

# Planning Sustainable Consumption and Quality of Life in the Baku City

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## Abstract

The study of sustainable consumption (SC) and quality of life (QoL) in Baku City was undertaken as part of the Baku Strategic Plan prepared by the Department of Architecture and Urban Planning, Azerbaijan Architecture and Construction University, and partially supported by the Society of Urbanists of Azerbaijan, Research Group. The key purpose of the research was to provide useful information for developing planning and design strategies that would foster sustainable urbanization through enhancing QoL and consumption, which was one of the most important principles of sustainable urbanization. Another purpose was to explore the impact of environmental, economic, social, physical, and health-related indicators on SC and QoL satisfaction among Baku residents. Ultimately, the research will provide recommendations which will further enhance the SC and QoL in Baku City at a number of levels, from empowering communities at a local level to participate in the evolution of their neighborhoods to influence institutional and corporate objectives and sustainability policies. The information collated will feed into the Baku Strategic Planning Process and help to determine developed strategies for urban development and urban regeneration.

## Keywords

Planning, sustainable consumption (SC), quality of life (QoL), Baku City

Quality of life (QoL) is a concept that has inspired much research in the past decades (Gregory et al. 2009; Costanza et al. 2008; Layard 2006), and has established a strong position in local, national and European Union (EU) agenda (SELMA 2004; FEQoLS 2003). The concept provides crucial data for informing community and neighborhood policies and practices. The research into QoL in Baku which “engaged” respondents from communities and considers their perceptions of the sustainable consumption can be viewed as an element of engagement conducive to the principals of the promotion of social cohesion as advocated by the EU. Thus, research into neighborhoods and neighboring through the QoL research provides a unique opportunity to measure community and neighborhood

satisfaction through evidence-based research to “make the difference” to people’s QoL by informing future neighborhood and regeneration policy in Baku and encouraging framework conducive to citizen involvement.

The Baku study was undertaken by the Urban Sustainable Planning and Quality of Life Research

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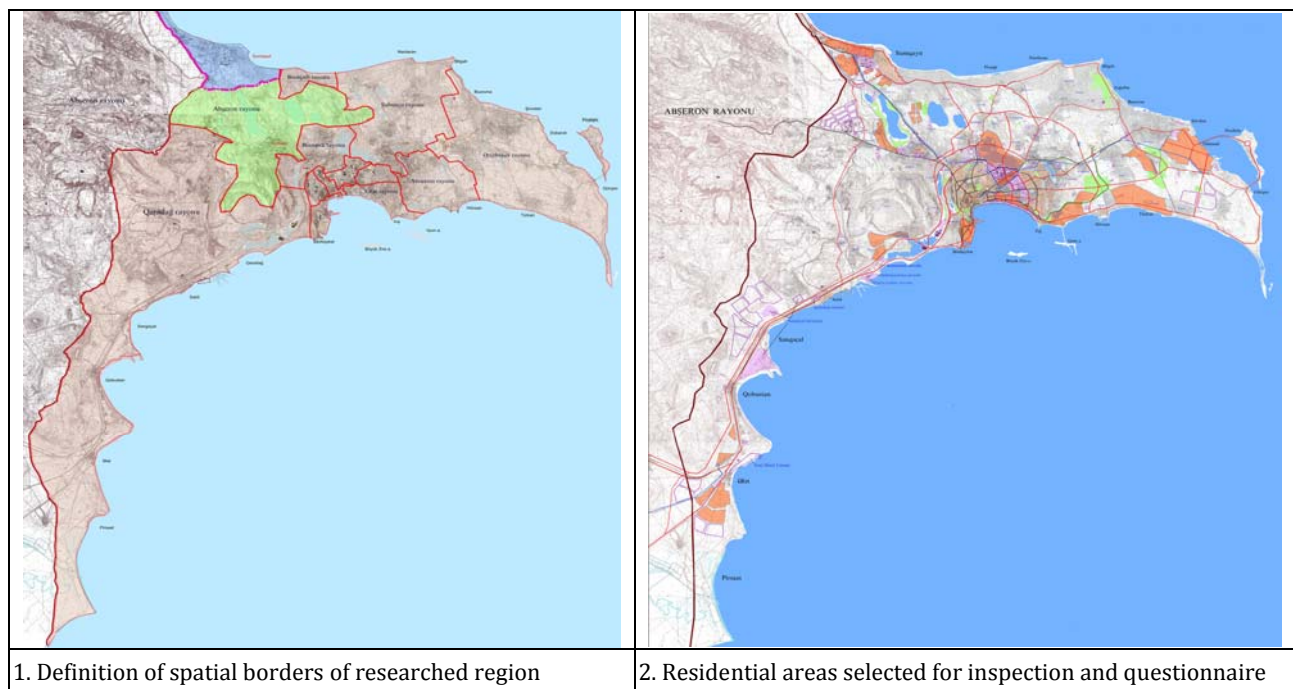
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**Figure 1.** RPDBB as Part of the Preparation of Baku Strategic Plan.

Group in Society of Urbanists of Azerbaijan (SUA), Regional Plan for Development of the Big Baku (RPDBB) as part of the preparation of Baku Strategic Plan (see Figure 1).

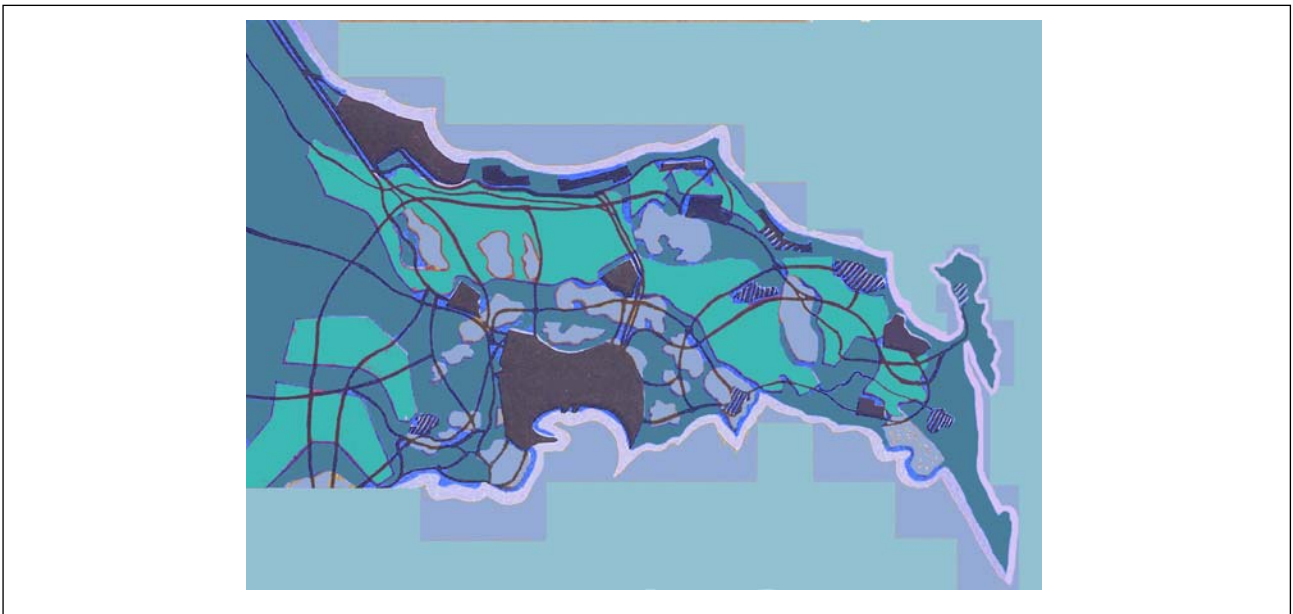
The research concentrated on two aspects of the QoL: quality of the physical environment in residential areas (Hasanova 2003) and QoL with respect to social and economic indicators and the satisfaction of the inhabitants (Kakhramanova 2006). The first part is directly used to demonstrate the problem areas in Baku with respect to the different characteristics of the physical environment. The second part is aimed to be used in comparing the satisfaction and perception of residents in different environmental settings.

The preliminary results of the survey were used to broadly demonstrate the problem areas with respect to the various indicators (Huseynov 2003). Consequently, neighborhoods have been graded with respect to the indicators used in the study and it has been possible to

demonstrate the critical residential neighborhoods.

## METHODOLOGY OF RESEARCH FOR SC AND QOL

During the strategic planning process, the SC and QoL group identified two research areas. They were the assessment of the physical quality of neighborhoods in Baku. Information was collated via the physical questionnaire survey of neighborhoods in Baku. Firstly, there was an assessment of the quality of community life by measuring people's objective and subjective experiences of their living environment. The purpose of the research is to firstly feed into the strategic plan and to determine the development strategy of the residential areas in terms of both physical (objective) and perceptible (subjective). Secondly, to determine the spatial criteria for residential areas. Information from both the physical and QoL survey was then placed into a data set



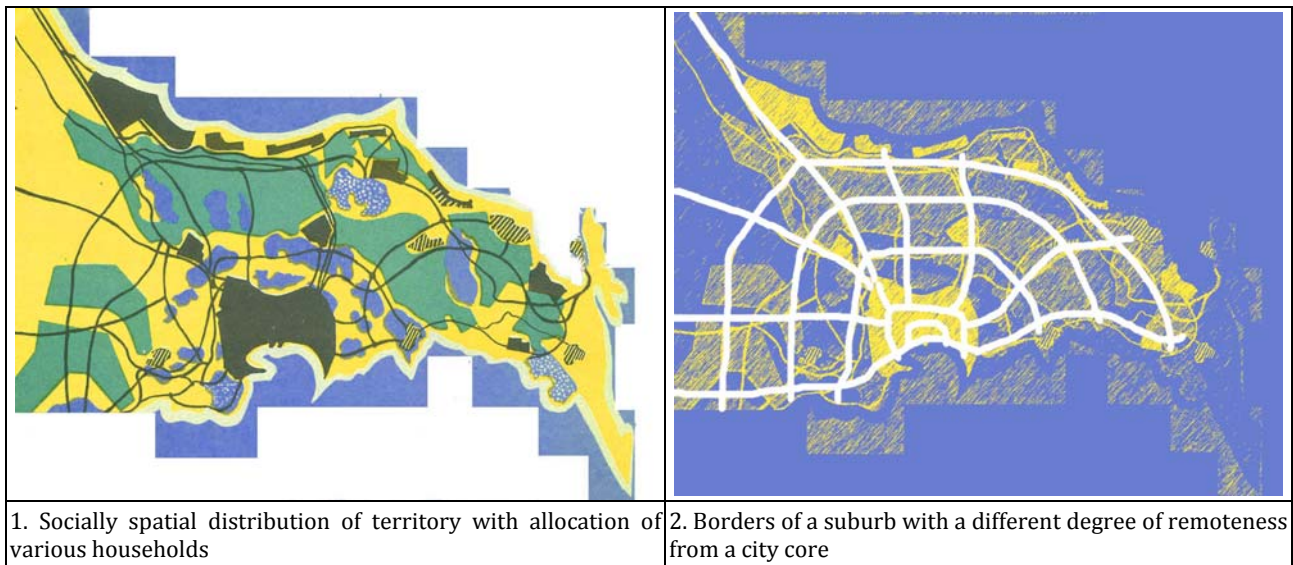
**Figure 2.** Territory of the Big Baku Researched on Conditions of the SC and QoL Study.

together with statistical information. First stage was to provide density and land values data. Identification of location of neighborhood units was determined by existing legally defined borders as determined by the local municipalities. The research not only acknowledges that each neighborhood is unique in character, but also recognizes that there will be some similarities. Neighborhoods were chosen which were representative of the whole of the city (see Figure 2).

Neighborhood is generally defined spatially as a specific geographic area and functionally as a set of social networks. Neighborhoods, then, are the spatial units in which face-to-face social interactions occur—the personal settings and situations where residents seek to realize common values, socialize youth, and maintain effective social control (Schuck and Rosenbuan 2006). In the words of the urban scholar Lewis Mumford (1954), “Neighborhoods, in some primitive, inchoate fashion exist wherever human beings congregate, in permanent family dwellings; and many of the functions of the city tend to be distributed naturally—that is, without any

theoretical preoccupation or political direction—into neighborhoods”. Most of the earliest cities around the world as excavated by archaeologists have evidence for the presence of social neighborhoods (Spence 1992). Historical documents shed light on neighborhood life in numerous historical reindustrialize or non-western cities (Dumbarton and Stone 1987).

In identifying the appropriate neighborhoods, a formula of density and land value was implemented. The density of an area was calculated on the size of population and residential neighborhood areas by using the geographic information system (GIS) in terms of population and ascertaining numbers of houses in neighborhood. Initially, a total of 270 neighborhoods were identified and divided into four sub-categories. The sub-categories were analyzed by the number of housing units and the number of buildings containing housing units. Within each category 100 points were identified totaling 300 points each given an identification number. The 300 identified points were then ready to be auctioned in



**Figure 3.** The Territory of Baku Illustrates Distribution of Inhabited and Households for Research of SC and QoL of the Population.

the launching of two pieces of research: the physical survey and the QoL survey. The physical survey utilized the whole 300 points as the QoL survey used 128 points. Figure 3 illustrates the distribution of the SC and QoL sample. At least 25 households were identified for each point (residential building).

From the 20 households four were then chosen by administering the formula. Questionnaire forms, work booklets, and location maps were produced and submitted for scrutiny prior to implementation. Tables provide a method by which each eligible person in a household has an equal probability of selection into the survey sample. The procedure of selection is effective in translating a sample of households into a sample of the adult population.

Fully experienced interviewers were employed and given detailed sampling instructions in order to insure correct understanding and execution of the different procedures to follow prior to visiting selected households, for example, public services, transport, schools, parks, shopping entertainment centers and neighboring.

## RESULTS OF THE COMPLEX ANALYSIS OF SC AND QOL IN BAKU CITY

Conceptually, urban life implies the “places” where people carry out their daily lives, most of which occur within the residential environment. In Baku area study, the residential environment was considered at three levels: the individual home or dwelling, the micro-neighborhood within which the dwelling was located, and the macro-neighborhood (Huseynov 2011).

Consideration was also given to attributes of each of these place domains. For instance, questions about environmental attributes (traffic, noise, upkeep), social attributes (family, friends, safety), and public service attributes (police protection, schools, parks, transportation) were asked about the respondents, micro-neighborhoods. At the macro-neighborhood level, consideration was given to shopping, accessibility and transportation, and recreation, while people’s assessments of housing costs, space, and size of property were considered for the individual

**Table 1.** Community Mean Satisfaction Scores for Baku Residents (Dwelling, Neighborhood)

Domain	Big Baku	Baku Core	Suburb
House/dwelling	5.15	5.22	5.12
Micro-neighborhood	4.71	4.60	5.06
Macro-neighborhood	4.63	4.57	4.77
Number of respondents	410	240	170

dwelling. At each level, respondents were asked to evaluate several attributes and then give a summary satisfaction score to a single question. Using the same 7-point response categories, they were asked to express their overall satisfaction with their dwelling, their micro-neighborhood, and their macro-neighborhood. Table 1 presents overall satisfaction scores for housing, micro-neighborhood and macro-neighborhood for the entire sample, for Baku residents.

In order to measure overall neighborhood quality and consumption, a combination of questions such as how you were satisfied with your neighborhood as an attractive place, a nice place to leave, and a nice place raising children were used and results from asking respondents were “on a scale of 1-7”, where 1 was completely dissatisfied and 7 was completely satisfied. The data then merged to create a Macro-neighborhood Quality Index (see Figure 4). This index was subsequently used in modeling determinants of macro-neighborhood satisfaction. The average value was 4.4 out of 7 where 7 represented the most satisfactory situation.

In assessing micro-neighborhood attributes as defined as respondents immediate surroundings that are visible from the vicinity of their home, issues related to physical environment, such as high levels of noise, overcrowding and heavy traffic were considered. Respondents were read a list of problems that existed in some neighborhoods in Baku and asked to indicate whether they thought that they had “a big problem in this neighborhood, somewhat of a problem,

or not a problem at all”. In terms of the most pressing physical neighborhood problems, concerns over car vandalism and theft were the highest with 52% of all respondents feeling that this was a problem.

The second most pressing physical neighborhood issue was that of poorly kept outside areas. The third main cause of concern for the physical environment was that of bad smell from the garbage. Collectively, over 38% of respondents expressed some concerns about smells from garbage. When respondents were asked about the levels of day care in their neighborhood, 55% of all respondents felt that there was not enough day care for children. In terms of the levels of noise in their neighborhood, 40% of all respondents felt that noise was a problem. Responses were combined into the Micro-neighborhood Stress Index.

Among other possible determinants of neighborhood satisfaction, there were various social attributes including perceptions of neighborhood safety, the social cohesiveness of the neighborhood, and neighborhood attachments or social networks.

In terms of assessment of feeling safe in the immediate surroundings of neighborhood, 44% of respondents expressed some concerns in relation to safety in the immediate neighborhoods. Clearly quality of neighborhood played a key role in determining overall feelings of safety and threats from vandalism. Perceptions of personal safety in the evenings showed that overall 62% of respondents felt unsafe at night and 40% felt their neighborhoods “very unsafe” for women to be out alone at night. In



**Figure 4.** The Baku Suburbs Differentiated on Residential Areas by a Principle of the Neighborhood (Micro-neighborhood Quality Index).

total, 65% of respondents had concerns about neighborhood safety for women at night. Women's perception about their own safety at night in their neighborhood was 5% higher than that of their male counterparts. Taking all factors, respondents were then asked, "on a scale of 1-7" where 1 was completely dissatisfied and 7 was completely satisfied, how satisfied you were with your personal safety in this neighborhood. The average value among Baku residents was 4.1 out of 7 where 7 represented the most satisfied situation. Social cohesiveness was measured in terms of perceptions of neighbors as similar or dissimilar to respondents, the friendliness of neighbors, and their feelings about sense of community. Baku residents were likely to describe neighbors as similar to themselves (30.0% versus 35.9%) and as friendly (44.5% versus 14.1%) and likely to feel a strong sense of community (51% versus 20%).

Finally, social networks within the neighborhood were measured by asking about the number of nearby friends and families and attributes of neighboring. Responses were combined into Neighboring Index.

Attributes of neighboring included the number of neighbors known by name, the frequency of visiting and exchanging favors with neighbors. Residents tended to have more family living nearby. The average value was 3.1 out of 5 where 5 represented the highest neighboring score.

The number of nearby friends provided an objective indicator of social ties and the presence of relatives gave a sense of the intergenerational character of a neighborhood and the existence of extended families. These issues were examined separately and in combination through the creation of Attachment Index. Respondents who had many friends and family in the neighborhood were considered as having strong attachments whereas those with few or no family and friends had weak attachments.

Feelings about overall sense of community were measured through a single question of "There is a strong sense of community in this neighborhood". This is a good indicator of neighborhood social cohesion. In total, 52% agreed that there was a good sense of community whereas 25% disagreed. These

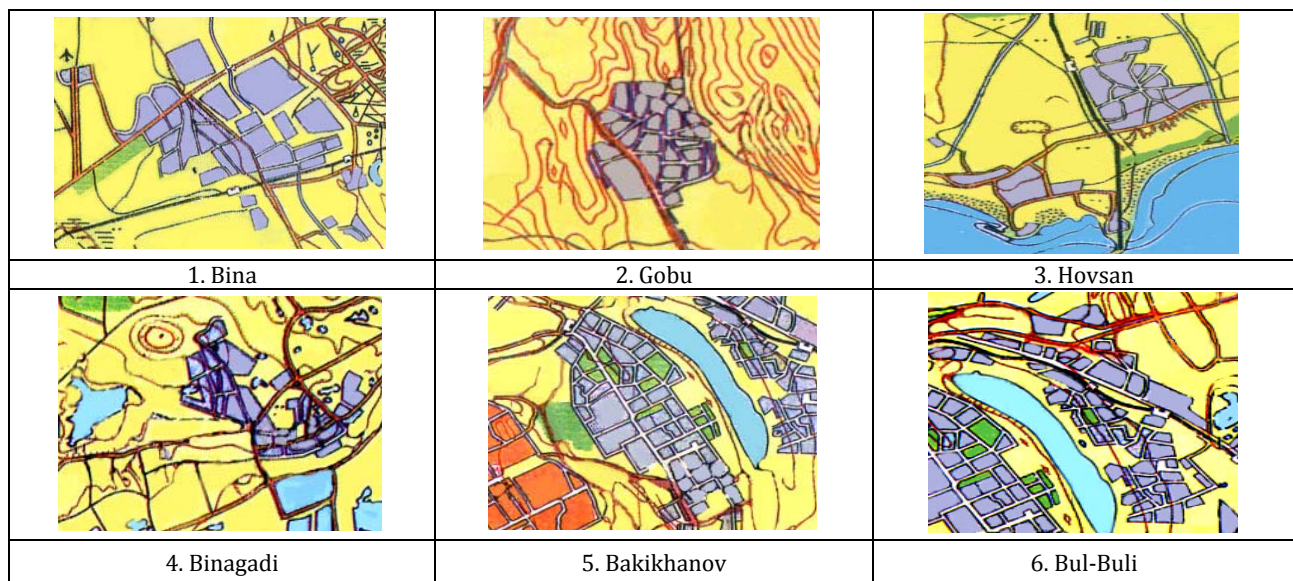
results coupled with reasonable responses to neighborhood belonging bode well for realizing potential for future neighborhood engagement. However, it is important to provide a framework of engagement conducive to community participation and involvement. Two important indicators of neighborhood cohesiveness that influence how people feel about their immediate neighborhood where they live are connections with neighbors and commonality with one another.

Commonality and friendliness are useful building blocks for future neighborhood development. The extent to which a community “engages” in neighborhood affairs is not only based on people’s willingness to participate, but also regulated by the existing channels of engagement offered. If channels of engagement are too formal, for example, they can be foreboding environments where people avoid going for fear of not belonging and not understanding the “language” and etiquette of the formal meeting environment (Huseynov, Alekperly, and Aliyev 2011). In addition, if previous experiences in neighborhood participation have been negative, manifestations of mistrust in the existing channels of engagement might be in existence reinforcing neighborhood disengagement (Kahneman and Deaton 2010). It could also be possible that people are happy with their environment and don’t feel the need to become involved in neighborhood politics. However, most neighborhoods come with their share of neighborhood problems.

Respondents were presented with a number of vehicles that could be employed in addressing problems in their communities and neighborhoods and asked: “During the last year, have you or any of your family taken part in any of the following activities?”. Overall there has been relatively little formal engagement. The most common activity was that of attending a meeting of a neighborhood association or block club with 35% of respondents confirming attendance. Attendance of a meeting of a local

government board or commission was very low at 5% whilst attending a meeting at the Humanlike was the least with only 3% saying that they or a family member had attended a meeting over the past year. Overall response was very low indicating little interaction with the local government offices. The most common indicators were then merged to create a Participation Index in order to measure the overall levels of community involvement. Respondents who answered all questions positively were designated as activists. Conversely, those responding negatively to all four questions were categorized as disengaged. The higher index score is, the greater the level of engagement is. Overall 52% of respondents were disengaged. As a way of examining prospects about the future of the region, two sets of questions were asked: one dealt with moving intentions and the other dealt with people’s expectations about the QoL in Baku in 10 years. With respect to moving intentions, only 26% of the people wanted to move from their current residence and 30% said they would “definitely move” or “probably move” within the next two years. Most of them would like to move either at the same area (35%) or another neighborhood in Baku (55%). Only a small proportion of residents (7%) would like to move elsewhere in Azerbaijan. The city of Baku has been continued in the suburbs to attract the people (see Figure 5).

On average, survey respondents were more optimistic than pessimistic about the region’s future. Those who thought that the QoL in the city would improve in the coming decade were 54%. Nonetheless, about 25% believed that the QoL would deteriorate over the decade while 20% said that there would be no change in regional QoL. Residents were the more hopeful optimists for the neighborhood, those who thought that the QoL in neighborhood would improve in the coming decade were 59%. The question-related desirable environment which was asked respondent was reported that they would move from their dwelling in next two years. Respondents who prefer



**Figure 5.** Settlements in a Residential Suburb of Baku City Researched From the Point of View of SC and QoL.

to live in the environment which has effective public transportation, availability of shopping facilities, parks, schools in 10-15 minutes' walk distance, accessible to other places in 20 minutes by car, 4-5 stories' apartment blocks, and relatively less urban open spaces are 40.4%; respondents who prefer the environment which has dependency to car, weak public transportation, accessible to other places in 30 minutes by car, single family houses with gardens are 35.5%; and respondents who prefer to live the environment which has dependency to car, weak public transportation, availability of shopping facilities, parks, schools in 10-15 minutes walk distance, accessible to other places in 30 minutes by car, high rise apartment blocks and lots of urban green areas are 12.0%.

## CONCLUSIONS

This paper has presented an overview of a study designed to provide systematic data covering planning the quality of urban life and the sustainable

consumption for residents of Baku. The primary source of information was a household survey. The study was intended to inform policy makers and planners on conditions in the region at the beginning of the 21st century and establish a benchmark for measuring social and environmental changes that were expected to occur in the decades to come. At the same time, it aimed at improving our understanding of relationships between perceptions, evaluations, and behaviors and the urban conditions to which people were responding. Research into neighborhoods and neighboring through the SC and QoL research provided a unique opportunity to measure community and neighborhood satisfaction through evidence-based research to "make the difference" to people's QoL by informing future neighborhood and regeneration policy in Baku and encouraging framework conducive to citizen involvement. The research on the residential environment foresees that the sustainable consumption and the quality of the residential environment and housing are among the basic indicators of the QoL in any community. Residential environment not only



provides for shelter but also is responsible of healthy family life, care of children and personal fulfillment. Therefore it is important for the Strategic Plan of Baku to analyze the existing problems of the residential areas in the metropolitan area of Baku. Therefore the information collated in this research could be helpful to determine developed strategies for urban regeneration in Baku. First of all, measuring SC and QoL could help to determine most critical neighborhoods as a result of their physical and social conditions. While developing policies, decision-makers should consider the need for the revitalization of critical neighborhoods in terms of improving social, recreational, educational and infrastructural services. In general, Baku Core side of the city was found to be less satisfactory in terms of resident evaluation. According to the results of the survey, unplanned areas located between Baku Core and Suburb were evaluated negatively by the residents. Since community engagement level is considered as low level in general, there is a need to study community engagement to raise the community participation in Baku. This approach has special importance for the regeneration process.

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## Bios

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