



The multifunctionality of rural space: Agriculture and pedagogical rural tourism in the southernmost region of Brazil

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ABSTRACT

The article addresses pedagogical rural tourism developed by farmer families in the southernmost region of Brazil. Three agricultural production units were evaluated, which host students and teachers for classes on agroforestry, agroecology, and natural resource conservation. It is noted that farmers play an important role as educators, highlighting the multifunctionality of rural space and agriculture.

Societal impact

Throughout human history, rural space constant transformations according to the environmental and social particularities of each place and time. For a long time, this space was considered solely as a location for food and raw material production, just as the people who occupy this space were seen as strictly dedicated to agricultural tasks. The role of the farmer was to produce food and raw materials at low cost to sustain the demands of the growing urban population. However, the concept of rurality has expanded.

From the 1990s, there began a process alerting to the need to recognize the various roles played by farmers and rural space. In this context, the term multifunctionality emerged, referring to the multiple social, environmental, and cultural functions performed in rural areas [1]. Tourism, in its various modalities, is an example of this conceptual opening.

When well planned and executed, tourism can contribute to at least five Sustainable Development Goals (SDGs): eradication of poverty (SDG 1) and economic growth with decent work (SDG 8) by generating employment and income for rural communities, making them inclusive, safe, resilient, and sustainable (SDG 11). It provides economic opportunities, incentives for environmental preservation, promotion of local culture, responsible consumption and production (SDG 12), and values the way of life of farmers. Rural tourism incentivizes agricultural and touristic practices that protect local biodiversity, contributing to life on land (SDG 15).

In the extreme south of Brazil, in the region known as Serra dos Tapes, family farming is the dominant social structure. In addition to subsistence production, farmers primarily cultivate soybeans, tobacco, peaches, and dairy products. Within this context, rural tourism has been gaining traction through the establishment of tourist routes on family farms. In this region, rural tourism can attract or retain young people who wish to live in rural areas but not exclusively dedicate themselves to agricultural production. Moreover, school visits not only provide urban students with an opportunity to experience rural life but also highlight the significance of these areas, not just for the social reproduction of farmers, but for the region, by showcasing the ecosystem services provided.

Pedagogical rural tourism emerges as a valuable resource, capable of contributing to the education of students by fostering citizenship, environmental awareness, and heritage conservation. Additionally, it helps to valorize agriculture and rural areas, serving as a strategy for promoting rural development [2]. Therefore, understanding and recognizing the multiple functions performed by farmers and rural areas can support the creation of public policies that benefit farmers for these diverse ecosystem services they provide. In the studied region, the number of establishments dedicated to rural tourism has been increasing. The municipality of Morro Redondo, state of Rio Grande do Sul, Brazil, with a population of 6046 inhabitants, has 44 rural tourism enterprises, a significant number for a small municipality. In this context, the objective of this study is to highlight and discuss pedagogical rural tourism as one of the multiple functions performed by

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farmers and rural areas in the Serra dos Tapes.

Methodology

This study pedagogical rural tourism as an expression of the multifunctionality of rural space. The research was conducted through technical visits to rural establishments located (Fig. 1) in the municipalities of Canguçu (Establishment 1), São Lourenço do Sul (Establishment 2), and Morro Redondo (Establishment 3). Table 1 the basic information of the studied establishments. Visits to the agroecological rural establishments in Serra dos Tapes by the research team took place between 2018 and 2023. These establishments are the unit of analysis the research. They are small rural properties where families live and carry out their activities without the use of hired labor. They are simultaneously a unit of production, consumption and residence.

During the mentioned period, various data collection methods were employed, including semi-structured interviews with ten farming households who signed an Informed Consent Form, participant observation at pedagogical rural tourism events (in three properties), photographs, and field notes. In this work, particular attention is placed on three rural establishments that develop educational rural tourism and where visitors were effectively welcomed throughout 2023. The collected statements were fully transcribed and analyzed using the content analysis technique [3].

Results, discussion

At Establishment 1, the main attraction is the class taught by the farmer on agroecology and the principles of agroforestry (Fig. 2.a). Over the years, the family has hosted students from educational institutions in the region. Currently, at the initiative of the couple's daughter, the property opens its doors for rural tourism, with individual ticket charges. In Establishment 2, teachers bring their students of promoting

Table 1
Characterization of the evaluated establishment.

	Establishment 1	Establishment 2	Establishment 3
Predominant agricultural activity	Fruticulture.	Fruticulture.	Horticulture.
Municipality	Canguçu.	São Lourenço do Sul.	Morro Redondo.
Agricultural style	Organic and agroforestry system.	Organic and agroforestry system.	Organic.
Pedagogical tourist attraction	Guided tour of the property; Agroforestry; Agribusiness.	Guided tour of the property; Agroforestry; Cabin with artifacts related to agriculture and the environment; Restored riparian forest.	Guided tour of the property and to the greenhouses for seedling production.
Primary audience	Universities, schools, courses, tourists.	Schools, especially primary schools, universities.	General tourists and universities.
Fee charging	Symbolic value related to the consumption of juices, jams, and baked goods at the end of the visit.	Free of charge.	Symbolic value related to a meal offered at the end of the visit.

environmental education activities (Fig. 2.b). The farmer presents the riparian forest of a stream that he restored; the agroforestry system with multiple species of native vegetation; and a cabin, a space where he lectures on the environment and showcases old agricultural tools. Establishment 3 is diversified, producing vegetables, fruits, and baked goods for sale at markets, as well as organic vegetable seedlings. The

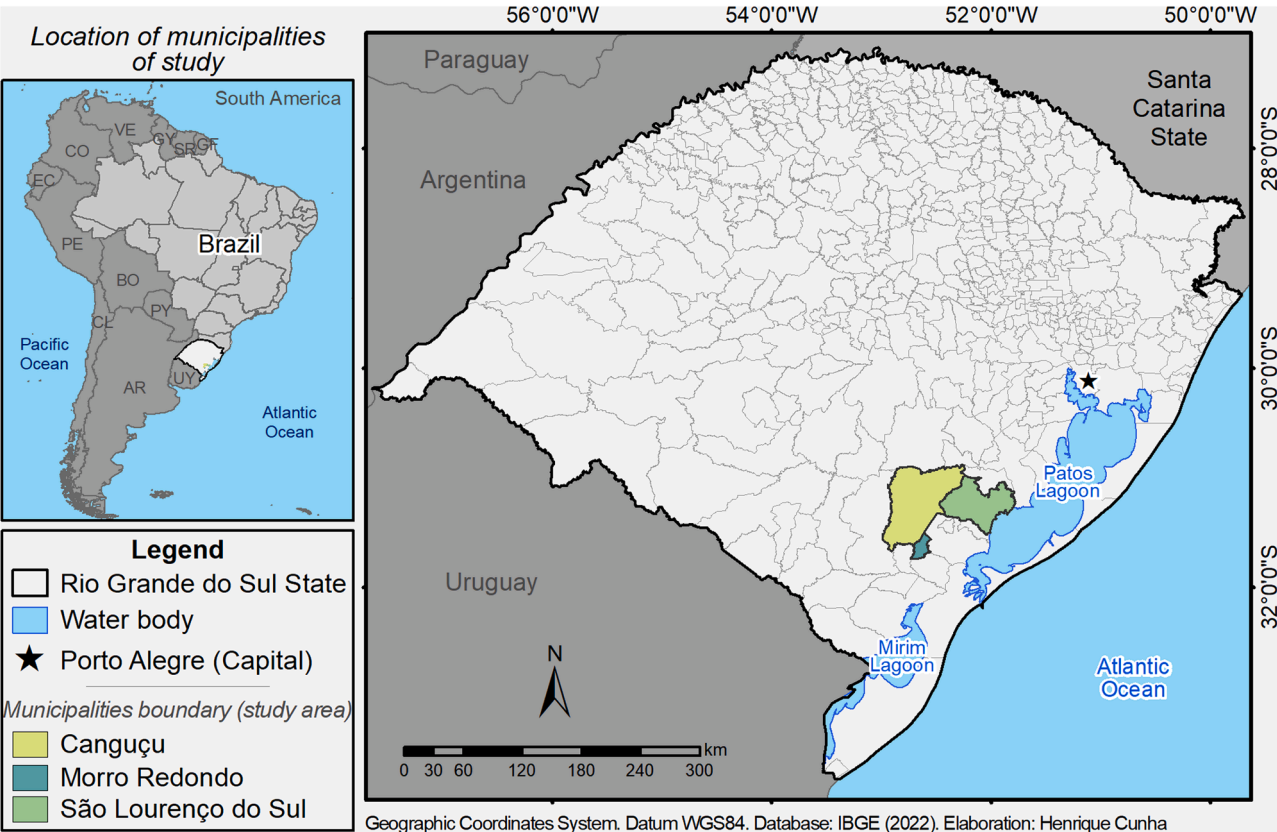


Fig. 1. Map showing the locations of the municipalities where the evaluated rural properties are situated.



Fig. 2. A - Visit of students from a rural management and entrepreneurship course at Establishment 1. B - Visit of an elementary school class at Establishment 2. C - Visit of a postgraduate class at Establishment 3.

farmers open their doors groups who wish to visit the property and learn about agroecology (Fig. 2.c). At the end, a meal with food produced by them is served.

Such initiatives transcend food production in the strict sense, as in the cases presented, it is to relate pedagogical tourism activities solely to economic aspects. As mentioned, farmers are not always directly compensated for their services, and when they do receive some income, it is often a symbolic amount that frequently does not cover the expenses and the time dedicated by the families. There is an underlying motivating factor that may be related to adherence to the basic principles of agroecology, including reciprocity or other motivations that are not identified. The rationale that leads farmers to provide environmental services without immediate benefit has been previously described in research with a similar population in the same study region [4].

Rural tourism can serve as an economic alternative for people to remain in rural areas, as exemplified by Establishment 1, where the daughter sees rural tourism as an opportunity to continue living on the family property. It fosters the preservation of nature, as clearly evidenced in the three cases presented. It promotes the valorization of cultural heritage, as seen in Establishment 2 with the appreciation of agricultural artifacts as attractions. It absorbs production surpluses and creates a market for traditional products from the properties, as demonstrated in all three cases.

The multifunctionality of rural areas is a subject of research in various countries, as it is considered a significant factor for the future of sustainable rural development [5], [6]. However, attention must be paid to the risks of transforming production spaces into spaces of contemplation, leading to the creation of symbolic scenarios where, in an effort to present tourists with traditional knowledge and memories of the past, such as architecture and socio-cultural manifestations, the rural space ends up becoming a place of spectacle, almost deified [7].

Implications

Reflecting on the motivations that lead family farmers to deviate from their daily activities to receive students, researchers, and the public interested in learning about the activities on the agricultural production unit, it is evident there is a peculiar rationality guiding farmers to

dedicate time and space to these activities. The role played by these farmers deserves recognition from society. When they receive visitors, farmers forgo profitable activities in order to guide and converse with these groups. There is a non-economic motivation that drives these farmers to engage in pedagogical rural tourism. There may be a relationship between pedagogical rural tourism and agroecology, as the three evaluated properties follow agroecological principles.

Rural tourism causes economic, cultural, environmental, and social impacts, and several issues that deserve attention and need understood, such as the dynamics of governments and institutions and their interaction with farmers in supporting rural tourism; the role of tourist routes; the motivations that drive farmers to engage in rural tourism; society's recognition of the environmental and social role played by farmers; and the development of public policies.

The field of rural tourism studies is broad and complex, and many questions. Even though this work is geographically limited to the southernmost region of Brazil, such activity has gained prominence and occupied the time of researchers from different areas of knowledge. It is gratifying to know rural space, once associated with poverty and backwardness, is now gaining the imagination of people as a place of peace, tranquility, healthy environment, environmental and cultural richness, and scenic beauty. Moreover, the farmer, judged as ignorant, uncultured, and rude, proves to be an educator of a society that lives oblivious to the reality of nature and life in the countryside.

Conclusions

The rural environment cannot be seen solely as a place of agricultural production, as the functions performed by rural areas and the people who inhabit them are multifaceted. There is a need for the development of public policies that benefit farmers dedicated to pedagogical rural tourism, who play an important role as educators by highlighting the multifunctionality of rural areas and agriculture.

Author statement

During the preparation of this work, the authors used ChatGPT OpenAI as an auxiliary tool in the process of translating Portuguese to

English. After using this tool/service, the authors reviewed and edited the content as necessary and assume full responsibility for the publication's content.

CRediT authorship contribution statement

Ana Beatriz Devantier Henzel: Writing – original draft, Methodology, Investigation, Conceptualization. **Flávio Sacco Dos Anjos:** Writing – review & editing, Supervision, Conceptualization. **Ernestino de Souza Gomes Guarino:** Supervision, Project administration.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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