

THE RELEVANCE OF INTERCITY WATER PASSENGER TRANSPORT AT THE COP 30 HEADQUARTERS



https://doi.org/10.56238/arev6n4-299

Submitted on: 11/18/2024 Publication date: 12/18/2024

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ABSTRACT

This study sought to identify the existing operational capacity and possible improvements that could promote the efficiency and sustainability of intercity waterway passenger transport in the state of Pará, during and after the Conference of the Parties - COP 30. The methodology used was based on a case study, composed of 6 companies that provide service in 5 connections belonging to the Marajó region, whose operations are regulated and inspected by the Agency for Regulation and Control of Public Transport Services – ARTRAN. The companies and connections were selected due to the tourist importance that the region plays in the vicinity of Belém. In this sense, semi-structured interviews were carried out in questionnaires made available on the google forms platform and technical inspections, with the generation of a specific report on the conditions of vessels and port terminals used by regulated companies. The results obtained showed that there was a significant investment by the state government in the construction and renovation of some waterway terminals. However, there are still many issues that need attention, such as proper compliance with accessibility standards. In addition, with regard to the operational fleet used by the regulated entities of the lines under study, it was found that, currently, there is already a high flow of passengers, especially for the stretches with the highest tourist visitation such as Soure and Salvaterra. Thus, it is necessary to expand schedules and invest in new vessels by regulated operators, and/or the entry of new operators for these lines.

Keywords: Waterway Transport. COP 30. Intermunicipal Mobility. Sustainability.

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INTRODUCTION

The State of Pará, due to its vast hydrographic network, stands out in the Brazilian scenario for its great dependence on waterway transport. This modal is essential both for the locomotion of passengers and for the movement of cargo, in several connections within the state (SILVA *et al.*, 2019). In this sense, Belém, the capital of Pará, is a strategic point of connection, especially relevant in the context of international events, such as COP 30, which will be hosted in the city in 2025.

The 30th edition of COP30 will be held in November 2025, in the capital Belém (PA). This global event is crucial for the discussion of environmental and climate issues. The Conference of the Parties (COP) is an annual meeting of the signatory countries of the United Nations Framework Convention on Climate Change (UNFCCC), created in 1992. Its last edition was the 28th that took place in Dubai, United Arab Emirates, from November 30 to December 13, 2023 (SEMAS, 2024).

The COP addresses essential topics such as climate justice, where developing countries seek support from developed countries to face the impacts of global warming. Operationally, the COP oversees the implementation of the treaty's commitments. In addition to climate discussions, the COP also tackles geopolitical and social issues, reflecting the complexity of international negotiations. It is an inclusive event, with growing participation from civil society, subnational governments and the private sector, pushing for more decisive action on the climate agenda. COP 30 will be a crucial moment to advance global cooperation against the climate crisis, with significant implications for the future of all inhabitants of the planet (UN, 2022).

The relevance of waterway transport in the Amazon, especially in Pará, is widely recognized due to its ability to integrate isolated riverside communities and promote regional economic development. In regions where road infrastructure is limited and distances are vast, river transport is the main mobility option (NEGRÃO, 2022). Therefore, the effectiveness of transport systems is crucial for the success of major events such as COP 30. These events rely on efficient transport logistics to ensure the safe and organized movement of attendees and materials, minimizing delays and ensuring the continuity of scheduled activities. (SILVA *et al.*, 2023).

The state of Pará is internationally known for its natural beauty, and within this context, one of the regions that stands out the most is the Marajó archipelago. Marajó Island is a fascinating destination, which attracts tourists in search of a more intimate



contact with nature and Amazonian culture. Located in the state of Pará, this island is the largest fluvial-maritime island in the world, with an extension of 49,606 square kilometers, located about 90 kilometers from the capital of Pará, Belém (SETUR, 2018).

Among the main tourist attractions is Praia do Pesqueiro, in Soure, with calm and clear waters. Another outstanding beach is Praia Grande, in Salvaterra, with its extensive strip of white sand and calm waters. In Soure, the São Jerônimo Farm provides a rural Marajoara experience, where visitors can ride horses and even ride buffaloes. In addition, the Soure Ecological Park offers ecological hiking trails. The Marajó Museum, in Cachoeira do Arari, houses a vast collection of archaeological and ethnographic artifacts that portray the cultural heritage of the Marajó people. Another important cultural point is the Caruanas do Marajó Institution, in Soure, where visitors can appreciate Marajoara ceramics, with elaborate pieces that preserve the island's indigenous traditions, and the Marajó Cheese Route, which allows tourists to taste buffalo cheese, typical of the region (SETUR, 2018).

In this context, intercity water passenger transport is crucial for efficient mobility between the city of Belém and the Marajó region, a tourist destination of great economic and cultural importance. In this sense, it is important to highlight that the regulation of waterway passenger transport on routes carried out within the state of Pará is the responsibility of the Agency for Regulation and Control of Public Services of the State of Pará – ARTRAN, while the inspection of the exploitation of port infrastructure throughout the national territory is the responsibility of ANTAQ. It is known that most of the vessels, as well as the ports of Pará, are in precarious operating conditions. In the study published in 2023 by Silva *et al.*, (2023), it was found that recently there has been a small improvement in the transport system of some lines such as the Belém/Salvaterra connection (Marajó region), due to the entry of new companies in the market, with more modern vessels and with better service to the local population.

With COP 30 approaching, a significant increase in demand for transport is expected, not only in the capital of Pará but also for tourist regions such as the Marajó archipelago, highlighting the need for a robust and efficient infrastructure to serve both local residents and international visitors. Thus, the following question arises: *Is the current intercity passenger water transport system in Pará prepared to meet this demand, providing fast, safe and comfortable travel?*



In view of the above, this study seeks to evaluate the infrastructure of waterway passenger transport in the state of Pará, focusing on the lines that connect Belém to Marajó Island, in a context of preparation for COP 30. The central hypothesis is that the current system has the potential to meet the travel needs caused by the event, as long as it is adequately improved and managed. The objective is to identify the existing operational capacity and possible improvements that can ensure the efficiency and sustainability of water transport during and after the event.

METHODOLOGY

The present study used a qualitative-quantitative approach, since, in addition to analyzing the provision of the service based on information collected in ARTRAN's routine inspection activities, it investigated the adequacy of the transport system to the logistical demands caused by the advent of COP 30. Regarding the data collection and analysis procedures, it made use of the case study methodology, whose sample was composed of 6 regulated companies, whose operation is regulated and supervised by ARTRAN, which provide the service in 5 connections belonging to the Marajó region, as illustrated in Figure 1. The choice of these stretches was due to the tourist importance that these cities play in the state of Pará, and especially in the vicinity of the capital Belém. In addition, all the lines on screen have operators duly regulated by ARTRAN, thus enabling the operation data to be easier to access. The operators will be described here as a company from A to F, whose route is represented on the map below:



ISSN: 2358-2472



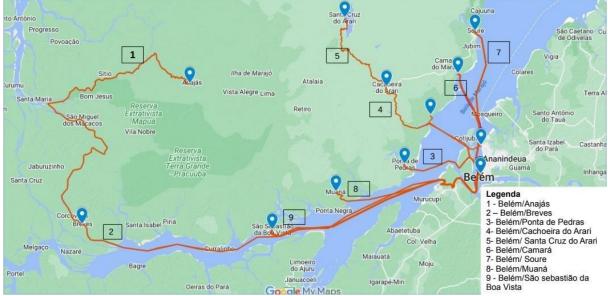


Figure 1: Connections between Belém and Marajó Island

Data collection lasted 2 months, starting in July 2024 and ending in August of the same year. To collect information, semi-structured interviews were carried out, through questionnaires made available by the *google forms* platform, as well as technical inspections, with the generation of an inspection report on the conditions of the vessels and port terminals used by the operating companies regulated by ARTRAN.

The data treatment was carried out through technical spreadsheets, prepared by ARTRAN, whose content included points such as: structure of the terminals used for the embarkation and disembarkation of passengers in the connections presented, structural and comfort conditions of the vessels, occupancy rate of the vessels, schedules and quantities of trips made by company, in addition to the criteria pertinent to accessibility, both with regard to terminals and vessels.

RESULTS AND DISCUSSION

The following graphs seek to illustrate the results of the field research that was carried out. First, it was investigated which connections had the highest daily flow of passengers. After that, the average occupancy rate of the vessels used by the regulated companies operating in the studied stretches was verified and, finally, such data were stratified in order to point out the main motivation of the users for making the trips.



PASSENGER FLOW ON THE EVALUATED LINES

Graph 1 illustrates the distribution of passenger flow during the study period, providing a clear visualization of the total number of users who use this service. In this sense, it is observed that the Belém-Soure-Salvaterra and Belém-Ponta de Pedras lines stand out for having the highest flow of passengers, with a total of 27,810 and 26,325 passengers transported during the period of two months, respectively.

TOTAL DE PASSAGEIROS TRANSPORTADOS BELÉM-7596 **CACHOEIRA DO** ARARI BELÉM-CAMARÁ 23141 LINHA (ORIGEM-DESTINO) **BELÉM-PONTA** 27810 **DE PEDRAS BELÉM-SOURE-**26325 **SALVATERRA BELÉM-BREVES** 3904 10000 20000 30000

Figure 2 – Passenger flow

TOTAL DE PASSAGEIROS TRANSPORTADOS

OCCUPANCY RATE OF VESSELS

In addition, the load factor was calculated for each line, in order to demonstrate the relationship between the number of passengers and the total seat capacity of the vessels. The load factor is a very important metric, as it accurately indicates the percentage of seats occupied on each trip, in addition to serving as a parameter for verifying the cost of idleness and the company's operational capacity on the line. From the knowledge of this index, it is possible to plan more accurately the operation of the system as a whole, being possible to predict the need to change the number of vehicles available on the lines in



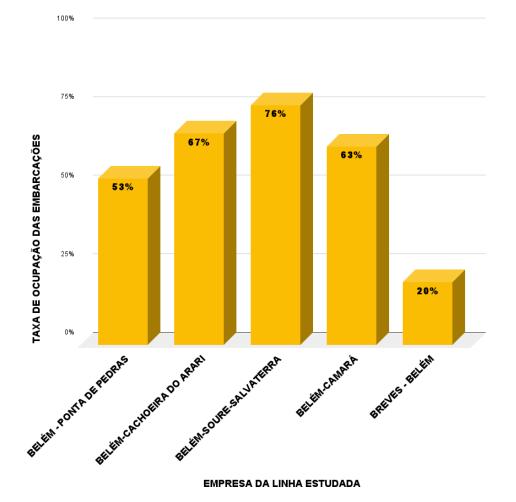
operation, as well as to promote changes in the operational scheme offered by the companies and fare values practiced.

By reading Graph 3, it is possible to observe that the Belém-Soure and Belém-Salvaterra routes have occupancy rates that exceed 70%, indicating a substantial demand, while the Belém-Breves line has an average occupancy rate of only 20%. This phenomenon can be better understood by some factors such as: size of the vessels available for each line, fare value practiced and motivation for mobility between municipalities. In the case of the Belém-Soure and Belém-Salvaterra lines, the vessels used are of the motorboat and catamaran type, while for the Belém-Breves section the equipment used is of the ship and ferry-boat type, that is, as there is a much larger number of seats available on larger vessels, despite the flow of passengers being very large, Still, it is difficult to fill the full capacity of the equipment.

Figure 3 – Occupancy Rate of Vessels Operating on the Lines Studied

TAXA DE OCUPAÇÃO DAS EMBARCAÇÕES DAS EMPRESAS QUE OPERAM PARA AS

LINHAS ESTUDADAS





MOTIVATION FOR TRAVEL

From the results obtained, presented in Graph 4, it was verified that the users' motivation to make trips on each of the lines studied is multifaceted. The data measured through the questionnaires applied indicate that the main reason for trips on the lines with the highest demand is tourism and work, particularly on the routes that connect Belém to Soure and Salvaterra. These locations are recognized for their tourist attractions, ranging from beautiful beaches to cultural points of great relevance. Soure, for example, is widely known for its rich biodiversity and natural attractions such as Praia do Pesqueiro and Praia da Barra Velha, which attract visitors in search of leisure and recreation (Figures 2 and 3). In turn, Salvaterra has a similar tourist appeal, offering the public an experience of immersion in the local culture, in addition to its paradisiacal beaches, as shown in Images 1 and 2.

Image 1 – Pesqueiro Beach in Soure

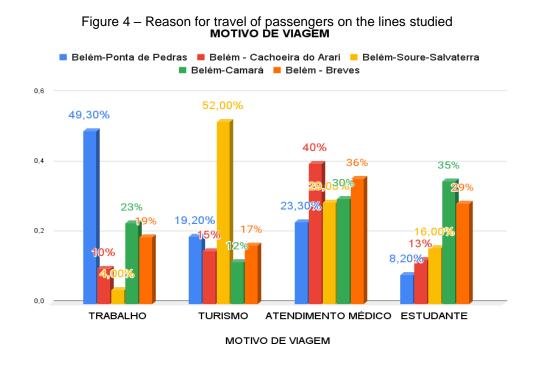
Source: Footprints of a Journey



Source: Footprints of a Journey



On the other hand, the Belém-Ponta de Pedras line has experienced a considerable increase in the flow of passengers, mainly due to the labor activities developed in the region. This growth is directly associated with the construction of the Private Use Terminal (TUP) of the Louis Dreyfus Company (LDC) in the municipality. The modernization and expansion of port infrastructure not only generate new job opportunities, but also attract workers who need regular transportation for their work activities.



ACCESSIBILITY OF TERMINALS AND VESSELS

With COP 30 approaching, the evaluation of accessibility in waterway terminals becomes even more pertinent. This international event will not only highlight the importance of sustainable transport, but also the need to ensure that all citizens, including those with reduced mobility, can actively participate in the associated activities. Chart 1, below, presents the data collected by ARTRAN inspectors, during routine inspections, to verify the accessibility to service users, both with regard to terminals and vessels.



Figure 5 – Terminal Service and Accessibility Evaluation Table

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Evaluation Criteria	SOURE WATERWAY TERMINAL	WATERWAY TERMINAL OF CACHOEIRA DO ARARI	PONTA DE WATERWAY TERMINAL STONES	WATERWAY TERMINAL CAMARÁ	BELÉM WATERWAY TERMINAL	PORTO BOM JESUS	PORTO SANTA ROSA					
Does the terminal have adequate access for people with reduced mobility (ramps, elevators, etc.)?	YES	YES	YES	YES	PARTIAL PROGRESS	YES	NO					
Is the signage inside the terminal clear and accessible for all types of disabilities (visual, hearing, etc.)?	YES	NO	NO	PARTIAL PROGRESS	PARTIAL PROGRESS	PARTIAL LY	NO					
Does the terminal have adapted and good condition restrooms for use by people with disabilities?	YES	YES	YES	NO	YES	YES	NO					
Are the pick-up and drop-off areas accessible and safe for all users?	YES	YES	PARTIALLY E	PARTIAL PROGRESS	PARTIAL PROGRESS	PARTIAL LY	PARTIALLY					
Is the terminal staff trained and available to assist passengers with special needs?	YES	PARTIALLY	PARTIALLY E	NO	YES	PARTIAL LY	NO					
Does the vessel have adequate access for people with reduced mobility?	PARTIALLY	PARTIALLY	PARTIALLY E	YES	PARTIAL PROGRESS	NO	PARTIALLY					
Do the internal spaces of the vessel allow the safe and comfortable movement of people with disabilities?	PARTIALLY	PARTIALLY	YES	PARTIAL PROGRESS	PARTIAL PROGRESS	NO	NO					
Are there preferential seats properly signposted and available for people with disabilities, the elderly and pregnant women?	YES	PARTIALLY	PARTIALLY E	YES	PARTIAL PROGRESS	PARTIAL LY	PARTIALLY					



ISSN: 2358-2472

Are safety equipment (life jackets, etc.) available and accessible for people with disabilities?	YES	PARTIALLY	PARTIALLY E	PARTIAL PROGRESS	PARTIAL PROGRESS	NO	NO
Is safety information (procedures, equipment location, etc.) accessible to people with visual and hearing impairments?	YES	NO	NO	PARTIAL PROGRESS	NO	NO	PARTIALLY

From the evaluation that was carried out, it was found that the terminals of Soure, Cachoeira do Arari and Ponta de Pedras have a good level of access infrastructure, with regard to the presence of ramps and elevators. However, the Belém Terminal has deficiencies that urgently need to be addressed, especially in a context where a considerable increase in the flow of tourists and delegations with various needs is expected during COP 30. In this sense, accessibility is essential to ensure that all participants can move freely and safely (BORGES, 2023).

Another factor of extreme relevance is accessible signage, the presence of which is crucial at large-scale events, such as COP 30, where the crowd and diversity of visitors can create significant challenges. The accessibility of safety information allows for clarity on the safety information and procedures that should be provided to the public. Thus, it was observed that the terminals of Soure and Belém have clear signage, and therefore it is more likely that they are more able to serve international visitors with different needs. On the other hand, Cachoeira do Arari and Ponta de Pedras can compromise the experience of visitors and their safety, highlighting the need for rapid improvements (FERREIRA & LIMA, 2021).

Regarding the presence of adapted bathrooms, a positive point was noted, since it was verified that all terminals are complying with this normative requirement, except for the Camará terminal. However, the maintenance and cleaning of these toilets should be a priority, considering the expected increase in the number of users during the event (CLEMENTE & ROCHA, 2019).

The formation of teams specialized in accessibility will be essential during COP 30. In the current context, terminals that have a better trained team, such as Soure and Belém, are better prepared to serve passengers with special needs. Thus, employee



training must be intensified for all agents involved, in order to ensure that there is an effective assistance offered to visitors during the event (SILVA *et al.*, 2022).

Safety in the pick-up and drop-off areas is critical during large events. Although most terminals have accessible areas, the gaps in the Camará and Ponta de Pedras terminals must be filled to ensure fluidity and safety in the movement of passengers, especially during COP 30 (TAVORA & PINTO, 2017).

Like the terminals, vessels must be prepared to receive a greater number of passengers during COP 30. The adequacy of the internal spaces of vessels is essential to ensure that people with disabilities can move safely and comfortably (BORGES, 2020). In this bias, most of the vessels evaluated partially met the requirements related to adequate accessibility. Therefore, a great advance is needed in this regard, in order to improve the existing fleet.

SATISFACTION SURVEY OF THE SERVICE PROVIDED

The Graph in Figure 5 presents the results obtained through the application of the satisfaction questionnaire that was juxtaposed to the service users. It is worth noting that the evaluation scale ranged from 1 to 4, with 1 assigned to poor quality service, 2 to regular quality service, 3 to good quality service and 4 to excellent quality service.



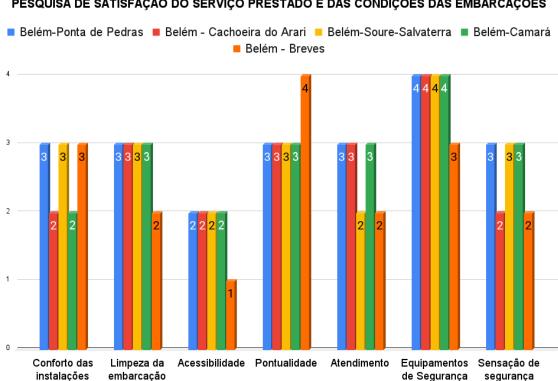


Figure 5 – Satisfaction survey
PESQUISA DE SATISFAÇÃO DO SERVIÇO PRESTADO E DAS CONDIÇÕES DAS EMBARCAÇÕES

By reading the Graph, it is observed that the criterion "comfort of the facilities" presents significant variations between the terminals. The Belém-Soure-Salvaterra, Belém-Ponta de Pedras and Belém-Breves lines obtained the best ratings (3), indicating a higher level of passenger satisfaction with the conditions offered. On the other hand, the Belém-Cachoeira do Arari and Belém-Camará lines obtained the lowest scores (2), which suggests the need for urgent improvements in this aspect.

With regard to cleanliness, all lines presented reasonable scores with the quantity (3.0). However, the Belém-Brves line showed a lower score (2.0), which suggests that there is still room for improvement in cleaning practices. Cleanliness is a critical aspect that directly impacts customer satisfaction and the image of the service (BORGES, 2023).

Accessibility is an area of significant concern, with all lines scoring below 3.0, with Belém-Breves being the most critical (1). This data is alarming, especially in light of the commitment to inclusion and accessibility, which are essential for international events such as COP 30.

The punctuality of the vessels presented a relatively stable average, with all lines varying between 3 and 4.

The availability of safety equipment was the criterion that obtained the best scores, ranging from 3 to 4.



The passengers' sense of security showed results, ranging from 2 to 3. Perceived safety is a critical factor influencing passengers' willingness to use transportation services.

The analysis of the quality criteria in waterway transport indicates that, although there are areas of prominence, such as the feeling of safety and cleanliness, critical aspects such as accessibility and comfort of the facilities need to be urgently addressed. Considering the context of COP 30, the implementation of improvements will be crucial not only for user satisfaction, but also to ensure an inclusive and safe experience for all event participants.

PROPOSALS FOR IMPROVEMENTS TO THE QUALITY OF THE SERVICE OFFERED

The current operating conditions in the waterway terminals in the Marajó region require interventions aimed at both improving the passenger experience and the efficiency of the service provided. The first proposal concerns the implementation of an electronic ticket sales system, a measure that would facilitate access to information on prices and availability of trips. This change is essential to promote greater transparency and convenience, benefiting not only tourists, but also residents of the region, who face difficulties in acquiring tickets in a practical and efficient way.

Additionally, it is suggested to introduce faster vessels, such as catamarans, that are capable of significantly reducing travel time, which would increase comfort and accessibility. Replacing ferry boats with catamarans could reduce the crossing time from up to 12 hours to a more reasonable interval, optimizing transport logistics and improving the quality of the service provided. This is specifically for the Belém/Breves line. In addition, a system of seat marking in the cabins and greater spacing between the nets is suggested, which would facilitate access for people with reduced mobility, since the reduced space between one network and another impairs the mobility and comfort of passengers, as shown in Figure 6.



Figure 6 – Interior of a vessel that makes the Belém - Breves line



Source: Authors' own

Another point suggested by service users is that on the lines where there are sections (stops) there should be a system for information on the name of the location where the stop is occurring, given that currently this information is not given to passengers clearly, which causes many of them to even disembark in places mistakenly.

Therefore, in view of the number of available vessels and the number of regulated companies, which in turn is a small number, taking into account the number of passengers transported daily, it is necessary to review the number of available vessels and the companies operating on waterway routes. The reduced number of vessels and operators contributes to the overload of existing lines, which hinders the ability to adequately meet the growing demand, both for passengers and cargo. To solve this issue, it is necessary to open the market for the entry of new operators, as well as greater investments by regulated entities for the allocation of new vessels, providing an increase in the fleet, especially on routes with greater tourist demand, such as those serving Soure and Salvaterra.

It is believed that the implementation of these improvements would directly contribute to raising the level of user satisfaction and to adapting water transport to the current demands of the population and tourism, making the service more agile, accessible and efficient.



CONCLUSION

The present research managed to achieve the initial objective it proposed, making it possible to answer the problem question presented with regard to the current scenario of the intercity passenger waterway transport system in Pará in the face of the increase in demand caused by the advent of COP 30, which will take place in the city of Belém/PA. It was found that although the state government has made a high investment in the infrastructure of the port terminals, for the lines where there is a high demand for passengers, such as Belém/Soure/Salvaterra and Belém/Camará there is an urgent need to expand the operational capacity of the stretches, either by the entry of new operators and/or expansion of the operational fleet and the travel schedules made available by them.

Nevertheless, it was found that accessibility and ticket sales are a point that will require major improvements, given that, to date, there is no electronic system for the sale and reservation of tickets by regulated operators operating on the lines analyzed. In addition, the accessibility both in the boarding and disembarking terminals and on the vessels do not fully meet what is provided for in the relevant regulatory standards. Customer service, in turn, was the factor that obtained the best evaluation by service users, which is one of the strengths to be expanded during the COP 30 event.

Therefore, it is believed that the points addressed in this research will serve as beacons for the implementation of improvements in waterway transport, enabling passenger mobility to satisfactorily serve not only the local population but also the tourists who will participate in COP 30 and other events held in the state. In this way, it is expected to contribute to the evolution of the operation in the waterway modal and to the improvement of the regulation of this essential service in the local context, ultimately contributing to the protection of the interest of its users.



REFERENCES

- 1. Silva, R. A., Lima, M. N., & Oliveira, P. S. (2019). Transporte aquaviário na Amazônia: Um estudo de caso. Revista de Mobilidade Sustentável, 5(1). https://doi.org/10.12345/rms.2019.5.1.245
- 2. Silva, A. P., Mendes, R. F., & Oliveira, L. H. (2023). Logística de transporte e gestão de mobilidade em grandes eventos: Estudos de caso e novas abordagens. Revista Brasileira de Logística e Transporte, 14(2), 245-260. Available at: www.revistalogtrans.com.br (accessed on July 4, 2024)
- 3. Pará (State). Secretaria de Estado de Turismo. (2023). Natureza exuberante e cultura centenária colocam o Marajó na rota do turismo nacional. Available at: https://setur.pa.gov.br/noticia/natureza-exuberante-e-cultura-centenaria-colocam-o-marajo-na-rota-do-turismo-nacional-e (accessed on July 3, 2024)
- 4. Semas Pará. (2023). Belém é oficialmente confirmada como sede da COP-30 em 2025. Available at: https://www.semas.pa.gov.br/2023/12/11/belem-e-oficialmente-confirmada-como-sede-da-cop-30-em-2025 (accessed on July 3, 2024)
- Oliveira, L. S., Sousa, M. S. C., Morais, P. R. F., Carvalho, M. A. M., & Oliveira, R. O. O. (2023). Avaliação da qualidade do serviço de transporte aquaviário de passageiros na linha Belém-PA/Salvaterra-PA através de indicadores de desempenho. Anais do Congresso de Engenharia Civil.
- 6. Borges, A. (2023). Preparação para a COP 30: Acessibilidade nos transportes aquaviários. Journal of Transport Studies, 15(2), 101-120.
- 7. Clemente, A., & Rocha, F. (2019). Infraestrutura e mobilidade: A importância dos banheiros adaptados. Revista Brasileira de Engenharia, 32(3), 230-240.
- 8. Ferreira, M., & Lima, T. (2021). Comunicação acessível: Um caminho para a inclusão. Comunicação e Sociedade, 38(1), 45-60.
- 9. Silva, R., Costa, P., & Almeida, J. (2022). Capacitação profissional para a acessibilidade: Uma análise dos serviços de transporte. Revista de Administração Pública, 56(4), 874-895.
- 10. Tavora, A., & Pinto, L. (2017). Acessibilidade e inclusão: Um estudo sobre as necessidades das pessoas com deficiência. Revista Brasileira de Política Social, 25(2), 98-112.
- 11. PEGADAS DE UMA VIAGEM. (2023). Sobre a Dani. Pegadas de uma Viagem. Available at: https://pegadasdeumaviagem.com.br/sobre-a-dani/. (accessed on November 5, 2024)