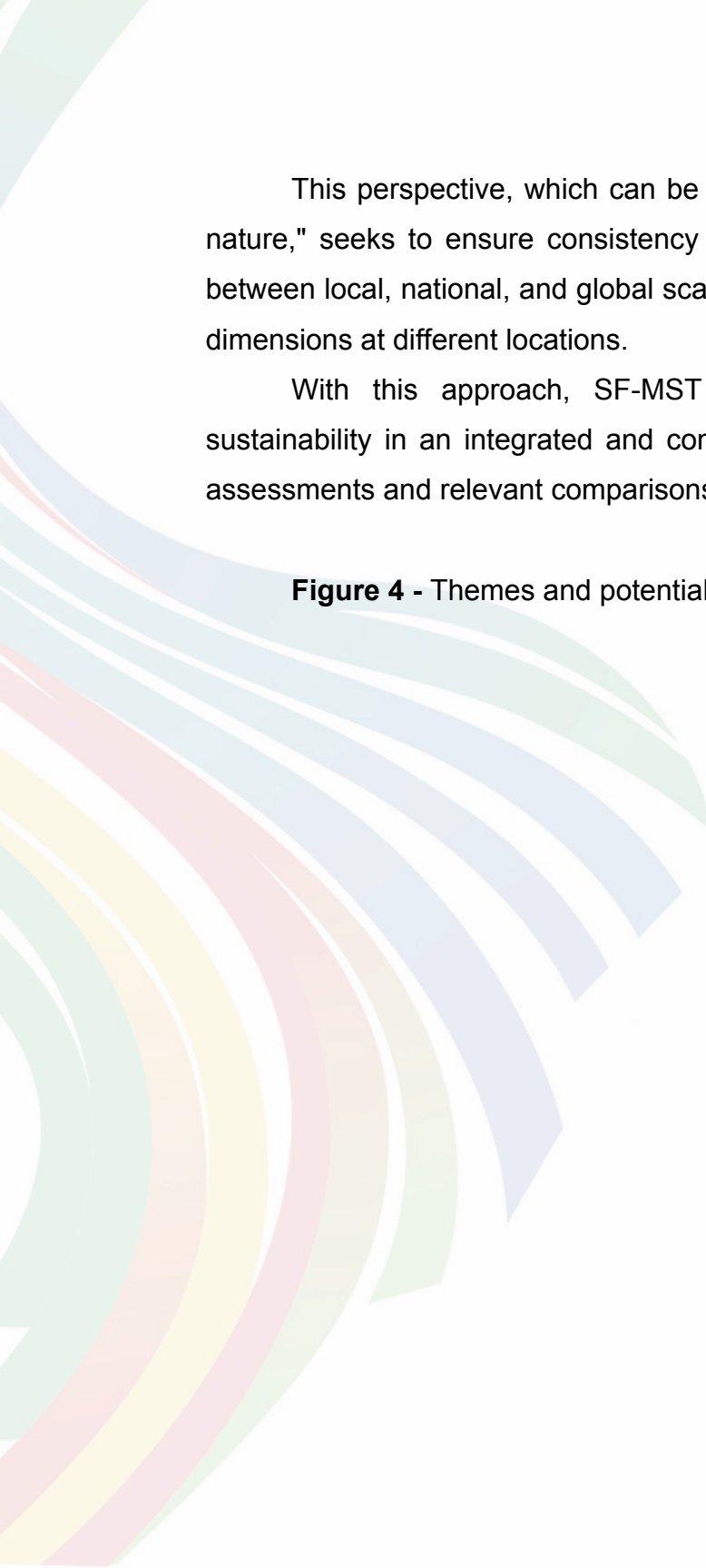
Figure 3 - The coverage and role of SF-MST



Source: UN Tourism (2024).

5. SF- MST INDICATORS AND STATISTICAL OUTPUTS

Section 2.1 Conceptual focus of SF-MST defines the conceptual focus for the Statistical Framework for Measuring Tourism Sustainability (SF-MST). The design proposed by SF-MST demonstrates the need to consider the interactions between economic, environmental, and social dimensions on various spatial scales. This supports the practical application of the UN Tourism/UNEP definition of sustainable tourism, which usually focuses on more specific contexts, such as host communities. The SF-MST also points to the importance of considering "necked systems," where the economic system is inserted into a social context within an environmental system.



This perspective, which can be described as "economy in society within nature," seeks to ensure consistency in the definition and allow comparisons between local, national, and global scales, considering the interactions between dimensions at different locations.

With this approach, SF-MST offers a way to measure tourism's sustainability in an integrated and consistent way, allowing for more accurate assessments and relevant comparisons (Figure 4).

Figure 4 - Themes and potential indicators addressed by SF-MST.

GENERAL

LENGTH OF STAY	Average length of stay of domestic and foreign tourists	RELIANCE ON VISITORS	Number of foreign visitors (total / tourist / same-day) relative to the total number of domestic visitors
CONCENTRATION OF TOURISM	Number of visitors per 100 residents; Number of visitors per hectare of habitable land	SEASONALITY OF TOURISM	Variation in the number of visitors (total / inbound / tourist / same-day) over time and at regular intervals

ECONOMIC

VISITOR EXPENSES	Average domestic expenditure per visitor (total/inbound/national/tourist/same-day)	ECONOMIC STRUCTURE OF TOURISM	Participation of large and small tourism enterprises; Proportion of tourism enterprises owned by residents
ECONOMIC DEVELOPMENT OF TOURISM	Direct Contribution of tourism to GDP; Share of tourism in total production for each tourism sector	DISTRIBUTION OF ECONOMIC BENEFITS	Share of employee compensation in direct tourism value added
EMPLOYMENT IN TOURISM	Total employment in tourism industries; Share of tourism workers in relation to the total economy	INVESTMENT IN TOURISM	Gross Fixed Capital Formation (GFCF) in tourism-specific assets; total GFCF in tourism industries
GOVERNMENT TRANSACTIONS RELATED TO TOURISM	Final government expenditure related to tourism		

ENVIRONMENTAL

EMISSIONS OF GREENHOUSE GASES (GHG)	Emissions of GHG per visitor; Emissions of GHG by GDP unit of tourism	SOLID WASTE	Solid waste generated by tourist/visitor; Solid waste per unit of GDP of tourism
WATER CONSUMPTION	Water consumption per visitor/tourist and overnight visitor; Water usage per tourism value-added unit	WASTEWATER	Wastewater per overnight visitor
WATER RESOURCES	Annual water use by tourism industries as a proportion of water resource stock	ENERGY FLOWS	Total use of energy products by tourism industries
EXTENSION OF ECOSYSTEMS IN TOURIST AREAS	Share of tourism-related assets in tourism areas; Percentage of protected areas	ECOSYSTEMS SERVICES FOR TOURIST AREAS	Services related to leisure in a tourist area

SOCIAL

SATISFACTION OF THE VISITORS	Percentage of satisfied visitor; Number of recurring visitors; Level of destination recommendation	PERCEPTION OF THE HOST COMMUNITY	General perception of the host community in relation to visitors
DECENT WORK	Proportion of formal employees in tourism; Participation of informal employment in tourism	GOVERNANCE	Implementation of accounting tools to monitor economic and environmental aspects of tourism sustainability

Source: UN Tourism (2024).

SF-MST indicators are essential for measuring the sustainability of tourism, covering economic, environmental, and social dimensions. They include the duration of the stay and the concentration of tourists, which help to assess the pressure on local destinations and infrastructure. Economic indicators, such as visitors' expenditure and the contribution of tourism to GDP, allow us to analyze the economic impact and the distribution of benefits. Environmental indicators, such as GHG emissions and water consumption, are crucial to understanding the ecological impacts of tourism. Social indicators, such as visitor satisfaction and the perception of the host community, measure the residents' well-being and the quality of the tourist experience. These indicators provide an integrated and comprehensive view of tourism sustainability, allowing precise comparisons and assessments on different scales and contexts.

5.1 ECONOMIC DIMENSION

Based on the SF-MST document, it is clear that measuring the economic dimension of tourism is essential to understanding the economic impact of this sector. The economic dimension under SF-MST covers production and consumption associated with tourist activity, including related goods and services. In addition, it also includes a description of the characteristics of tourism industries and the production processes of these industries, capturing investments in produced capital (e.g., hotels, transport infrastructure), employment in the tourism industry, and human capital (including education levels). Information about tourist establishments, such as number, size, industry class, and property, is also considered when measuring economic dimensions.

As pointed out in the document, measuring the economic dimension of tourism at subnational levels is essential to providing policymakers and analysts with a deeper understanding of the impacts of tourist activity and more relevant information for decision-makers at the subnational level. The nature of measurement requirements varies depending on the type of spatial area, distinguishing between measurements for regions and measures for local tourist destinations.

The subdivision of the measurement of the economic dimension of tourism at subnational levels may include the analysis of investment in tourist infrastructure, tourist expenditure, impact on local job generation, and contribution to regional GDP, among other relevant economic aspects. These subdivisions allow a comprehensive assessment of the economic impact of tourism on different geographical scales, providing valuable insights for the planning and sustainable development of the tourism sector at local and regional levels.

This detailed approach to measuring the economic dimension of tourism, as described in the SF-MST document, is essential for a comprehensive and accurate assessment of the economic impact of Tourism in different contexts and territorial scales, providing a solid basis for policy formulation and informed decision-making in the tourism sector.

5.2 ENVIRONMENTAL DIMENSION

According to the SF-MST document, the measurement of the environmental dimension in tourism is essential to assess the impact of tourism activity on the environment and ensure the sustainability of the sector in the long term. This involves measuring environmental flows, such as greenhouse gas emissions, solid waste, water use, and energy, representing ecological pressures. In addition, the measurement includes the analysis of the connections between tourism and ecosystems, taking into account biodiversity and the dependence of tourism on the quality of the ecosystem and the services it provides. The responses of the tourism industry to environmental issues are also considered, including actions such as investments in sustainable practices and measures to reduce environmental impact.

The ST-MST further points out that measurement at the subnational level is highlighted as essential to understanding the environmental impacts of tourism on more minor scales, supplementing the analysis at the national level. This comprehensive approach to ecological measurement in tourism aims to identify areas of improvement, promote sustainable practices, and ensure

responsible development of the sector, minimizing its negative impact on the environment and promoting more balanced and sustainable tourism.

5.3 SOCIAL DIMENSION

According to SF-MST, measuring the social dimension in tourism is essential to assess the impact of tourism activity on local communities, visitors, tourism service providers, and sector governance. SF-MST still approaches this measurement considering four critical perspectives. The visitor's perspective involves assessing the social impact of tourism on their experiences, satisfaction, cultural interactions, and perceptions of the communities visited. The perspective of local communities focuses on the effects of tourism on issues such as local employment, preservation of culture, infrastructure, and residents' quality of life. The tourist service providers' perspective considers the impact on the industry, including employment, local investments, and responsible business practices. Finally, the governance perspective assesses the effectiveness of tourism governance structures, policies, regulations, and stakeholder involvement in ensuring sustainable and equitable management of the sector. Measuring the social dimension involves identifying relevant indicators, collecting appropriate data, and analyzing the social impacts of tourism at different levels. By considering the interactions between the social, economic, and environmental dimensions, promoting a more sustainable, equitable, and beneficial tourism for all stakeholders involved is possible.

The social dimension of SF-MST addresses crucial issues related to women's empowerment and gender issues in the tourism sector, highlighting the need to measure and monitor specific indicators to promote gender equality and the inclusion of women in tourism. The document emphasizes the importance of measuring decent work indicators, focusing on gender issues within the tourism sector. It includes data collection on the percentage of women who have faced gender discrimination in their career opportunities, cases of sexual harassment encountered by women in the sector, and the proportion of tour operators who have formal commitments to gender equality. These measures are crucial to promoting equal opportunities and women's

empowerment in the tourism labor market, ensuring they can participate fully and on equal terms.

The document also emphasizes the importance of considering gender issues when assessing the social dimension of tourism. Aspects to be considered include gender discrimination in the workplace, gender equality policies in tourism companies, and the availability of nursery services for employees. These measures aim to create an inclusive and equitable working environment for men and women in the tourism sector, ensuring that everyone can contribute and benefit in a fair and balanced way. In order to achieve these objectives, it is crucial to implement a robust system of monitoring and evaluation of gender-specific indicators, which will identify gaps and areas that need intervention, promoting policies and practices that promote gender equality in tourism. In summary, the SF-MST highlights the need for a detailed and continuous approach to gender issues, seeking to ensure that the tourism sector develops in an inclusive and equitable and promotes the empowerment of women.

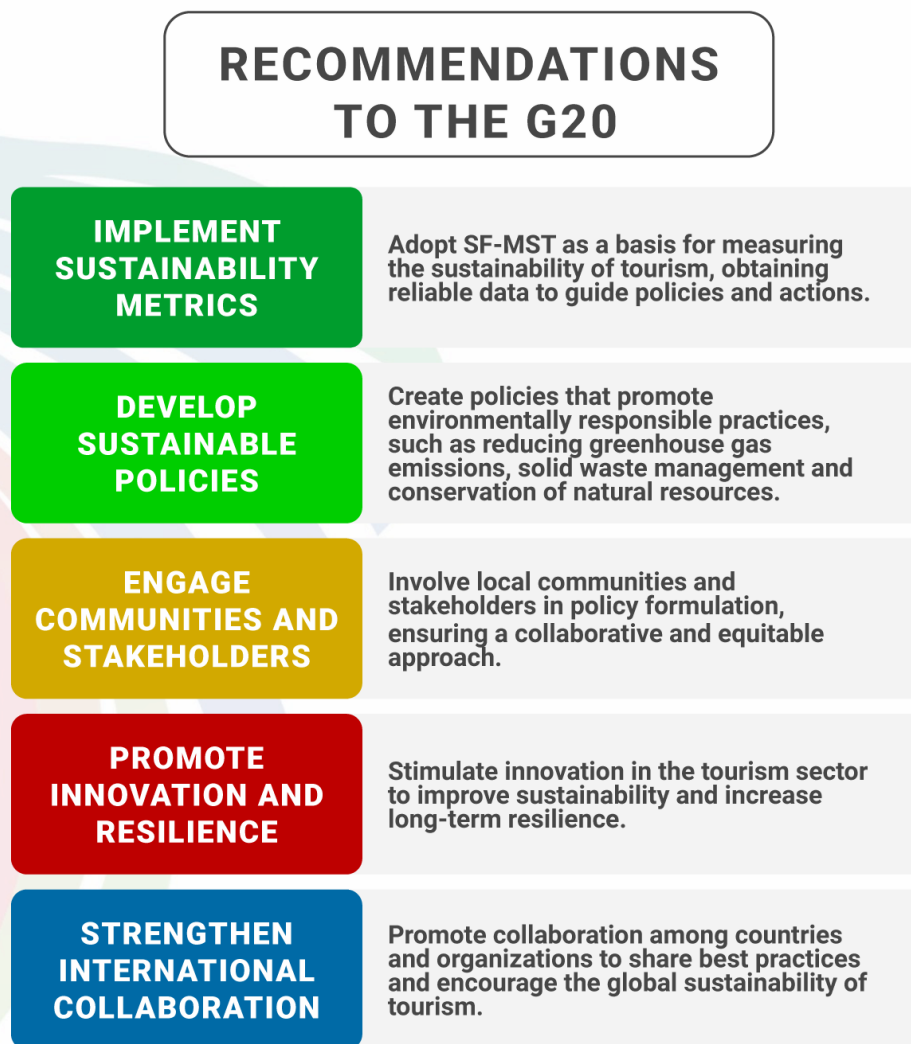
6. RECOMMENDATIONS AND CONCLUSION

In a global scenario marked by pandemics, climate change, and overtourism, the SF-MST (Statistical Framework for Measuring Tourism Sustainability) of the Ministry of Tourism (MTur) plays a crucial role in the sustainable planning and management of the sector. The SF-MST highlights the importance of sustainable tourism for the future of the global economy and for the preservation of the environment and local communities. SF-MST is an effective tool for measuring and analyzing the impact that tourism activity can cause in different dimensions, providing reliable data to guide informed, conscious decisions and promoting more sustainable tourism practices.

It is noted that the report reinforces the importance of considering the three dimensions of economic, environmental, and social sustainability in assessing the impact of tourism. The economic dimension covers the production and consumption associated with tourism activity; the environmental dimension deals with greenhouse gas emissions, waste management, and the conservation of natural resources. In contrast, the social dimension considers

the impact of tourism on local communities and visitors. For the G20, the ability to measure these indicators is crucial to developing balanced policies that promote sustainable and responsible tourism (Figure 5).

Figure 5 - Recommendations based on SF-MST



An advantage of SF-MST, especially for the G20, is its flexibility in analyzing tourism sustainability on different scales, from the global to the local. This approach is particularly useful for the G20, which brings together economies of different sizes and levels of development. The framework allows adaptation of the measurement and analysis to the needs of each context, facilitating the development of more appropriate policies.

Finally, it is highlighted that SF-MST is a valuable resource for the G20, as it can help identify areas for improvement and propose innovative solutions to reduce tourism's negative impact. In addition, the framework can help promote sustainable practices that contribute to responsible tourism management while encouraging the involvement of local communities and stakeholders in the decision-making process.

Thus, the report's conclusions indicate that by adopting the SF-MST metrics for evaluating tourism activity, the G20 can promote more sustainable, equitable, and beneficial tourism for all stakeholders. Adopting sustainable practices and fostering a collaborative approach ensures resilient tourism in harmony with the environment and the communities involved, especially considering cultural issues.

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