

# Geographical indication of São Matheus as a boost to gastronomic tourism

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## ABSTRACT

Yerba-mate has undeniable historical-cultural and economic value, especially in Southern Brazil. The consumption of yerba-mate as *chimarrão* or tea is usual, and the product can also be creatively used as an ingredient in other food preparations. In Paraná, the state flag has a branch of this plant on it, representing the importance of this production in its colonization, emancipation, and consolidation as a state. Aiming to protect and promote products in connection to their origin, appears the sign of geographical indications (GIs). Regarding this product, the first GI, namely, the GI São Matheus, was granted in 2017 and its territory comprises 06 municipalities located in the South of the state of Paraná. Taking that into consideration, this article sought to analyze how the implementation of a geographical indication might boost gastronomic tourism in a given region. To carry out the investigation, the potentiality of the territory of São Matheus, located in Southern Paraná – Brazil was observed. The data was organized and treated by developing an interpretive case study. The participants were 28 actors (producers, support organizations, and other relevant individuals, employing a process called “snowball”), document analysis and direct observation were also used. The data analysis employed content analysis aided by the software IRaMuTeQ for key questions. After crossing evidence, we verified the existence of actors promoting local gastronomy and tourism. However, strengthening the GI management is still needed along with the aggregation of other territorial assets to promote the rediscovery of its potentialities.

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## 1. INTRODUCTION

The territorial phenomenon anchored in yerba-mate is culturally expressed by its identity, for giving meaning to experience and identity choices, that is, connecting the past with current social, cultural, and economic relations. The indigenous peoples of the region already used yerba-mate (*illex paraguariensis*) leaves long before the arrival of the Portuguese and Spanish conquerors. The newcomers, in turn, incorporated their use in their *chimarrão* and tea preparations. For being a native plant in the Araucaria Forest,

Araucaria Moist Forest, or Mixed Ombrophilous Forest, the consumption of yerba-mate created its own geographical borders, uniting peoples from different countries in the Southern hemisphere and from different regions within these countries, due to its highly relevant social, economic, environmental, and cultural contribution.

The territorial context, the local history and culture, the accumulated knowledge, and the landscape are incorporated in their wholeness, modifying the know-how and the value of productions, which within certain development strategy, identify a place and its territorial resources. The territory production conditions are not only favored by local externalities, but also by the collective creation and social construction at a territory scale (Pecqueur, 2001).

Traditional dietary habits might become more than only identity and cultural manifestations when incorporated into the local tourism industry. The image and the product have potential to go beyond their original territory and attract tourists even before they have contact with the place.

Located in the South of the country, the São Mateus geographical indication (GI-Mathe) was recognized as an indication of provenance, only requiring the notoriety of the place of origin of the products or services. The sustainable production of yerba-mate, the respect to its history and the tradition of the local yerba-mate activity, along with the appreciation of the natural resources of the São Mateus region, where the yerba-mate is processed considering the port on the banks of the Iguaçú river as the central point of this activity, are the guiding principles of the Regulation of Use of the São Mateus GI.

The tourism potential and the cultural relevance of the yerba-mate from São Mateus is confirmed by the Law n. 104/2017, published on 20/07/2017, which granted the municipality of São Mateus do Sul, the GI location, the title “yerba-mate land”, demonstrating that there are potentialities to be guaranteed through that culture preservation and appreciation.

In addition, due to the convergences related to the aggregation and appreciation of the territory, the state government created the “Mate Street” in 2020, when BRL 2.1 million were invested in the transformation of the square and its street, which are located at the entrance of the city (via BR-476) into a place of sociability, concentration of cultural activities, promotion of trade and regional typical products. Such project reinforced the yerba-mate link with the cultural identity of that territory favoring the attraction of tourists.

Historically, the yerba-mate production in that region involved several rural properties. It was and is still a highly relevant economic activity. The tourism potential related to the territory and the regional cultural heritage relies on a significant number of local actors committed with the yerba-mate, who also have historical roots from the economic standpoint. In addition, it is an element of socialization and hospitality, once sharing this beverage with someone else recalls old traditions, which signal friendship and trust – the genuine expression of the sharing spirit.

Thus, articulations to incentivize tourism and local gastronomy, built up in a coherent and positive way, tend to develop the image of the São Matheus GI territory, not only by giving visibility to the product, but also for rooting the territory dynamics in favor of the productive chain. The development of a typical gastronomy has also provoked advancements in the territory development, since the exploration of these sociocultural processes linked to the yerba-mate use have been noticed and worked in the region.

There are no relevant facts or events in the state of Parana that are not correlated to the economic exploration of yerba-mate. This is due to the fact that the state economic base is founded on the exploration of native yerba-mate sites, which granted the state its political, social, economic, and cultural configuration. Political emancipation is granted based on growing wealth, trade and industry development, population and urban area growth, which consequently result in changes at the social, economic, political and cultural levels. Easily identifiable, the state of Parana has on its flag a yerba-mate branch, which reinforces the importance of this plant in the state.

The yerba-mate productive chain was a reference factor in the harmonization of policies and government mechanisms regarding its competitiveness in the market, and such awareness led to the reorganization of the activities of the yerba-mate activity in Parana (Maccari & Rucker, 2004). By introducing economic activities based on yerba-mate, the so-called Mate Cycle was consolidated, which gave rise to the capitalist relations of production (De Oliveira, 2001), introducing a sophisticated work division and allowing the advancement of this sector in the state.

The yerba-mate representativeness and importance in the municipalities in the São Matheus territory are evident, as pointed out by the data gathered by the Secretaria de Agricultura e do Abastecimento e do Departamento de Economia Rural (Rural Economy Department of the Agriculture and Supply Secretariat) (SEAB, 2021). Such data demonstrated that the municipality of São Mateus do Sul (which holds the GI) presented a productive potential of 100,000 tons of yerba-mate (leaves) in the 2021/2022 crop, whose production gross value (VBP, local acronym Valor Bruto da Produção) was USD 30,619,438.87. In addition, yerba-mate seedlings generated approximately USD 859,719 of the production in that municipality, corresponding to 3,000,000 units.

Thus, the geographical indication experience in São Matheus, state of Parana is a relevant field for tourism promotion due to the local peculiarities and the yerba-mate produced there being the first product that received GI recognition in the national territory on 27<sup>th</sup> June 2017.

Geographical indications were created as a protection device since their function is to ascribe tradition and quality to an original product, for the particularities resulting from the local geographical conditions of such product. This means that such mechanism might represent the quality of the natural environment or human factors, generating territorial specificity and notoriety.

The quality and notoriety of the yerba-mate production resulted from the shadow provided by the native forest that comprises araucaria, imbuia, and cedar trees. Its

genetics is natural from this region, and its native origin ascribes it a specific flavor, anatomy, and color, characterizing the original quality of the product location. Thus, a kind of symbiosis occurs between the geographical indication and the territory, since the territoriality develops via the creation of a device, and the GI is not detached from the territory (Jeziorny, 2009).

Being understood as the most social right, a geographical indication (GI) occupies, within the genre of intellectual property, an autonomous branch in the family of distinctive signs (Cerdan et al., 2010). It aims at favoring the collectivity, rather than favoring a single owner/producer with the sign (Bruch et al., 2010).

Mainly from the 1990s onwards, parallel with the globalization movement, which was marked by the mass production and consumption and its homogenizations (Pecqueur, 2001), geographical indications provide a new face to the food market transformations (Anjos et al., 2013), strengthening and enhancing the appreciation of diversity and singularity rooted within territories (Casabianca et al, 2013).

Although they were initially created with the purpose of commercial protection, currently a geographical indication might ascribe value to a region, building up economic territorialities, differentiating one place from others, thus favoring the economic, environmental, social, and cultural development of certain places (Pellin, 2016). Therefore, geographical indications are “tools to value tradition, costumes, knowledge, practices, and other intangible property associated to the territorial identity” (Niederle, 2009).

## **2. OBJETIVES AND METHODOLOGY**

Considering the geographical indication recognition used to identify products that present certain qualities, or reputation specifically derived from their place of origin, the main objective of this study was to analyze how the implementation of a geographical indication can boost the gastronomic tourism in a region.

To achieve such objective, a case study was developed as a research strategy to “explain assumed casual links in real life interventions which are too complex for experimental strategies or for those used in a survey” (Yin, 2015).

Since a case study is not a data collection method, but rather a broad research strategy (Yin, 2015), the study was supported by methodological aspects of qualitative and explanatory nature, in which the former seeks to understand “the logics of social processes and structures from the deep analyses of one or few particular cases” (CEBRAP, 2016); and the latter is concerned with the “identification of factors that determine or contribute to the occurrence of certain phenomena”, deepening the knowledge of reality to “explain the reason of things” (Gil, 2008).

Data was collected from documents, observation, and semi-structured interviews, considering the territorial complexity under analysis, and reaching relevant conceptions and information within the spatial cut that limits the São Matheus GI region.

The answers to the questions specifically related to the territory were obtained in the data collection carried out between 17<sup>th</sup> and 25<sup>th</sup> October 2022, in the municipality of São Mateus do Sul/PR, location of the São Matheus Geographical Indication, where 29 associated producers were contacted, among whom, 2 currently use the GI seal. Out of the total number, fourteen accepted to give the interview. Also, among those contacted, for being sellers of leaves, not all effectively use or take advantage of the GI register. Thus, 17 producers of leaves/yerba-mate, 2 associations, 4 public institutions, and 5 private profit institutions were interviewed.

For the development of the empirical content, questions specifically related to the territory were elaborated and built up based on the indicators proposed by Turnes et al (2022), with the theoretical support by Pecqueur (2001), and Mollard (2001), to guide and represent the case in a didactic way.

In addition, to interpret the research object, semi-structured interviews were carried out, in which a scrip was used, but the respondents' answers were obtained from their free manifestation. Therefore, the interviewer had a guide to guarantee the coverage of the twenty-five questions planned, but he was free to promote adjustments if necessary.

The data analysis was carried out by crossing the evidence selected and treated within the chronological construction of the territory, the yerba-mate sector, and the São Matheus GI. In this article, the software IRaMuTeQ (*Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires*), version 0.7 alpha 2, was used to develop an automated lexical analysis, enabling the understanding of connections between categories, that is, grouping texts (phrases most frequently uttered during the interview), combining these results with the manual content analysis.

The content analysis was carried out founded on the researcher's interpretation and reflection, originated from the successive comparison of data. The data organized in Excel spreadsheets provided better visualization of the research basic proposal and comparison with the literature and the phenomenon under investigation, considering the territory empirical reality.

### **3. GEOGRAPHICAL INDICATION**

The use of geographical names is connected to the humankind history (Bruch et al., 2010). Geographical indications date back to the BCE 4<sup>th</sup> century since the ancient Mediterranean peoples (Greek and Roman) used to order products such as wine and oils by mentioning the names of their land of origin, for noticing that certain places presented some particular qualities that influenced their products (Medeiros et al., 2016). Some references are found in the Bible to indications of origin such as the Lebanon cedar, or the Ein-Gedi wines, and the services rendered by Sidonians (Bíblia Sagrada (Holy Bible), 2006). Both in ancient Greece and the Roman empire, those products were labelled and distinguished since wines that were shipped in amphorae (old vases) borne the indication of their region of origin and controlled production (Bruch et al., 2010).

In the middle-ages, the geographical protection origin comprised artisans’ associations (guilds) (Jay & Taylor, 2013), which controlled prices, punished lack of compliance with the rules set, and prevented competition among the participants (Macedo, 1999). Similar dynamics occurred at that time (Lindgard, 2009) when carpenters, ceramists, and boat manufacturers identified their products by fixing plates on them. Thus, giving names to the places where products were produced to position their competition and recognition has played a significant role in history (Figure 1).

Origin	Product	Indication
BCE 4 <sup>th</sup> Century	Wines and Oils.	Name of the lands of their origin
Bible	Cedar	Lebanon
Bible	Wines	Ein-Gedi
Bible	Timber	Service rendered by Sidonians
Roman Empire	Wines	Name of regions on amphorae
Middle Ages	Handcrafting	Guilds (artisans’ associations)
Middle Ages	Carpentry, Builders, Ceramists	Plate marks

Figure 1. History of first products as GI examples. Source: Covalchuk (2022)

The Brazilian Law n° 9,279/1996, which provides for the rights and obligations related to industrial property, does not define it, but sets its species, which must be understood without a legal hierarchy, and with 37 (parallel possibilities to be chosen by the producers or service renders who seek this type of protection, provided that the legal requirements and regulations are met” (Vieira & Pellin, 2015). These can be defined as a sign used to identify products that belong to a concrete geographical origin and show qualities, or a reputation resulting specifically from their place of origin.

In Brazil, there are two kinds of geographical indications, the indication of provenance (IP) and Denomination Origin (DO) (Figure 2). The indication of provenance provided for in art. 177, Law n° 9,279/1996, only requires the notoriety of the place of origin of the products or services, while the denomination origin, set forth in art. 187 of the said law, requires elements that prove that the product/service presents a quality or characteristic that is essentially owed to its place of origin (geographic space) considering natural and human factors (Brasil, 1996).

	Denomination Origin	Indication of Provenance
Legal concept	Art. 178. Denomination Origin is considered the geographical name of the country, city, region, or location of its territory, which designates the product or service whose qualities or characteristics are exclusively owed to its geographic location, including natural and human factors.	Art. 177. Indication of Provenance is considered the geographical name of the country, city, region, or location of its territory, which has become known as a center of extraction, production, or manufacture of certain product or delivery of certain service.
Applicability	Product and service.	Product and service.
Link	Elements proving that the product/service has quality or characteristics, including natural and human factors are needed.	Only requires the notoriety of the place of origin of the products and services.
Similarities	Understood as collective ownership, they require identification of the place or region (geographical name) and notoriety.	

Figure 2. Differences between DO and IP. Source: Covalchuk (2022)

Apart from the commercial protection, GIs are also used as instruments to aggregate value and market access, in addition to being perceived by the consumers as quality guarantee, building up a competitive advantage due to the urgency of the product verification.

Although the GI can be seen as a facilitator of the financial and market interests, it cannot be created. It is recognized as the human's daily and temporal action within a territory and originates from a pre-existing situation related to a link and belonging that generated its identity (Pereira, 2011).

One of the requirements for such recognition is notoriety, which is the quality of being recognized by consumers, referring to the fame of a product or service from certain region. Therefore, it must be related with its "knowledge by the public and having a historical link with the territory" (Velloso et al., 2014).

According to Cerdan et al. (2010), its notoriety might contribute positively to society and its culture for inserting producers or regions, who/which were previously unknown, into the market. There is also, some favoring of the local biodiversity, resources, and production models (Cerdan et al., 2010), as well as complementary activities, which might not be directly linked, but establish relation with the geographical indications.

Thus, renewing the appreciation of traditions, costumes, knowledge, and other intangible assets associated with the territorial identity grants sociocultural rooting to the specific geographic origin. Thus, a GI can be understood as a collective tool of commercial promotion of such products, which by disseminating the non-transferrable historical-cultural heritage guarantees in its recognition, the product responsibility with quality (self-control) and with the name and notoriety of the definition of the production area (Touzard, 2010). This, according to Vieira and Buainain (2011), contributes to the relevance of its institution in several sectors of economy.

Its undeniable importance for the arrangements of local development does not impact the product differentiation in comparison with other products due to its authenticity only (Varella & Barros, 2005), but also due to its mobilization and awareness raising of the producers involved. Collective and voluntary action is the driving force of a geographical indication and it potentially benefits several sectors through the capture of knowledge and traditions.

According to Anjos et al. (2013), agrifood GIs have become a theme of interest in Latin-American countries in the last ten years, from the standpoint of both the academic environment and promotion and development national and international institutions. In Brazil, there are at least three sectors that outstand in the recognition of geographical indications for their specificities, productive chain, and markets, namely, wine, handcrafting, and coffee (Giesbrecht, 2014). Among those, the coffee product class is currently the one with the largest number of registered GIs.

Gastronomic elements are part of the heritage and cultural identity of society, and might become tourism attractions, since they represent, memory, affection, tradition, and family.

This is not only about the elements available in the environment, but also about history and culture. Incorporating traditional eating habits, created within a territory into tourism might become a favorable strategy for local identification and heritage rooting, for its symbolic character and intrinsic value (Medeiros et al., 2018).

Potentialities sustained by the sense of location within a territory, evidence the particular traits of that region regarding the production of high-quality food, which stimulate tourists' experience when attracted to it (Medeiros et al., 2021). Tourism, culture, and gastronomy are able to enhance territorial development (Medeiros et al., 2018).

### **3.1. Products with Geographical Indication and Gastronomic Tourism**

Gastronomy and food cultural identities support sensorial memories that reinforce gastronomic memories (Woortmann, 2013). Although human beings need the food nutrients as fuel, food is loaded with evoked signs, symbols, dreams, and imagination (Bessièrè, 1998). The insertion of such elements in tourism, transforms a commodity product into a symbolic product, so that "they acquire value because they tell a story (which aspires to become history)" (Garcia Parpet, 2016) and when associated with a specific place and moment, they become rare assets, of a socially produced rarity (Garcia Parpet, 2016).

Therefore, gastronomic elements have occupied a non-neglectable position in the cultural attractiveness and playing a significant role in the preference of destinations, whose combination affects tourism development and at the same time promotes the quality of farming products, the final product quality and local offer (Medeiros et al., 2018).

One example is France with the promotion of cheese, wine, shellfish, and other agrifood products, boosted due to the cooperation of local organizations and tourism agencies (Balabanova, 2014; Curnonsky, 1953), which aim to develop with this synergy. In this way, territorial food and beverages are seen as an essential part of the tourist's experience, and real cultural objects (Poulain, 2004).

Specifically focusing on food and beverages, the gastronomic tourism appears. This segment involves the visitation to primary or secondary food producers, gastronomic festivals, restaurants, and specific locations. This reflects the individuals' desire to experience a particular type of food or the product of a specific region. This might be understood as a special interest tourism (main motivation) or associated with another segment (such as rural or industrial tourism), and might play a relevant role in the three sustainability pillars, namely, economic, social, and environmental (Medeiros et al., 2018). This occurs because it can transform and mobilize societies, whose economy, information, transport, and direct and indirect product offer result in increased consumption and improvement of traditional products (Vieira & Soares, 2019), which are embedded in the territory identity and strengthen it.

The growing search for and attention to the quality of agrifood products result in a series of relevant factors at the competition level (Ramiro, 2016). In the center of the strategies of economic agents, is the consumers' sensitization to food safety, sustainability,



traceability, tradition, typicity, and terroir (Tregear & Giraud, 2011). The success of commercialization strategies depends, to a great extent, on the production location and its relations with language, religion, traditions, history, and arts that belong to the region where they exist, and guarantee significant effects in the formation of a regional identity, attracting the preference of tourists (Nesterchuk, 2020).

Thus, IG recognition enables trust in the differentiation of such products and helps the producers to position their products in the market. For this reason, their use as marketing tools to promote the region where they are inserted is favored (Locatelli & Souza, 2016, 4p), increasing levels of prosperity, sources of income, and regional interest. That is because geographical indications can be used in tourism destinations as unique tool to advertise the place, valuing the territory as well as its products and services (Bizinelli & Manosso, 2017). They can also promote tourism products focused on products of origin and complement other segments' tourism offer, or even help to extend the experience lived, becoming a souvenir of that specific destination (Medeiros et al., 2018).

#### **4. THE SÃO MATHEUS GI CASE**

The yerba-mate relevance in the São Matheus region is undeniable because the economic activities in Parana have been historically related to the exploration of this plant. In the XIX century, two commercial business “started to dominate: yerba-mate exports and the commerce of mules” (Balhana, 1977).

In the yerba-mate economy, extraction increased in the 1820s and conquered many markets. In 1826, “[...] the yerba-mate exports constituted the base of all foreign trade in the interior of the 5<sup>th</sup> District, via the Paranagua Harbor, predominating high above the other products and reaching 69.81% of the total exports in the state” (Balhana, 1977).

There are only two yerba-mate GIs in the whole country. One is an IP and the other a DO. The first to be recognized in 2017 was the São Matheus IP, whose characteristic is manufacture and specialized service. The São Matheus GI comprises six municipalities located in the southeastern mesoregion of the Parana state, namely, São Mateus do Sul, Antônio Olinto, São João do Triunfo, Mallet, Rebouças, and Rio Azul. Pursuant to the GI-Mathe.

Regulation of Use, its principles include the sustainable production of yerba-mate, respect to its history, preservation of the local yerba-mate activity, and appreciation of the natural resources of the São Matheus region, where the products are elaborated from parts of that plant, the central point of this activity is the port region on the banks of the Iguaçu River (GI-Mathe, 2015).

In its essence, the geographical indication is an economic instrument to aggregate value to products and services, and reservation of market niches. However, a GI will not necessarily in practical terms generate increased prices and appreciation of products or services. The cohesion of the relations is a necessary condition for economic advancement, along with the valuation of traditions, costumes, knowledge, practices, and other intangible assets associated with the territorial identity.

For the consumer to distinguish between a product with GI and another without GI, a “seal” is used, which in the GI-Mathe is represented by Figure 3. Such seal should ensure respect to the technical requirements of product quality, identification, and clear information, as well as traceability (Sebrae, 2006), indicating the association that represents the producers, and allowing the identification of the product origin.



Figure 3. Seal of the São Matheus Geographical Indication. Source: GI-MATHE (2015)

In addition to being an environmentally friendly activity (agroforestry system, that is, the plants grow under the shadow of other trees which enables the preservation of the local flora and soils), economically viable, and socially fair (in Brazil, it is produced in 596 municipalities, over 180 rural properties, and generates 710 thousand direct jobs, mainly during the trimming period (IDR-PR, 2022)), its history, the cultural taste and the family tradition predominated as motivations for those who became yerba-mate producers.

When asked about the benefits that the São Matheus GI brought to the region, the interviewees were unanimous, as observed below (Figure 4), in their answers regarding the visibility, traceability, notoriety, and producers’ appreciation resulting from the GI. It turned São Matheus into a yerba-mate “shop window” (Interviewee 24 - mate company), which attracted government investments in the territory development, as well as courses, tourism routes, investors, spontaneous media, and parties/festivals (Interviewee 1 - Leaf producer; Interviewee 25 - mate company).

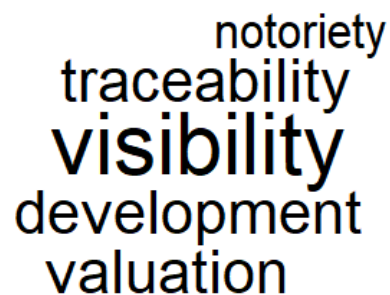


Figure 4. Word cloud: benefits provided by the GI. Source: Research data (2022).

Regarding the problems found, six producers stated that there were no problems. However, the other interviewees revealed aspects such as seal elitism (Interviewee 13 – seedling producer), difficulty to comply with the rules (interviewee 09 – researcher and entrepreneur), which was later on justified by lack of knowledge and the vanity of some producers and council members (interviewee 25 – leaf producer), lack of associations, and

investment funds (interviewee 8 – mate producer; interviewee 26 – leaf producer), low specialized workforce and information about the GI control (interviewee 11 – leaf producer; interviewee 16 – leaf producer), and the rivalry created with other municipalities for the São Matheus GI recognition (interviewee 1 – mate producer; interviewee 7 – mate producer; interviewee 24 – mate producer). They also mentioned lack of specific segments (interviewee 24 – mate producer), which generates increased production without the certainty of a consumer market (Interviewee 10 – leaf producer).

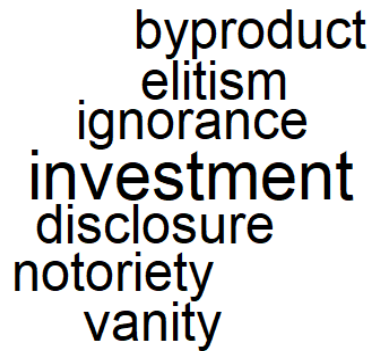


Figure 5. Word cloud: problems reported by producers. Source: Research data (2022).

Taking these obstacles into consideration, the interviewees were asked about the need for advancements in the sector since according to Milano et al (2022), the coordination of territorial and sectoral scales by the GI area grants clarity to the goods and services of that territory. They suggested that the creation of more industries should be favored (interviewee 1 - mate producer) with consequent market expansion (Interviewee 10 - leaf producer; Interviewee 16 - leaf producer); promotion of differentiated technologies, mainly related to the productive system exploration of the quality, the yerba-mate unknown benefits, “going beyond its use for chimarrão” (Interviewee 21 - leaf producer; Interviewee 25 - leaf producer); regarding this last point, studies on the theme are considered an advancement – it is important to “approach universities” (Interviewee 8 - leaf producer; Interviewee 9 - researcher and entrepreneur).

Such considerations regarding advances in the sector are plausible, since for presenting versatility derived from its chemical composition, acting in favor of the human health, the EMBRAPA has found ways to use it in other products, such as energy drinks, fizzy drinks, cosmetics, and cleaning products, including detergents. This possibility tends to increase the product market and aggregated value. Also, the EMBRAPA (Agriculture and Livestock Brazilian Research Company) is planning to organize the technologies developed and validate them in the production process called *Sistema Erva 20* (Yerba-Mate System 20), which stimulates the action of technologies for the production of yerba-mate sites, generating increased quality and productivity.

There are other attractions in the territory with potential to be strengthened and that might be enhanced by local actors. For example, the *Vapor Peri*, a steamboat that used to transport yerba-mate in the region through the Iguaçú River. Its maintenance and use (tourism and local Community) should be guaranteed due to its historical value. However, a playground was built there (which was described as a frustrated expectation by

interviewee 1 - mate producer). This fact was also observed in the field research and demonstrated minimum zeal for the preservation of the territory cultural identity.

Some perception regarding the typical gastronomy promotion has generated some advances in the territory development. There is some support by SEBRAE to the exploration of these sociocultural processes linked to the yerba-mate use and they are noticed and mentioned. The typical gastronomy could be joined to the Polish culture and the use of the Iguazu River, which refers to the Interviewee 4's mention that the vapor jerk beef should be better explored as a typical dish of that region.

For a large part of the interviewees, the use of the mate route, which is currently interrupted, and resulted from the private initiative of local entrepreneurs, is about to be resumed with investments of resources by the city hall, for an experience tourism that reinforces the territory cultural identity and attract tourists' attention.

Consequently, this partnership between the gastronomic and tourism valuation matches the appreciation of and respect for monuments and historical sites, which were seen to be neglected and require urgent and thorough consideration. In addition, the history and territorial traditions were seen to have low appreciation and recognition, [...], this is not a local public policy, this lack of investment in preservation is seen all over the country" (Interviewee 23 - city mayor), and this impacts the territorialization of resources and assets, since people cannot appreciate what they do not know. However, the environmental preservation was seen to have been gaining space, which might strengthen the tourism and tradition experience of the São Matheus GI.

In such context, we observed the inexistence of a sectoral development plan build up from the description of methods and objectives to be achieved. This fact relates to the individualism and lack of cooperative action in the region, added to the need for refreshing the GI, considering the time passed since its institutionalization and for being a "prototype", and also, due to the lack of technology development and a specialized professional staff. However, there are expectations that in 10 years (due to natural issues or the Association work) a tourism region will be built.

Some evidence related to the development of the phenomenon investigated was verified in the events occurred at the territory level. Tourism development based on the GI requires strategies related to the sign, the advantages, and the appreciation of the local territory assets. The fact that certain territory obtained a protection device does not ensure the spontaneous birth of tourism and flourishing of the local gastronomy.

To achieve that, actors inserted in the characteristic locations must elaborate strategies tuned to the specific challenges and opportunities, for relations that optimize economically the territory resources. In 2023, greater participation of the yerba-mate producers was observed in the sense of improving the local cultural *terroir*, searching the territory, the product, and the producers' past, enabling the experience of planting on yerba-mate sites, which tends to attract tourists and deepen the locals' collective identity.

The promotion of specific gastronomic products, through the preservation of abilities and techniques has the power to (re)activate bonds historically belonging to a territory, enhancing the tourism experience, valuing knowledge and local products, and contributing to their recognition and protection (Medeiros et al., 2018). Geographical indications promote products; highlight regional attributes, and the producer territory, confirming its natural economic potential for tourism, favoring specialized production, and the gastronomic tourism by deepening local knowledge (Medeiros et al., 2018).

Since the object of this (São Matheus yerba-mate) holds a geographical indication register, and considering the advantages listed, it should be used to enhance tourism. The São Matheus territory also presents some mineral potentialities, mainly regarding the production of oil shale, carbon credit, a consortium between the Araucaria forest, tourism, and pine nut production. Other existing products to be explored are roots, seasoning herbs (mainly dill), fruit (one example is their strawberry production), and the pine tree. They are all relevant since they are rooted in the territory, but also for their use as part of the local knowledge. Figure 6 shows six words that synthesize the interviewees' perception in relation to the resources that have potential to promote the region.



Figure 6. Word cloud: other existing resources that are not appreciated in the territory. Source: Research data (2022).

The valuation of the yerba-mate byproducts in the production of energy drinks, fizzy drinks, medicinal herbs, and their processing using granulometry to turn them into chocolate and ice cream ingredients, among other should also be incentivized. There is a possible path to include the local cuisine, but gastronomic studies are needed to explore the viability of the combination of local products. Therefore, the importance of investment and promotion of specific courses, mainly considering the peculiarities of the yerba-mate flavor is emphasized.

Moreover, an interesting remark was made in relation to the exploration of new ways of consuming *chimarrão*: “[...] in the past, the *mate* (*chimarrão*) was prepared to be shared calmly and slowly, nowadays people are no longer that patient, only those that are really used to it” (Interviewee 4 - leaf producer). To keep the tradition, it is sometimes necessary to observe new ways of promoting the products, mainly yerba-mate. That producer continued: “[...] we have to change the technology, the product presentation. There are already lectures addressing different ways of consuming yerba-mate”.

This is all about the valuation of territorial resources, including the existing ones, since promoting the territory dynamics means activating resources and optimizing underused resources (Pecqueur, 2001), by harmonizing products (Benko & Pecqueur, 2001), since the territory in its completeness is the commercialized product (Pecqueur, 2001).

Considering all these interactions and occurrences, the question related to the existence of clarity among producers, service providers, and consumers about the quality of the territorial resources is raised. We observed lack of objectives regarding the territory expansion and dynamization to enhance the cultural and economic processes related to the sector. For this reason, the efforts are not efficient, continuous or focused on creating frequent contact with the stakeholders, or developing strategies able to create local governance, which tends to disrupt the objectives to be achieved, including the territorial asset that yerba-mate represents.

Thus, knowledge used to operate the local experience with other networks is needed to expand this singular know-how, that is, to strengthen and value the ways to live the experience, not only consuming the product. This should generate real appreciation of the territory potential, favoring cultural, natural, and traditional characteristics of that region.

## **CONCLUSIONS**

This study aimed to analyze how the implementation of a geographical indication might boost the gastronomic tourism of a region. It was based on the São Matheus GI case study and the testimonies of those involved in the yerba-mate production and commercialization, direct observation, and document analysis. The results raised some evidence of this particular reality, but that can be transferred to reflect upon other cases.

Taking into consideration that the GI is strengthened by image and notoriety, our results showed that the first strengthening to be felt by the consumer must reinforce the product quality within its culture, history, and production. Such communication should occur mainly through gastronomy and tourism, which should be supported and gradually expanded to comprise collective trajectories and territory anchoring.

Also, for the consumer experience some identification with the territory, bonds of trust and proximity must be created, along with the aggregation of value in the products and services. Obviously, the assessment of particularities and institutional investments for the development and sustainability of the territory must be carried out, bearing in mind that the consumers are not only tourists, but also the residents.

Our results suggest that the gastronomic tourism tends to influence positively both the cultural and economic development. There is an evident possibility of transformation of that territory aiming to strengthen the tourism activity, aggregating aspects of the Polish culture, the rediscovery of ways of using pine nuts, analysis and use of fruit, seasoning herbs, and roots within the possibility of attracting via tourism attractions and the local cuisine.

The set of historical and cultural assets might aggregate value to the yerba-mate and the territorial resources to be conquered. The region sometimes forgets its own richness. For example, in the entrance of the city there is a monument to the pine nut since the territory is one of the last remnants of Araucaria forests, this could be used in a historical rescue for the appreciation of this aspect of the local culture and territorial knowledge. Likewise, other particularities of the municipalities included in this GI that could be inserted in the articulation center.

Moreover, taking into consideration the territorial agents of greater relevance and action within the areas covered by the distinctive sign, limited by the identification of subjects, we verified that currently associated producers are the most involved in the mate supply chain. However, there is evidence of some other organized actors seeking to incentivize local tourism and gastronomy, so that, along with the local historical and cultural heritage, they can aggregate value to other territorial resources.

However, it is necessary to recognize that there are cultural, social, political, and economic relations that are neglected within the territory, and the inventory called “ecosistema societário de elementos” (ecosystem societal elements), contributed to the coordination of elements with geographical proximity. The GI requires an organizational approach (Pecqueur, 2001), and the contribution of this legitimation implements the São Matheus region as a potential product to be offered in the markets, without the monopoly of certain individuals, and breaking barriers for the participation of all local actors. This might raise the reliability in the territory, which is still incipient.

Therefore, considering the reality observed, and to contribute to the public and private management, we must consider the following points: a) creation of links of complementarity for the appreciation of the several territorial resources in a joint offer, integrating residents and visitors, promoting tourism in the city through their cuisine, music, and dance; and b) approaching the local consumer to promote their identification with the territory, enhancing culture, history, and production.

Finally, further studies are still required, mainly to deepen the knowledge about how to develop the process of reliability by the consumers, to measure the tourism benefits in the region, and the hopeful hypothesis of practical use of such studies.

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