

**EVALUATION OF SOCIAL MULTI-FAMILY APARTMENTS-CASE
STUDY, KOSOVO**



Mimoza Sylejmani

*A research project submitted to the Department of Breuer Marcell Doctoral
School of Architecture in partial fulfillment of the requirements for the award of
the degree of PhD in Architectural Engineering programme of UNIVERSITY
OF PÉCS - Pollack Mihaly Faculty of Engineering and Information Technology*

Supervisor

Dr. Gabriella Medvegy

Declaration

This thesis is my original work and has not been presented for a degree in any other University

.....,

Signature

.....,

Date

This thesis has been submitted for examination with my approval as University Supervisor

.....,

Signature

.....,

Date

ABSTRACT

Governments across the world are making efforts to provide adequate and affordable housing for their citizens. The Government of the Republic of Kosovo is joining these efforts through a bidding invitation to build social housing, thus giving the opportunity to various companies to build them.

The need for the construction of social housing buildings in our country is quite large, given the high unemployment rate and the large number of people living in miserable conditions eighteen years after the end of the war. The housing problem in Kosovo is quite large and complicated, and this problem lies not only in quantity but also in quality.

The study describes a brief history of multi-family apartments in Kosovo, the changes that have occurred over time, both in the functional aspect and square meters (m²). However, the main focus remains the evaluation of social housing schemes performance.

The objective of this study is to examine the quality of social housing units provided by the Government of the Republic of Kosovo and evaluate them from their functional point of view. Furthermore, it aims to evaluate their physical characteristics and the neighborhood in which they are built and to examine the socio-economic characteristics of inhabitants, as well as to ascertain the factors that affect the satisfaction of the residents. In other words, it aims to evaluate the performance of social housing construction in the Republic of Kosovo, and to ascertain whether they fulfill the Government's goals as well as the needs of the users.

The study has provided primary and secondary data. Quantitative data is provided through the administration of housing units questionnaires based on the social housing sample distributed throughout the Republic of Kosovo initiated by the Government.

The study proves that the majority of the residents are not satisfied with the size of housing units. They do not meet the needs of the residents who live there. This has been proven by analysis that are made in terms of square meters (m²), and the number of rooms in relation to the number of household members. A large number of household members characterize Kosovo, and this fact is even more pronounced in low-income families. The infrastructure where social multi-family apartments are located is below every level. The Residents feel discriminated from the rest of the population.

It is recommended that the Government should pay attention to the provision of public housing for social cases in order to increase residential satisfaction, to build larger and more diverse housing units with flexibility possibilities, so that in case of change of family structure, they have the opportunity to adapt depending on the need, thus providing livelihood for all generations. Proposal options on the expansion of housing units for existing multi-family apartments have been provided, and suggestions have been made about future policies in the area of social housing.

Key words; post occupancy evaluation, social housing, dwelling unit features, neighborhood facilities, residential satisfaction, Republic of Kosovo

Table of Contents

CHAPTER ONE	11
INTRODUCTION	11
1.1 Background of the study	11
1.2 Statement of the problem	13
1.3 Aim of the study	14
1.4 Objectives of the study	15
1.5 Justification	15
1.6 Scope of the study	16
1.7 Definition of terms	16
1.8 Summary	16
CHAPTER TWO	17
THE CONTEXT OF STUDY	17
2.1 Introduction	17
2.2 Basic Information on the study area	17
2.2.1 Location and Size of Republic of Kosovo	17
2.2.2 Climate	18
2.2.3 Demographic	19
2.2.4 Socio-economic Characteristics of Kosovo	20
2.3 Housing challenges	20
2.4 Division of housing in Kosovo	22
2.5 Housing policies	23
2.6 Social housing program	25
2.7 Experience from different states	27

2.8 Summary	27
CHAPTER THREE	29
LITERATURE REVIEW	29
3.1 Introduction	29
3.2 Housing in general	29
3.3 Multi-family apartments in Kosovo	30
3.4 Evaluation of Public Housing	34
3.5 The history of Post-Occupancy Evaluation	35
3.5.1 Post-Occupancy Evaluation	36
3.5.2 Post-Occupancy Evaluation methods	37
3.5.3 Building evaluation methods	37
3.5.4 Method for data collection	37
3.6 Studies related Housing Satisfaction	38
3.7 Living Spaces	39
3.8 Design Quality	41
3.9 The Theoretical and Conceptual Framework	43
3.9.1 Theoretical Framework:	43
3.9.2 The Conceptual Framework of the Study	44
3.10 Summary	46
CHAPTER FOUR	48
RESEARCH METHODOLOGY	48
4.1 Introduction	48
4.2 Research zone	48
4.3 Resarch Design and Data Collections	49
4.4 Sample selection	50

4.5 Sampling Techniques	51
4.6 Sample Size of the multi-family apartments	51
4.7 Design of the questionnaire	52
4.8 Testing the questionnaire	53
4.9 Data Treatment	54
4.10 Form of Data Processing	55
4.11 Administration of the Questionnaire	55
4.12 Questionnaire	55
4.13 Observation Period	56
4.14 Summary	56
CHAPTER FIVE	57
CHARACTERISTICS OF RESIDENTS AND RESIDENTIAL SATISFACTION	57
5.1 Introduction	57
5.2 Socio-economic information of residents	57
5.3 Residential satisfaction	61
5.4 Observations of Housing units and Housing complex	66
5.4.1 Housing Units	66
5.4.2 Housing Complex	67
5.5 Summary	67
CHAPTER SIX	68
RENEWAL OF MULTI-FAMILY APARTMENTS – TRANSFORMATION OF LIVING SPACES	68
6.1 Introduction	68
6.2 The process for architectural design	68
6.3 Flexibility in multi -family apartments	70

6.3.1 Family structure and living space	70
6.4 Living Spaces in Social Housing	71
6.5 Renewal concept of the Multi-family apartments	74
6.6 The new identity of Multi-family apartments	75
6.6.1 The concept of expanding living spaces	75
6.6.2 How can it be suitable for all?	76
6.7 Summary	78
CHAPTER SEVEN	79
SUMMARY, FINDINGS, CONCLUSIONS AND RECOMANDATIONS	79
7.1 Introduction	79
7.2 Summary of the study	79
7.3 The main findings	80
7.4 Conclusions	81
7.5 Research constraints	83
7.6 Recommendations for Ministry of Environment and Spatial Planning and Ministry of Labor and Social Welfare	83
7.6.1 Proposal for future policies	83
7.7 Recommendations for next research	85
Bibliography	86

APPENDICES

Appendix 1; Questionaire

Appendix 2; Observation Period

LIST OF TABLES

<i>Table 2. 1</i> Multi-family apartments initiated by Ministry of Environment and Spatial Planning and Ministry of Labour and Social Welfare in Republic of Kosovo	26
<i>Table 3. 1</i> The degree of poverty in Kosovo compared to the region.....	32
<i>Table 4. 1</i> Sample Frame of the Housing Units.....	51
<i>Table 4. 2</i> Number of Housing Units and number of Questionnaire received	52
<i>Table 5. 1</i> Satisfaction with housing units attribute-Part 1,2	62
<i>Table 5. 2</i> Satisfaction with neighborhood characteristics	63
<i>Table 5. 3</i> Satisfaction with location of residential building	64
<i>Table 5. 4</i> Satisfaction with services and infrastructure.....	65
<i>Table 5. 5</i> Satisfaction with management of housing estate	65
<i>Table 5. 6</i> Satisfaction with distribution procedure	66
<i>Table 6. 1</i> Number of population and household censuses 1948-2011	71

LIST OF FIGURES

<i>Figure 2. 1</i> Map of Republic of Kosovo	18
<i>Figure 2. 2</i> Beneficiaries of the social housing units based on the monthly income	24
<i>Figure 3. 1</i> Development of the concept of multi-family apartments before 1999	32
<i>Figure 3. 2</i> Development of the concept of multi-family apartments after 1999.....	33
<i>Figure 3. 3</i> The diagrams of the floor area; a)one-room; b)two-rooms and c)three-rooms.....	33
<i>Figure 3. 4</i> The balance of factors which make up design quality in new housing	42
<i>Figure 3. 5</i> A key point about Design Quality	43
<i>Figure 3. 6</i> The Conceptual Framework of the study	46
<i>Figure 4. 1</i> The Location of social multi-family apartments	49
<i>Figure 5. 1</i> Age of respondents	57
<i>Figure 5. 2</i> Average monthly income	58
<i>Figure 5. 3</i> The average number of family member	59
<i>Figure 5. 4</i> Gender of respondents expressed in percentages	59
<i>Figure 5. 5</i> Marital status of respondents.....	60
<i>Figure 5. 6</i> Residence time of respondents	60
<i>Figure 5. 7</i> Employment sector of respondents.....	61
<i>Figure 5. 8</i> The satisfaction level of respondents in relation to the number of rooms	61
<i>Figure 6. 1</i> The design process seen as an interaction among problem and solution.....	69
<i>Figure 6. 2</i> The first floor.....	72
<i>Figure 6. 3</i> The characteristic floor	72
<i>Figure 6. 4</i> The average number of members for; studio apartments, one room apartment and two rooms apartment.....	73
<i>Figure 6. 5</i> Typologies of housing units	73

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Housing is an integral part of human being, it fulfills its basic needs and it has a great impact on the quality of life, on health, on wellbeing as well as on the productivity of human. The housing has always been considered as one of the most important elements for the human.

Inadequate housing conditions have become a difficult challenge that is continuing to put the attention of governments and individuals in many developing countries.

The problem of housing in Kosovo is rather huge, concerning both the quantity and the quality of the housing units. The housing and housing policies represents the main challenges for political, economic and social development of a country. Therefore, one of the main and most important issues would be the establishment of mechanisms, which would offer appropriate solution for housing, especially for social cases and the people with low incomes. It is very important to propose appropriate improvement measures to tackle the difficult housing situation in Kosovo.

The development of the housing should not only aim the creation of a structure where one would live, but rather it should include among others, different aspects such are the offering of various services as schools, preschool institutions and trade services.

The Government of Republic of Kosovo has developed a plan to construct social housing units with the aim of preventing that poor people and the ones with the low incomes live in difficult conditions.

The idea of constructing social housing units is suitable for the people with low incomes. However, constructing of the housing units is just the beginning. After a period of use of the housing units, it is preferable to evaluate them, to see if they really meet the needs of the residents, based on the minimum acceptable standards. The size of housing unit as well as the location where the building is constructed, represent very important elements for a satisfactory life. The appropriate location would enable the inhabitants to access more easily the working place as well as other services in the city. Current and future prospects in the housing sector depend on how much are the users satisfied with the constructed building and this is based on the fact that many problems in the housing environment are as a result of the neglect of Post Occupancy Evaluation (POE) regarding the level of satisfaction of the inhabitants (OGUNDE Ayodeji Olubunmi, 2013, p. 4).

In In Federal Facility Council (2001), Preiser and Vischer (2005), Post Occupancy Evaluation is considered as a sub process of the Building Performance Evaluation (BPE), and this is determined as a act of evaluation of the construction in a more systematic manner after they are constructed and used for a certain time, in order to determine how those buildings meet the needs of the users (Wolfgang F.E. Preiser, Jacqueline C. Vischer, 2005, p. 8). Application of BPE Framework in wider scale at the housing buildings will not only improve the quality and the price of these buildings, but also of many other social needs. When the developers start new projects, the information that is obtained through Building Performance Evaluation will help them to avoid the mistakes that were done in the past. This way it is created a platform for the inhabitants on what do they like or dislike in their housing units. Therefore, the developers and the planners need the feedback from the inhabitants in order to ensure that they have constructed appropriate buildings and at the same time to avoid the repetition of previous mistakes. Based on this background, it is observed that the research has the aim of evaluation of social housing in order to determine that these buildings fulfill or not the basic concepts of of design and the needs of the users. None of the previous studies dealt with the perception of the inhabitants regarding the adequacy of housing provided in Republic of Kosovo.

1.2 Statement of the problem

Planning of the buildings should be paid special attention to. Architects, planners, consultants can come and go, however the users are the ones that will spend their entire lives in the creations of the planners. In developing countries such as Kosovo, the Government has constructed and plans to construct social housing units in order to prevent people with low incomes living in shacks. The Government of Kosovo hired various planning and construction companies through the tenders for construction of such buildings.

The aim of the Government is to secure suitable, affordable and sustainable housing for the citizens.

Barrett and Baldry (2003) emphasize that many organizations survey the users if the buildings meet their needs, given that the people who best understand the building are those who use them daily (Peter Barrett and David Baldry, 2003, p. 119). The data and the information from the evaluation can be used as a feedback for the planners during the design of new buildings. This indicates that there is an important link between planning, evaluation and feedback. Evaluation and feedback provide sufficient information that contribute in high performance of the construction. The information or the data on the building that were appropriately or not appropriately constructed help the planners in creation of long term strategic plans.

If the housing sector aims to improve the quality of residential buildings built to meet the needs of residents, it is very important to understand what residents think about the buildings. In this case, it would be very important to evaluate the satisfaction of the users with regard to the quality performance of the housing unit.

Given that the housing units are used for certain time, the projects should be evaluated in order to understand if they fulfill the needs of the users. It is very important to understand if:

1. Such housing units meet the minimum planning standards;
2. The quality of construction is within the limits of minimum standards, and
3. The level of satisfaction of the inhabitants after having used the housing units is at appropriate level.

The Government of Republic of Kosovo offers social housing units, however, unfortunately there is no evidence of a study regarding the measurement of the level of user satisfaction of these housing units, as well as studies that indicate if these housing units fulfill the needs of the users. Therefore, the survey aims to study the level of satisfaction of the inhabitants of the social housing units, the financial means of whom are limited or render impossible for them to choose what they would like or what they need, as well as to evaluate if they meet the minimum of standards criteria. This issue is not tackled in the textbooks of Kosovo, therefore this study aims to fill this gap. The Government needs a feedback from users of these housing units that the former provides.

The level of satisfaction of inhabitants can be used in order to evaluate the quality of the housing units, and the result can serve as a basis for the improvement of the quality of construction in the future. In order to achieve the aims and the objectives of this study, one has drafted the research questions as follows:

1. What are the objectives of the Government of Republic of Kosovo for creation of social housing?
2. What are the socio-economical characteristics of the inhabitants in the selected social housing units?
3. Are the inhabitants of social housing units satisfied with their housing units?
4. What are the factors that influence the level of satisfaction of inhabitants?
5. What are the current physical conditions of the housing units and of housing complex?
6. Do the housing units meet the needs of the users in terms of living area?
7. What is the most suitable manner to improve the conditions of housing units in the cases when they do not meet the needs of inhabitants?

1.3 Aim of the study

The main aim of this study is to perform the evaluation of the performance of social housing units which were initiated by the Government of Republic of Kosovo and offer functional solutions which are suitable in cases when they do not meet the needs of the users.

1.4 Objectives of the study

Specific objectives of this study are:

1. Examination of characteristics of the social housing units in the study area
2. Analysis of socio-economical characteristics of the inhabitants in the selected housing units;
3. Review of the level of satisfaction of the inhabitants with the housing and the life in selected social housing units in Republic of Kosovo;
4. In order to offer suggestions and recommendations to the Government of Republic of Kosovo, which would help in improving the conditions in terms of design quality and the level of satisfaction with the housing units.

1.5 Justification

In majority of the developing countries the issue of housing represents one of the biggest problems, where often that is followed with the social, spatial and health problems. Therefore, the measurement of the quality of the housing through evaluations that are conducted from time to time is a very important issue. The study emphasizes the importance of the occupants' satisfactions through evaluation of housing units in order to understand if the constructed buildings meet the needs of the inhabitants. This would help the planners and the Government to construct better buildings, as well as to improve the plans for the new buildings based on the needs of the users.

A survey of the evaluation in social housing units in Republic of Kosovo without a doubt is a very important endeavor. This study is especially important for the architects and other professionals involved in the offering of public housing, given that the study aims to secure empirical data that can provide important information which in turn can be used during preparation of these schemes, future projects of social housing as well as improving the existing ones by utilizing architectural thinking. In addition to the contribution in formulating the housing policies and the methods for evaluation of social housing schemes, this study is also important to overcome the shortcomings in the existing textbooks in the concept of sufficiency of the housing. The importance of the study rests on the fact that Program for Social Housing which is prepared by the Ministry of Environment and Spatial Planning stresses that in developing the housing policies it is very important that firstly one does the evaluation of the actual condition of the housing which is stipulated in Housing Law,

something that has not been done as of yet in Kosovo and a study like this one is important for the researchers and policymakers.

1.6 Scope of the study

The scope of the study is therefore limited to social housing units initiated by Government of Kosovo. The results that are obtained from the study reveal the shortcomings and advantages which can be taken into consideration during the construction of the social housing units in the future, they can also help in creating the plans that would suit the needs of the current and future users.

1.7 Definition of terms

In order to understand the terms used in this study, especially the terms that are used often, their meaning has been explained.

1.7.1 Housing unit

It is a space intended for the accommodation of a family. An apartment is considered a housing unit if it is separated from other areas of the building. This separation can be done through a front door or of internal door from a joint hallway.

1.7.2 Post Occupancy Evaluation

Is a process of evaluation of the buildings after they have been used for a certain period in order to understand if they meet the needs of users.

1.7.3 Social housing

It refers to the buildings that can be a property of the state and managed by the latter, or by the non-for profit organizations; their purpose is to offer affordable housing for the people in social assistance and with the low incomes.

1.7.4 Public housing- is a property that is managed by the Government.

1.8 Summary

This study has been justified based on the need to contribute in the state social housing policies, academic literature on housing adequacy and on the evaluation of housing units.

CHAPTER TWO

THE CONTEXT OF STUDY

2.1 Introduction

The aim of this chapter is to provide additional information about the field of study and the study zone. The chapter first provides a comprehensive description of the field of study in the Republic of Kosovo and secondly, it describes the housing policies in the Republic of Kosovo. Most of the information for this chapter is used from secondary data from different sources.

2.2 Basic Information on the study area

Research works, as the one presented here, are usually conducted within the context of a study zone, therefore this study has the Republic of Kosovo as its study zone. This part of the thesis provides relevant information on the geo-climatic, political, socio-economic and demographic aspects of the Republic of Kosovo. It strives to highlight the fundamental issues regarding housing policies, duties and responsibilities of the residential division in the study area, as well as the aims and objectives of the Government of the Republic of Kosovo with regard to the housing concerned.

2.2.1 Location and Size of Republic of Kosovo

Kosovo is located in southeastern Europe with its central position in the Balkan Peninsula. It borders with Albania, Serbia, Montenegro and Macedonia. The country has a total area of 10,907 km², where around 2.4 million inhabitants live (The Ministry of Environment and Spatial Planning, June 2010, p. 119). Kosovo is surrounded by high mountains, which does not insulate it from other countries. Important roadways pass through the country's territory that link it with the Central Europe and the Mediterranean Sea coast, thus providing an important strategic position in this part of Europe.

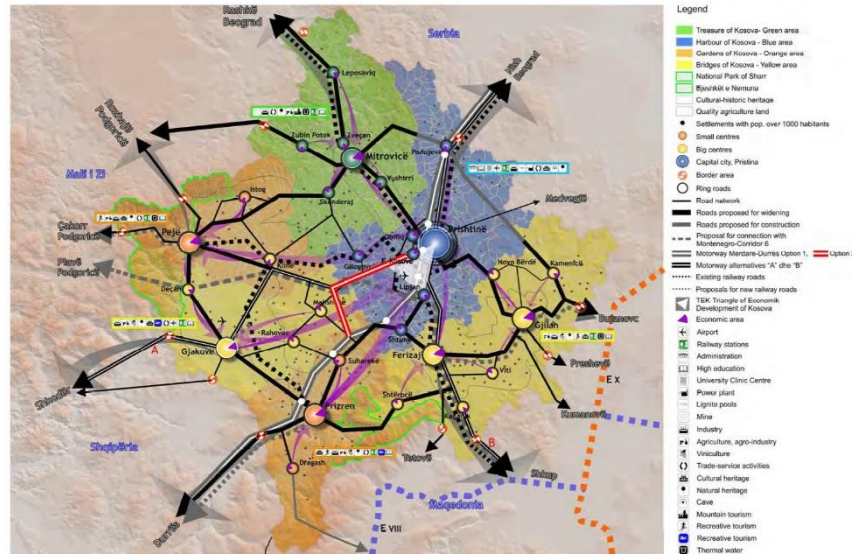


Figure 2. 1 Strategy Development Plan of Kosovo

Source; http://www.kryeministri-ks.net/repository/docs/Spatial_Plan_of_Kosova_2010-2020.pdf, accessed; 08.03.2017

The country is characterized with its large natural resources, which are an important element for economic development and which have made it known in the Balkan Peninsula and beyond. Despite its limited geographical scope, it is characterized by pronounced climatic changes. The main economic activity is agriculture, while the industry is in the transition phase.

Demographically, Kosovo is a compact space where 90% of the population are Albanians and the other 10% are Serbs, Montenegrins, Turks, Muslims, Roma, etc. Kosovo's population is very young, 42.5% of its population is under the age of 19. (The Ministry of Environment and Spatial Planning, June 2010, p. 20).

The capital of Kosovo is Prishtina; other big towns are Prizren, Mitrovica, Peja, Gjakova, Gjiilan und Ferizaj.

2.2.2 Climate

Kosovo's climate is characterized by warm summers and cold winters. The coldest months are December and January, while the warmest months are July and August.

Based on climatic conditions, Kosovo can be divided into three following climatic zones; 1) Kosovo climatic zone (Kosovo plain); 2) Dukagjini climatic zone (Dukagjini plain) and; 3) Climatic zone of the mountain forests and forests.

The Kosovo climatic zone is characterized with cold winters with average temperatures of over -10°C and warm summers with average temperatures of 20°C . This climatic zone is characterized with dry climate and annual rainfall. The Dukagjini climatic zone (Dukagjini plain) is characterized with average temperatures in winter, which range from -0.5°C deri -22.8°C . The winter is characterized with heavy snowfall. The climatic zone of the mountain forests and forests is characterized with mountain climate, heavy snowfall, short summers and cold winters (Independent Commission for Mines and Minerals). Hence, it can be concluded that Kosovo is characterized by variable temperatures.

2.2.3 Demographic

Population – Kosovo's population is estimated to be around 2.4 million, a number that is relatively large considering the total area of the country of only 10.907 km^2 . The population growth is 1.3%, which is the highest in the region.

Dendësia e popullsisë – With regard to the population density, Kosovo is ranked among the first in Europe with a density of about 220 b / km^2 (The Ministry of Environment and Spatial Planning, June 2010, p. 20). Cities are characterized with a greater number of population due to various economic, cultural, health and other activities. The lack of infrastructure in rural areas is one of the key factors that has led to the migration of large numbers of people from rural to urban areas, thus affecting aggressive urbanization and becoming one of the major challenges in Kosovo. The reason for the migration from villages to cities is the destruction of large numbers of homes in villages during the Kosovo war in 1998. As a result, many of these families from rural areas moved to Kosovo's cities.

Natural population growth – Regarding the natural growth of the population, Kosovo continues to be one of the countries with the highest population growth, not only in the region but also beyond. The natural population growth rate is around 16 ‰ per year. With regard to the gender of the population, 50.4 % are male and 49.6 % female (The Ministry of Environment and Spatial Planning, June 2010, p. 21)

2.2.4 Socio-economic Characteristics of Kosovo

Employment – It is estimated that the total number of employees in Kosovo is around 260.000. The level of unemployment is high. With around 49 % of unemployment, Kosovo is considered to have the highest unemployment rate in the region. The largest number of unemployment consists of women with 63% unemployment rate. The number of unemployment varies depending on the region. In some regions like, Mitrovica, Skenderaj and Malisheva the unemployment rate ranges from 55-60 % (The Ministry of Environment and Spatial Planning, June 2010, p. 24). After 1992, the unemployment rate in Kosovo increased at the highest level. During this time, most of the Albanian workers were expelled from their jobs.

Poverty, one of the biggest challenges – Despite numerous investments that have been made in Kosovo after the conflict, poverty remains one of the challenges of the country. Many states have provided the country with the aid for its reconstruction and development, thus creating also temporary jobs, which lasted depending on the value of the donations. Even though the period after 2000 is considered to have contributed to poverty reduction, still 37% of the population fall in the poverty line (with 1.42 Euro per adult per day) and 15.2% fall in the extreme poverty line (with only 0.93 Euro per day) (Kosovo statistic entity, 3 October, 2007, p. 13).

Just after the end of the conflict, the financial support of the diaspora for their families was huge, yet it failed to meet the needs of the residents. Low incomes are perceived with negative impacts on children, the elderly and people with disabilities, and the families with single mothers. Economic conditions often affect the termination of schooling for new generations. Unemployment remains a major social and economic problem for a relatively large number of Kosovan population.

2.3 Housing challenges

Based on the government Concept Document on Social Housing, the number of families living below residential norms and under social assistance in Kosovo is extremely high; hence, it is very important to review existing policies to verify deficiencies and to propose options for solving social problems.

Article 22 of the Constitution of Kosovo provides that the Government is responsible for the welfare of its citizens. Based on the report from the Department of Housing and Construction - Ministry of Environment and Spatial Planning, the situation of housing in the Republic of Kosovo is severe. Large number of housing units after the recent conflict were destroyed, there is a large number of social cases, the change of family structure is taking place and prices of real estate are high. Housing conditions do not meet the minimum standard for housing, where the main problems are the lack of sufficient housing space and the lack of maintenance of buildings. Other problems faced by residents are the lack of water and heat. For the families living with social assistance, it is impossible to provide shelter with their own forces. The Ministry of Environment and Spatial Planning is responsible for securing housing. Other state institutions are not directly involved in the provision of social housing. Within the Ministry of Labour and Social Welfare (MLSW), it is the department of construction for housing which deals with the implementation of housing buildings for which no rent is collected, while the land where these buildings are constructed belongs to the Municipality. As for the question of solving the housing problem in Kosovo, it differs from year to year, but the number of requests based on the data of Municipalities is around 3000 families (The Government of the Republic of Kosovo, The Ministry of Environment and Spatial Planning, p. 6). Opportunities for funding by the Government, Municipalities and Donors are very limited, so it is very important to find new forms of funding such as; creation of public-private partnerships, granting land concession of commune etc. which would help increase the subsidized rented housing units; establishment of NGOs that would deal with maintenance of these state-subsidized housing. Kosovo faces the lack of a residential database at central and local levels, so the new policy for sustainable and adequate housing is very difficult. There are no professional data regarding the issue of housing at central and local levels for all social categories. The number of social categories in Kosovo, as already mentioned above, is high; families living with social assistance, low-income families, war invalids, war veterans' families, Roma, Ashkali and Egyptian communities, returnees from other countries in the region and former political prisoners are particularly affected. Kosovo faces the lack of housing funds; consequently, the settlement of the housing problem for all social categories of the country is very difficult.

2.4 Division of housing in Kosovo

Housing Division of the Ministry of Environment and Spatial Planning develops housing policies and implementing policies, strategies, programs and projects, as well as conducting other activities that impact directly on the creation of conditions and mechanisms that provide adequate and sustainable housing for all citizens of Kosovo, applying the modern technical building regulations. The Division prepares and proposes strategies, programs and measures for improving the situation in the field of housing and participates in the implementation of international cooperation in the field of housing and adaptation of the legal framework with European Union standards. Duties and responsibilities of the housing division are as follows:

- Proposes, designs and ensures the implementation of policy / strategies documents in the field of housing;
- Proposes, designs and ensures the implementation of legislation in the field of housing;
- Manages and coordinates housing policies, through which is aimed to create conditions more suitable and sustainable for housing for all categories of citizens;
- It analyzes and assesses the state of housing in municipalities within tasks and responsibilities and ensures the implementation of development policies in the field of housing;
- Urges policy implementation mechanisms affordable for financing housing and coordinates their development with different stakeholders of public institutions, banking or donors, investors and various NGOs;
- Identifies, drafts and develops projects of priority and special importance for the country-housing sector;
- Develops sustainable policies for institutional and inter-institutional cooperation, local and international;
- Explores regional policies in terms of raising the level of development in the field of housing and identifying favorable financing ways for the renovation of the housing stock;
- Professionally supports municipalities in the fulfillment of responsibilities arising from the legislation in force in the housing field;
- Drafts and monitors the implementation of minimum standards for housing;
- Cooperates with relevant local and international stakeholders in the development in the housing field;

- It provides support for public and private institutions for investment and development projects of the housing in Kosovo (Ministry of Environment and Spatial Planning).

2.5 Housing policies

Given that housing is one of the fundamental issues for a just life, the Government of Kosovo should consider the housing issue as a priority policy, which should be a continuous process. The fundamental goal of housing policies are the creation of a sustainable strategy. Housing policies are concentrated in:

Development of Social Policies- it implies the development of a sustainable social housing program as well as the promotion of non-profitable rental housing

Development of Housing Financing Policies – it implies establishing a financial housing system that can support housing policies

Development of Management and Maintenance Policies – it implies taking actions to establish a sustainable system of maintenance of privatized residential buildings

Development of Rental Policies – it implies institutionally stimulating, promoting and providing housing to non-profit rental (Ministry of Environment and Spatial Planning, February 2004, p. 10).

Whilst, the strategic priorities based on the Spatial Development Report for the residential sector are:

In Social Aspect: the closing of collective shelters, the reduction of the number of people without shelter, the construction of social housing facilities, the orientation of the Government's assistance to families without shelters;

In Legal Aspect: Implementation of the Law on Housing and drafting bylaws, drafting of laws and bylaws related to the area of housing, based on European legislation;

In Institutional Aspect: Drafting of the Central Housing Report; Drafting of the Local Housing Report; Establishment of a network / functional sectors between the Central and Local level; Drafting the Municipal Housing Strategy and Programs, and aligning them with the Central Strategy and Programs; Training and professional development of staff, at the Central and Local level, for the development of projects in the field of housing.

IN Financial Aspect: Establishment of the Central Fund for Housing Financing; establishment of other mechanisms for housing finance; promotion and strengthening of the financial sector and residential lending.

In Development Aspect: Encouraging new constructions, encouraging the private sector to build residential buildings, paying special attention to low-cost residential buildings, restoring the existing housing fund, improving housing conditions and condominium facilities and promoting their maintenance, harmonization of housing development with Kosovo development plans, ongoing monitoring of the current situation and potential housing developments in Kosovo (Ministry of Environment and Spatial Planning, February 2004, pp. 11-12).

The Ministry of Environment and Spatial Planning, in the Draft Law on Social Housing has designated beneficiaries of social housing on the basis of income.



Figure 2. 2 Beneficiaries of the social housing units based on the monthly income

Source; Ministry of Environment and Spatial Planning, translated by author; 09.12.2017

2.6 Social housing program

The report of the Ministry of Environment and Spatial Planning-Department of Spatial Planning, Construction and Housing, emphasizes that the Social Housing Program was drafted in October 2002. The purpose of this program was the creation of conditions, which would enable the provision of sustainable housing units for inhabitants without resolved shelter issue, as well as their social integration into society with the help and support of municipal structures. The implementation of this program started with two pilot projects in the municipalities of Skenderaj and Decan during 2003/2004, a program that has continued to be implemented in other municipalities in Kosovo, such as Mitrovica, Skenderaj and Malisheva, during the years 2004/2005.

In the efforts to close the Plemetin Camp, three social housing units were built in the municipalities of Obiliq (Plemetina1) and Lipjan (Magure), while in 2006 the construction of two other social housing units began in municipalities of Gjakova and Gjilan and were finished in 2008.

It is worth mentioning that the same projects were implemented in many municipalities (Ministry of Environment and Spatial Planning, p. 9). For the development of Housing Policies, it is very important to evaluate the current housing situation, which is also provided in the Law on Housing. *Table 2.1* shows Multi-family apartments initiated by Ministry of Environment and Spatial Planning and Ministry of Labour and Social Welfare in Republic of Kosovo.

Table 2. 1 Multi-family apartments initiated by Ministry of Environment and Spatial Planning and Ministry of Labour and Social Welfare in Republic of Kosovo

Ministry of Environment and Spatial Planning MESP	Multi-family apartments MESP	Housing Units	Ministry of Labour and Social Welfare MLSW	Multi-family apartments MLSW	Housing Units
Skenderaj 2003-2004		26	Graçanice 2008-2009		20
Decan 2003-2004		17	Skenderaj 2008-2009		25
Malisheve 2004-2005		21	Drenas 2008-2009		25
Kline 2004-2005		20	Dobrotin 2008-2009		14
Mitrovice 2004-2005		21	Gjakove 2008-2010		25
Plemetin 1- 2005-2006		36	Kline 2009-2010		20
Magure 2005-2006		22	Gjilan 2009-2011		25
Gjakove 2006-2007		23	Kamenice 2011-2012		20
Gjilan 2006-2007		26	Vitia 2012		25
Total		212			199

Source; Ministry of Environment and Spatial Planning

Completed at the time of survey

2.7 Experience from different states

Other countries in the region that went through the similar experience as ours have developed similar mechanisms in approaching social housing. The concept document on Social Housing emphasizes that in countries of the region such as, Albania, Slovenia, Montenegro, Serbia and Bosnia, laws on social housing resolved the social housing issue. In Macedonia, the issue of social housing was addressed through laws on housing, in Croatia through Law on Social Care, while in other countries by a special law on social housing.

Depending on the needs of countries, social housing is developed in different ways by addressing different categories (for example, in Slovenia is a non-profitable rented housing approach with targeted categories of young families and the elderly, while Bosnia and Croatia have developed social housing for categories derived from the war without any specific law on social housing) (The Government of the Republic of Kosovo, The Ministry of Environment and Spatial Planning, p. 14).

The objective of the Government of the Republic of Kosovo in terms of social housing is the creation of a unique legal and institutional system. With the proposed policy the following is intended to be achieved:

- a) Increase of affordable housing supply;
- b) Approximation of European policies in the field of housing;
- c) Drafting of the National Housing Strategy for a period of ten (10) years;
- d) Boosting the private sector and non-governmental organizations responsible for construction, renovation and maintenance of social residence building and non-profitable rented apartments.

2.8 Summary

This chapter attempts to provide information, which the previous chapter did not have the opportunity to present. It describes the geographical position of the Republic of Kosovo in relation to other countries in the region, as well as its climatic, demographic and socio-economic characteristics of the country, the challenges faced by the country due to the lack of housing units, as a result of the lack of housing funds. The chapter describes the duties and responsibilities of the Housing Division, housing policies and strategic priorities of the housing sector.

The chapter also outlines the Social Housing Program, which was drafted in October 2002, the aims of this program, as well as the pilot projects with which the implementation of this program started. This program emphasizes that for the development of housing policies it is extremely important to evaluate the current housing situation, which is also provided by the Housing Law.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

The purpose of this chapter is to present and discuss the current situation related to this study. The chapter reviews the literature on public housing - particularly social housing, evaluation research and evaluation of subsidized buildings. The importance of this chapter lies in the fact that it helps to identify deficiencies in the existing literature that this study aims to eliminate. The chapter begins with a review of the literature that deals with evaluation research, to proceed further with the review of various study appendices in public buildings. Secondly, it reviews the literature on social housing evaluation with an emphasis on conceptual approaches to public housing evaluation with focus on Post Occupancy Evaluation-POE, evaluation studies and the quality of the of the housing.

The methods used in the Evaluation of social building schemes are also discussed based on literature review; the components that are applied in the Evaluation of subsidized housing units are also highlighted. Furthermore, the literature on housing and the quality of life in general has been revised. The chapter concludes with a summary of the main issues discussed and findings arising from the literature review.

3.2 Housing in general

Housing is one of the main issues affecting social stability, health and the quality of life in general. It is considered as one of the key issues for human beings. The motive and the reasons for long continuity should also be sought in the very nature of man and his need for socialization, psychic and economic stability, etc.

In most developed countries, housing is a social right of inhabitants. Collective housing has a long tradition and historically is as old as humankind, while multi-storey housing is associated with the creation of densely populated housing areas of urban character, technology development, and other factors that have influenced this type of housing.

During the second half of the twentieth century it was considered that the application of vertical construction is one of the most efficient and logical solutions. Designing residential blocks is one of the most interesting and attractive issues in contemporary architecture, which at the same time produces many other challenges regarding socio-economic and environmental aspects. The main purpose of the buildings is to provide residents with a safe, comfortable and healthy environment where they will be able to perform various activities ranging from work, study, free time and many other activities (Eziyi Offia Ibem; Akunnaya P. Opoko; A.B.Adeboye & Dolapo Amole, 2013). The destructions that occurred as a result of the war in Kosovo in 1998 as well as the great demand for housing in the post-war period resulted in large-scale construction and reconstruction of the cities, thus creating a densely multi-residential housing, followed by major functional and surface (m²) changes compared to those previously built. Liu Wen Tao points out that people in China consider it a privilege to live in large cities - symbol of being wealthy - and do not prefer to live in peripheral areas (Liu Wen Tao, April 2015). This suits with the mentality of our people and has resulted with overpopulation of large cities and construction of a large number of collective residential buildings, especially in the city of Prishtina.

3.3 Multi-family apartments in Kosovo

Because of the war in 1998 and poor housing policies before and after the war, the housing situation in Kosovo is rather severe.

Based on the Investing Sector, the construction of multi-family apartments, in many countries but in Kosovo as well, divides into two groups:

1. Public Sector (Multi-family public buildings-Social Housing) and
2. Private Sector (Multi-family private buildings).

In the post-war period in our country, the private sector dominates in the construction of multi-family apartments, while the public sector is synonymous with Social Housing.

Among the first types of consanguinity collective housing built in Kosovo are towers/stone houses -Kullat (Grozdan Knežević, 1989, pp. 16-18), which date back to the 18th and 19th century. The largest number of the said buildings were constructed in P + 2 etage, characterized with the division of functions in the vertical direction (Mimoza Sylejmani, Gabriella Medvegy, Lulzim

Beqiri, 2017, pp. 159-170). Whereas the development of multi-family apartments in Kosovo can be divided into two groups, those built during the period from 1947-1999 and those built from 1999 onwards to today. The period prior to 1999 is characterized by the construction of a large number of multi-family apartments with prefabricated systems. While after 1999 such facilities are built with a skeletal system, which has its advantages in terms of flexibility. However, there is no strong reason to stop the construction of prefabricated buildings when it is known that in static aspects, they meet all the criteria, and the durability of such structures turned out to be longer than expected. (Agnes BORSOS, 2014). In our country, very little attention has been paid to the construction materials that are used for the construction of buildings in general. On the other hand, building materials play an important role in the performance of the building on the environment (Milan PORHINCAK, Adriana ESTOKOVA, Silvia VILCEKOVA, 2011). Until 1990 the housing fund was intended to provide housing units for citizens who worked in state institutions and enterprises. This housing fund, respectively, construction, financing and exploitation of residential buildings was a joint contribution of socially owned enterprises as well as workers who were employed in these enterprises. To provide a housing unit for our citizens was not a huge problem. From 1990 until 1999, the then policies have implemented discriminatory laws regarding the field of housing in Kosovo. After the end of the 1999 war, in the Republic of Kosovo, because of the displacement of inhabitants from rural to urban areas, developments in the housing sector were uncontrolled. Thus, the Housing and Construction Department lacks detailed information that would help to create long-term plans for the development of both housing and construction areas.

After 1999, the development of the housing sector in Kosovo was further developed by the private sector, and this situation was followed with irregularities and lack of criteria. Providing adequate living space is one of the key challenges in our country. Housing demand rises to a very high degree, however it varies depending on the region. The number of new families in Kosovo is quite high. These new families do not have the possibility to provide housing units for themselves because of the high prices of apartments. Prices are considered as the highest in the region. The apartment price is one of the most important elements, which shows whether people can afford housing or not (Liu Wen Tao, April 2015). On the other hand, the unemployment rate is one of the biggest social and economic problems. Various sources estimate that the current unemployment rate is between 50-55%, where the largest number of unemployed consists of women (The Ministry

of Environment and Spatial Planning, June 2010, p. 113). *Table 3.1* shows The degree of poverty in Kosovo compared to the region.

Table 3. 1 The degree of poverty in Kosovo compared to the region

Source: Spatial Plan of Kosovo - The strategy of spatial development 2010-2020, translated by the author (The Ministry of Environment and Spatial Planning, June 2010, p. 111)

	Serbia and Montenegro	Macedonia	Bulgaria	Albania	Romania	Kosova
Scale	30%	24%	12,6%	30%	44,5%	50,3%

All this has affected housing units built after 1999 to be perceived with a range of changes, particularly in surface (m²) and functional terms.

I) *In the period before 1999* in housing units one defined clearly the calm area from the noisy part. The kitchen was divided from the living room and one observed no lack of utilities. The living surface of these buildings was in compliance with JUS standard, and the inhabitants of these housing units would obtain these flats from the companies where they were working for with a favorable price (*Figure 3.1*).

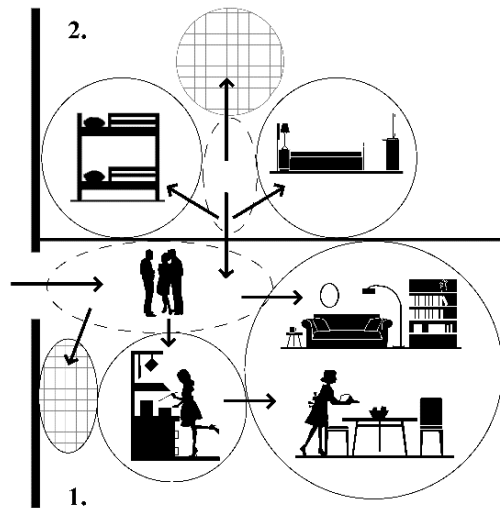


Figure 3. 1 Development of the concept of multi-family apartments before 1999

II) After 1999 in most cases there was no clear distinction between calm area and noisy one in multi-family apartments, the utility spaces are missing and the surface of the flats has significantly decreased in terms of available floor compared to the buildings that were constructed in earlier period (Mimoza Sylejmani, Medvegy Gabriella, April 2018). The citizens can barely deal with the prices of the flats which are now being built by the private sector (*Figure 3.2*).

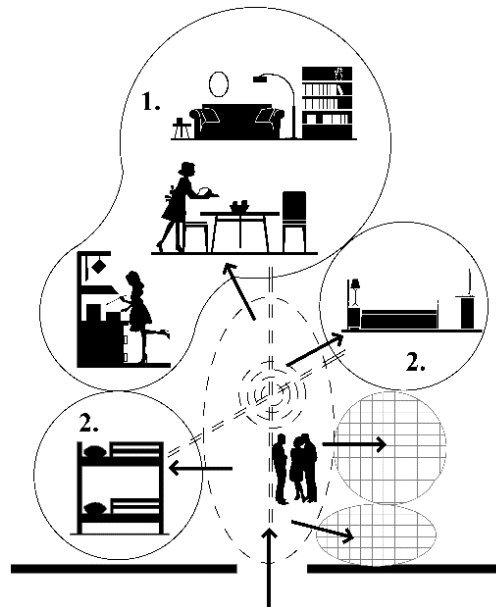


Figure 3. 2 Development of the concept of multi-family apartments after 1999

After every disaster, reconstruction usually brings reduction of the living spaces and commodity of inhabitants (Lulzim Beqiri, Zejnullah Rexhepi, Mimoza Sylejmani, 28-30 October 2016).

In the preliminary conducted research, we have noted that the usable areas of two and three room apartments have been reduced in the post-1999 period compared to those built, see (*Figure 3.3*)

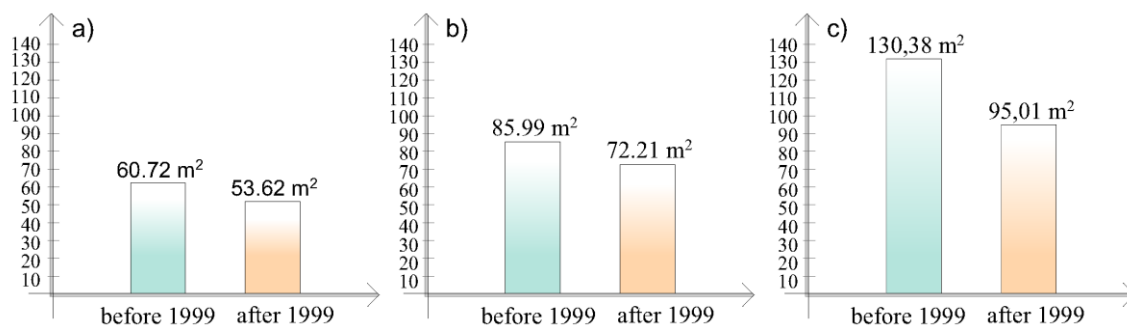


Figure 3. 3 The diagrams of the floor area; a)one-room; b)two-rooms and c)three-rooms

It is very important to make Post Occupancy Evaluation (POS). Post Occupancy Evaluation deals mainly with functional aspects, namely with the experiences and demands of people who make use of a certain building on daily basis (Theo JM van der Voordt, Herman BR van Wegen, 2005). Institutions in Kosovo responsible to regulate the housing sector are Housing Department of Ministry of Environment and Spatial Planning, Construction Department of Ministry of Trade and Industry for central level and Directorates for Urbanism for local municipality level.

3.4 Evaluation of Public Housing

The Evaluation of Public Housing is very important, because through Evaluation we can understand whether housing units fulfill the needs and demands of inhabitants, and in order to see whether they fulfill the minimal housing criteria. The Evaluation of Public Housing does not deal only with the housing unit, but also with other fields such as: physical conditions, location of the building, surrounding infrastructure, as well as many other aspects.

The Evaluation of Public Housing has been carried out in the UK, United States of America and many other countries, but there is not one document which shows that such Evaluation has been carried out in the Republic of Kosovo. The said Evaluations are carried out depending on the aim of the study and they include different areas.

Hanson et al (2004) (cited at IBEM 2011) identified architecture (design, material performance, quality), sociological aspect (residential satisfaction, impact in the neighborhood) and economic (cost efficiency) as Evaluation dimensions of public apartments (IBEM, Eziyi Offia, June 2011, p. 47). Evaluations of public housing have been carried out also in other areas such as: quality of air and lighting within housing units. Wong et.al. (2002) carried out the Evaluation of thermal commodity of public apartments naturally ventilated in Singapore, in order to understand whether the naturally ventilated inside space meets the criteria of acceptance (N.H.Wong, H Feriadi, P.Y Lim, K.W Tham, C Sekhar, K.W Cheong, 2002).

Furthermore, an inseparable part of these Evaluations were other aspects, such as: infrastructure outside housing units including parking space, pedestrian lanes as well as outer lighting of the neighborhood, distance of the housing unit in relation to various services, such as: schools, shopping malls, schools institutions, health centers etc.

In England, for example, four main areas have been analyzed as regards characteristics Evaluation of new developments, such as; sense of place and character, streets and parking, design and construction, environment and community (Stafford Pettersson Neath, 2005, p. 4).

IBEM (2011) highlights that the Evaluation of public housing in the dimension of policies can be used as criterion for assessing the performance of public housing policies in all the levels (IBEM, Eziyi Offia, June 2011, p. 50). He also carried out the Evaluation of public housing in Nigeria in the context of residential satisfaction of inhabitants relating to; Housing Services, Location of Facilities, Housing Unit Attributes, Socio-economic Environment and Estate Management. According to literature, it can be observed that studies pertaining to Public Housing are carried out in the form of Evaluation research.

Having in mind what was said above, this study is focused in the Evaluation of social-public apartments in housing units, location of the building, and other issues relating to housing.

3.5 The history of Post-Occupancy Evaluation

Buildings are designed and constructed to protect people from atmospheric conditions, such as; 1.rain, snow, wind, high temperature, 2. Create a space for people where commodity is to the right level (based on elements such as temperature, humidity, noise, light, quality of air, material) and 3. Ensure infrastructure – water, electric energy, waste management system, firefighters, all important elements to conduct activities in a safe environment. The beginnings of POE Evaluation after usage can be observed during the 1960's, only to advance further during 1970's and 1980's. The fast construction of housing units after the Second World War resulted in a huge quantity of residential space. The problems arising from the social and architectonic aspect led to the need of systemic Evaluation of buildings and physical environments (Wolfgang F.E. Preiser, Jacqueline C. Vischer, 2005, p. 8). Initially, POE's were focused on assessing housing units of persons (groups) on social assistance, in order to improve the quality of housing units subsidized by the Government. Further on, this method continues to be applied in assessing buildings such as; prisons, courts, hospitals, while during 1980's it is applied to administrative buildings, to continue then with all other buildings. The information obtained from POE's are used in planning and processes of designing new buildings in order to build on the success and avoid previous mistakes (Federal Facilities Council Technical Report No.145, 2001, p. 1).

POE is based on the fact that, an appropriate working or living space can be created by asking the users on their needs. POE has been applied in Britain, France, Canada, the United States of America and dealt with studying individual cases by focusing on accessible buildings for academic scholars, such as public housing and college dormitories. The information was obtained from inhabitants through questionnaires, interviews, field visits and observation. Through these studies, it could be observed what worked well and what should not be repeated in buildings to be constructed in the future. In the United States of America, the efforts of POE from the 1960's until mid-1980 were mainly focused in public buildings (Federal Facilities Council Technical Report No.145, 2001, p. 2).

3.5.1 Post-Occupancy Evaluation

According to (Vischer), Post-occupancy Evaluation is considered to be a sub-process of Evaluation of the performance of construction. POE is a process of systematic Evaluation of buildings after they have been constructed and used for a certain period of time. The ways of Evaluation are different, some types of Evaluations are carried out during design, construction and use of buildings, where these Evaluations are technical in nature and deal only with questions relating to construction materials and other engineering aspects such as testing of soil, performance checks of mechanical systems etc. It is worth mentioning that POE differs from technical Evaluations because it focuses on the needs of persons who use a certain building, including safety, functionality, commodity, aesthetics and satisfaction. The measurements used in POE have to do with measuring the preference of the building, such as: lighting, acoustics, sufficiency of space, spatial relations etc. In some cases, the results have been published and in others they have been used only for the needs of architects, clients or interested parties who have carried out the study. The findings of studies of POE mainly focus in the experience of users of buildings. Any preliminary intervention helps in avoiding mistakes which arise as a result of inadequate communication among professionals of construction in different phases (Wolfgang F.E. Preiser, Jacqueline C. Vischer, 2005, p. 8). According to Bordass and Leaman, Post-occupancy Evaluation aims to answer four questions, as follow; 'How does this building function?', 'Has it been thought out?', 'How can it be improved?' and 'How can future building be improved?' (Wolfgang F.E. Preiser, Jacqueline C. Vischer, 2005, p. 72).

3.5.2 Post-Occupancy Evaluation methods

Building users often complain that their working space or their housing unit where they live does not meet their needs. Buildings are designed by a group of professionals, but it often happens that issues which are important to users are overlooked by designers. In methods of Post Occupancy Evaluation, the focus is the satisfaction of the user.

Barret and Bardley highlight that POE is a formal Evaluation of the building by inhabitants after it has been completed, in order to identify areas which do not meet the demands of users. Nevertheless, regardless of its title, POE is also a useful tool when planning new buildings, since the data obtained during an Evaluation can be used during the process of design and construction of a new building (Peter Barrett and David Baldry, 2003, p. 120).

3.5.3 Building evaluation methods

There are different methods of Evaluation of buildings; nevertheless, they can be categorized in two groups; systems based in users and systems based in experts. The first system uses inhabitants when assessing buildings, in order to understand the suitability of buildings and it is known as Post-occupancy Evaluation, while the second method is based on the Evaluation of experts and it includes more areas (Peter Barrett and David Baldry, 2003, p. 120).

3.5.4 Method for data collection

Traditionally, Post-occupancy Evaluation is carried out using questionnaires, interviews, field visits and observation of the current state. The information obtained through POE may be used in the cases of construction of new buildings, in order to avoid repeating previous mistakes. POE may also serve as a mechanism to monitor the quality of a building, as well as inform decision-makers when the performance of a building does not meet an already approved standard (Federal Facilities Council Technical Report No.145, 2001, pp. 3-4).

In England, for example, during 2009 there were questionnaires carried out with inhabitants regarding Satisfaction with space in New Homes; What do inhabitants think. The pupose was to get an opinion from them regarding the sufficiency of spaces in their housing units, as well as how sufficient those spaces are for daily ctivities. The questions were different and dealt with;

sufficiency of spaces for guests, communication spaces in homes, whether the house has sufficient space for privacy, sufficient space for furniture, questions regarding space in the kitchen, as well as other questions aimed at measuring the level of satisfaction by using the Linkert scale with five points as; “Very dissatisfied”, “Dissatisfied”, “Neutral”, “Satisfied” and “Very Satisfied”.

Thus, CABE devised a summary report, ‘Space in new homes; What residents think’.

Their recommendations included a call for local authorities to;

- “1. Introduce or apply existing minimum space standards through their planning departments.*
- 2. Recognise that adequate space in the home has an effect on health, diversity and community cohesion and that insufficient space provision in the local housing stock will impact local services”* (Julia Park, January 2017).

3.6 Studies related Housing Satisfaction

The residential satisfaction is defined as a feeling of content, which is achieved when needs or desires of a person in a home have been fulfilled (Mohammad Abdul Mohit, Mansor Ibrahim, Yong Razidah Rashid, 2010).

Studies regarding satisfaction have been carried out by many scholars when they aimed at assessing the blueprints of certain housing units. People value the performance of a residence depending on their personal needs, but culture and the socio-economic standing plays a great influence here. While for someone quality residence would mean each family member having their own personal room and bathroom, for someone else this would be excess luxury. Inhabitants often compare their current housing unit with their previous one and this impacts their satisfaction with the housing unit. Very often, a housing unit, despite not meeting the demands of the inhabitants, they feel comfortable in them because they compare it to the previous one, which was uncomfortable, or the other way around. On the other hand, satisfaction with residence changes with time, and the factor to be highlighted here is the change in family structures, therefore it is very important that housing units include possible future fixtures – flexibility in housing units. The other factor which impacts the level of satisfaction is social heterogeneity. When satisfaction is high, this has a positive impact in the attitudes of inhabitants towards the community and the environment they live in. According to Ogunde, the psycho-social aspect has greater influence in the satisfaction with habitation than the physical conditions of housing units or infrastructure. Inhabitants display a high level of satisfaction when they have good relations with their neighbors

and when they are connected with their residential environment (OGUNDE Ayodeji Olubunmi, 2013, p. 47).

Salleh (2008) highlights that residential features such as; number of rooms, size, positioning of the kitchen and quality of housing units are closely connected to the level of satisfaction with residence. Satisfaction with the neighborhood has also been observed to be among the important factors as pertains to satisfaction with residence, which includes buildings such as schools, shopping malls, health centers etc. Therefore, careful planning of the site of the building is of great importance, and it is always preferable that the building not be at big distance to the above-mentioned services. A number of studies in developing countries have analyzed three main components as regards satisfaction with residence, as; housing units, facilities and services and neighborhood (Abdul Ghani Salleh, 2008). Furthermore, Hashim (2003) emphasizes that satisfaction with residence has a lot to do with satisfaction with the housing unit and the neighborhood (Hashim, Ahmad Hazira, 2003).

Research in Residential Satisfaction helps designers and builders create more appropriate housing units, by improving living conditions and increasing the residential satisfaction, especially for low-income groups and social cases, knowing this is the part of society that does not have the luxury of choosing their preferred residence due to economic conditions. While families of Serb community living with social assistance in the Republic of Kosovo were satisfied with living in apartment buildings, for the Roma community this was unbearable, and it was their wish to be moved to individual homes. Up until now, there have not been studies in Kosovo relating to residential satisfaction in Social Housing, nor any studies, which would provide functional appropriate solutions of housing units, and recommendations, which would be taken into account when drafting Policies of Social Housing. The research aims to fill the gaps currently existing in Social Housing in the Republic of Kosovo.

3.7 Living Spaces

Living space is among the most important factors greatly affecting the quality of life of people living there, including; health, education and many other social aspects. Residential space defines how comfortable will residents feel within a housing unit. Peoples' lifestyles and family structure change with time, which is why people would prefer more flexibility. Space is the key element

which enables greater flexibility in a housing unit. In small housing units, such flexibility is very limited. This is one of the greatest concerns for many residents, especially those with low income.

Small living spaces present one of the main problems as regards contemporary and modern Architecture. One of the factors which led to the appearance of minimal apartments is the current crisis of residence which has affected many countries, especially urban areas. Different statistics show that the number of small apartments throughout the last decade has increased significantly as a result of their lower cost and the high level of unemployment, which simultaneously led to people living in minimal residential spaces, living thus a life undignified for the residents, especially those with low income. The issue of minimal dwellings is a complex issue, which primarily concerns architects, but in order to understand its complexity, there needs to be correlation of architects and engineers, sociologists, economists, doctors, politicians.

In 1961, the Parker Morris Commission drafted a report regarding standards of residential space of public buildings in the United Kingdom, titled *Homes for Today and Tomorrow*, and concluded that the quality of social housing should be improved and gave a set of recommendations. As regards residential space, the standards were defined based on the dimensions of furniture and sufficient space to move.

Karel (1932) highlights that efforts to construct new affordable apartments for the poor have led to the diminishing residential spaces in apartments starting from 40 m² to 36 m², and ultimately even less than 20 m², while in searching for a new form of residence, avant-garde architecture has chosen minimal space and maximal liveability as a technical formula for minimal designs of apartments (Karel Teige, 1932, p. 33).

According to (Andoni, 2000) design standards of communist residential blocks in Albania were relatively low based on design norms of the time 4-6 m²/person of bedroom surface or 46.7 m²; 61.7 m²; 71.7 m² for usable floor area corresponding to apartment structures of one-bedroom, two-bedroom and three-bedroom apartments (Doris Andoni, 2000, p. 61). Based on these data, the average space per person is around 11.6 m² for a normal family with four people, which is less than the average of other Eastern-European countries of 17.5 m².

Based on minimal norms of areas of apartment spaces, in the Republic of Kosovo space for one-room apartment is 36 m², for two-room apartment 53 m², and three-room apartment 72 m²

(Ministry of Environment and Spatial Planning, 2016, p. 57). Regardless of the diminishing residential space, the opportunity to acquire an apartment for low and average income people remains difficult, not only in Kosovo but other countries as well, therefore one of the main challenges remains ensuring appropriate residence for people with minimal income.

3.8 Design Quality

Design quality is considered to be among key elements for a good standard of living. A quality design influences the establishment of a healthy society, but this does not end here, because design quality is a much more complex notion, which in itself contains a lot of questions to be addressed to architects, engineers and other planning professionals, who would impact the provision of quality residence based on the needs of inhabitants. The internal size of apartments is an important factor as regards Design Quality. For example, the governments of Great Britain and the Netherlands refer to quality design when discussing their proposals regarding new residences (Cousins, 2009, p. 1). Many architects and professionals of environment have concluded that UK should follow the example of the Netherlands, in order to learn from them as regards quality residence. Richard Rogers travelled to the Netherlands and was inspired by a Dutch quality residence; therefore, following good examples would be welcome for countries in which the issue of residence is among the greatest challenges.

Design quality is not a simple issue to determine, because it depends from many factors, such as; design teams, client, Government.

Matthew Carmona, the head of Planning at University College London, believes that Design Quality has to do with 17 principles which support the evolution of apartment design, including; legibility, homeliness and choice, Apartments must provide a high quality of housing for a long time, which implies creation of attractive living spaces, where people would like to live; therefore, quality of housing depends on individuals, housing providers and Government Authorities (Cousins, 2009, p. 5).

Figure 3.4 shows, the balance of factors which make up design quality in new housing.



Figure 3. 4 The balance of factors which make up design quality in new housing

Source; Design Quality in new Housing, Matthew Cousins, 2009 (Cousins, 2009, p. 157)

Marcus Vitruvius, a Roman architect and engineer, believed that a building must have three qualities: build quality, functionality and impact, and to this day, for many architects the Vitruvian categorization of Design Quality is one of the most important tools in the process of achieving good quality of new housing, where CABA (Commission for Architecture and the Built Environment) Housing Audit emphasizes that this can be promoted through 4 main aspects: 1) character, 2) roads, parking, pedestrianisation, 3) design and construction and 4) environment and community (Cousins, 2009, p. 6). Sunand Prasad believes that correlating factors of functionality, impact and build quality (Figure 3.5) must be inseparable in the project in order to achieve a good quality project, and that the combination of these factors leads to “added value” in achieving perfection and at the same time increases the average standard of residence (Sunand Prasad, 2004, p. 182).

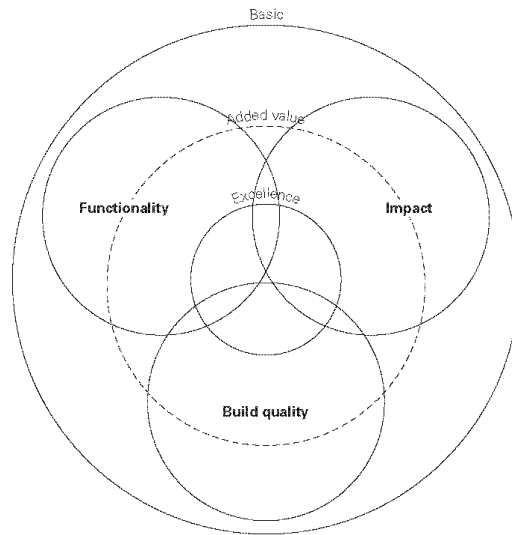


Figure 3. 5 A key point about Design Quality

Source; Sunand Prasad, *Measuring Quality and Value* (Sunand Prasad, 2004, p. 182)

The design quality of new housing units in the Netherlands has been assessed through surveys of satisfaction of inhabitants, which enables a more accurate determination of the quality of housing (Cousins, 2009, p. 157).

3.9 The Theoretical and Conceptual Framework

3.9.1 Theoretical Framework:

Based on literature review, we can observe that residence has to do with social aspects; therefore, inadequate conditions of residence are considered to be among the main social problems. Inhabitants may feel unsatisfied if their housing units and the neighborhood where their building is do not meet their needs. The improvement of conditions of housing, upon which this study is based, suggests that if one housing unit meets the norms (and design criteria), it is possible that the level of residential satisfaction of inhabitants living there increases. Therefore, the aim of the study was the Evaluation of quality of life throughout housing units selected for the study, and providing suggestions for improving residential units in cases when they do not meet the needs of inhabitants and the criteria for adequate housing.

Literature review has helped identify the main components which are important to use when assessing public housing, as well as reviewing assumptions as to how the provision of adequate housing affects the increase in quality of living.

According to Salleh (2008)(cited in Ogunde, 2013), “*theories on residential satisfaction are based on the notion that residential satisfaction is a measure of the difference between occupants’ actual and desired housing and neighbourhood situations whose judgements are based on their needs and aspirations*” (OGUNDE Ayodeji Olubunmi, 2013, p. 72).

There have been few, not to say no research in the Republic of Kosovo as regards the quality of social housing, and this makes for a significant gap in the literature of this country. The study enabled the provision of assumptions, which can affect the increase of quality of life of inhabitants in public-social housing units in the Republic of Kosovo.

3.9.2 The Conceptual Framework of the Study

The Conceptual Framework of this study has been devised based on the findings from literature review. The three main groups from literature, which enabled the Conceptual Framework, can be categorized as follows. The first part of literature review deals with Evaluation methods, importance of Evaluation and shows that the Evaluation of public buildings has been applied in many countries. The second part shows that there exists a correlation between quality of housing, housing environments and quality of living of inhabitants living in certain housing units. While the third part of literature reviews Design Quality.

While devising the Conceptual Framework of this research, the concept of POE was integrated, which is very important in assessing housing units, and public buildings in general. **Preiser** shows that three levels of effort may be part of POE, as well as three steps and nine phases included in the process of carrying out the POE.

-Indicative POEs provide information regarding the performance of a certain building,
-Investigative POEs delve deep, the result of which is understanding the causes and effects of problems in building performance.

-Diagnostic POEs deal with physical environmental measures and reactive subjective measures of inhabitants, resulting in new knowledge regarding the performance of the building.

The three phases of the POE model are; (1) planning, (2) carrying out and (3) application, where; **the First phase** deals with the preparation of the POE project and has three steps; (1) detection and feasibility, (2) resource planning, and (3) research planning. **The second phase** deals with; (4)

collection of data at site, (5) monitoring and management of procedures of collecting data, and (6) analysis of data. **The last phase** deals with (7) findings of the report, (8) recommendation of actions.

Preiser emphasizes that *“this is the most critical phase from the perspective of the client, because solutions to identified problems are described and recommendations given for actions to be taken”* (Federal Facilities Council Technical Report No.145, 2001, pp. 11-12).

The correlation of all these components has helped in devising the Conceptual Framework of the study (see *Figure 3.7*).

Based on literature review, the components used in devising the Conceptual Framework have been identified, which followed examples from Conceptual models of residential satisfaction from different scholars, such as Mohit et al. (2012) (Mohammad Abdul Mohit and Mohamed Azim, 2012, pp. 756-770), IBEM, Eziyi Offia (2011) (IBEM, Eziyi Offia, June 2011, p. 90) , Ogunde Ayodejin Olubunmi (2013) (OGUNDE Ayodeji Olubunmi, 2013, p. 81), Mohit et al (2010) (Mohammad Abdul Mohit, Mansor Ibrahim, Yong Razidah Rashid, 2010, pp. 18-27). Mohit (2010) emphasizes that the level of residential satisfaction depends on the physical features of the housing unit and physical and social features of the neighborhood where the housing unit is. It also depends on the Household Characteristics, which include; age, education, family size, income and length of stay.

Conceptual Framework (*Figure 3.6*) is comprised of five main components; Housing Policy, Residents Characteristics, Housing Characteristics, Post Occupancy Evaluation and Quality Design.

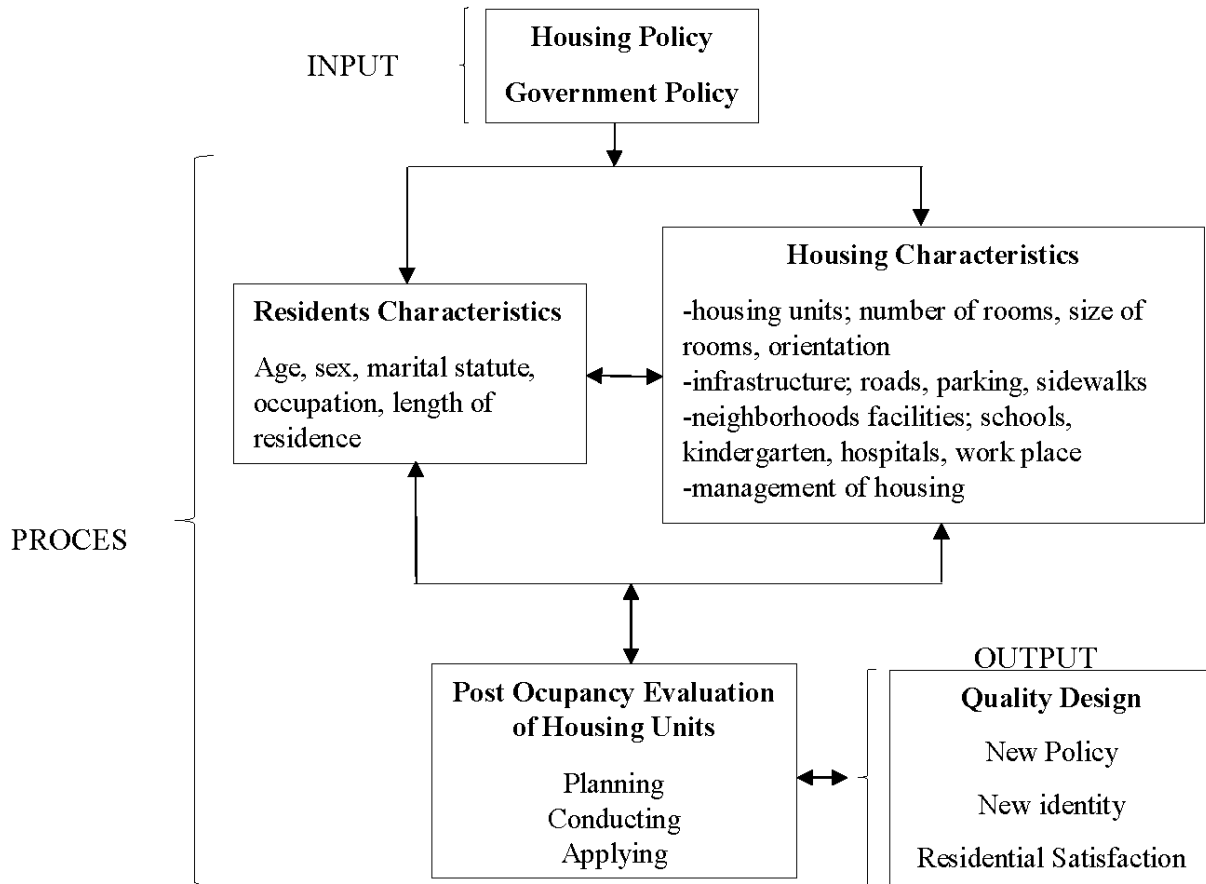


Figure 3. 6 The Conceptual Framework of the study

Source; Author's Concept (2016)

3.10 Summary

This chapter has tried to analyse the literature which deals with different issues as regards the Evaluation of public buildings. Literature review provides important information on studies carried out in the field of public housing, highlighting the factors which affect the level of satisfaction of inhabitants who are the users of public apartments, where a conclusion emerges that residential satisfaction depends on objective variables which affect many elements, such as; quality of the housing unit, location of the building, area of housing unit (m²). The physical shape of the building is one of the factors, which can have an indirect effect in the satisfaction level of the inhabitants. A Design Quality is considered to be among the main elements for a better standard of living. Literature review highlights that previous studies in Kosovo focused more on changes happening

with the passage of time in multi-apartment buildings as regards functionality and square meters (m²), rather than on results of buildings, especially the social ones. We also understand from literature that studies of this nature have been carried out by using surveys, which provide us information regarding residential satisfaction. From literature review, we understand that in the Republic of Kosovo, little attention has been paid to results of public housing, especially Social Housing; therefore, the study has made efforts to fill this gap.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter describes the methodology applied to achieve the objective of the research, Post Occupancy Evaluation of the subsidized multi-family apartments built in Kosovo, the collection and analysis of data as well as the presentation and interpretation of the results.

The research includes descriptive data, and the data in tabular and numerical form. Questionnaires are used to survey a larger number of individuals, and usually consist of unstructured questions for which there is no categorization and of structured questions. Unstructured questions provide a qualitative approach. Information about Post Occupancy Evaluation is obtained using questionnaires. Questionnaires serve to receive a response from different individuals to the same questions. Self-administered questionnaires are filled in directly by respondents. This research was conducted based on a series of documents, including texts, layouts, questionnaires, observation period, which served as data collection sources for this research.

4.2 Research zone

The research was conducted in different zones of the Republic of Kosovo, in the locations where the Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare have built multi-family apartments for social cases. In total, there were 18 multi-family buildings, and a total of 411 housing units built after 2000 (*Figure 4.1*). Residents who were accommodated in these housing units were social cases - people who were not able to solve the housing problem on their own; persons whose houses were destroyed by the recent war in the Republic of Kosovo, war veterans as well as people with disabilities. Prior to the beginning of the research, the researcher had meetings with responsible officials working at the MESP in order to obtain information and materials related to the research area.



Figure 4. 1 The Location of social multi-family apartments

4.3 Research Design and Data Collections

The research conducted Post-occupancy evaluation for the multi-family apartments that were initiated by the MESP and MLSW, aiming to understand if they meet the adequate housing criteria. Further research was conducted with regard to residential satisfaction, housing units, services and infrastructure and neighborhood where these buildings are located.

Data collection for this research has been conducted through the collection of a large number of documents, multi-family apartments design layouts, questionnaire administration and the Observation Period. Primary data were obtained through the administration of questionnaires in selected housing units, which were followed by physical observation of the characteristics of multi-family apartments, services observation, infrastructure and location of residential buildings. Secondary data were provided from different sources such as conferences, symposiums, websites, published materials in books, reports, scientific papers. Other data were provided directly by the Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare, which initiated the construction of social buildings in the Republic of Kosovo.

Residential Satisfaction Level with regard to housing units, neighborhood facilities, location of residential building, services and infrastructure, management of housing estate and distribution procedure of housing units, was realized through questionnaires and purposive sampling with residents who live in housing units selected for this study. (A person for each family was selected for the sample, and it was suggested that the head of the household should complete the questionnaire. In cases when the household head was not willing or/and was not able to fulfill the questionnaire, it was substituted with another family member).

Observation Period was conducted by the researcher and relates more to the physical characteristics of multi-family apartments in general, neighborhood services and infrastructure and the location of social buildings. Data collection tools were preliminarily tested by professionals and the researcher.

4.4 Sample selection

Public sector; subsidized multi-family apartments were the primary sampling unit. Sample Frame of the housing units consists of 411 housing units, which have users, in all 18 residential buildings built after the 2000-post-war period in the Republic of Kosovo. These multi-residential buildings were initiated and funded by the Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare (*Table 4.1*). The questionnaires were distributed to all housing units in order to achieve the highest possible degree of accuracy, and it was recommended that the head of the household or the spouse of the household head should complete them.

Table 4. 1 Sample Frame of the Housing Units

Source; Ministry of Environment and Spatial Planning

Ministry of Environment and Spatial Planning	Ministry of Labour and Social Welfare	Housing Units
Skenderaj		26
Decan		17
Malisheve		21
Kline		20
Mitrovice		21
Plemetin 1		36
Magure		22
Gjakove		23
Gjilan		26
Total		212
	Graqanice	20
	Skenderaj	25
	Drenas	25
	Dobrotin	14
	Gjakove	25
	Kline	20
	Gjilan	25
	Kamenice	20
	Vitia	25
	Total	199
Total;		411

4.5 Sampling Techniques

In surveys that use questionnaires for collection of certain data, sampling is a common method. Given that different sampling techniques exist, sampling of the purposive samples was considered as appropriate for this research.

4.6 Sample Size of the multi-family apartments

The sample size of housing units by the Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare is presented in *Table 4.2*. The sample size consists of 411 housing units in use, in 18 multi-family apartments.

Table 4. 2 Number of Housing Units and number of Questionnaire received

Ministry of Environment and Spatial Planning	Ministry of Labour and Social Welfare	Housing Units	Completed	Have refused to answer	Were not present	Questionnaires realized in %
Skenderaj		26	24	1	1	0.92 %
Decan		17	16		1	0.94 %
Malisheve		21	18		3	0.85 %
Kline		20	17		3	0.85 %
Mitrovica		21	20		1	0.95 %
Plemetin 1		36	34		2	0.94 %
Magure		22	19		3	0.86 %
Gjakove		23	19		4	0.82 %
Gjilan		26	28			0.92 %
Total		212				
	Graçanice	20	16		4	0.8 %
	Skenderaj	25	25			100 %
	Drenas	25	23		2	0.92 %
	Dobrotin	14	13		1	0.92 %
	Gjakove	25	22		3	0.88 %
	Kline	20	19		1	0.95 %
	Gjilan	25	20		4	0.8 %
	Kamenice	20	20			100 %
	Vitia	25	22	1	2	0.88 %
	Total	199				
Total;		411				

Source; Field survey (2016)

4.7 Design of the questionnaire

The two main tools for collecting data during this research were questionnaires and observation period. These instruments were used for the collection of primary data. To determine the Residential Satisfaction level of residents in the selected housing units, the questionnaire has been administered (Appendix 1).

The questionnaire consisted of open and closed questions. Open questions enabled respondents to respond broadly to the question, while for the closed question the Likert scale (1-5) was applied. The first page of the questionnaire gives a brief description on the purpose of the research, and explains that the information received by the respondents will be used for research purpose only.

Part A of the questionnaire relates to the Personal Information of the Respondents, Part B with Characteristics of the Building, while Part C is about Residential Satisfaction.

Part A (Questions 1-10) relates to the demographic characteristics of respondents, including; age, gender, marital status, level of education, occupation, monthly income, length of living in the assigned housing unit, number of members living in the housing unit, and preferences of residents where they would like to live in the future.

Part B (Questions 1 to 13) consists of various questions regarding the characteristics of the building such as: (position of the kitchen in relation to the living room); spaces that the residents miss within their housing units, the materials with which the floors and the walls are covered, the materials the doors and windows are made of, the materials the floor and the bath walls are made of. Furthermore, it contains questions about power and water reductions, about management and maintenance, about housing unit conditions in general, and, whether they would like to live in other housing units in the future.

Part C (Questions 1-39), relates to Residential Satisfaction, such as: satisfaction with housing units, neighborhood characteristics, location of residential building, services and infrastructure, management of housing estate and satisfaction with the distribution procedure of housing units. Residents expressed their satisfaction level with respect to the above-mentioned components through these questions, which were categorized in five groups: Very unsatisfied, Unsatisfied, Fairly satisfied, Satisfied and Very satisfied.

4.8 Testing the questionnaire

A questionnaire is considered to be properly designed, when the researcher gains accurate responses; otherwise, it fails. Experts evaluated the questionnaire used in this research and it was tested in advance. The first distributed questionnaires were analyzed in order to check if there were any deficiencies, and then corrected where necessary. Suggestions received from experts are included in the outcome of the questionnaire.

4.9 Data Treatment

The treatment of data for the research objectives is described in the following:

Objective 1; Examining the characteristics of social buildings in the field of study.

The characteristics of the data for this objective are of a quality nature and generally concern the physical characteristics of the residential buildings such as; the attributes of residential buildings, the construction materials used for buildings, the proximity of residential buildings from health services, schools, preschool institutions, shopping centers and many other features. Data for this objective have been obtained from the materials provided by the Ministry of Environment and Spatial Planning and from the Observation Period (Appendix 2). The data for this objective are presented in textual form. These data have been analyzed with qualitative analytical method.

Objective 2; Analysis of the socio-economic characteristics of the inhabitants/residents in the selected housing units.

The characteristics of the data for this objective are of quantitative nature and relate to the personal information of the inhabitants. These data provide information on age, gender, marital status, material status of the inhabitants, number of family members living within the housing unit and education level of the respondents. The data for this objective have been provided through the questionnaire. The data were analyzed through descriptive statistics, while the results have been presented by diagrams.

Objective 3; Examination of residents' satisfaction with housing and living in selected social housing units in the Republic of Kosovo.

The data characteristics for this objective are quantitative. These data relate to the satisfaction of living, the adaptability of housing units, the infrastructure and the neighborhood where multi-family apartments are located. The data for this objective were provided through the questionnaire, while the level of satisfaction was measured through the Linkert scale (1-5). Data for this objective have been analyzed through statistics, the results of which have been presented in tabular form.

Objective 4; to provide suggestions and recommendations to the Government of the Republic of Kosovo, which would help to improve the conditions and residential satisfaction in social housing units. The recommendations provided for this objective have been presented in textual and schematic form. Recommendations have been given based on the results of the research and the observations that have been made during the research period. Residential buildings have been analyzed in different cities. Housing units have been analyzed to see if they meet the criteria for the number of residents currently living there, and proposals have been made regarding new functional solutions that would help increase residential satisfaction and quality of life in general.

4.10 Form of Data Processing

The data processing was conducted using the Statistical Program for Social Sciences 22 (SPSS-for Windows). Qualitative data have been obtained through surveys, no statistical analysis have been used in this case. Inhabitants/Residents responses and surveys have been analyzed to see if they are similar, i.e. match each other.

4.11 Administration of the Questionnaire

The researcher and the assistant architects who were trained in advance, conducted the administration of questionnaires. They jointly distributed and collected questionnaires that were completed by the residents of selected multi-family apartments. If the respondents had any remarks regarding the language or other issues, the assistants assisted. The largest number of questionnaires has been distributed over the weekend.

4.12 Questionnaire

The questionnaire provided data that were of interest to the field of study. The questionnaire collected various information regarding residential satisfaction, personal information and characteristics of the buildings. All these data were analyzed using qualitative and quantitative methods. Qualitative data have been presented in textual form, while the quantitative one in tabular form. Statistical analysis program SPSS 22 has been used to extract statistical results from questionnaires.

4.13 Observation Period

The observation method is usually applied when the data is collected, observing the situation in the ground and hearing what is happening there. Neuman 2003, points out that during this phase of the research, the data should be collected from the physical environment of the research area. To evaluate the apparent physical characteristics of residential buildings in general, neighborhood facilities, services and infrastructures, and the location where multi-family apartments were located, a survey checklist has been established. These features have been documented in tabular form, but they have been described in textual form as well.

During the site visit, besides the observation list (Appendix 2), photographs of housing units have been made, as well as the documentation in textual form of many other issues related to the multi residential buildings and neighborhoods where these buildings are located. The abovementioned observations were performed at the time of delivery and receipt of questionnaires. The checklist for the Observation Period has been presented in (Appendix 2). Much of the information has been also provided in more detailed written form.

4.14 Summary

The purpose of this chapter was to describe the research methodology. The sample size consisted of 372 housing units from 414 residential units built and which were in use. The combination of the questionnaire and the observation schedule was used as a data collection approach, which then have been processed with the Statistical Program for Social Sciences 22 (SPSS for Windows). The design layouts of many residential buildings provided by the Ministry of Environment and Spatial Planning have been analyzed to find out, to what extent they meet needs of the inhabitants, based on the number of family members, living within certain housing units. Housing units which were selected for analysis were repeated in several cities. The following chapter presents the results of this thesis.

CHAPTER FIVE

CHARACTERISTICS OF RESIDENTS AND RESIDENTIAL SATISFACTION

5.1 Introduction

This chapter presents the socio-economic characteristics of the inhabitants, analyzes the results related to the satisfaction level of residents in selected housing units in the Republic of Kosovo and the actual status of housing units and housing complexes carried out during the Observation Period. The identification of socio-economic characteristics is very important. Without the interconnection of information between the housing units and the characteristics of their users, the satisfaction of residents with regard to social housing units and their evaluation in terms of adequate housing will remain unknown issues to both the applicants and the people in charge of policy making on social housing. It is very important to identify the factors that affect the residential satisfaction.

5.2 Socio-economic information of residents

Throughout the research, 372 questionnaires have been conducted in the eighteen multi-family apartments distributed in the Republic of Kosovo.

5.2.1 Age of respondents

Figure 5.1 shows the age of the respondents. It showed that the largest number of respondents 39.5% belonged to the average age of 41-50 years.

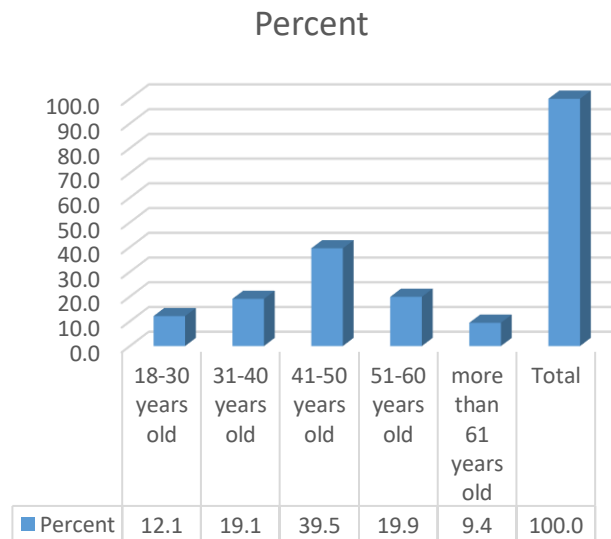


Figure 5. 1 Age of respondents

5.2.2 Monthly income

Figure 5.2 shows the average monthly income of households living in social housing units. 30.6% of residents living in social housing units lives with a monthly income of 50-100 euros. The result is consistent with the fact that in social buildings, there are currently dwellers living in social assistance, while the trend in the future is to create mixed-income housing in order to avoid the feeling of the residents being discriminated.

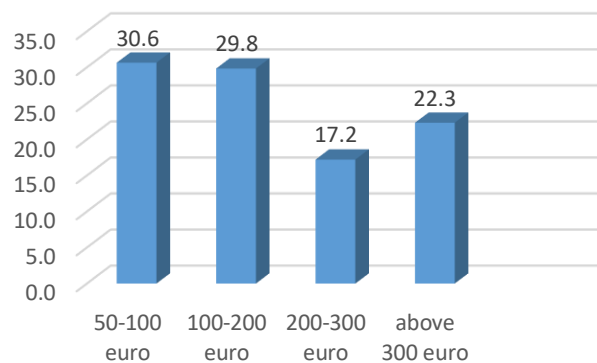


Figure 5. 2 Average monthly income

In this regard, the Law on Social Housing has provided a proposal suggesting a mixed-income housing, according to which beneficiaries of social housing units should consist of 50% of residents in social assistance, 30 % with low-income residents, while 20% with average-income residents. A monthly income classification is defined by the Ministry.

Given their low monthly income, residents cannot afford to make interventions in their housing units.

5.2.3 Number of family members

The survey shows the average number of the household members per housing units of social buildings, which is shown in Figure 5.3

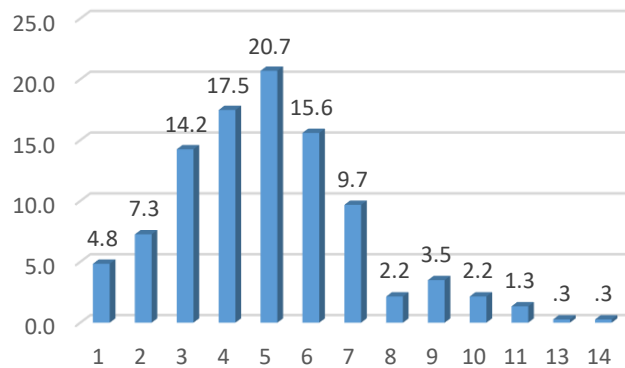


Figure 5. 3 The average number of family member

In 20.7% of housing units, there are 5 (five) household members living, which at the same time represents the largest percentage. In 17.5% of housing units, there are 4 (four) household members living, while in 15.6% the average number of household members is 6 members per a housing unit. For the housing units selected for the purposes of this research the maximum household members comes out to be 14 household members, while the minimum is one member. The next chapter will analyze the layouts of multi-family apartments and the number of household members who live there, in order to understand if housing units meet the needs of the users.

5.2.4 Tenure types

The Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare own all housing units, while the residents who live in them are only users.

5.2.5 Gender of respondents

Figure 5.4 shows the gender of the respondents presented in percentages.

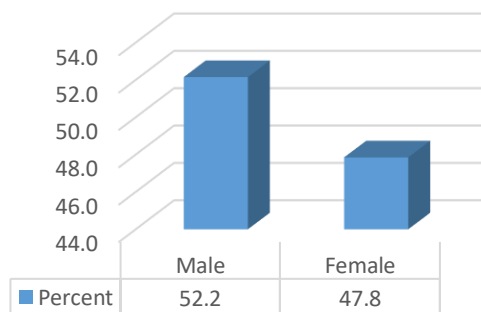


Figure 5. 4 Gender of respondents expressed in percentages

The largest number of respondents turns out to be male, which is consistent with the mentality of our country, i.e. the head of the household is usually a male.

5.2.6 Marital status

Figure 5.5 shows the marital status of the respondents. It shows that the largest percentage of respondents, 66.1% of them, are married, 22.8% widows, 8.3% single, and 2.7% separated.

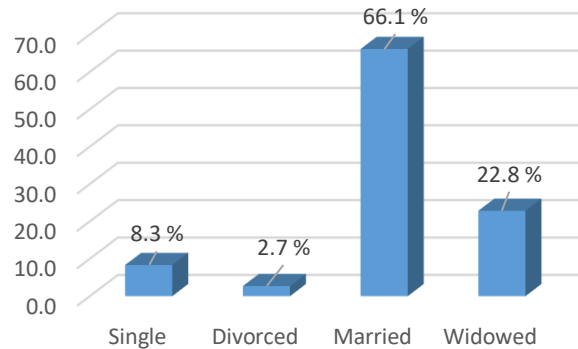


Figure 5. 5 Marital status of respondents

5.2.7 Duration of residence

Figure 5.6 shows the length of living of the respondents in selected housing units. The largest number, 87.4% of them, live in housing units selected for this study for a period of time longer than five years, which is positive, given that usually in researches of Post-occupancy evaluation, it is preferable that the respondents have lived for a longer period in the housing units selected as a case study.

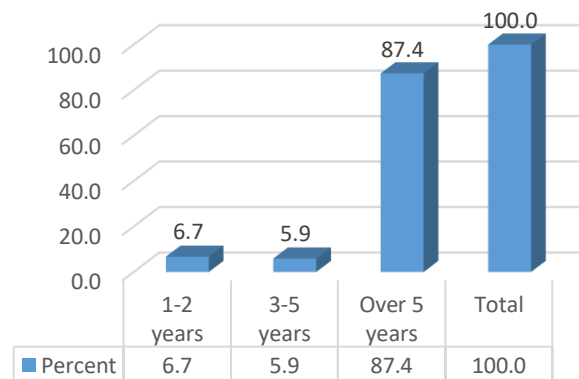


Figure 5. 6 Residence time of respondents

5.2.8 Employment sector

Figure 5.7 shows the employment of respondents in selected housing units. The diagram shows the highest percentages, where 16.7% of respondents, representing the highest percentage, work as ordinary workers, 5.9% of them work as cleaners, while 3.2% work security jobs, other percentages are lower and are attached to the Appendix 3.

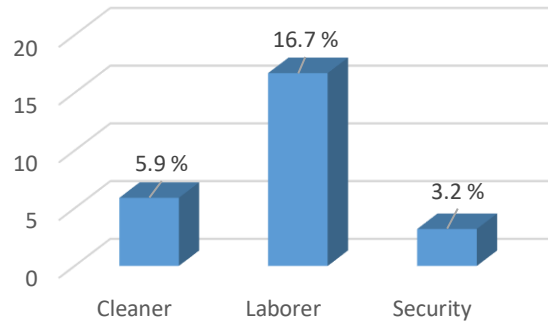


Figure 5. 7 Employment sector of respondents

5.3 Residential satisfaction

5.3.1 Satisfaction with housing units

Concerning the satisfaction with housing units, the results show that the largest number of respondents, 48.8% of them, expressed dissatisfaction with the number of rooms, while 33.9% were satisfied. A percentage of 17.7% of respondents said they were fairly satisfied with the number of rooms. Figure 5.8 shows the satisfaction level expressed in percentages.

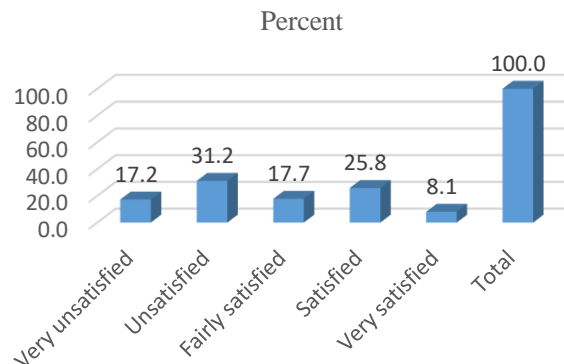


Figure 5. 8 The satisfaction level of respondents in relation to the number of rooms

With regard to the size of the living room, 67% of respondents responded they were satisfied, 8.9% were unsatisfied, while 24.10% said they were fairly satisfied. Regarding the size of the bedrooms, 67.5% of respondents were satisfied, 11.2% were dissatisfied, while 21.30% were fairly satisfied. On the issue of lighting in the living room, 99.50% of the respondents were satisfied, none was dissatisfied, while fairly satisfied were 0.5% of the respondents. On lighting in the bedrooms, 98.8% of the respondents were satisfied, none was dissatisfied, and fairly satisfied were 1.2% of the respondents. Regarding the air circulation in housing units 98.4% of the respondents were satisfied, none was dissatisfied, while fairly satisfied were 1.6%. In *Table 5.1* is presented the Satisfaction with Housing Units Attributes - *Part 1.2*, presented in percentages.

Table 5. 1 Satisfaction with housing units attribute-Part 1,2

	Numbers of rooms?	Size of the living room?	Size of the bedrooms?	Natural daylight in the living room?	Natural daylight in the bed room?	Air circulation in the residential unit?
Very satisfied	8.10%	5.40%	7.90%	57.00%	57.80%	60.80%
Satisfied	25.80%	61.60%	59.60%	42.50%	41.00%	37.60%
Fairly satisfied	17.70%	24.10%	21.30%	0.50%	1.20%	1.60%
Unsatisfied	31.20%	7.80%	8.50%	0.00%	0.00%	0.00%
Very unsatisfied	17.20%	1.10%	2.70%	0.00%	0.00%	0.00%

Part 1.

	Acoustics in the residential unit?	Level of security in general?	Quality of doors and windows?	Operation of electrical installation?	Water supply?	Electricity supply?	Quality of construction materials?
Very satisfied	14.30%	21.80%	0.80%	10.80%	25.80%	37.60%	0.00%
Satisfied	35.50%	58.30%	21.20%	65.60%	22.30%	31.50%	11.00%
Fairly satisfied	30.60%	16.20%	35.50%	7.50%	1.60%	6.70%	44.60%
Unsatisfied	18.00%	3.20%	39.00%	12.10%	23.10%	14.30%	38.80%
Very unsatisfied	1.60%	0.50%	3.50%	4.00%	27.20%	9.90%	5.60%

Part 2.

Source; Author's Field Survey (2016)

With regard to acoustics in the housing units, 49.8% of respondents were satisfied, 19.6% were dissatisfied, while 30.60% were fairly satisfied. Regarding security level in general, 80.1% of the respondents were satisfied, 3.7% were dissatisfied, while 16.20% were fairly satisfied. Regarding the quality of doors and windows, 22% of the respondents were satisfied, 42.5% were dissatisfied, while 35.5% were fairly satisfied. Regarding the operation of electrical installations, 76.4% of the

respondents were satisfied, 16.1% were dissatisfied, while 7.5% were fairly satisfied. Regarding the water supply, 48.1% of respondents were satisfied, 50.3% were dissatisfied, while 1.6% were fairly satisfied. Regarding electricity supply, 69.1% of respondents were satisfied, 24.2% were dissatisfied, while fairly satisfied were 6.7% of respondents. 11.0% of respondents were satisfied with the quality of construction materials, 44.4% were dissatisfied, while 44.6% were fairly satisfied.

5.3.2 Satisfaction with neighborhood characteristics

With regard to satisfaction with neighborhood characteristics, the outcomes were as following (Table 5.2); 64% of respondents were dissatisfied with parking spaces, 14.8% were satisfied, while 21.2% were fairly satisfied. 99.4% of respondents were dissatisfied with sports and recreation facilities, 0.3% were satisfied, while 21.2% of them were fairly satisfied. 99.5% of respondents were dissatisfied with playgrounds for children, while 0.5% were fairly satisfied. Regarding the green spaces in the neighborhood, 77.6% of respondents were dissatisfied, 13.5% were satisfied, while 8.9% were fairly satisfied.

Table 5. 2 Satisfaction with neighborhood characteristics

	Very unsatisfied	Unsatisfied	Fairly satisfied	Satisfied	Very satisfied
Existence of parking spaces?	37.1%	26.9%	21.2%	14.0%	0.8%
Recreational and sport spaces?	79.8%	19.6%	0.3%	0.3%	0.0%
Playgrounds for kids?	79.6%	19.9%	0.5%	0.0%	0.0%
Greenery/green spaces?	26.3%	51.3%	8.9%	13.2%	0.3%

Source; Author's Field Survey (2016)

5.3.3 Satisfaction with location of residential building

The outcome (Table 5.3) shows that 56.7% of respondents were satisfied with the location of residential building, 28.2 were dissatisfied, while 15.10% were fairly satisfied. 93.3% of respondents were satisfied with the orientation/position of residential unit, 3.5% were dissatisfied, while 3.2% were fairly satisfied. 53.8% of respondents were satisfied with the proximity of the residential building to the hospital, 28.2% were dissatisfied, while 18% were fairly satisfied. 51.6%

of respondents were satisfied with the proximity of the residential building to preschools and kindergartens, 31.2% were dissatisfied, while 17.2% were fairly satisfied. 45.9% of respondents were satisfied with the proximity of the residential building to workplaces, 25.3% of them were dissatisfied, while 28.8% of them were fairly satisfied. 47.8% of respondents were satisfied with the proximity of the residential building to schools, 28% were dissatisfied, while 24.2% were fairly satisfied. 50.8% of respondents were satisfied with the proximity of the residential building to market places, 30.3% were dissatisfied, while 18.90% were fairly satisfied. 49.4% of respondents were satisfied with the proximity of the residential building to religious buildings, 31.2% were dissatisfied, while 19.4% were fairly satisfied.

Table 5. 3 Satisfaction with location of residential building

	Location of the residential building?	Orientation of the residential unit?	Proximity of the residential building to hospitals?	Proximity of the residential building to preschools and kindergartens?	Proximity of the residential building to work places?	Proximity of the residential building to schools?	Proximity of the residential building to market places?	Proximity of the residential building to religious buildings?
Very satisfied	20.40%	52.20%	13.50%	15.60%	15.50%	18.00%	15.90%	16.40%
Satisfied	36.30%	41.10%	40.30%	36.00%	30.40%	29.80%	34.90%	33.00%
Fairly satisfied	15.10%	3.20%	18.00%	17.20%	28.80%	24.20%	18.90%	19.40%
Unsatisfied	22.80%	2.40%	26.90%	28.00%	19.40%	19.90%	22.80%	25.30%
Very unsatisfied	5.40%	1.10%	1.30%	3.20%	5.90%	8.10%	7.50%	5.90%

Source; Author's Field Survey (2016)

5.3.4 Satisfaction with services and infrastructure

The results show that 57.6% of respondents were satisfied with existence of routes (street, allies, etc.), 38.9% were dissatisfied, while 3.5% were fairly satisfied. 37.7% were satisfied with the quality of the roads, 38.4% were unsatisfied, while 23.9% were fairly satisfied. 28.2% of respondents were satisfied with the existence of sideways, 38.3% were dissatisfied, while 6.5% were fairly satisfied. 20.7% were satisfied with quality and width of sideways, 60.2% were unsatisfied, while 19.10% were fairly satisfied. 12.6% were satisfied with the existence of streetlights in the neighborhood, 83.9% were dissatisfied, while 3.5% of respondents were fairly satisfied. 12.7% of respondents were satisfied with the current state and function of the street lights,

84.1% were dissatisfied, while 3.20% were fairly satisfied. Linkert's satisfaction scale with services and infrastructure is presented in *Table 5.4*

Table 5.4 Satisfaction with services and infrastructure

	Existence of routes (street, allies, etc.)?	Quality of roads?	Existence of sideways?	Quality and width of sideways?	Existence of street lights in the neighborhood?	Current state and function of these street lights?
Very satisfied	8.30%	4.60%	5.40%	3.50%	6.70%	6.50%
Satisfied	49.30%	33.10%	22.80%	17.20%	5.90%	6.20%
Fairly satisfied	3.50%	23.90%	6.50%	19.10%	3.50%	3.20%
Unsatisfied	20.40%	26.30%	41.90%	45.70%	21.80%	20.40%
Very unsatisfied	18.50%	12.10%	23.40%	14.50%	62.10%	63.70%

Source; Author's Field Survey (2016)

5.3.5 Satisfaction with management of housing estate

The results (*Table 5.5*) show that 27.9% of residents were dissatisfied with building sanitation in general, 41.7% were satisfied, while 30.40% of respondents were fairly satisfied. With regard to building maintenance 33.5% of respondents responded they were dissatisfied, 33.6% were satisfied, while 32.5% were fairly satisfied. Regarding building management in general, 90.6% of respondents responded they were dissatisfied, 5.9% were satisfied, while 3.5% of respondents were fairly satisfied.

Table 5.5 Satisfaction with management of housing estate

	Very unsatisfied	Unsatisfied	Fairly satisfied	Satisfied	Very satisfied
Building sanitation in general?	4%	23.90%	30.40%	37.40%	4.30%
Building maintenance?	2.40%	31.50%	32.50%	32.30%	1.30%
Building management in general?	23.40%	67.20%	3.50%	5.60%	0.30%

Source; Author's Field Survey (2016)

5.3.6 Satisfaction with distribution procedure

The research shows that people express themselves generally satisfied with the residential units' distribution procedures. Regarding the requirements for acquiring a residential unit, 4.8% of respondents were dissatisfied, 83.6% were satisfied, while 11.6% were fairly satisfied. Concerning propriety of residential distribution, 18% of respondents were dissatisfied, 62.9% of the respondents were satisfied, while 19.10% of them were fairly satisfied. 5.1% of the respondents were dissatisfied with the time duration of acquiring a residential unit, 78.2% were satisfied, while 16.7% were fairly satisfied. On application procedures, 2.7% of respondents were dissatisfied, 77.6% of respondents were satisfied, while 19.7% of them responded they were fairly satisfied. 3.5% of the residents were dissatisfied with the residential unit distribution procedure, 75% of respondents were satisfied, while 21.50% of them said they were fairly satisfied. Linkert's Satisfaction with Distribution Procedure is presented in *Table 5.6*.

Table 5.6 Satisfaction with distribution procedure

	Very unsatisfied	Unsatisfied	Fairly satisfied	Satisfied	Very satisfied
■ Criteria for acquiring a residential unit?	0%	4.80%	11.60%	47.30%	36.30%
■ Propriety of residential unit distribution?	2.70%	15.30%	19.10%	28.80%	34.10%
■ Time duration of acquiring a residential unit?	0.50%	4.60%	16.70%	46.20%	32%
■ Applying procedures?	0.50%	2.20%	19.70%	59.10%	18.50%
■ Distribution procedure?	0.80%	2.70%	21.50%	61.80%	13.20%

Source; Author's Field Survey (2016)

5.4 Observations of Housing units and Housing complex

5.4.1 Housing Units

Residential units do not meet the needs of residents in terms of living space. The number of family members is large compared to the number of rooms of housing units, on the other hand, the residents with their weak monthly incomes cannot afford to undertake solutions that would meet their needs. One of the problems is the issue of organized maintenance in the social buildings. Maintenance is carried out by the residents' own initiative, which often turns out to be unsatisfactory. The construction materials used are of low quality and because of that there are often damages to the facades of buildings and the appearance of mold in residential units. Interior doors are made of wood, while windows are made of poor plastic material quality. Many of the

residential units have problems with the installation of water and electricity supply network. All baths are covered with clay tiles, which is positive in terms of lighter maintenance. Despite a considerable number of people with disabilities who live in these housing units, there are no elevators in the buildings. However, fire hydrants are installed in each multi-family apartment.

5.4.2 Housing Complex

The current infrastructure of social buildings is inadequate. Although infrastructure was foreseen in projects, it has never been fully implemented. Sidewalks, playgrounds for children and recreation areas for adults are not available at any of the selected multi-family buildings. Green spaces are not an integral part of the neighborhoods in which these buildings are placed. Given that most of the buildings are built in the suburbs of the cities, the access of the residents to other parts of the city is difficult. Another problem appears with the public transport, which in general does not function properly on the country level, and is almost inexistent in the neighborhoods where social buildings are placed. Neighborhoods were not equipped with lighting, which affects the security of the residents.

5.5 Summary

The aim of this chapter was to identify the socio-economic characteristics of residents surveyed in social residential units, the level of satisfaction of residents with their residential units and neighborhood characteristics and the description of the condition from the Observation Period. The research highlighted that the largest number of respondents were male. The highest percentage of household members is five, five and six members per housing unit. The average monthly income per family is 50-100 euros per month. The average length of living expectancy in housing units is over five years. Respondents were not satisfied with residential units in terms of living space, while they expressed a level of satisfaction with the procedures of providing housing units. A shortage exists in the lack of spaces for sport, recreation, lighting, infrastructure and the quality of construction materials. In the future, housing policies should focus on providing bigger housing.

CHAPTER SIX

RENEWAL OF MULTI-FAMILY APARTMENTS – TRANSFORMATION OF LIVING SPACES

6.1 Introduction

The previous chapter dealt with the obtained results that were the objective of this study, whereas this chapter attempts to offer a functional solution for housing units selected for this research. The treatment from the functional point of view was carried out for multi-family apartments and it was repeated in many cities. A relatively high number of persons with disabilities be it congenital or war invalids lives in social buildings built in Republic of Kosovo. The size of housing units is small for the number of the members living in them. Therefore, this chapter attempts to offer a functional solution that would help to increase the residential satisfaction level. The proposed solutions would not be a big financial burden for the Government of Republic of Kosovo. Furthermore, the solution proposed would have an impact in increasing the quality of life of the inhabitants living in these housing units.

6.2 The process for architectural design

The architects in order to achieve an architecture design, they follow a process, the latter attempts to utilize optimum solutions by obtaining feedback that enables achievement of the objectives of the design. In order to achieve a design, one needs to have a set of information, whereby for every problem there could be different solution that can be provided. Therefore, the design represents an analytical process while it requires analysis, evaluation and solution, which can be shown as an interaction between the problem and the solution (Mojtaba Parsaee, Parinaz Motealleh, Mohammad Parva, 2016).

The design refers to a process that has a certain objective and as a result of which we have the creation of a new useful product. Lawson emphasizes that the process of design consists of several phases such are: evaluation, problem, analysis, synthesis and solution (Bryan Lawson, 2005, p. 49).

In *Figure 6.1* a model of design process as an interaction between problem and solution, through three activities such as analysis, synthesis and evaluation has been presented.

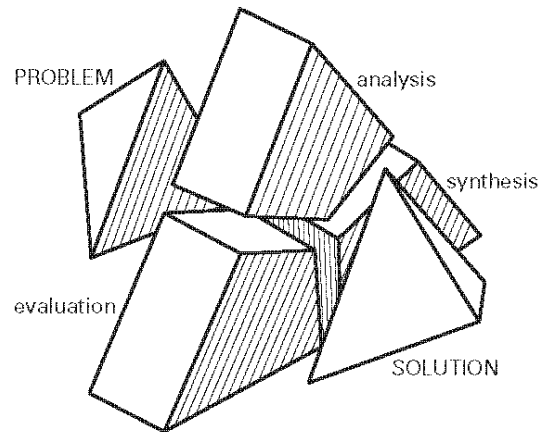


Figure 6. 1 The design process seen as an interaction among problem and solution

Source; Bryan Lawson, *How designers think?* (Bryan Lawson, 2005, p. 49)

The phase of evaluation can be split in two groups. One phase has to do with the evaluation of design in first phases and then after, when it is being used by inhabitants, whereas the second phase has to do with the evaluation of the design after a longer time period. The problem phase deals with the identification of the problems, what is missing and what is available within the framework of a design. The analysis phase is performed by analyzing the information that is obtained based on the study. The synthesis phase deals with the attempt to find a solution. The solution phase has to do with finding a solution that would cater the needs of the users. The users that live in certain housing units are a very important factor given that they are the users of the design, the lawmaker sets the criterions that the planner has to follow, and the latter is the one tasked with offering a solution for a certain problem of the project. Consequently, the planner should not act completely independently trying to find a solution to a design problem (Mojtaba Parsaee, Parinaz Motealleh, Mohammad Parva, 2016), and that the interactive architectural approach is considered very important in order to achieve the sustainability in the architectural world.

6.3 Flexibility in multi -family apartments

Flexibility in architecture constitutes one of the main elements of the sustainability in architecture. The factors that have influence on the flexibility of a housing unit are: orientation of the housing units, the size, construction system, number and the position of entrances, position of installations and the form of layout. We consider a housing unit as flexible in functional aspect when there is a possibility to be used for many functions and the functions can change depending on the needs of the users, including the changes in the number and the size of the rooms. Within a housing unit, there is a fixed zone which includes the installation of bathrooms and the kitchens and the other area which is free, elements of the latter can be moved without creating a problem in functional or construction aspect. At the housing units, which are oriented only on a facade, the possibility of flexibility is more limited. Therefore, the variants of the flexibility are much more difficult to be achieved. The housing units with two facades and have free access and the layouts of which has dimensions that are more or less the same, provides a higher flexibility opportunities compared to those that have a more elongated shape.

6.3.1 Family structure and living space

Considering that the size of the family changes over time, this implies a need for structural change of the living area. The flexibility increases the housing unit value. A housing unit that has approximately 70 sqm, can provide suitable flexibility options. This is considered to be the minimal limit in the concept of flexibility for a family in a sustainable phase of development (Milica Živković, Goran Jovanović, 2012).

The most suitable position of entering into a housing unit in terms of flexibility is the central one, given that it allows a shorter link to all the parts of housing unit. Knowing that the construction system forms part in the rigid and unchanged zone of housing unit, this has a great impact in the possibility of flexibility. In the case of the selected buildings as a case study in this research, the buildings are constructed in a skeletal system, which represents an advantage, given that the possibility of flexibility is easily attainable.

6.4 Living Spaces in Social Housing

One of the major problems in the social buildings is the one of Living Spaces. The problem has not been so great at the time of acquisition of housing units, but with the change of family structure, the issue has become more complicated. “*The spaces are not used on the same mode by a big family, a single man, or a two member’s household with grandparents*” (Gabriella Medvegy, 2014).

With the change of family structure, the housing units cannot fulfill the needs of the inhabitants for a suitable housing. These facts lead the researcher towards taking steps that would determine the future of the housing buildings and finding better solutions for the inhabitants of housing units. The purpose of the research is use of thinking in architectural aspect which would transform the existing multifamily apartments into a new model and as a result increase its value (János Gyergyák, Erzsébet Szeréna Zoltán, October 2017). Even though the overall living conditions in these housing units are better than those where the inhabitants lived prior, nevertheless the need for rehabilitation of these units is indispensable. Taking into account the fact that the buildings are constructed not before 18 years ago, their adaption based on the number of members of family would be more than necessary. Based on the Statistical Agency of Kosovo (*Table 6.1*) it is seen that the average number of members of family in Kosovo is 6 persons.

Table 6. 1 Number of population and household censuses 1948-2011

Source; Kosovo Agency of Statistics

Years of Censuses	Number of Households	Number of Population	Number of residents per household
1948	115,283	733,034	6.4
1953	127,004	815,908	6.4
1961	152,598	963,988	6.3
1971	188,107	1,243,693	6.6
1981	228,884	1,584,440	6.9
2011	297,090	1,739,825	5.9

In *Figure 6.2* it is presented the layout of first floor, whereas in *Figure 6.3* layout of characteristic floor of multi family apartments initiated by the Ministry of Environment and Spatial Planning, buildings that are constructed in various cities such are: Mitrovica, Malisheva, Magura, Skenderaj and Plemetin 1, hence it is selected as key study.



Figure 6. 2 Layout of first floor



Figure 6. 3 Layout of characteristic floor

The building consists of six housing units in first floor and five housing units in upper floors, the height of the building is G+4. The building has a studio apartment, one room and two rooms apartments. The average number of members that live in studio apartment is four persons, in one room apartments it is 5 members, whereas in two room apartments it is 6 members (Figure 6.4).

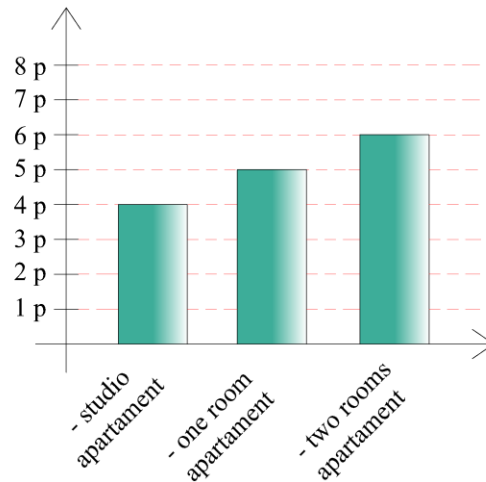


Figure 6. 4 The average number of members for; studio apartments, one room apartment and two rooms apartment

In Figure 6.5 it is depicted the typologies of housing units, of which it is observed that they are very small and they do not meet the needs of the inhabitants in terms of living space. The pictograms indicate the average number of the members that live within housing unit.

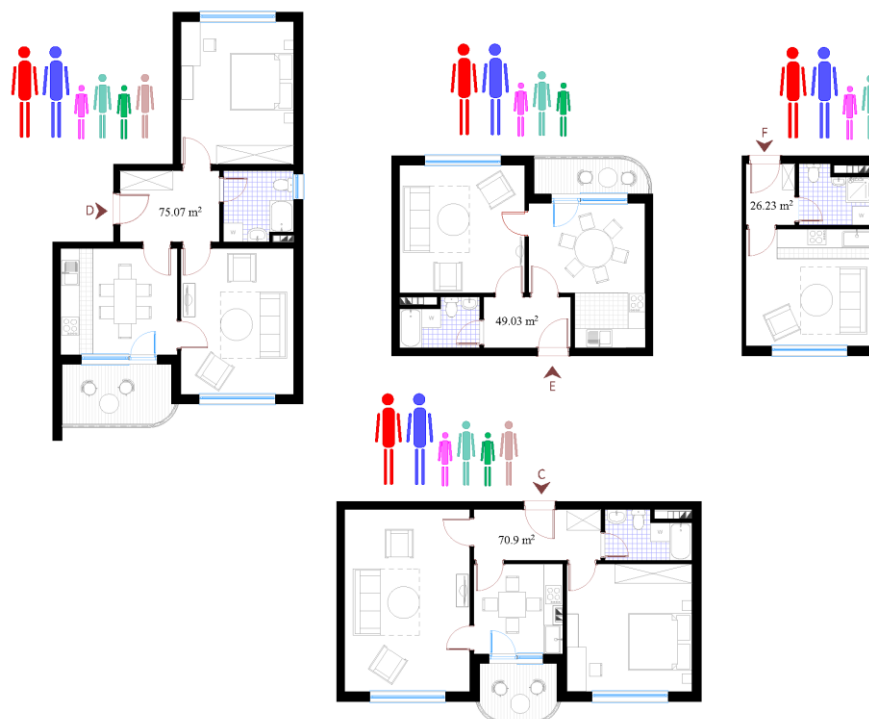


Figure 6. 5 Typologies of housing units

Objective 1. Social economic characteristics. The monthly income of these families is rather low, whereby the average of the incomes per family is 50-100 euro, therefore obtaining housing units by own means it is impossible. The most suitable solution would be for the Government to construct housing units that would adapt to their needs, flexible housing units that would adapt in case of change of family structure. The creation of suitable housing would impact the increase in the quality of life. An inadequate housing would impact on the behavior of these individuals, whereas their behavior would impact the entire society. As a suitable and less expensive solution would be the creation of annexes to the existing multi-family apartments, *Figure 6.6*. While the new housing units would be good if they were distributed in the multi-family apartments where lives the other part of the population, in order for these inhabitants not to feel discriminated. In this case it would be important to have a cooperation of public-private sector, given that the public sector in Kosovo has become synonymous to the social housing, whereas multi-family apartments are constructed further by the private sector.



Figure 6.6. Extension of the existing multi-family apartments

6.5 Renewal concept of the Multi-family apartments

In this case, the housing units are recommended to be transformed into areas that are easily maintained, which are modern and offer flexible and functional solutions. The flexibility in architecture is welcome in the case of change of family structure. This would enable the adaptation

of the function based on the current needs of the inhabitants that live there. It would be important that within a housing unit it is created a functional solution that would enable living for all generations. The creation of the new identity of multi-family apartments is indispensable.

6.6 The new identity of Multi-family apartments

The apartments have been built only recently, therefore they can be used by the future generations. In the case of these buildings, the costs of renovation include only a part of the expenses and they are more affordable compared to constructing a completely new building. Seen in economic aspect, such thing is very important.

6.6.1 The concept of expanding living spaces

The aim is to offer a possibility of extending the living space, whereby the most suitable manner was considered to be the extension of living spaces in both vertical and horizontal direction, as it seen in *Figure 6.7*.



Figure 6.7 Building with extensions

Extension in vertical direction is considered only as optional idea, given that in the study we did not perform a calculation of the supporting capacities of the land where such buildings are constructed. Whereas the extensions in horizontal direction can be performed without an eventual problem. In *Figure 6.7* it is represented the volume of the buildings and the extensions that are rather important in order to achieve the required flexibility. Flexibility is one of the main elements of sustainability given that the needs of the inhabitants change with passing of time.

6.6.2 How can it be suitable for all?

In the applied concept in this case, there are presented several variations of design. In some of the housing units the extensions are performed only in one direction, whereas in some others this is done in two directions. The extensions enabled the extensions of the living space up to 49%, which is realized without damaging the green areas, in reality the green areas were rather absent in the locations where multi-family apartments are constructed. The added structure would enable the transformation of the housing units from studio apartment into two rooms, one room into three rooms and from two rooms into three and four rooms, which can be adapted depending on the need. In cases where the families do not need additional rooms, some of these units can be used as balcony. The elevators are added to the building, given the considerable number of the handicapped and disabled persons. This problem is also present at Hotels as a type of collective housing in Kosovo. Approach for visitors with special needs, their vertical and horizontal communication can be clearly seen as non-treated (Mimoza Sylejmani, Lulzim Beqiri, 6-7 November 2015). Adding the elevator would increase the overall comfort of the inhabitants. In *Figure 6.8* there are variants of the functional solutions of multi-family apartments, extensions in horizontal direction and two additional apartments in the roof of the building – extensions in vertical direction.

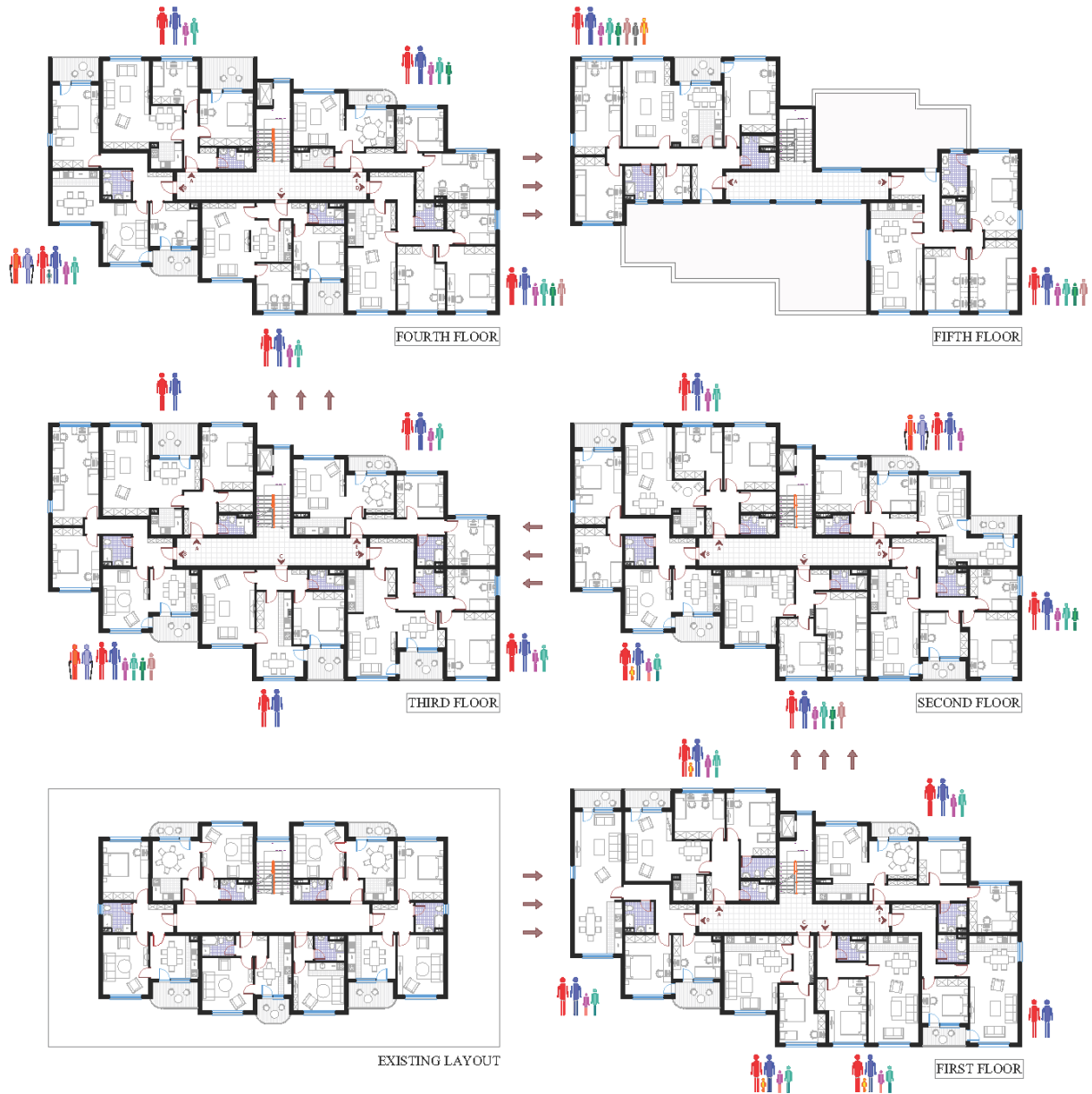


Figure 6.8 Extensions in horizontal and vertical directions-flexibility in multi-family apartments

Given that the Government resources are limited, the proposed interventions can be made by a private investor, private construction company. The benefits for the companies given by the Government could be in the form of tax exempt for a certain period of time, or by obtaining of some of apartments, that in this case could be apartments added on the roof top.

Extension of the living units is performed by basing in the standard dimensions of the furniture.

6.7 Summary

The purpose of this chapter was to provide architectural solutions that would comply with the needs of the users, providing of flexible solutions that could be transformed with the transformation of family structure. Reaching flexibility was attained by the skeletal system of construction which is applied in the construction of these multi-family apartments. The offered solutions enable adding and removing a room within the housing units based on the needs of the users. The rooms can be used as balconies in cases when a family does not need additional room and they can be transformed into a room in cases when necessary.

CHAPTER SEVEN

SUMMARY, FINDINGS, CONCLUSIONS AND RECOMANDATIONS

7.1 Introduction

The aim of this research was Post- Occupancy Evaluation of Social Multi-Family Apartments built in the Republic of Kosovo initiated by the Ministry of Environment and Spatial Planning and Ministry of Labor and Social Welfare. This chapter presents a summary of this study, the findings of the research and draws conclusions of the findings. Based on the findings recommendation and suggestions for future research has been provided.

7.2 Summary of the study

Public housing in general has been hardly addressed and documented in Republic of Kosovo, less so the social housing. Very little is known on the results of social housing units and their impact on the life quality of the residents who live there. Empirical data that provides an overview of the resident's perception with regard to their housing unit and the environment where they live are not available in the Republic of Kosovo. Furthermore, no research has been conducted to understand if the existing program for social housing is an adequate one or not. Such researches are of high importance in supporting the development of possible new housing policies.

The first Chapter of the thesis presents the Objectives which were the aim of the research, such as: 1. Examination of social buildings characteristics in the field of study, 2. Analysis of socio-economic characteristics of inhabitants in selected housing units, 3. Review of inhabitants satisfaction with housing and life in social housing units selected in the Republic of Kosovo, 4. Provision of suggestions and recommendations to the Government of the Republic of Kosovo, which would help in improving the conditions and residential satisfaction in social housing units.

The second Chapter of the thesis provides different information regarding the field of the study, housing challenges in the Republic of Kosovo, housing policies, it provides a description of the program for social housing, as well as emphasizes experiences from different countries which had a similar history to our own in terms of social housing. The third Chapter deals with literature

review, housing in general, multi-family apartments built in the Republic of Kosovo, changes that occurred with time in terms of functionality and square meters (m²), methods applied for the evaluation of buildings after use, methods for collecting data, different studies carried out in relation to Housing Satisfaction, the impact that living space has in quality of living of people and the importance of a qualitative project. Part of this chapter is also the Theoretical and Conceptual Framework of this study. The fourth Chapter describes the methodology used throughout this research. The chapter describes; that research methods used in this study are qualitative and research, where the source of collecting data included the Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare, both which initiated the construction of social multi-family apartments. The two techniques used in this research were the Questionnaire and the Observation Period. Furthermore, the chapter emphasizes that the field data and literature review have been presented in textual descriptive form, and not in a statistical format. The fifth Chapter lays out results in relation to Residential Satisfaction, it describes how satisfied are inhabitants with residential units, the location where the building and neighborhood facilities are, which comply with the objectives of the research. In the sixth Chapter, suggestions are provided regarding the extension of residential units in efforts to create residential areas which would fulfill the needs of the inhabitants. Building design planimetries were obtained from the Ministry of Environment and Spatial Planning.

7.3 The main findings

After 2000, multi-family apartments in the Republic of Kosovo were built by the private sector, while the public sector remained a synonym of social buildings. Following the recent war in Kosovo, a large number of the population became homeless. Thus, the Government built a large number of residential units for those who became homeless, primarily for war invalids and people in need. However, the country still faces housing shortages. It is therefore very important to consider the possibilities and strategies of providing an adequate housing. As discussed in the previous chapters, the study has attempted to assess social multi-family apartments built between 2000 and 2017. The aim was to understand to which extent these buildings meet the needs of the inhabitants and the design criteria, and what are the physical conditions of the buildings and the

neighborhood facilities. Based on the results gained through the collection of data from different sources, the main findings of this study are the following:

1. Most residential buildings have been built with the skeletal system, the walls of which are of clay bricks. A characteristic is that none of the buildings has an elevator, despite the fact that there is a considerable number of residents with disabilities. Furthermore, there is a lack of storage.
2. Building maintenance is one of the problems faced by the residents of these multi-residential buildings. There is no organized schedule for the maintenance. It is performed only by resident's initiative, which in most cases turns out to be unsatisfactory.
3. The neighborhoods in which the buildings are located are characterized by the lack of pedestrian paths, street lighting, children's playgrounds, sports and recreation areas as well as lack of parking spaces.
4. A large number of respondents responded that they are dissatisfied with size of their housing unit, while the majority of them responded that they are satisfied with the procedures of housing unit distribution such as acquiring period, application procedures and requirements for acquiring a housing unit.
5. The provision of new functional solutions for existing buildings and suggestions for new policies in the field of social housing for residential units to be constructed in the future may influence a rise in Residential Satisfaction and have positive impact in the social aspect of inhabitants with social assistance and those with low income.

7.4 Conclusions

Based on documents collected from different sources and research, it emerges that;

- While the aims of the Government of Republic of Kosovo were the provision of Housing Units appropriate for inhabitants of social buildings, followed with adequate infrastructure and other accompanying elements, such as; playground for children and recreations. Findings prove that not all of these characteristics have been fulfilled. There have been many initiatives from the Government to provide shelter for people in need, and this shelter

should be adequate for the needs of families, but the situation is not as satisfactory as were the expectations.

- Housing Units do not meet the needs of users in terms of living space
- Inhabitants feel isolated from the rest of the population
They expressed “we are isolated like in prison”
- The neighborhoods in which the buildings are located are characterized by lack of pedestrian paths, street lighting, children’s playgrounds, sport and recreation areas as well as lack of parking spaces.
All these were included in designs, but none of them were realized.
- None of the buildings has an elevator, despite the fact that there is a considerable number of residents with disabilities.

The results from the questionnaire document data in relation to the level of satisfaction of inhabitants with the residential unit and residential complex, whereas through the Observation Period, various issues have been documented in relation to characteristics of multi-family apartments, the neighborhood where these buildings are, and the current infrastructure. The research proves that the largest number of surveyed persons have very low income, at around 50-100 Euro per month. This shows that these inhabitants cannot afford to solve the housing problem on their own. On the other hand, this proves that residential units have been distributed to families in need, which complies with the results, based on monthly income, leading to the conclusion that the satisfaction with distribution procedures of residential units is high. Residential units are occupied by families on social assistance, families of martyrs and families whose houses were destroyed by the war of 1999. Based on the results regarding the level of satisfaction of inhabitants, it emerges that the majority of them were not satisfied with the size of residential units, and problems arose in cases of changes in family structures. The surveyed persons expressed that they feel isolated from the rest of the population; “*we are isolated like in prison*”. This was understood during the Observation Period by the researcher. The lack of warehouses as part of residential units was present, only one of multi-family apartments had a warehouse. Construction materials used were of poor quality, with many apartments molding as a result of facade damage or inadequate isolation of sanitary knots. Although the biggest percentage of the surveyees expressed dissatisfaction with the size of residential units, the biggest percentage of the surveyees also expressed that they would not like to be moved from their residential unit when comparing the

current residential unit with the one they used to live in, which shows that the level of satisfaction of inhabitants may be influenced by the comparison of the current housing with the one they lived previously in.

7.5 Research constraints

The limitation of this study was that the questionnaire was administered in Albanian language, and there were cases when some families did not speak Albanian. In these cases, the researcher and assistants had to help the surveyed persons fill in the questionnaire by translating it.

During the study, it was found out the most families live in small residential units when compared with the number of family members living in them. The Government should build bigger residential units for families on social assistance, and they should at least fulfill minimal design criteria. The research proves that the size of residential units, lack of infrastructure, lack of playgrounds for children, spaces for sports and recreation, as well as lack of lighting poles are factors which have had an impact in Residential Satisfaction. In order to assess the quality of residential buildings in general, infrastructure has been identified as one of the key issues, and research shows that it is below the adequate level. Apart from this, residential units and multi-apartment buildings in general had poor construction material, factors which influenced Residential Satisfaction.

7.6 Recommendations for Ministry of Environment and Spatial Planning and Ministry of Labor and Social Welfare

The following are suggestions and recommendations provided to the Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare, which would influence the increase of residential satisfaction of inhabitants of residential units. These suggestions would help in future developments in terms of new social housing. The results of the research show that criteria for appropriate housing in selected social housing for this study were not met.

7.6.1 Proposal for future policies

Having in mind that the Government of the Republic of Kosovo does not have sufficient funds for building social buildings for the needs that exist in the country, public-private partnerships would

be very important, since such cooperation would soothe the current crisis in the country in terms of social housing.

1. The Housing Situation in Kosovo is quite dire as a result of the war in 1999, and a result of poor housing policies before and after the war. Based on the Investment Sector, the construction of multi-apartment buildings in many countries, but also in Kosovo is divided in two groups:

1. Public Sector (Public multi-apartment buildings – Social Housing) and

2. Private Sector (Private multi-apartment buildings)

During the period after the war, our country was dominated by private sector construction of multi-family apartments, whereas the Public Sector remains synonymous with Social Housing. Multi-apartment social buildings constructed after the war by the Government of the Republic of Kosovo are occupied by inhabitants on social assistance, families of martyrs and war invalids. Usually, such buildings are constructed in city outskirts, in non-urbanized areas. In order to overcome this problem, the Government can create such policies which would enable the distribution of these population groups in multi-family apartments constructed by the private sector, at a certain percentage. In these cases, a certain number of residential units would be distributed to social cases, whereas private builders would be exempted from certain state taxes, to be determined by the Government. Such policies would enable a mixed population within one residential block, avoiding thus the feeling of discrimination which would affect the residential satisfaction of inhabitants.

2. In the Republic of Kosovo, there has not been a systematic evaluation after use of residential units built by the Government of the Republic of Kosovo. This is more than necessary and MESP, in its Draft Law on social housing emphasizes that it is very important to undertake an evaluation of the factual situation of social multi-family apartments, in order to see if buildings in question fulfill acceptable housing criteria. A systematic evaluation would also enable the creation of a database of changes in family structure of families living in certain residential units. Further on, the issue should be reviewed. An appropriate way would be if residential units to be distributed to families on social assistance were residential units with flexibility regarding the functional aspect. Knowing that said inhabitants cannot change their residential units even in cases when they need

to, and knowing that family structure changes with time, this would enable inhabitants to adjust the function of the residential unit depending on their needs.

3. Regarding social buildings in Kosovo, it is suggested that there should be a combination among different population structures – those with low and medium income and inhabitants on social assistance. In this case, 40% of beneficiaries in multi-family apartments constructed by the Government can include inhabitants on social assistance, 30% of beneficiaries – inhabitants with low income and 30% inhabitants with medium income, and the Government determines the criteria on low, medium and high income. In such cases, inhabitants with low and medium income are obliged to pay monthly rent which would be set by the Government – revenues which would be used for the maintenance of said buildings, whereas inhabitants on social assistance would not be obliged to pay monthly rent. In this way, a mix of inhabitants would be created within a multi-apartment building, helping this way for inhabitants on social assistance not to feel discriminated and isolated from the rest of the population, as has been the case until now in the Republic of Kosovo. Having in mind that the maintenance of buildings is below any standard, the accumulation of funds for their maintenance would have an impact in the improvement of quality of life of inhabitants in general.

4. During the distribution of residential units, it is preferred that ground floors of buildings be distributed to families with members with disabilities or blindness.

7.7 Recommendations for next research

I recommend that evaluations on Social Housing should be done also in the future. Evaluations in this research have been carried out only regarding multi-family apartments constructed by the Ministry of Environment and Spatial Planning and the Ministry of Labor and Social Welfare. Future evaluations by young researchers should be done also for buildings constructed by Municipalities and different international donors. It is very important to carry out evaluations of subsidized individual houses and make a comparison of Residential Satisfaction between multi-family apartments and individual residential units in order to understand which form of housing is more appropriate for inhabitants of the country where the research has been carried out.

Bibliography

- Abdul Ghani Salleh. (2008). Neighbourhood factors in private low-cost housing in Malaysia. *Habitat International* 32, 485–493.
- Agnes BORSOS. (2014). LIVING SPACES-PREFABRICATED APARTMENTS. *Pollack Periodica*, 9(2), 59-66. doi:21.09.2016
- Bryan Lawson. (2005). *How Designers Think?*
- Cousins, M. (2009). *Design Quality in New Housing-Learning from the Netherlands*. New York.
- Doris Andoni. (2000). *The Impact of Housing Policy on the Poor in Albania*, Rotterdam; University of Lund and Institute for Housing and Urban Development Studies.
- Eziyi Offia Ibem; Akunnaya P. Opoko; A.B.Adeboye & Dolapo Amole. (2013). Performance evaluation of residential buildings in public housing estates in Ogun State, Nigeria: Users' satisfaction perspective. *SciVerse ScienceDirect*, 2, 178-190.
- Federal Facilities Council Technical Report No.145. (2001). *LEARNING FROM OUR BUILDINGS, A State of the Practise Summary of Post Occupancy Evaluation*.
- Gabriella Medvegy. (2014). Architectural space-transitions of the floor plan of design projects. *ICRAE 2014 - 2nd International Conference 'Research and Education Challenges Towards the Future'*. Shkodra, Albania.
- Grozdan Knežević. (1989). *Visestambene Zgrade (Multi-family apartments)*. Zagreb.
- Hashim, Ahmad Hazira. (2003). Residential Satisfaction and Social Integration in Public Low Cost Housing in Malaysia. *Pertanika J. Soc. Sci. & Hum.* 11(1), 1-10. Retrieved from http://psasir.upm.edu.my/3428/1/Residential_Satisfaction_and_Social_Integration_in.pdf, 11.10.2017
- IBEM, Eziyi Offia. (June 2011). Evaluation of Public Housing in Ogun State, Nigeria.
- Independent Commission for Mines and Minerals. (n.d.). Retrieved from <http://www.kosovo-mining.org/kosovoweb/action/switchLanguage.do?activePagePath=/en/kosovo/climate.html&language=al>; 25.09.2017
- János Gyergyák, Erzsébet Szeréna Zoltán. (October 2017). Renewal of a Housing District from the Sixties in Budapest. *6 th UBT Annual International Conference on Architecture and Spatial Planning*, (pp. 58-63). Durrës, Albania.
- Julia Park. (January 2017). *One hundred years of housing space standards, What now? 2009 'Resident satisfaction with space in new homes; What residents think'; HATC WITH IPSOS MORI FOR CABE AND EP. WITH RIBA.*

- Karel Teige. (1932). *The minimum dwelling*.
- Kosovo statistic entity. (3 October, 2007, October 3). Poverty Assessment in Kosovo. Retrieved from <http://ask.rks-gov.net/media/2727/vleresimi-i-varferise-ne-kosove-vellimi-ii.pdf>; 25.09.2017
- Liu Wen Tao. (April 2015). Living conditions-The key issue of housing development in Beijing Fengtai District. *HBRC Journal*, 11(1), 136-142. doi:27.09.2016
- Lulzim Beqiri, Zejnullah Rexhepi, Mimoza Sylejmani. (28-30 October 2016). Post disaster (war) rapid construction and its impacts on reducing living space at residential houses in Kosova. *International Conference on Business, Technology and Innovation*, (pp. 82-89). Durrës, Albania.
- Milan PORHINCAK, Adriana ESTOKOVA, Silvia VILCEKOVA. (2011). COMPARISON OF ENVIRONMENTAL IMPACT OF BUILDING MATERIALS OF THREE RESIDENTIAL BUILDINGS. *Pollack Periodica*, 6(3), 53-62. doi:21.09.2016
- Milica Živković, Goran Jovanović. (2012). A method for evaluating the degree of housing unit flexibility in multi-family housing. *FACTA UNIVERSITATIS*, 10, 17-32. doi:10.2298/FUACE120107Z
- Mimoza Sylejmani, Gabriella Medvey, Lulzim Beqiri. (2017, March 21). Spatial Layout of the functions in Kulla. *Pollack Periodica*, 12(1), pp. 159-170. doi:10.1556/606.2017.12.1.13
- Mimoza Sylejmani, Lulzim Beqiri. (6-7 November 2015). Analysis of Hotels-Case study, Kosovo. *International Conference on Architecture and Spatial Planning*, (pp. 41-45). Durrës, Albania.
- Mimoza Sylejmani, Medvey Gabriella. (April 2018). Multi-family apartments constructed between 1947 and 2017 in Kosovo. *AKADEMIAI IKIADO/ AK Journals, Pollack Periodica*, 13(1), 193-202. Retrieved from <http://www.akademiai.com/content/120375/>
- Ministry of Environment and Spatial Planning. (2016). *Regulation MESP NO.03/2016 for Minimum Technical Standards for Residential Buildings in Condominium*. Retrieved from <https://gzk.rks-gov.net/ActDocumentDetail.aspx?ActID=13054>, 10.10.2017
- Ministry of Environment and Spatial Planning. (n.d.). Division of housing. Retrieved from <http://mmp-h-rks.org/sq/Divizioni-i-Banimit>; 28.09.2017
- Ministry of Environment and Spatial Planning. (February 2004). *Spatial Development Report for the Housing Sector*. Prishtine. Retrieved from <http://www.ammk-rks.net/repository/docs/Banimi.pdf>; 28.09.2017
- Mohammad Abdul Mohit and Mohamed Azim. (2012). Assessment of Residential Satisfaction with Public Housing in Hulhumale', Maldives. *ELSEIVER, Science Direct*. Retrieved from https://ac.els-cdn.com/S1877042812032168/1-s2.0-S1877042812032168-main.pdf?_tid=1deaccae-cd7f-11e7-9f00-

0000aacb362&acdnat=1511133330_1a29f5334fa48b691c629e5560cd5652, last seen 19.11.2017

- Mohammad Abdul Mohit, Mansor Ibrahim, Yong Razidah Rashid. (2010). Assessment of residential satisfaction in newly designed public low-cost. *Habitat International 34, ELSEVIER*, 18-27. Retrieved from <http://irep.iium.edu.my/3157/1/sdarticle.pdf>, 11.10.2017
- Mohammad Abdul Mohit, Mansor Ibrahim, Yong Razidah Rashid. (2010). Assessment of residential satisfaction in newly designed public low-cost housing in Kuala Lumpur, Malaysia. *ELSEIVER, Habitat International 34*.
- Mojtaba Parsaee, Parinaz Motealleh, Mohammad Parva. (2016). Interactive architectural approach (interactive architecture); An effective and adaptive process for architectural design. *HBRC Journal, 12*, 327-336.
- N.H.Wong, H Feriadi, P.Y Lim, K.W Tham, C Sekhar, K.W Cheong. (2002, December). Thermal comfort evaluation of naturally ventilated public housing in Singapore. *Building and Environment, ELSEIVER, 37*(12), 1267-1277. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0360132301001032>, last seen 10.11.2017
- OGUNDE Ayodeji Olubunmi. (2013, February). PERFORMANCE EVALUATION OF STATE SUBSIDIZED HOUSING. OGUN STATE, NIGERIA. doi:11.09.2017
- Peter Barrett and David Baldry. (2003). *Facilities management : towards best practice / Peter Barrett & David Baldry*. Oxford, U.K. ; Malden, Mass. : Blackwell Science. doi:11.09.2017
- Stafford Pettersson Neath. (2005). *What it's like to live there; the views of residents on the design of new housing*. Commission for Architecture and the Built Environment. Retrieved from <http://webarchive.nationalarchives.gov.uk/20110118142542/http://www.cabe.org.uk/files/what-its-like-to-live-there.pdf>, last seen 30.10.2017
- Sunand Prasad. (2004). *Measuring Quality and Value; Inclusive Maps, in Sebastian Macmillan, Designing Better Buildings, Quality and Value in the Built Environment*. London; Spon Press.
- The Government of the Republic of Kosovo, The Ministry of Environment and Spatial Planning. (n.d.). *Concept document for social housing*. Retrieved 29.09.2017, from http://www.kryeministri-ks.net/repository/docs/KD_Banim_Social_-_MMPH.pdf; 29.09.2017
- The Ministry of Environment and Spatial Planning. (June 2010). *Spatial plan of Kosovo-Spatial Development Strategy 2010-2020*. Prishtine. Retrieved from http://www.kryeministri-ks.net/repository/docs/Plani_Hapesinor_i_Kosoves_2010-2020_shq.pdf, 09.09.2016

Theo JM van der Voordt, Herman BR van Wegen. (2005). *Architecture in use: An Introduction to the Programming, Design and Evaluation of Buildings*. Elsevier.

Wolfgang F.E. Preiser, Jacqueline C. Vischer. (2005). *Assessing Building Performance*. New York: Elsevier. doi:11.09.2016

List of abbreviations;

POE-Post Occupancy Evaluation

MESP-Ministry of Environment and Spatial Planning

MLSW- Ministry of Labour and Social Welfare

BPE-Building Performance Evaluation

DQ-Design Quality

JUS-Jugoslav Standards

NGO- Non Governmental Organization

CABE-Commission for Architecture and the Built Environment

Appendix 1

Questionnaire for the residents of Social multi-family apartments

C/Nr/F/O.....

Dear Participant

This Questionnaire is designed to address high-density social housing in Kosovo built between year 2000 to 2016. It is a scientific tool for collecting survey data pertaining social housing buildings in Kosovo. All gathered data will be regarded with high discretion and will be administered strictly for academic purposes.

We thank you for your participation.

Mimoza Sylejmani

INSTRUCTION; Question should be answered with symbol (√), or as stated otherwise

PART A; PERSONAL INFORMATION

1. Gender, (a) Male (b) Female

2. Age? (a)18-30 years old , (b)31-40 years old, (c)41-50 years old ,

(d)51-60 years old , (e) more than 61 years old

3.Marital status; (a) Single , (b) Divorced , (c) Married , (d)Widowed

4.What is your level of education? (a) Elementary School , (b) Secondary school ,

(c) Bachelor degree , (d) Master degree , (e)PhD , (f) Something else

.....

5. What is your profession?

6. What is your monthly income? (a) 50-100 € , (b) 100-200 € , (c) 200-300 € , (d) above 300 €

7. How long have you been living in this building?

(a) 1-2 years , (b) 3-5 years , (c) more than 5 years

8. How many family members live in this residential unit?

.....

9. Do you own this residential unit? Yes/No. If yes, how did you purchase it? Through inheritance? , or other ways, please clarify

.....

10. For future reference, where would you prefer for subsidized residential buildings to be constructed? (a) city center , (b) on the proximity to the city center , (c) suburban areas , outside city

PART B; CHARACTERISTICS OF THE BUILDING

1. Does this residential unit poses an individual kitchen? Yes , No

If yes is it integrated (a) on the living room or

(b) separated from the living room

2. Which of the following spaces are not integrated in your residential unit?

(a) storage , (b) balcony , (c) utility , (d) toilet , (e) other, please clarify

.....

3. With what material is constructed the floor of your living and bed room?

(a) parquet , (b) laminated floor , (c) linoleum , (d) carpet , (e) other, please clarify.....

4. With what material are walls in your residential unit plastered?

(a) not plastered , (b) gypsum plaster , (c) mortar , (d) other, please clarify

.....

5. With what materials are constructed windows in your residential unit? (a) wood , (b) metal

, (c) plastic , (d) other, please clarify

6. With what materials are constructed doors in your residential unit? (a) wood ,

(b) metal , (c) plastic , (d) other, please clarify

.....

7. With what materials is constructed the floor on the bathroom and toilet in your residential

unit? (a) ceramic tiles , (b) other, please clarify

.....

8. With what materials is constructed walls on the bathroom and toilet in your residential unit?

(a) ceramic tiles , (b) plastered walls, without ceramic tiles , (c) other, please clarify

.....

9. How frequent are water reductions conducted by city water network

(a) rare , (b) often

10. How frequent are electricity reductions; (a) rare , (b) often

11. Does your building has a building management?

(a) yes , (b) no

12. Are your current living condition in this building better than your previous one?

(a) yes , (b) no

13. Would you prefer in future to live in another residential building? (a) yes , (b) no ,

if yes, please clarify;

.....

PART C; RESIDENTIAL SATISFACTION

Based on the following questions, please clarify your satisfaction level with your residential unit?

Please use the symbol (√)

	How satisfied are you with?	Very unsatisfied	Unsatisfied	Fairly satisfied	Satisfied	Very satisfied
1.	Numbers of rooms?					
2.	Size of the living room?					
3.	Size of the bedrooms?					
4.	Natural daylight in the living room?					
5.	Natural daylight in the bed room?					
6.	Air circulation in the residential unit?					
7.	Acoustics in the residential unit?					
8.	Level of security in general?					
9.	Quality of doors and windows in your residential unit?					
10.	Operation of electrical installation in your residential unit?					
11.	Water supply?					
12.	Electricity supply?					
13.	Quality of construction materials?					
14.	Greenery/green spaces?					
15.	Playgrounds for kids?					
16.	Recreational and sport spaces?					
17.	Existence of parking spaces?					
18.	Location of the residential building?					
19.	Orientation of the residential unit?					
20.	Proximity of the residential building to hospitals?					

21.	Proximity of the residential building to preschools and kindergartens?					
22.	Proximity of the residential building to work places?					
23.	Proximity of the residential building to schools?					
24.	Proximity of the residential building to market places?					
25.	Proximity of the residential building to religious buildings?					
26.	Existence of routes (street, allies, etc.)?					
27.	Quality of roads?					
28.	Existence of sideways?					
29.	Quality and width of sideways?					
30.	Existence of street lights in the neighborhood?					
31.	Current state and function of these street lights?					
32.	Building management in general?					
33.	Building maintenance?					
34.	Building sanitation in general?					
35.	Residential unit distribution procedure?					
36.	Applying procedures?					
37.	Time duration of acquiring a residential unit?					
38.	Propriety of residential unit distribution?					
39.	Criteria for acquiring a residential unit?					

Sub-components of residential satisfaction

	Satisfaction with housing units
1.	How satisfied are you with numbers of rooms?
2.	How satisfied are you with size of the living room?
3.	How satisfied are you with size of the bedrooms?
4.	How satisfied are you with natural daylight in the living room?
5.	How satisfied are you with natural daylight in the bed room?
6.	How satisfied are you with air circulation in the residential unit?
7.	How satisfied are you with acoustics in the residential unit?
8.	How satisfied are you with level of security in general?
9.	How satisfied are you with quality of doors and windows in your residential unit?
10.	How satisfied are you with operation of electrical installation in your residential unit?
11.	How satisfied are you with water supply?
12.	How satisfied are you with electricity supply?
13.	How satisfied are you with quality of construction materials?

	Satisfaction with neighborhood characteristics
1.	How satisfied are you with greenery/green spaces?
2.	How satisfied are you with playgrounds for kids?
3.	How satisfied are you with recreational and sport spaces?
4.	How satisfied are you with existence of parking spaces?

	Satisfaction with location of residential building
1.	How satisfied are you with location of the residential building?
2.	How satisfied are you with orientation of the residential unit?
3.	How satisfied are you with proximity of the residential building to hospitals?
4.	How satisfied are you with proximity of the residential building to preschools and kindergartens?
5.	How satisfied are you with proximity of the residential building to work places?
6.	How satisfied are you with proximity of the residential building to schools?
7.	How satisfied are you with proximity of the residential building to market places?
8.	How satisfied are you with proximity of the residential building to religious buildings?

Satisfaction with services and infrastructure	
1.	How satisfied are you with existence of routes (street, allies, etc.)?
2.	How satisfied are you with quality of roads?
3.	How satisfied are you with existence of sideways?
4.	How satisfied are you with quality and width of sideways?
5.	How satisfied are you with existence of street lights in the neighborhood?
6.	How satisfied are you with current state and function of these street lights?

Satisfaction with management of housing estate	
1.	How satisfied are you with building management in general?
2.	How satisfied are you with building maintenance?
3.	How satisfied are you with building sanitation in general?

Satisfaction with distribution procedure?	
1.	How satisfied are you with residential unit distribution procedure?
2.	How satisfied are you with applying procedures?
3.	How satisfied are you with time duration of acquiring a residential unit?
4.	How satisfied are you with propriety of residential unit distribution?
5.	How satisfied are you with criteria for acquiring a residential unit?

Appendix 2

OBSERVATION PERIOD

Building location;

.....

1. Does the building has an entry hall? (a) yes , (b) no

2. Does the communal corridor has a door? (a) yes , (b) no

If yes, with what material is constructed? (a) wood , (b) iron , (c) plastic ,

(d) other, please clarify

3. Do staircases have railings? (a) yes , (b) no

If yes, with what material is constructed? (a) wood (b) stainless steel , (c) mesing ,

(d) aluminum , (e) other, please clarify

4. Material of communal corridor floor is constructed with; (a) concrete ,

(b) linoleum , (c) ceramic tiles , (d) terrazzo , (e) marble , (f) granite

(f) other, please clarify

5. With what materials are walls of communal corridors plastered? (a) not plastered ,

(b) gypsum plaster , (c) mortar , (d) other, please clarify

6. Is the communal corridor naturally lit? (a) yes , (b) no

If yes, with what materials are windows constructed? ((a) wood , (b) iron ,

(c) plastic , (d) other, please clarify

7. Does the communal corridor has lighting? (a) yes , (b) no

8. Are building corridors equipped with fire extinguishers? (a) yes , (b) no

9. Is the building equipped with an elevator? (a) yes , (b) no

10. Is there a communal space for tenant council in the building? (a) yes , (b) no

11. Is there a cellar for tenants? (a) yes , (b) no

If yes, for what purpose, please clarify

12. Does the building has an garage parking space? (a) yes , (b) no

13. Does the building has fire doors on the communal corridors? (a) yes , (b) no

14. Does the building has fire escape? (a) yes , (b) no

15. Is the façade insulated? (a) yes , (b) no

If yes, with what material? (a) styrofoam , (b) glass wool ,

(c) other, please clarify

16. With what material is constructed the building façade? (a) not plastered , (b) plaster ,
(c) bricks , (d) other, please clarify

17. What type of roof has the building? (a) flat roof , (b) pitched roof If it is a pitched
roof, with what materials is constructed? (a) roof tiles , (b) shingles ,
(c) metallic sheet ,
(d) other, please clarify,.....

Appendix 3

What is your profession?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 99	20	5.4	5.4	5.4
Athlete	2	.5	.5	5.9
Auto mechanic	3	.8	.8	6.7
Baker	1	.3	.3	7.0
Chef	4	1.1	1.1	8.1
Cleaner	22	5.9	5.9	14.0
Computer technician	2	.5	.5	14.5
Economist	7	1.9	1.9	16.4
Electro engineer	1	.3	.3	16.7
Farmer	1	.3	.3	16.9
Financial technician	2	.5	.5	17.5
Hendikos	1	.3	.3	17.7
Housewife	97	26.1	26.1	43.8
Konduktar	1	.3	.3	44.1
Laboratory technician	2	.5	.5	44.6
Laborer	62	16.7	16.7	61.3
Lawyer	4	1.1	1.1	62.4
Librarian	1	.3	.3	62.6

Machinery technician	2	.5	.5	63.2
Manager	1	.3	.3	63.4
Mason	5	1.3	1.3	64.8
Master	1	.3	.3	65.1
Mathematician	1	.3	.3	65.3
Mechanical	1	.3	.3	65.6
Medicinal sister	4	1.1	1.1	66.7
Merchant	2	.5	.5	67.2
Metallurgist	1	.3	.3	67.5
Musician	1	.3	.3	67.7
Nanny	7	1.9	1.9	69.6
Non	53	14.2	14.2	83.9
Non-com	1	.3	.3	84.1
Nurse	1	.3	.3	84.4
Nursery governess	1	.3	.3	84.7
Policeman	5	1.3	1.3	86.0
Priest	1	.3	.3	86.3
Receptionist	1	.3	.3	86.6
Retiree	4	1.1	1.1	87.6
Secretary	1	.3	.3	87.9
Security	12	3.2	3.2	91.1
Seller	3	.8	.8	91.9
Sentry	1	.3	.3	92.2
Steward	1	.3	.3	92.5
Student	1	.3	.3	92.7
Supervisor KEDS	1	.3	.3	93.0
Tailor	4	1.1	1.1	94.1
Teacher	6	1.6	1.6	95.7
Technical	5	1.3	1.3	97.0
Technician of machin	5	1.3	1.3	98.4
Transporter	1	.3	.3	98.7
Turnkey	1	.3	.3	98.9
War veteran	2	.5	.5	99.5
Woodcutter	2	.5	.5	100.0
Total	372	100.0	100.0	

For future reference, where would you prefer for subsidized residential buildings to be constructed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	City center	241	64.8	64.8	64.8
	On the proximity to the city center	100	26.9	26.9	91.7
	Suburban areas	31	8.3	8.3	100.0
	Total	372	100.0	100.0	

Does your building has a building management?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	1.1	1.1	1.1
	No	367	98.7	98.7	99.7
	3.00	1	.3	.3	100.0
	Total	372	100.0	100.0	

Would you prefer in future to live in another residential building?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	213	57.3	57.4	57.4
	No	158	42.5	42.6	100.0
	Total	371	99.7	100.0	
Missing	System	1	.3		
	Total	372	100.0		