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URBAN LIVING CONDITIONS. CASE STUDY IN THE METROPOLITAN SUB-AREA APIZACO, MEXICO

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Abstract: The metropolitan study area is a territory immersed in a process of intense urbanization, and as any process of this type generally brings with it, greater availability and access to basic services, but at the same time, it does not resolve lags in various areas, which that negatively affects the quality of life. The objective of this paper is to analyze the living conditions of the population of the municipalities that make up the metropolitan area of Apizaco, known for these purposes as Sub-Metropolitan Zone-Apizaco and which is part of the Tlaxcala-Metropolitan Zone. Apizaco. The methodological approach was made by taking some social indicators to build Location Quotients or Relative Concentration Indices, which yielded as results a marked differentiation in the population in terms of their living conditions. From this, it can be concluded that the urbanization processes are far from achieving equity and balance in the territories, a situation that can be explained from different conceptions and appreciations from the public sphere, although not only, but also from the analysis of the dynamics of markets in general.

Keywords: Living conditions; urban lags, urban equity, territorial balance.

INTRODUCTION

When talking about the living conditions of the population, it can inevitably lead to understanding what quality of life1 implies, this being an approach that requires establishing the manner of its characterization and measurement. In this work, as such, although its conceptualization is elaborated, it is only in order to provide a general vision of the subject related to the living conditions of the population, since it is based on the idea that these are contained in the first, since when talking about quality, it is necessary to establish a precise measurement, and in this case, in essence, living conditions are analyzed, it is only intended to provide an overview of the conditions in which the population lives. For this reason, quality of life is not strictly measured, but the living conditions of the population of the study territory based on social indicators that have allowed the construction of the so-called Relative Concentration Indices. In this case, we are referring to the relative concentration, we would say, of the macro-level effects of urbanization.

DEVELOPMENT

SOME OBSERVATIONS ABOUT THE QUALITY OF LIFE

Quality of life is a relevant dimension of development, since it is conceived as the process through and during which people's quality of life increases, both at the time it is measured and in the future, consequently implies, the satisfaction of needs both in quantity and quality, and where having a healthy environment is of great relevance (Carrillo, 2002). Of course, the concept of quality of life is a social construct that responds to the need to name and/or qualify certain living conditions at a certain time and context, but above all, it is a concept, like others, that contains within itself same a real and aspirational demand to improve living conditions; For this reason, we could say that it is a demanding and dynamic concept,

The social construction of the quality of life concept has different interpretations2 when it is used by people whose vital needs are satisfied, than when it is used by other people whose main concern is how and where to eat today, for example. as it happens in underdeveloped countries, in which economic development so far has not been sufficient to achieve a material level that allows satisfying the basic needs of food, housing, clothing, health, education, employment.

From this point of view, the quality of life

would have to see how a greater number of people must have access to public services, such as drinking water, electricity, distance communication, access to transportation, education, medical service, and a long list of consumer products that often impoverish more than they enrich, because in a consumer society and from the perspective of production relations, the origin of this concept obeys the problem of economic development that is based on a growing Technological integration derived from scientific progress, and which impacts the various spheres of social life, ranging from population growth, the dynamics of urbanization processes and, in general, the search for well-being.

In summary, and given the existence of different contexts3 and circumstances in which people operate, which makes it possible to have an explanation -at least up to a certain point- of their particular quality of life, it must be taken into account that although it is It is possible to aspire to establish a series of common components to the concept of quality of life of a person or population, these factors will have different weighting, in other words, a different significance will be attributed to them according to contextual variables, such as: age, gender, social position, ethnicity, territory, among others. For example, health, which is an agreed component of quality of life, may be of secondary importance to a healthy young person; however, for an older person it will become more relevant. As Fernádez (1998) says, "we are faced with a complex and multidimensional macro-concept that involves different components or conditions, whose weight varies in relation to a series of personal or social parameters". It is in this context of theoretical and conceptual reflection where our governing concept is incorporated: living conditions.

METHODOLOGICAL ASPECTS
SOCIAL INDICATORS FOR AN INTERPRETATION OF LIVING CONDITIONS

It is based on a comparative analysis between 2010 and 2020, for this reason the population characteristics of the study territory are presented, in this case, Apizaco and its suburban area. Tables 1 and 2 contain indicators for the years 2010 and 2020, respectively, such as illiteracy, lack of health services, houses with dirt floors, lag in basic services in the houses, which allowed a first approach to know the conditions of social development. Since these indicators are in a negative sense, that is, they are measuring lags, the higher percentage indicates a greater lag; and in the case of the Location Quotients or Relative Concentration Indices, which will be seen later, they will show, precisely,

The procedure consisted of the following:

1° Relative Distribution Matrices (MDR) of the social indicators were obtained in the municipalities that make up the Apizaco Metropolitan Sub-Zone, according to the following formula:

$$MDR = \sum_{i=1}^{n} \frac{ij}{\sum j}$$

2° With the MDR data, the Relative Concentration Indices were obtained using the formula:

$$\sum_{i=1}^{n} \frac{ij}{\sum j} / \sum Yo,$$

Since the relative concentration index is defined as the "Fraction of total employment [numerical indicator] of zone i [municipality] that belongs to branch j [indicator concept], between the fraction of total global employment [in In this case, the total sum of the data of the municipality indicators, that is, the sum of row i] (Lemelin, 2005:46).

Continuing with the adopted methodology that is based on the previous formulas, it is

important to point out two interpretations of said indices.

First interpretation:

- "The natural reference point for interpreting the location quotient is 1.0…if $QLij > 1$, it is said that the activity -in our case, the indicator- is relatively concentrated in zone i [in our example, in the municipality] ; we say "relatively" in comparison with other activities [in our example, other indicators] and this because the fraction of employment [in our case, the indicator] in zone i is more important for activity j than for the other activities; more precisely, we say that zone i is a zone of relative concentration for this activity because there may be other zones [municipalities] of relative concentration of this same activity [indicator]" (Lemelin; op.cit:p.48)

Second interpretation:

If $QLij > 1$, it is also said that zone i is relatively specialized in activity j; we say "relatively" in comparison to the other zones because, in this zone, activity j occupies a more important place than in other parts" (idem:48-49).

On the contrary, if $QLij < 1$, it is said that activity j is relatively less present in zone ZI than in other parts, that is, activity j is not relatively concentrated in zone i and zone i is not relatively concentrated. specialized in activity j" (idem:49).

RESULTS

SOCIAL INDICATORS

Table 1 shows that Apizaco (see Figure 1) is the one with the largest population, since it is the metropolitan regional capital with a high degree of urbanization, maintaining this trend until the year 2020. Overall, the average population growth of the Sub-Zone Metropolitana de Apizaco, in the ten-year period, was 1.59%. Regarding the indicator

of illiteracy, in 2010 it was Amaxac (2.69%) together with Apizaco (2.83%) that had the lowest proportion of illiterates, followed with the greatest lag by Yahuquemehcan (3.20%), Xalostoc (5.01%) and Tetla de Solidarity (5.21%).

For the year 2020, in general as a logical trend of urbanization, which is supposed to bring greater access to services, the indicators decreased, which means that the lag decreases. Despite this, imbalances occur, such as those shown in Table 2, where in the case of the illiterate population, considering the indicator from lowest to highest, Yahuquemehcan went to second place (1.29%) and Apizaco (1.52%) to third place, with Tetla (2.28%) remaining in last place, with a relative improvement compared to 2010 for Xalostoc (2.02%) and in penultimate place for Muñoz (2.22%). That is, these last municipalities with greater lag.

In the case of the population that is not entitled to health services, for the year 2010 it was Apizaco that registered the greatest lag (37.31%), and Amaxac in second place (35.11%); And the smallest lags were observed in the municipalities of Muñoz de DA (32.04%) and Tetla de la S. (32.73%). Contrary situation with the illiteracy indicator for these same municipalities, as already seen above; which allows corroborating situations of territorial polarization of the living conditions of the population. Continuing with this same indicator, for the year 2020, Apizaco remains at the top with the greatest lag (27.8%), with a noticeable improvement for Xalostoc (26.67%), Yahuquemehcan (22.93%), Tetla (22.16%) and Muñoz (17.88%).

In the indicator of houses with dirt floors, it is significant that Xalostoc is the one with the greatest lag - unlike in illiteracy in 2020 it improved - since in 2010 and 2020, it registered the highest data: 4.66% and 1.27%. Similarly, in the indicator of homes that do not have a toilet or toilet, it is this municipality,
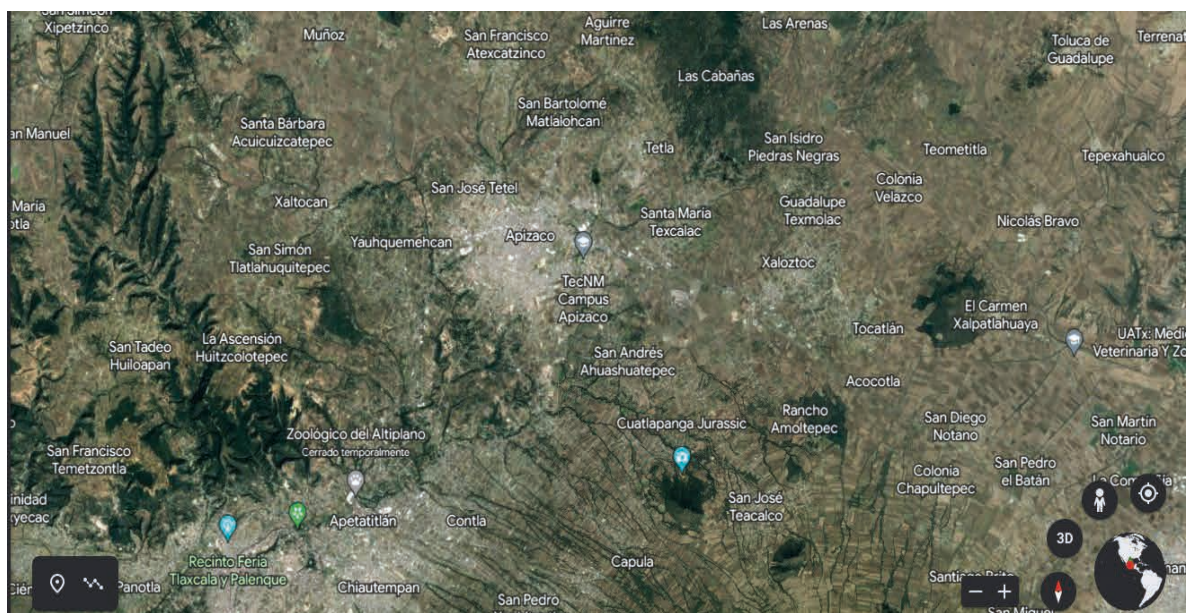
Figure 1. Location of the Metropolitan Sub-Zone of Apizaco, Tlaxcala.

Source: https://earth.google.com/web/search/Apizaco,+Tlaxcala/@19.38916983,- 98.12453549, 2409.51881629a, 33342.35546806d,35y,-0h,0t,0r/data=CigiJgok CQMbCItUnzNAEYDZCl6V2 KBojTNA Ges. Consultation of March 10, 2023.

Municipality	Total population 2010	% of population aged 15 and over illiterate	% population without entitlement to health services	% of homes with dirt floors	% of dwellings that do not have a toilet or toilet	% of homes that do not have piped water from the public network	% of homes that do not have drainage	% of homes that do not have electricity
Amaxac de G.	9875	2.69	35.11	2.58	4.57	4.7	3.73	1.27
apizaco	76492	2.83	37.31	1.08	1.3	1.28	1.3	0.41
DA Munoz	4285	4.86	32.04	2.07	3.35	3.25	3.94	2.76
Santa Cruz T.	17968	3.94	34.77	2.61	6.98	3.42	7.84	1.37
Tetla de la S.	28760	5.21	32.73	2.75	6.69	2.59	7.62	1.73
tzompantepec	14611	3.83	32.99	3.07	7.5	14.67	7.55	2.24
xalostoc	21769	5.01	32.99	4.66	7.31	5.07	9.56	2.16
Yahuquemehcan	33081	3.2	33.53	2.09	3.11	2.11	2.84	0.86
Total	206841							

Table 1. Social indicators of the study region, 2010

Source: Own elaboration with data from INEGI, 2015

Municipality	Total population 2020	% of population aged 15 and over illiterate	% population without entitlement to health services	% of homes with dirt floors	% of dwellings that do not have a toilet or toilet	% of homes that do not have piped water from the public network	% of homes that do not have drainage	% of homes that do not have electricity
Amaxac de G.	11403	1.12	25.3	1.00	2.10	0.33	2.10	0.23
apizaco	80725	1.52	27.8	0.52	1.00	0.49	1.00	0.19
DA Munoz	4755	2.22	17.88	0.48	2.66	1.85	2.66	0.4
Santa Cruz T.	24116	1.84	24.81	1.19	2.98	0.35	2.98	0.73
Tetla de la S.	35284	2.28	22.16	0.83	4.82	1.10	4.82	0.68
tzompantepec	18006	1.62	25.38	0.59	5.04	3.44	5.04	0.89
xalostoc	25607	2.02	26.67	1.27	5.66	0.73	5.66	0.67
Yahuquemehcan	42242	1.29	22.93	0.65	2.17	0.36	2.17	0.41
Total	242138							

Table 2. Social indicators of the study region, 2020

Source: Own elaboration with data from INEGI, 2020

Municipality	% of population aged 15 and over illiterate	% population without entitlement to health services	% of homes with dirt floors	% of dwellings that do not have a toilet or toilet	% of homes that do not have piped water from the public network	% of homes that do not have drainage	% of homes that do not have electricity
Amaxac de G.	0.715696019	1.08632529	1.03637416	0.94059033	1.06436829	0.70594755	0.83338303
apizaco	0.904161661	1.38623749	0.52095949	0.3213002	0.34808665	0.29545428	0.32307855
DA Munoz	1.35191771	1.03647596	0.86937047	0.72088632	0.76951147	0.77964607	1.89359755
Santa Cruz T.	0.940224431	0.96492318	0.9403648	1.28854242	0.69467099	1.33087926	0.80634424
Tetla de la S.	1.27703579	0.93296229	1.01769722	1.26852623	0.54035958	1.32864085	1.04586604
tzompantepec	0.775065649	0.77638077	0.93799093	1.17411048	2.52689722	1.08686086	1.11802714
xalostoc	1.091158615	0.83557457	1.53234525	1.23161657	0.93988749	1.48113736	1.16029527
Yahuquemehcan	0.974617155	1.18760048	0.9610609	0.7327443	0.54699616	0.61530394	0.64602175

Table 3. Relative Concentration Indices, 2010

Source: Own elaboration with data from INEGI, 2015

Municipality	% of population aged 15 and over illiterate	% population without entitlement to health services	% of homes with dirt floors	% of dwellings that do not have a toilet or toilet	% of homes that do not have piped water from the public network	% of homes that do not have drainage	% of homes that do not have electricity
Amaxac de G.	0.69828637	1.1372696	1.32809608	0.68907232	0.33085714	0.68907232	0.47492083
apizaco	0.93776633	1.23658282	0.68338956	0.32469905	0.48613641	0.32469905	0.3882241
DA Munoz	1.58225384	0.91879382	0.72874967	0.99777999	2.1203421	0.99777999	0.94419352
Santa Cruz T.	1.05838318	1.02891438	1.45809566	0.9021346	0.32374582	0.9021346	1.39067551
Tetla de la S.	1.24677682	0.87367718	0.96682064	1.3871738	0.96729197	1.3871738	1.23151761
tzompantepec	0.77386875	0.87412044	0.60036899	1.26710556	2.64254115	1.26710556	1.40805669
xalostoc	0.94957341	0.90391492	1.27172979	1.40030801	0.55183731	1.40030801	1.0431093
Yahuquemehcan	0.86329588	1.10637251	0.92661059	0.7642926	0.38742129	0.7642926	0.90872328

Table 4. Relative Concentration Indices, 2020

Source: Own elaboration with data from INEGI, 2020

together with Tzompantepec, that registered the highest arrears in the two years of analysis. Regarding the indicator of houses that do not have piped water, in the same period, it was this last municipality that registered the greatest lag: 14.67% and 3.44%, followed by Xalostoc and Muñoz, respectively.

In the indicator of homes that do not have drainage, Xalostoc continues to appear, along with Santa Cruz, Tetla, and Tzompantepec, as those with the greatest lag for the two years. And finally, in terms of homes without electricity, for the year 2010 it is Muñoz (2.76%), Tzompantepec (2.24%), and Xalostoc (2.16%), the ones with the greatest lag. By 2020, it was Tzompantepec, Santa Cruz and Tetla, the ones with the greatest lag.

RELATIVE CONCENTRATION INDICES

Next, the Relative Concentration Indices [or location quotient QLij] that are contained in tables 3 and 4 are exposed.

Practically it comes to confirm what had already been shown with the data in tables 1 and 2, although the QL give us a broader vision, while the value of the index leads us to an interpretation of double logic. For example, in Table 3, with data from 2010, the QL31 are obvious; QL51 and QL71, which are greater than one, therefore, it is understood that illiteracy in these municipalities (Muñoz, Tetla and Xalostoc) is of great impact, even in Yahuquemehcan (QL81) which has an index close to one unit.0.974617155. For the year 2020, the same trend noted above is maintained and is corroborated with the QL in Table 4.

Another example, but in relation to the index less than one, is the case of Apizaco with the QL26 and QL27, both for the year 2010 and for 2020. For the first year, this municipality registers an index QL26 equivalent to0.29545428, referring to the percentage of houses that do not have drainage, which is interpreted as an indicator of little impact, that is, that this problem is not relevant in the municipality, it is of low or very low lag, it depends if at a certain time Given the methodology, I would have considered grading the indices. The other low-impact index is theQL27 with a value equal to0.32307855, relative to the percentage of homes that do not have electricity, which similar to the previous one, is not of impact, that is, that Apizaco does not have a great lag in this aspect, being the same trend for the year 2020. Obviously, that In order to deepen the analysis, in the event, for example, that the design of development plans by municipality and locality was entrusted, then the various combinations between one municipality and another, between one index and another, would necessarily have to be established, in such a way that way to accurately demonstrate the relativity of the data.

CONCLUSIONS

Considering the theoretical approach of the central category of the present analysis that corresponds to living conditions, as a dimension of focus and component, which is not the same as quality of life, despite the fact that emphasis was placed on it in the theoretical part, derived from the justification set forth above. On this occasion, an approximation to the knowledge of living conditions was attempted, from the perspective of the analysis of social indicators and their dynamics over time and in the territory, in this case, in certain selected municipalities in a metropolitan context. In this sense, it can be said that a contribution is the present methodology based on Location Quotients or Relative Concentration Indices, which allow potentiating the analysis in one line of reading in one direction and in another, that is, in terms of the relative weight of the indicator.

In this line of analysis, it was possible to identify the territories where in a period of a decade the lags have worsened, as well as the improvements in the living conditions of the population, in terms of aspects that mark the selected social indicators.

It was found that municipalities that are more urban than others, have had a slow evolution in improving living conditions, to such a degree that they show lags in basic services, which can be contradictory, while the higher the urban density, it is assumed a greater access to public services. However, this is not exactly the case, which leads us to conclude, among other aspects, that the urbanization processes themselves lead to the polarization of certain territories, in this case, the municipalities that are part of the urban area of the study area. From here, it can be proposed as a hypothesis for future research work, that it is urgent to reorient public policy actions based on a real planning of urban development with a comprehensive approach, that is, that not only the free action of the capital, and real estate capital in particular. And at the same time, set guidelines to implement performance evaluation processes of local governments with real citizen participation.

GRADES

1 One of the definitions points out that quality of life is the "possibilities that life offers a person to lead a dignified life" (López, 2004:15). For his part, Galli (2000:3) says, "…at first the expression quality of life appears in public debates about the environment and the deterioration of urban living conditions. During the 1950s and early 1960s [of the 20th century], the growing interest in learning about human well-being and concern about the consequences of the industrialization of society gave rise to the need to measure this reality through objective data., and

from the social sciences the development of social, statistical indicators that allow measuring data and facts related to the social well-being of a population begins. These indicators had their own evolution, being in a first moment a reference of the objective conditions, of an economic and social type, to in a second moment contemplate subjective elements". Although the theoretical-scientific development of the term quality of life, it was from the edition of the first US monographic journal, "Social Indicators Research" in 1974, and in the "Sociological Abstracts" of 1979 that contributed to the theoretical and methodology of the concept, becoming the decade of the 80 [of the 20th century] in the definitive take off of the investigation around the topic (Gómez and Sabeh, 2000). For the World Health Organization (WHO), quality of life is the perception that an individual has of its place in existence.

2There is the case of some other similar terms -in English-; Welfare is a concept that refers to the social assistance system that gave rise to the welfare state, for which the goods-or merchandise or resources-controlled by a person are important; Well-being (well-being), refers to aspects such as the capacity, opportunities and advantages of people; Finally, the terms level of living (standard of living), which until recently was obtained through economic indicators, unlike the term standard of living, which means standard of living, its measurement being more complex than that of the economic indicators Nussbaum and Sen (2002:22.23).

3"From an ethical point of view, the 21st century is experiencing a great socioeconomic crisis, in which institutions

are forced to change. Process that is proving slow and superficial. This era is experiencing a crisis of the value system and constant changes in terms of lifestyle. People will be worth according to what they have produced and not in terms of what they are as people, the system does not take into account the identity of the subject or their originality. There is a contradiction between discourse and practice, between what politicians say and reality. These are some of the factors that determine the contextual conditions that hinder or favor access for all people to lead a good quality of life" (López, 2004).

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