

Measurement of Urban Well-Being: An Analysis of the Dimensions of the IBEU in the Metropolitan Region of Feira de Santana

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Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.	
Citation: Júlia Cardoso da Paixão, Valdir Silva da Conceição, Dayana Ferraz Silva, Jaqueline Santos Vieira, Giovanna Martins Sampaio, Marcelo Santana Silva, David Vieira dos Santos, & Angela Machado Rocha. (2026). <i>Measurement of urban well-being: An analysis of the dimensions of the IBEU in the Metropolitan Region of Feira de Santana</i> . UKR Journal of Multidisciplinary Studies (UKRJMS), 2(6), 171-185.	<p><i>The present study analyzes urban well-being in the municipalities of the Metropolitan Region of Feira de Santana based on the Urban Well-Being Index (IBEU), based on data from 2016. The objective is to evaluate regional performance and identify inequalities between the dimensions that make up the index. The research has a qualitative, descriptive and exploratory approach, using secondary data organized in the dimensions of urban mobility, environmental conditions, housing conditions, collective urban services and urban infrastructure. The results indicate an intermediate level of urban well-being (average IBEU of 0.738), with a positive highlight for mobility and housing, and weaknesses in the dimensions of urban infrastructure and collective services. Heterogeneity is observed among the municipalities, evidencing disparities in access to adequate urban conditions. It is concluded that, although there are occasional advances, the improvement of regional urban well-being depends on structural investments and integrated planning.</i></p> <p>Keywords: <i>Quality of life. Regional inequality. Socioeconomic indicators. Territorial planning. Urban infrastructure.</i></p>

1. Introduction

Public policies are central instruments of state intervention aimed at promoting social well-being and may take direct or delegated forms, according to specific institutional arrangements. In this sense, they are understood as a set of decisions and actions (or omissions) adopted by the governments, guided by legal and institutional frameworks, with direct impacts on society [1-8].

The literature on public policy is a dynamic and multidimensional character, having evolved from approaches centered on state action to perspectives that incorporate elements of governance, results, and accountability. Contemporary studies emphasize the procedural nature of public policies, encompassing formulation, implementation, and evaluation, as well as the relevance of results-oriented management instruments [3],

[9-15]. In addition, public policy may materialize both in normative instruments – such as laws and regulations – and in implicit strategies, whose effects are expressed through incentives, restrictions, and institutional coordination mechanisms

In the second half of the twentieth century, particularly after World War II, studies on public policy expanded considerably. In contrast to the European tradition, American academia adopted a new approach, shifting its focus from the exclusive role of the State to the analysis of the political and governmental relationships that mediate interactions between the State and society [3], [9], [13].

The planning of public policies is based on territorial and socioeconomic diagnoses aimed at identifying gaps in the provision of public goods and services. Such gaps often

result in asymmetries in access to basic rights, reflected in different levels of quality of life among population groups and across territories. The services provided, whether at the federal, state, or municipal level, also include those delivered through concessionaires and other delegated entities. In this context, the use of composite indicators becomes essential for supporting decision-making and evaluating public policies [3], [9], [13], [16-18]. Among these instruments, the Human Development Index (HDI) and the Urban Well-Being Index (IBEU) stand out, as they enable the integrated measurement of different dimensions of development [19].

The process of global urbanization intensified significantly throughout the twentieth and early twenty-first centuries. According to the United Nations (UN), the world's urban population increased from 30% in 1950 to more than 55% in 2018, with projections indicating that it could reach approximately 68% by 2050. This growth imposes significant structural challenges on urban management, particularly regarding the provision of infrastructure, public services, and environmental sustainability, thereby reinforcing the need for analytical instruments capable of capturing the complexity of urban well-being [4], [6-7], [20-21].

The IBEU is positioned as a multidimensional indicator that evaluates the living conditions of the urban population based on five dimensions: urban mobility, urban infrastructure, environmental conditions, housing conditions, and attendance to collective urban services. Developed using data from the Demographic Census conducted by the Brazilian Institute of Geography and Statistics (IBGE), the IBEU enables an integrated analysis of urban conditions, articulating aspects related to both public services and the quality of the urban environment [19], [22]. In addition, the index dialogues with contemporary approaches to well-being that transcend the strictly economic dimension, incorporating social, territorial and environmental factors.

The study area of this work corresponds to the Metropolitan Region of Feira de Santana (RMFS), in the state of Bahia, composed of six municipalities: Amélia Rodrigues, Conceição de Feira, Conceição do Jacuípe, Feira de Santana, São Gonçalo dos Campos, and Tanquinho. Established by Complementary Law No. 35, dated July 6, 2011, the RMFS aims to promote regional integration,

reduce socio-spatial inequalities, and foster sustainable development [23].

As an expansion area, in a second phase of the project, the municipalities of Anguera, Antônio Cardoso, Candéal, Coração de Maria, Ipecaetá, Irará, Riachão do Jacuípe, Santa Bárbara, Santanópolis, and Serra Preta are included.

In view of this scenario, this study aims to analyze urban well-being in the municipalities of the RMFS through the application of the IBEU, seeking to identify patterns, asymmetries, and limitations in the dimensions that compose the index. In doing so, the study intends to contribute to the debate on urban planning and public policy, offering empirical support for the formulation of strategies aimed at improving the quality of life in regional urban contexts.

2. Material and method

The methodology adopted in this study is qualitative, having as main source of secondary data the database provided by the National Institute of Science and Technology INCT Observatory of the Metropolis. The research is characterized as exploratory and descriptive [24], involving data collection and documentary analysis related to the study area.

As for the objectives, the research is classified as exploratory, since it seeks to develop, clarify, and improve concepts and ideas, presenting greater flexibility in planning and allowing an overview of the phenomenon analyzed [24].

With regard to its nature, the study is qualitative, as it favors the interpretation of data and the understanding of dynamics associated with urban well-being, based on secondary data.

Regarding the technical procedures, the research is of the bibliographic and documentary type, using previously published materials, such as books, scientific articles, dissertations, theses, and institutional databases [24].

As for data analysis, it is of the content analysis type, where the results and the conclusion of the research will be presented, enriching the reading.

The IBEU index is structured and has dimensions classified according to value ranges, ranging from "Very Poor" to "Very Good", as shown in Table 1.

Table 1 – Classification of IBEU dimensions

Table of Contents	Dimensions				
	Very Poor	Poor	Medium	Good	Very Good
Break	0 to 0.500	0.501 to 0.700	0.701 to 0.800	0.801 to 0.900	0.901 to 1.000

Source: Prepared by the authors based on IBEU (2016)

Table 1 presents the IBEU classification scale, establishing intervals that allow the level of urban well-being to be classified into five categories: very poor, poor, medium, good, and very good.

It is observed that the structure of the index follows an increasing logic of quality, in which values closer to 1 indicate better urban living conditions. The "Very Poor" range (0 to 0.500) represents critical situations, with a strong lack of infrastructure, services, and adequate urban conditions. The "Poor" category still indicates significant limitations, with some level of partial attendance. The "Medium" rating represents an intermediate stage of urban development. The "Good" track, on the other hand, indicates satisfactory urban conditions. Finally, the "Very Good" category reflects high levels of urban well-being, with wide coverage and quality of services and urban conditions.

This classification is a fundamental analytical instrument, as it allows comparing municipalities, identifying inequalities and guiding the formulation of public policies aimed at improving the quality of urban life.

Six municipalities located in the Metropolitan Region of Feira de Santana were analyzed: Amélia Rodrigues, Conceição de Feira, Conceição do Jacuípe, Feira de Santana, São Gonçalo dos Campos, and Tanquinho. The study considered the following variables: IBEU (Urban Well-Being Index), urban mobility (D1), environmental conditions (D2), urban housing conditions (D3), urban collective services (D4), and urban infrastructure (D5). The survey was conducted on March 27, 2026.

3. Results and Discussion

3.1 Public Policies

"The object of government is the welfare of the people. The material progress and prosperity of a nation are desirable chiefly so long as they lead to the moral and material welfare of all good citizens" [25].

The State uses public policies as the main instrument to promote the well-being of the population, applying it in various areas of government action. These policies can directly benefit citizens by mitigating situations of vulnerability among certain population segments, in

addition to ensuring constitutional rights and foundations. In this sense, public policy is constituted as a set of actions of the public entities, with direct or indirect participation of state and non-state actors. In the formulation process, elements such as agenda setting and the definition of alternatives stand out. The first refers to the identification of priority problems, while the second refers to the possible solutions to be adopted [26-33].

Public problems affect communities and social groups in a broad way, as their effects extend beyond the central core of the problem, reaching a significant number of individuals. Not all problems have simple solutions and, in many cases, cannot be solved through isolated actions. Responses vary according to context are influenced by multiple variables, requiring integrated and adaptive approaches [32].

The consolidation of public policy as a field of study occurred in the post-World War II period, in a context marked by global geopolitical reorganization and the intensification of state action. During this period, contributions such as those of Robert McNamara, who introduced planning and strategic analysis practices in the public sector [9].

Among the main theorists, Lasswell stands out, who introduced the term *policy analysis*, seeking to integrate academic knowledge with government practice. Simon (1957) contributed to the concept of bounded rationality of policy makers, while Lindblom (1959, 1979) criticized excessively rational models, proposing an incrementalist approach. In turn, Easton (1965) conceived public policy as a system influenced by demands and pressures from interest groups [34-37].

There is no single definition of public policies, since their conceptualization varies according to the theoretical perspective adopted and the level of analytical abstraction. It is an interdisciplinary field that engages with economic, social, and institutional dimensions, with the ultimate purpose of promoting collective well-being [31]

There is no single universally accepted definition, and Table 2 presents some of these definitions over time:

Table 2 - Definition of public policies

Author	Year	Definition
Lasswell	1936	Decisions and analyses on public policy involve answering the following questions: Who wins what, why and what difference does it make, who seek to analyze the impact
Jenkins	1978	A set of interrelated decisions made by political actor or group

Mead	1995	Field within the study of politics that analyzes government in the light of major public issues
Lynn	1980	set of government actions that will produce specific effects
Dye	1984	What the government chooses to do or not to do
Peters	1986	It is the sum of the activities of governments that act directly or through delegation, and that influence the lives of citizens
Teixeira	2002	They are guidelines, guiding principles for the action of the Public Power

Source: Adapted from [1], [34], [38-40]

Table 2 presents the conceptual evolution of public policies over time, demonstrating the expansion and sophistication of the theoretical field. The older definitions, such as Lasswell's, emphasize the analysis of the effects of government decisions, especially with regard to the distribution of resources and social impacts.

Authors such as Dye and Peters introduce a more pragmatic approach, defining public policies as government actions (or omissions) that directly influence the lives of citizens. Jenkins and Lynn, on the other hand, highlight the procedural and articulated character of political decisions, evidencing the interdependence among different government actions.

In turn, more recent approaches, such as Teixeira's, emphasize the normative and guiding role of public policies, understanding them as structuring guidelines for state action.

In general, it is observed that public policies:

- Are not restricted to isolated actions but constitute complex and interdependent processes;
- Involve multiple actors and interests, reflecting institutional and social dynamics;
- Have as their central purpose the promotion of collective well-being, even when subject to limitations and political disputes.

Thus, Table 2 reinforces that the formulation of public policies is a prerogative of the State, but also a process conditioned by political, economic, and social factors, requiring a balance among different demands and solutions over time.

The implementation of public policies is a prerogative of the government, which defines the resolution strategies according to the nature of the problem that affecting society or certain specific groups, which are not unique but rather variable and interdependent [11], [31], [41-42].

3.2 Metropolitan Region of Feira de Santana (RMFS)

Law No. 13,683, of June 19, 2018, in its Article 2, item VII, establishes the following definition of the Metropolitan Region: "it is the regional unit established by the States, through a complementary law, constituted by a group of neighboring municipalities to integrate the organization, planning, and execution of public functions of common interest" [43].

Bill No. 3,460/2004, establishes, in its Article 6, the following criteria for the creation of metropolitan regions:

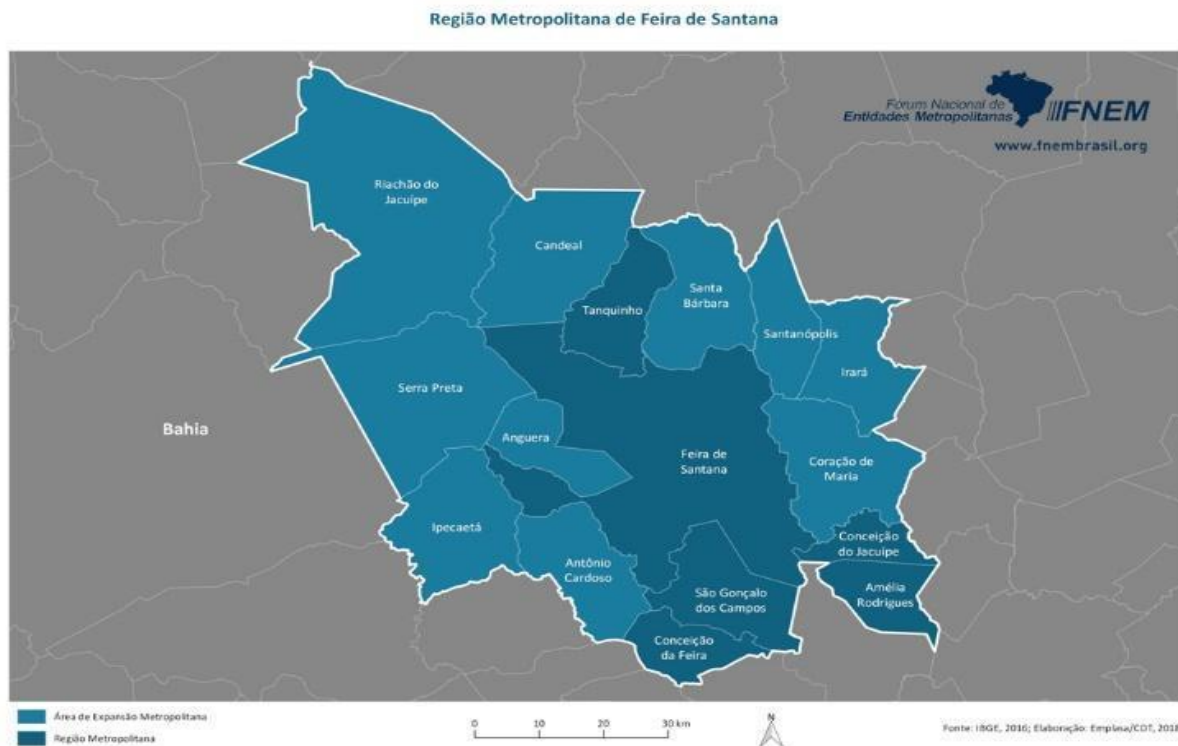
- I - a) a central nucleus with at least 5% (five percent) of the country's population or two central nuclei that together represent at least 4% (four percent) of the national population; b) an urbanization rate above 60% (sixty percent) for each of the municipalities that are part of the region; c) an economically active population employed in the secondary and tertiary sectors of at least 65% (sixty-five percent), considering each of the municipalities that make up the region; d) continuous urbanization in at least 50% (fifty percent) of the municipalities that make up the region [44, pp. 23954-23955].

These criteria formed the basis for the creation of the RMFS in 2011, through Complementary Law No. 35, of July 6, 2011. The RMFS is currently composed of the municipalities of Feira de Santana, Amélia Rodrigues, Conceição de Feira, Conceição do Jacuípe, São Gonçalo dos Campos, and Tanquinho.

The legislation also provided for an expansion area composed of the municipalities of Anguera, Antônio Cardoso, Candéal, Coração de Maria, Ipecaetá, Irará, Santa Bárbara, Santanópolis, Serra Preta, and Riachão do Jacuípe. However, these municipalities were not incorporated into the metropolitan region because they did not meet the minimum urbanization criterion, specifically the requirement that at least 50% of their population reside in urban areas.

Subsequently, through Complementary Law No. 45, of July 5, 2018, the municipality of Irará was excluded from the expansion area of the RMFS [45].

Figure 1 - Map of the Metropolitan Region of Feira de Santana



Source: National Forum of Metropolitan Entities, 2018

3.3 IBEU Index

The IBEU aims to assess the dimensions that influence the well-being of the population in a given region by measuring urban conditions and the services provided by public entities [46]. To this end, it uses as a basis the data provided by the Brazilian Institute of Geography and Statistics (IBGE), as described in Table 3.

Table 3 – IBEU dimensions and indicators

Dimension	Indicator	Description
D1. Urban Mobility	Commuting from home to work	Percentage of employed persons who spend up to one hour commuting to work
D.2 Urban Environmental Conditions	Afforestation around the households	Percentage of persons living in households whose surroundings are wooded
	Open sewage around households	Percentage of people living in households whose surroundings do not have open sewage
	Garbage accumulated around households	Percentage of people living in households whose surroundings do not have accumulated garbage
D.3 Urban Housing Conditions	Subnormal agglomerate	Percentage of people who do not live in subnormal agglomeration
	Household density	Percentage of people living in households with a density of up to two residents per bedroom
	Resident/bathroom density	Percentage of people living in households with a density of up to four residents per bathroom
	Material of the walls of the houses	Percentage of people who live in households with adequate walls (masonry or wood)

	Type of households	Percentage of people who live in a house, village house, condominium or apartment
D.4 Collective Urban Services	Water service	Percentage of persons living in households served by the general water network
	Sewage service	Percentage of people living in households served by the general sewage system
	Energy service	Percentage of people living in households served by distribution companies or other energy sources
	Garbage collection	Percentage of people living in households served by cleaning services or dumpsters
D.5 Urban Infrastructure	Street lighting	Percentage of people living in households whose surroundings have public lighting
	Paving	Percentage of persons living in households whose patio has pavement
	Sidewalk	Percentage of persons living in households whose street face has a sidewalk
	Curb/Guide	Percentage of persons living in households whose street face has curbs/curbs
	Manhole or wolf's mouth	Percentage of people living in households whose surroundings have a manhole or manhole
	Wheelchair ramp	Percentage of persons living in households whose street face has an access ramp for wheelchair users
	Street identification	Percentage of people living in households where the street has identification

Source: Adapted from [22]

Table 3 represent the multidimensional structure of the IBEU, organized into five dimensions that cover fundamental aspects of urban well-being. Each dimension incorporates specific indicators that allow objectively measuring the living conditions of the population.

It is observed that the index includes both physical and structural aspects (urban infrastructure and housing conditions) and functional and environmental aspects (mobility, urban services, and environmental conditions). This approach reinforces the integrated and systemic character of urban well-being by considering the interaction between different factors that influence quality of life.

It should be noted that:

- Urban mobility (D1) Evaluates the efficiency of daily commutes:
- Environmental conditions (D2) reflect the quality of the urban environment and sanitary aspects;
- Housing conditions (D3) analyze the adequacy of housing;
- Urban services (D4) measure access to essential services;
- Urban infrastructure (D5) evaluates the quality of

equipment and the physical structure of cities.

Thus, the IBEU constitutes a robust instrument for urban analysis, allowing the identification of inequalities, guiding public policies, and subsidizing territorial planning, by integrating multiple dimensions of urban development.

3.3.1 IBEU from RMFS

The IBEU index of the RMFS corresponds to the average of the dimensions evaluated, synthesizing the joint performance of the five dimensions analyzed: urban mobility, environmental conditions, housing conditions, collective urban services, and urban infrastructure.

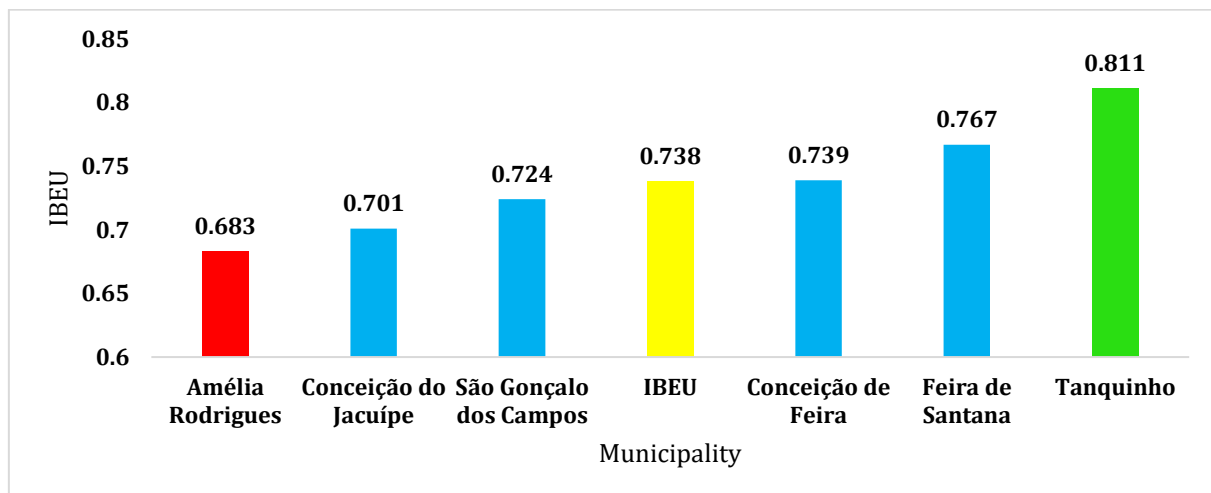
The region, composed of six municipalities, does not present extreme values in the general index, that is, no municipality fits into the categories "Very Good" (0.901 to 1.00) or "Very Poor" (0.00 to 0.500). This result indicates the absence of both critical situations and full excellence in the regional context [19], [22].

Of the total number of municipalities analyzed, 16.67% (one municipality) fell into the "Good" category, while 66.66% (four municipalities) were in the "Medium" range, and 16.67% (one municipality) were classified as "Poor", as illustrated in Graph 1.

This pattern shows a predominance of intermediate performance, characterizing the RMFS as a region with a moderate level of urban well-being, marked by occasional

advances but still limited by structural inequalities among its municipalities, which prevents the improvement of urban well-being to higher levels.

Graph 1 - IBEU Index of the RMFS



Source: Authorship based on IBEU (2016)

The factors that contribute to the increase in the IBEU average are the dimensions of **Urban Mobility, Housing Conditions, and Environmental Conditions**. On the other hand, the **Collective Services and Urban Infrastructure** dimensions have negative effects, reducing the index and evidencing critical and widespread weaknesses in the region.

The municipality classified at the "Poor" level is Amélia Rodrigues, which reflects more accentuated weaknesses, especially in the dimensions of infrastructure and urban services. Located near Feira de Santana, the municipality has an economy linked to sugarcane cultivation [19], [22]. It has a territorial area of 166,872 km² and a population of 25,190 inhabitants, according to the 2010 Census. [47].

In the "Good" level, the municipality of Tanquinho stands out. In the "Medium" range, the municipalities of Conceição de Feira (0.739), Conceição do Jacuípe (0.701), Feira de Santana (0.767), and São Gonçalo dos Campos (0.724) are included. These results show the existence of intra-regional inequalities, especially when comparing geographically proximate municipalities.

The municipality of Conceição do Jacuípe (0.701) is located at the lower limit of the "Medium" range, indicating a still incipient level of urban well-being. São Gonçalo dos Campos (0.724) also falls within this range, with moderate and slightly higher performance. Conceição de Feira (0.739) is close to the regional average, consolidating an intermediate pattern. Feira de Santana (0.767) has a higher average performance, standing out among the municipalities analyzed, possibly due to the greater supply of services and better urban structure.

The municipality of Tanquinho is the only one classified as "Good", standing out as a regional reference, with the best overall urban well-being conditions. It has an area of 243,839 km², a population of 8,008 inhabitants, and an economy based on the tourism and services sectors [47].

A significant regional contrast is observed: while Tanquinho stands out as the only reference in the "Good" level (0.811), Amélia Rodrigues is configured as a critical point, classified as "Poor". This scenario suggests a heterogeneous regional structure, marked by asymmetries in access to adequate urban conditions.

In general, the RMFS presents a configuration in which the results are explained by the combination of strengths and structural weaknesses. The strengths are concentrated in the dimensions of urban mobility and housing conditions, which present a performance between "Good" and "Very Good" in all municipalities. On the other hand, weaknesses are associated with the dimensions of urban infrastructure and collective services, which present critical and generalized performances.

Thus, the advancement of urban well-being in the region depends, above all, on investments in urban infrastructure and the expansion and qualification of essential public services. The municipalities with the best performance can serve as a reference for the dissemination of good practices and for the strengthening of integrated regional planning.

3.4 DIMENSIONS OF WELL-BEING

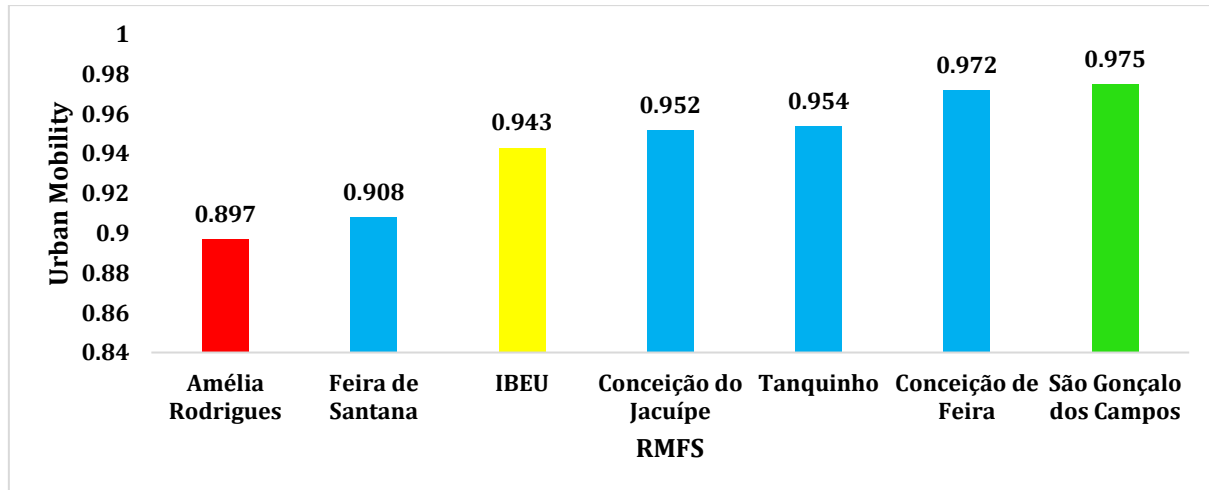
The IBEU is structured into five dimensions: urban mobility (D1); urban environmental conditions (D2); urban housing conditions (D3); urban collective services (D4); and urban infrastructure (D5).

3.4.1 URBAN MOBILITY (D1)

Dimension D1, referring to urban mobility, is composed of an indicator, which corresponds to the percentage of employed people who commute from home to work within one hour, and this time is considered adequate. The classification scale ranges from 0 to 1, in which higher values indicate better mobility conditions.

Indices close to 0.900 indicate that more than 90% of the employed population commute from home to work within the time considered adequate, evidencing high efficiency in urban commuting. In this context, public policies should be oriented not only towards maintaining this performance but also toward its sustainability over time, as shown in Graph 2.

Graph 2 - Urban mobility index (D1)



Source: Authorship based on IBEU (2016)

An exceptionally high performance was observed in the RMFS, ranging from "Good" (Amélia Rodrigues) to "Very Good" in the other municipalities. The "Good" rating for Amélia Rodrigues indicates satisfactory performance, although with a slight relative disadvantage.

The highest index was recorded in São Gonçalo dos Campos (0.975). Conceição do Jacuípe (0.952), Tanquinho (0.954), and Conceição de Feira (0.972) also stand out, all above the regional average IBEU (0.943), and all classified within the "Very Good" range.

The RMFS therefore presents excellent performance in this dimension, with no municipality below the "Good" range. The absolute majority (5 out of 6 municipalities) reach the "Very Good" level, indicating that workers make relatively short trips, with a low incidence of journeys of more than one hour between home and workplace.

There is also positive homogeneity, as all municipalities present high rates with low disparity. Smaller municipalities tend to have a structural advantage, possibly due to shorter territorial distances and lower levels of urban congestion.

In this context, urban mobility is not configured as a regional bottleneck; on the contrary, it represents a strategic asset for territorial development, contributing to regional integration; access to employment and services; as well as the improvement of the quality of life of the population.

However, it is important to highlight that the indicator considers only the travel time, not contemplating relevant qualitative aspects such as comfort, quality of transport, sustainability (public vs. individual transport), and travel costs.

This dimension contrasts positively with the others, especially urban infrastructure (D5) and collective urban services (D4), whose performances were more critical. Thus, urban mobility emerges as a structuring strength of the region, characterized by the efficiency of displacements and the low inequality among municipalities.

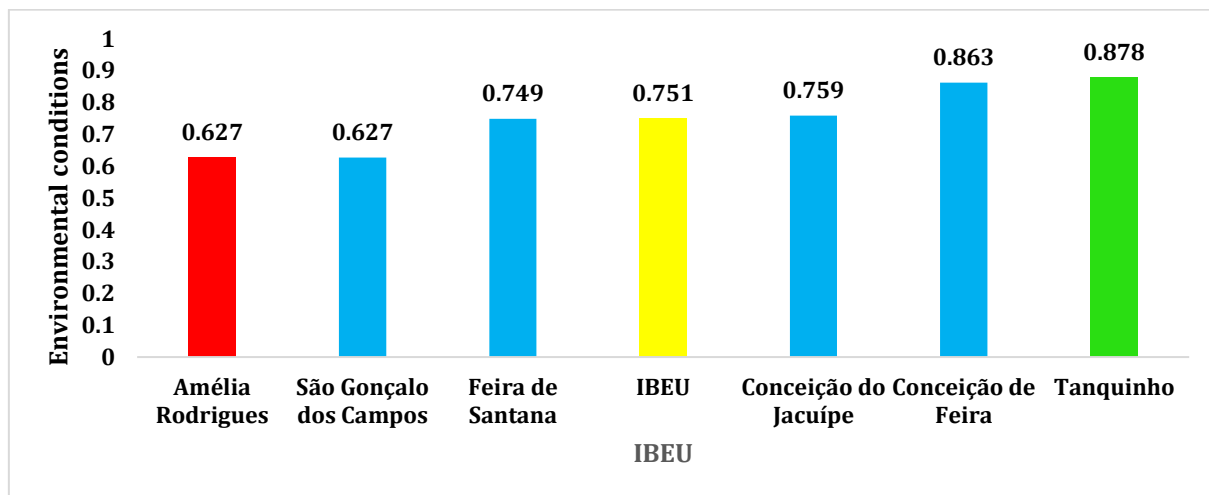
3.4.2 URBAN ENVIRONMENTAL CONDITIONS (D2)

Dimension D2 refers to urban environmental conditions and is composed of three indicators: afforestation in the vicinity of households (percentage of people living in households with wooded surroundings), absence of open sewage in the surroundings (percentage of persons living in households whose surroundings do not have open sewage), and absence of accumulated garbage in the surroundings (percentage of persons living in households whose surroundings do not have accumulation of waste).

The results indicate a variation between the "Poor" and "Good" classifications, evidencing the need to direct public policies aimed at improving environmental conditions in the municipalities of Amélia Rodrigues, São Gonçalo dos Campos, Feira de Santana, and Conceição do Jacuípe. On the other hand, the municipalities of Conceição de Feira and

Tanquinho have better performances, requiring policies to maintain and consolidate the conditions already achieved, as shown in Graph 3.

Graph 3 - Urban Environmental Conditions Index (D2)



Source: Authorship based on IBEU (2016)

The indexes, which vary between 0.627 and 0.878, indicate that between 62.7% and 87.8% of the population lives in households with adequate environmental conditions in these aspects.

Graph 3 shows the existence of regional heterogeneity in the RMFS. Two municipalities are in the "Poor" range - Amélia Rodrigues (0.627) and São Gonçalo dos Campos (0.627) - both with the same index, positioning themselves at a critical level. These municipalities face impacts resulting from environmental degradation associated with urban expansion [19], [22], [48].

In the "Medium" range, there are two municipalities: Feira de Santana (0.749) and Conceição do Jacuípe (0.759). Feira de Santana has an index slightly below the RMFS average (0.751), which is compatible with its urban size. As it is a municipality close to Salvador and in the process of population and economic growth, these problems tend to intensify [19], [22], [48].

The municipalities classified in the "Good" range are Conceição de Feira (0.863) and Tanquinho (0.878), the latter showing the best performance. These results indicate satisfactory environmental conditions, with approximately 86-88% of the population living in suitable environments.

The average IBEU of the RMFS (0.751) falls within the "Medium" range, indicating that the environmental conditions of the region are reasonable but still far from an ideal standard.

The data show a medium to heterogeneous environmental performance in the RMFS, with significant internal contrast. The difference between the lowest index (0.627) and the highest (0.878) is 0.251 points, revealing relevant

inequalities among the municipalities. The absence of excellence is highlighted, as no municipality reached the "Very Good" level (above 0.901), indicating structural limitations across the region.

The main challenges are concentrated in the municipalities of Amélia Rodrigues and São Gonçalo dos Campos, which demand priority interventions in urban forestation, environmental sanitation, and solid waste management.

On the other hand, opportunities can be observed in smaller municipalities such as Conceição de Feira and Tanquinho, whose results may be associated with less urban pressure and better quality of the immediate surroundings. These municipalities demonstrate the feasibility of achieving higher levels of environmental performance and can serve as a reference for the adoption of good practices.

In general, the environmental conditions of the RMFS are more challenging than urban mobility, presenting greater intra-regional variation and requiring public policies that are more focused on the municipalities with lower performance.

Thus, the environmental dimension is configured as an intermediate level of development: it does not represent the main bottleneck, but it is not a strong point either. The improvement of urban well-being in the region depends on the expansion of urban forestation, the reduction of environmental liabilities, and the strengthening of investments in sanitation and urban cleaning.

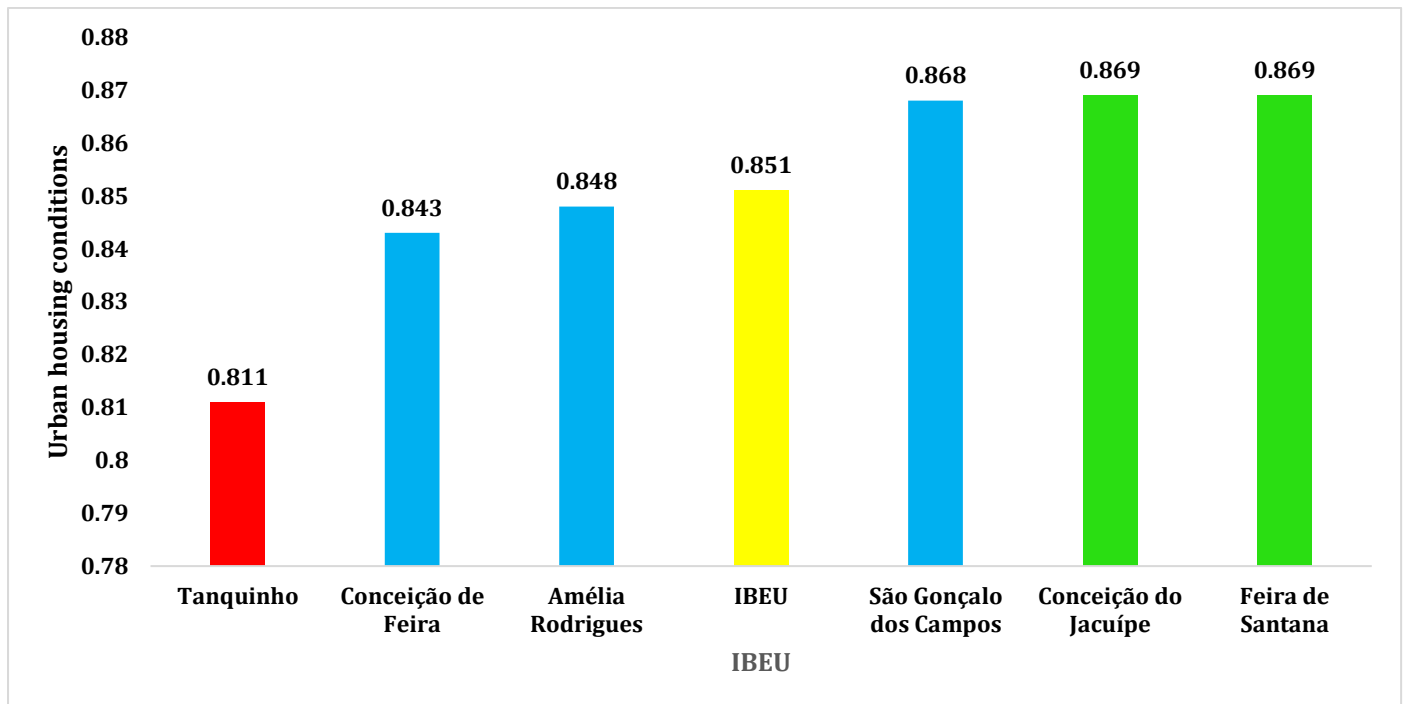
3.4.3 URBAN HOUSING CONDITIONS (D3)

Dimension D3 evaluates aspects related to urban housing conditions, using the following indicators as metrics: subnormal agglomerations, household density, resident-to-

bathroom ratio, wall material of the households, and type of household.

The results show high, homogeneous, and consistent performance among the analyzed municipalities of the RMFS, as can be seen in Graph 4.

Graph 4 - Urban housing conditions (D3)



Source: Authorship based on IBEU (2016)

Graph 4 shows a broadly positive performance in Dimension D3. The average IBEU of the dimension (0.851) falls into the "Good" range, indicating that, in general, the municipalities present adequate housing conditions for most of the population, considering aspects such as construction quality, household density, access to bathrooms, and type of household.

The municipality of Tanquinho (0.811) has the lowest index, although it is still classified as "Good", indicating satisfactory conditions but with greater room for improvement. Conceição de Feira (0.843) and Amélia Rodrigues (0.848) are also in the "Good" range, with consistent performance close to the regional average and reinforcing an adequate housing standard.

In turn, São Gonçalo dos Campos (0.868), Conceição do Jacuípe (0.869), and Feira de Santana (0.869) recorded the best results, all with high values within the "Good" classification and approaching the "Very Good" range.

The data reveal three central aspects. First, high regional homogeneity is observed, as all municipalities are in the same "Good" classification range, indicating low intra-regional inequality in this dimension. Secondly, consolidated housing quality stands out, with the majority of the population living in housing with adequate structural and occupancy conditions. Finally, the proximity of the optimal level is verified, as some municipalities are close to

the "Very Good" classification, suggesting potential for advancement through specific public policies.

This housing dimension is one of the main structural strengths of the region, along with urban mobility. In this context, public policies can evolve from a logic of expansion to an approach aimed at qualification and incremental improvement, with a focus on reducing residual inequalities, in improving the internal infrastructure of households, and in land and urban regularization [19], [22].

In summary, the Urban Housing Conditions dimension demonstrates that the region has a solid and balanced housing pattern, contributing positively to urban well-being and contrasting with more critical dimensions, such as urban infrastructure and collective urban services.

3.4.4 URBAN COLLECTIVE SERVICES (D4)

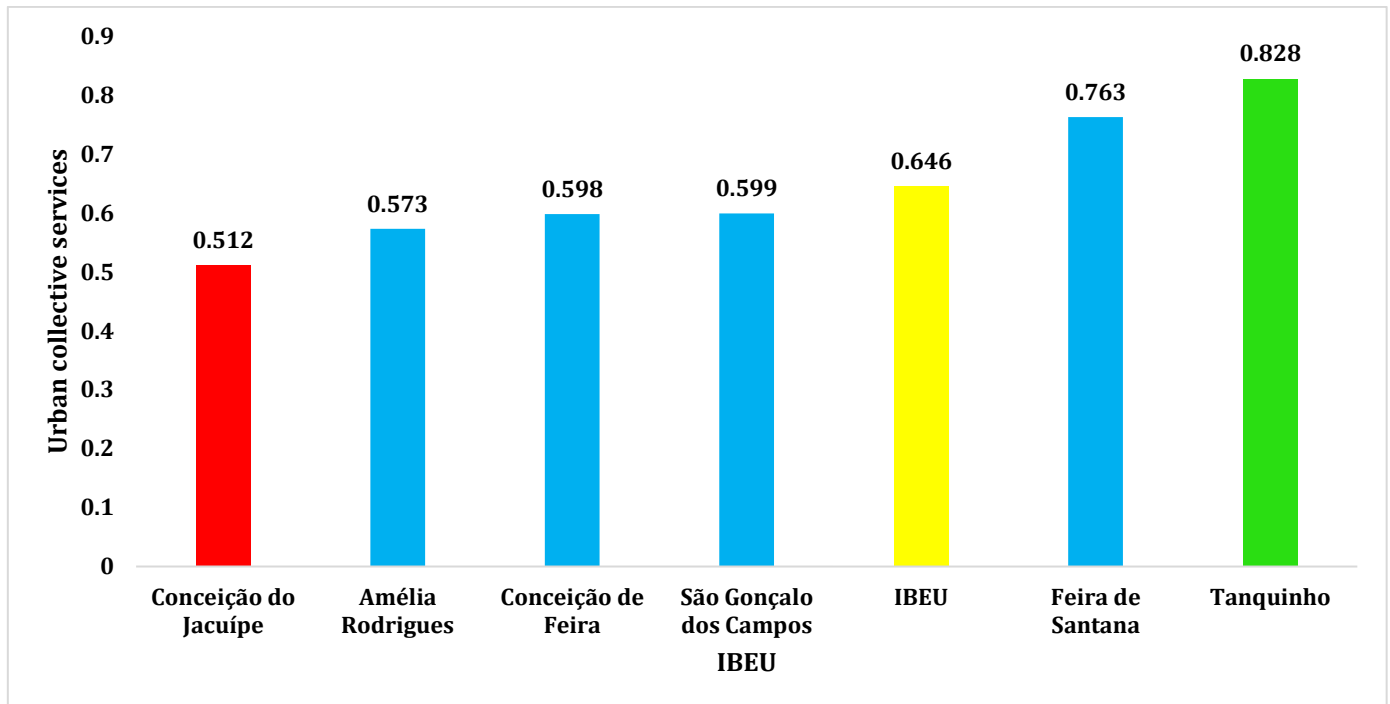
Dimension D4 covers essential variables related to the provision of collective urban services and is composed of four indicators: water supply, sanitary sewage, electricity, and solid waste collection. In the regional context, water supply and sewage services are the responsibility of the state and, in general, are operated by the same concessionaire.

The results indicate that only the municipality of Tanquinho is in the "Good" range, which requires public policies aimed

at maintaining the performance achieved. On the other hand, the other municipalities have lower levels, evidencing

the need for interventions and improvements in the provision of these services, as illustrated in Graph 5.

Graph 5 - Urban collective services (D4)



Source: Authorship based on IBEU (2016)

The rating ranges from "Very Poor" to "Very Good". In general, the average IBEU of the dimension (0.646) is in the "Poor" range, indicating that, although there is a supply of urban services, it is still insufficient and unequal among the municipalities.

Conceição do Jacuípe (0.512), classified as "Poor", has one of the worst performances, suggesting limitations in universal access to basic services. Amélia Rodrigues (0.573) is also in the "Poor" range, with a slight improvement but still with important deficits in the coverage of services.

Conceição de Feira (0.598) and São Gonçalo dos Campos (0.599) are also classified as "Poor", positioning themselves close to the upper limit of the category, which indicates intermediate conditions but still insufficient.

On the other hand, Feira de Santana (0.763), classified as "Medium", stands out positively as the main urban center, reflecting greater coverage and efficiency of public services. Tanquinho (0.828) reaches the "Good" range, presenting the best performance in the region and indicating a higher level of service provision to the population.

The data show a significant heterogeneity in the supply of collective urban services, with a concentration of municipalities in the "Poor" range, which reveals that most of the population still faces limitations in full access to essential services. Only two municipalities – Feira de Santana and Tanquinho – reach more satisfactory levels,

with emphasis on the latter. Even so, the performance of Feira de Santana, although higher, remains in the intermediate range, indicating that the universalization of services has not yet been fully achieved.

The D4 dimension is, therefore, configured as a structural bottleneck, evidencing a still insufficient level of coverage and quality of essential services. Despite occasional advances, a homogeneous and adequate pattern of urban well-being is not observed.

In this context, the improvement of regional urban well-being depends directly on the expansion and qualification of basic public services, with public policies aimed at the universalization of basic sanitation being a priority, the expansion of water supply and sewage networks and the strengthening of solid waste collection and management.

Finally, it is noteworthy that four municipalities classified as "Poor" represent 66.66% of the total, while the "Medium" and "Good" ranges each correspond to 16.67% of the municipalities [19], [22].

3.4.5 URBAN INFRASTRUCTURE (D5)

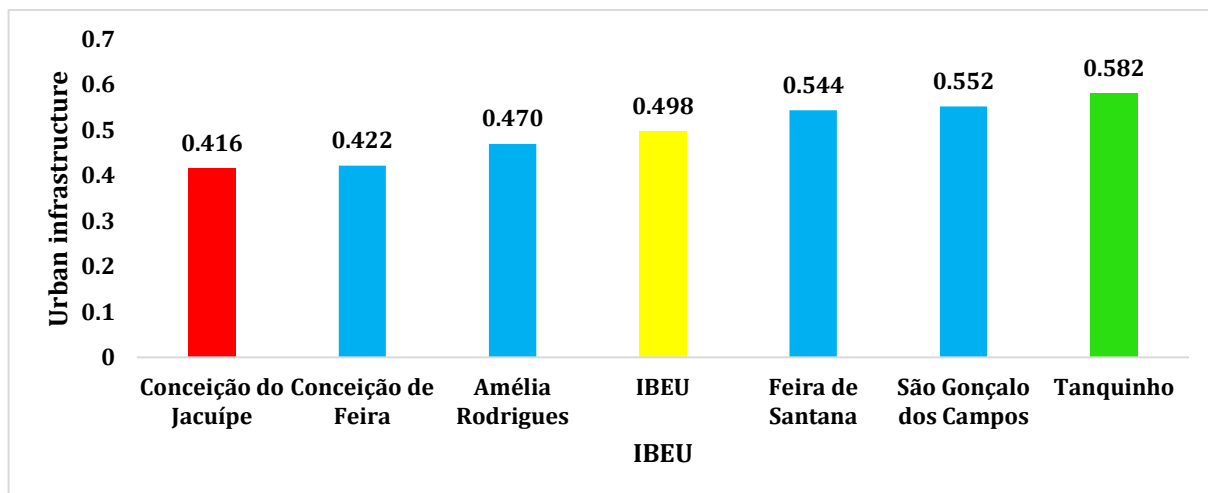
The D5 dimension, referring to urban infrastructure, is composed of seven indicators: public lighting, pavement, sidewalks, curb, manhole, wheelchair ramps, and public places.

The results indicate that the evaluation of this dimension varies between the "Very Poor" and "Poor", evidencing

significant structural deficiencies in the region. This scenario demands priority interventions by the government, with the objective of reducing these weaknesses and

promoting improvements in urban conditions, as can be seen in Graph 6.

Graph 6 - Urban infrastructure (D5)



Source: Authorship based on IBEU (2016).

The analysis of the municipalities of the RMFS reveals a scenario of low quality of urban infrastructure, with a predominance of unsatisfactory levels. The worst performances, classified in the "Very Poor" range, are observed in the municipalities of Conceição do Jacuípe (0.416), Conceição de Feira (0.422), and Amélia Rodrigues (0.470). These results indicate that the urban infrastructure - public lighting, paving, sidewalks, curb, drainage (culverts), accessibility ramp, and identification of public places - is highly deficient in these locations, evidencing significant limitations in the provision of these services. Such indices contribute decisively to the low regional performance in this dimension.

The best results within the sample, although still classified as "Poor", are observed in the municipalities of Feira de Santana (0.544), the main urban center of the region, São Gonçalo dos Campos (0.552), and Tanquinho (0.582). Despite presenting values above 0.500, these municipalities still face relevant problems, although less severe than those classified as "Very Poor".

It is noteworthy that no municipality reached the "Medium", "Good", or "Very Good" ranges, which shows that urban infrastructure in all municipalities of the RMFS is critical (classified as "Very Poor") or unsatisfactory (classified as "Poor"). This scenario demonstrates the need to direct public policies across different governmental spheres, with a view to improving urban conditions.

In general, the IBEU of the RMFS in this dimension falls within the "Very Poor" range, indicating the presence of significant structural deficiencies in aspects such as paving, public lighting, drainage, accessibility (ramps), sidewalks, and identification of public places.

Thus, urban infrastructure constitutes a critical bottleneck for well-being in the region, with smaller municipalities generally presenting greater structural weaknesses and a more incipient stage of urban development.

3.4.6 WEIGHTED DISTRIBUTION

Table 4 presents the weighted distribution of urban well-being levels according to the local IBEU index.

Table 4 - Weighted distribution by levels of urban well-being

Dimension	Very Poor	Poor	Medium	Good	Very Good	Highlight
D1	0	0	0	1	5	Strength of the region
D2	0	2	2	2	0	Regular
D3	0	0	0	6	0	Uniformly positive
D4	0	4	1	1	0	Important weakness
D5	3	3	0	0	0	Worst dimension
IBEU	0	1	4	1	0	Average performance

Source: Authorship based on IBEU (2016).

Table 4 presents a qualitative synthesis of the IBEU dimensions, allowing the identification of regional performance patterns based on the distribution of municipalities in the categories ("Very Poor" to "Very Good"). The analysis shows a heterogeneous scenario, with well-defined strengths but also with relevant structural weaknesses.

It is observed that the main positive points of the RMFS are concentrated in the dimensions of urban mobility (D1) and urban housing conditions (D3). On the other hand, the critical points are associated with urban infrastructure (D5) – in which no municipality has reached satisfactory levels – and the provision of collective urban services.

The Urban Mobility dimension (D1) stands out as the main strength of the region, with five municipalities classified as "Very Good" and one as "Good", configuring itself as a regional structural advantage. This result indicates that the commute occurs, in general, efficiently, with less commuting time.

The urban environmental conditions dimension (D2) presents a balanced performance, but without excellence. The distribution between the categories "Poor" (2 municipalities), "Medium" (2) and "Good" (2) characterizes a regular performance, indicating that aspects such as urban tree and absence of open sewage are still unequal between municipalities.

In urban housing conditions (D3), a uniformly positive result is observed, with all municipalities classified as "Good". This pattern reveals homogeneity and adequacy in housing conditions, considering aspects such as household density and construction quality.

On the other hand, the dimension of collective urban services (D4) is an important weakness, with a concentration of municipalities in the categories "Poor" (4) and "Medium" (1), evidencing limitations in access to essential services such as water supply, sewage, electricity, and solid waste collection.

The most critical situation is observed in urban infrastructure (D5), considered the worst among those analyzed. With three municipalities classified as "Very Poor" and three as "Poor", there are no positive records, which shows severe structural deficiencies in elements such as paving, drainage, sidewalks and accessibility.

In the overall result, the RMFS presents an IBEU predominantly classified as "Medium" (4 municipalities), with only one municipality in the "Good" range and one in the "Poor" range. This performance is negatively impacted by structural deficiencies in urban infrastructure and basic services, although partially offset by good results in mobility and housing conditions.

This intermediate pattern reinforces the need for public policies aimed at improving infrastructure and the provision of basic services, as an essential condition for raising the general level of urban well-being.

4. Final considerations

The IBEU results show that the analyzed region has an intermediate level of urban well-being, marked by heterogeneity between dimensions and municipalities. It is observed that the dimensions of urban mobility (D1) and urban housing conditions (D3) are consolidated positive vectors, contributing significantly to the quality of life of the population.

On the other hand, the dimensions of urban infrastructure (D5) and service of collective urban services (D4) are structural bottlenecks, limiting the advance of the general index. The precariousness in elements such as paving, drainage, sanitation and urban accessibility demonstrates that regional development still occurs in an uneven and incomplete way.

In this context, it is concluded that, although there are important bases for urban development, the region still demands structuring and integrated interventions, capable of reducing inequalities and promoting a higher and more balanced standard of urban well-being.

The limitations of the study include: (i) the use of secondary data from IBEU (2016), which has not yet been recently updated; (ii) the use of predominantly quantitative indicators, which do not capture qualitative perceptions of the population; (iii) the adoption of the municipal scale, which can hide intra-urban inequalities; and (iv) the scope of the IBEU, which does not include relevant variables, such as public safety and cost of living.

As future perspectives, it is recommended: (i) the updating of the study with more recent data; (ii) the performance of longitudinal and comparative analyses; (iii) integration with other indicators, such as MHDI, SDG, among others; (iv) the development of intra-urban studies and qualitative approaches; and (v) the application of statistical models and spatial analysis techniques to support the formulation of more effective public policies.

References

1. DYE, T. **Understanding public policy**. Englewood Cliffs: N.J.: Prentice Hall, 1984.
2. GIANEZINI, K. et al. Políticas Públicas: definições, processos e constructos no século XXI. **Revista de políticas públicas**, v. 21, n. 2, p. 1065-1084, 2017.
3. SCHMIDT, J. P. To study public policies: conceptual and methodological aspects and

- theoretical approaches. **Revista do Direito**, v. 3, n. 56, p. 119-149, 2018.
4. CONCEIÇÃO, V. S. et al. Território de Identidade Costa do Descobrimento: análise do Índice de Bem-Estar Urbano (IBEU). **Revista Mbote**, v. 1, n. 2, p. 074-099, 2020. <https://doi.org/10.47551/mbote.v1i2.10168>.
 5. BASTOS, G. L.; SILVA, M. S.; RIBEIRO, N. M. The innovation policy of the Federal Institute of Bahia (IFBA) under the perspective of the public policy cycle. **Cadernos de Prospecção**, v. 16, n. 5, p. 1393-1409, 2023. DOI: 10.9771/cp.v16i5.53247.
 6. DA PAIXÃO J. C. et al. **Índice de Bem-estar Urbano (IBEU) na Região Metropolitana de Salvador (RMS):** análise comparativa dos municípios. In: Anderson Catapan (Org.). *Social Changes and Historical Processes*. 1 ed. Curitiba: Editora Observatório de la Economia Latino American, v. 1, p. 136-155, 2025. <https://doi.org/10.55905/edobs.978-65-83190-11-6>.
 7. DA CONCEIÇÃO, V. S. et al. Urban inequalities in the Alto Sertão Sergipano Territory: an analysis of the Urban Well-Being Index (IBEU). **UKR Journal of Multidisciplinary Studies**, v. 2, n. 3, p. 3, 2026. DOI: 10.52281/zenodo.19054408.
 8. DA PAIXÃO J. C. et al., Urban well-being in the Baixo Sul identity territory (BA): multidimensional analysis based on IBEU. **UKR Journal of Multidisciplinary Studies**, v. 2, n. 4, 2026.
 9. FISCHER, F.; MILLER, G. J.; SIDNEY, M. S. (Ed.). **Handbook of public policy analysis: theory, politics, and methods**. Boca Raton: CRC Press, 2007.
 10. BARDEN, J. E. **Indicador social para o Rio Grande do Sul: uma análise a partir da abordagem das capacitações**. 2009. 211 f. Tese (Doutorado em Economia) – Universidade Federal do Rio Grande do Sul, Porto Alegre, 2009.
 11. HOWLETT, M.; CASHORE, B. Conceptualizing public policy. In: **Comparative policy studies: Conceptual and methodological challenges**. London: Palgrave Macmillan UK, 2014. p. 17-33.
 12. GONZALEZ, E. D. R. S. et al. Making real progress toward more sustainable societies using decision support models and tools: introduction to the special volume. **Journal of Cleaner Production**, v. 105, p. 1-13, 2015.
 13. VILLA ALVAREZ, D. P.; AURICCHIO, V.; MORTATI, M. Mapping design activities and methods of public sector innovation units through the policy cycle model. **Policy sciences**, v. 55, n. 1, p. 89-136, 2022.
 14. ASSAKA, A. M. Indicadores quantitativos de qualidade na gestão educacional. **Revista On-line IDD**, v. 3, n. 9, p. 17-25.
 15. MKHITARYAN, K. et al. Sustainability Indicators and Urban Decision-Making: a multi-layer framework for Evidence-Based Urban Governance. *Urban Science*, v. 10, n. 2, p. 70, 2026. <https://doi.org/10.3390/urbansci10020070>
 16. DOS SANTOS, J. L.; IMPERADOR, A. M. Metodologias de diagnóstico para a construção de políticas públicas de Educação Ambiental: uma revisão sistemática de literatura. *Pesquisa em Educação Ambiental*, v. 18, n. 2, 2023. <https://doi.org/10.18675/2177-580X.2023-17203>.
 17. SANTOS, C. B.; SVOBODA, W. K. Diagnóstico situacional das políticas públicas voltadas à população idosa do município de Foz do Iguaçu. **Revista Orbis Latina**, v. 14, n. 2, p. 21-44, 2024.
 18. YILMAZ, F. et al. How enabling factors determine unmet healthcare needs? A panel data approach for countries. **Evaluation and Program Planning**, v. 107, p. 102492, 2024. <https://doi.org/10.1016/j.evalprogplan.2024.102492>.
 19. MENEZES, D. B.; POSSAMAI, A. J. Human development and urban well-being in the Brazilian metropolitan regions: proposal of a new synthetic indicator. In: SEMINÁRIO INTERNACIONAL DE CIÊNCIA POLÍTICA, 1., 2015, Porto Alegre. **Annals**.
 20. HANSINE, R.; ARNALDO, C. Natureza demográfica e consequências do crescimento urbano em Moçambique. **Desafios para Moçambique**, v. 2019, p. 297-318, 2019.
 21. ONU. Organização das Nações Unidas. **ONU prevê que cidades abriguem 70% da população mundial até 2050**. ONU News. 19 fev. 2019. Available at: <https://news.un.org/pt/story/2019/02/1660701>. Accessed on 13 May. 2026.
 22. RIBEIRO, L. C. Q.; RIBEIRO, M. G. (Orgs.). **IBEU: urban well-being index of Brazilian municipalities**. Rio de Janeiro: Letra Capital, 2016.
 23. BAHIA (State). Secretariat of Urban Development. **Metropolitan entity: Metropolitan Region of Salvador**. Available at: http://www.ipea.gov.br/redeipea/images/pdfs/governanca_metropolitana/160406_entidade_metropolitana_da_regiao_metropolitana_de_salvador.pdf. Accessed on 13 May. 2019.
 24. GIL, A. C. **How to Develop Research Projects**. 6 ed. São Paulo: Atlas, 2017.

25. ROOSEVELT, T. New Nationalism Speech. **Teaching American History**, 1910.
26. CALDAS, R. W. (Coord.). **Public Policies: concepts and practices**. Belo Horizonte: Sebrae/MG, 2008.
27. MADEIRA, L. M. (org.). **Evaluation of public policies**. Porto Alegre: UFRGS/CEGOV, 2014.
28. RUA, M. G. **Public policies**. 3. ed. rev. atua. – Florianópolis: Department of Administration Sciences / UFSC; [Brasília]: CAPES: UAB, 2014.
29. LOBATO, L. V. C. Social policies and social welfare models: weaknesses of the Brazilian case. **Saúde em Debate**, v. 40, p. 87-97, 2016.
30. SIMON, C. A. **Public policy: preferences and outcomes**. 2 ed. New York: Routledge, 2016.
31. ALMEIDA, L. A.; GOMES, R. C. The process of public policy: literature review, theoretical reflections and suggestions for future research. **Cadernos EBAPE. BR**, v. 16, p. 444-455, 2018.
32. CAPELLA, A. C. N. **Policy Formulation**. Brasília: Enap, 2018.
33. LOTTA, G. (Org.). **Theory and analysis on the implementation of public policies in Brazil**. Brasília: Enap, 2019.
34. SOUZA, C. Public Policies: a literature review. **Sociologias** [online]. 2006, n.16, p. 20-45.
35. PAESE, C. R.; AGUIAR, A. D. G. Revisiting the concepts of formulation, implementation and evaluation of social policies and programs in Brazil. **NUPEM Magazine**, Campo Mourão, v. 4, n. 6, jan./jul. 2012.
36. PEREIRA, A. M. M. **Analysis of public policies and historical neoconstitutionalism: an exploratory essay on the field and some reflections**. In: GUIZARDI, Francini L. et al (Org.). Participation and health policies. Rio de Janeiro: EPSJV; Recife: Editora Universitária UFPE, 2014. p. 143-164.
37. LEVINO, S. S. A. **Public policies: analysis of the formation of the public agenda of culture in Roraima (2013 to 2018)**. 2019. 157 f. Dissertation (Master's Degree in Society and Borders) - Federal University of Roraima, Boa Vista, 2019.
38. TEIXEIRA, E. C. **The Role of Public Policies in Local Development and in the Transformation of Reality**. 2002.
39. SILVA, S. G. S. **Introduction to studies on Public Policies as a field of knowledge**. 2016.
40. BITTENCOURT, B. L.; RONCONI, L. F. A. Social innovation and development policies: the case of Land Exchange (Bolsa de Terras). **Revista de Administração Pública**, v. 50, p. 795-818, 2016.
41. PINTERIČ, U. **Rethinking public policies**. Faculty of Organization Studies in Novo mesto, 2014.
42. SILVA, A. G. F.; MOTA, L. A.; DORNELAS, C. S. M.; LACERDA, A. V. The relationship between the State and public policies: a theoretical analysis of the Brazilian case. **Revista Debates**, Porto Alegre, v. 11, n. 1, p. 25-42, jan.-apr. 2017.
43. BRAZIL. **Law No. 13,683** of June 19, 2018. Amends Laws No. 13,089, of January 12, 2015 (Statute of the Metropolis), and 12,587, of January 3, 2012, which establishes the guidelines of the National Urban Mobility Policy.
44. BRAZIL. **Bill No. 3,460**, of 2004. Establishes guidelines for the National Policy of Regional Urban Planning, creates the National System of Planning and Regional Information and provides other measures. *Diário da Câmara dos Deputados* (Journal of the Chamber of Deputies), Brasília, DF, 2004. p. 23953 – 23963.
45. LOPES, K. P. S. An analysis of the institutionalization of the Metropolitan Region of Feira de Santana (BA). **Caderno de Geografia**, v. 27, n. 51, 2017.
46. PINHEIRO, D. R.; GUARDABASSIO, E. V.; BONJARDIM, E. C.; BRESCIANI, L. P. The development of Brazilian metropolises according to the HDI-M and IBEU. **Espacios**, v. 37, n. 32, 2016, p. 14.
47. INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA – IBGE. **Cidades**. Available at: <https://cidades.ibge.gov.br/brasil/panorama>. Accessed on: 18 May. 2026.
48. OLIVEIRA, U. R. J. **Social classes and socioeconomic classes: a brief analysis of the socio-occupational aspects of the income strata in the GRM of Salvador between the years 2003 and 2010**. 2016. 101 f. Dissertation (Master's Degree in Economics) – Federal University of Bahia, Salvador, 2016.