

Analyzing the Vulnerability of the Urban Distressed Areas Based on the Principles of Passive Defense (Case Study: Region 3 of Isfahan City)

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ABSTRACT

Old fabric of cities is one of the important issues in urban planning which nowadays, due to the oldness of buildings, distressed fabric, and inappropriate inaccessibility has become a vulnerable field to natural and human-made events and disasters at the center of cities. The objective of the present study is to analyze the vulnerability of urban distressed areas based on principles of passive defense for accessing a sustainable model. The present study is an applied one in terms of objectives, descriptive-analytical in terms of nature and method, and survey study in terms of data collection. The research intellectual method is inductive reasoning. Collecting data was conducted via two library and field (questionnaire) studies. The research population included all residents aged at 20-50 year old and older living in region

$$n = \frac{Z^2 S^2}{D^2}$$

3 of Isfahan City in 2015 whose exact number was unknown. To determine the sample size, the formula was used. According to conducted calculations, the sample size was obtained as 430 participants. The sampling method was purposive random sampling method considering that the participants aged in the 20-50 years old and older age group in region 3 of Isfahan were scattered all over the city. To conduct inferential analysis, the data collected using SPSS software, one sample t-test and ANOVA were used. The findings of the research indicate that about 87% of the residents of are 3 of Isfahan City declared the lack of observation of principles of passive defense in the distressed area of region 3. In addition, the results indicated that there is difference between the ideas of residents in region 3 about observing the principles of passive defense in distressed areas based on components of sociocultural characteristics, employment, income, and residents' area of housing units.

KEY WORDS: passive defense, distressed area, region 3 of Isfahan City.

INTRODUCTION

Statement of the problem

In the field of non-natural and human-made disasters such as war, the necessity of defense for each country is very vital, important and strategic. Defense includes two main parts; active defense and passive defense. In active defense, all defensive planning and measures require the application of weapons and military equipment, and passive defense or civil defense includes a set of non-armed measures resulting in reducing the vulnerability of human forces, buildings, facilities, equipment and urban arteries to the adversary and devastating operations on the part of enemies. The latter term can be used for defenses against unexpected events (earthquake, flood, etc.) (Hosseini Amini, 2010: 58). To achieve the objectives of passive defense, and uniting people, the role of their living place is very important (Foster, 2010: 276). Since as the result of the upheavals of the Industrial Revolution in technological, socioeconomic issues and consequences due to the invasion and concentration of population and activities to the central parts of cities, central core fabrics and areas suffered from physical, economic, and social damages and this process caused that over time, old and central areas of cities lose their dynamicity and those favorable neighborhoods of the past changed into challenging and inferior ones, and suffered from imbalance in such a way that cannot realize new needs of current urban communities (Khangalzadeh, 2011, 56). From among characteristics of these neighborhoods, the existence of traditional fabric of road network and the narrow streets, the distractedness residential units, poor infrastructures and environmental problems, the existence of the proximity of incompatible land uses such as warehouses and manufacturing plants with residential users, and etc. can be referred to (Hanachi, 2012: 42). These neighborhoods are currently passing the path of stagnation and backwardness, and the

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continuance of such spatial forms causes the formation of a kind of socioeconomic process in residential neighborhoods with old and distressed areas and fabrics which groups with high income have left and working class as well as mostly poor migrants have been replaced them. This issue results in inability to reconstruct and recreate mentioned areas by residents due to the lack of sense of belonging to the place due to not being native, and the lack of financial power (Khalili Mahani, 2011: 38). Since one of the most important factors in passive defense in cities is the arrangement of land use, planning of land use can have a main role in the reduction of the degree of vulnerability to natural disasters in general, and military invasions in particular. If the principle of proximity is observed in determining urban users and the lack of the position of heterogeneous and incompatible users with each other, the possibility of evaporation of buildings can be provided more easily and rapidly, and if users are distributed in urban structure in such a way that it causes the lack of concentration in the urban cores and sensitive areas in cities, it can be expected that appropriate planning of land use can be effective in the cycle of crisis management in addition to the reduction in vulnerability of cities in the process of relief and even the reconstruction after disasters (Saremi and Hosseini Amini, 2012: 62). Unfortunately, nowadays, urban distressed areas face with the problem of the existence of incompatible users and this problem is a barrier to the path of crisis management (Farzam Shad, 2011: 31). In addition, the other factor affecting passive defense is the state of passages and secure and easy access to services at the time of crises, which regarding to the problems of old fabrics, the state of passages have great importance. Street network and its components from the viewpoint of urban development, is one of the main users affective on other users and is affected by them as well (Nabati, 2012: 24). The first and most basic reaction of a damaged population against factors creating crises, naturally and possibly is fleeing from canons of crises, but the existence of narrow passages and the irrelevance of the width of streets for the traffic of vehicles, which are among characteristics of distressed areas, can provide grounds for engendering problems regarding the traffic of vehicles particularly ambulances, and also grounds for probable street blockage; therefore, the group of people who want to flee from dangers, will be kept there and their losses will increase (Parizadi, 2012: 59). Since there are still distressed and inefficient areas at the heart of even big cities in Iran, and these areas will suffer from the highest degree of vulnerability, authorities and planners in Iran should have basic thoughts for reconstructing, renovating, and establishing these distressed areas, and start to find appropriate places for establishing vital, sensitive, and important structures in cities and places with the highest level of security against possible threats in the process of planning and urban management with the view of passive defense in their minds (Kamran, 2013: 48). The problem of the present study originates from the issue that Isfahan is one of the oldest cities in Iran and in the past, it was the field of the presence of official and unofficial activities in different domains, and it was the origin of the best instance of Iranian urban spaces. Nowadays, its old neighborhoods, due to their distressed fabrics (in physical, economic, and social dimensions) and due to the passage of time and vulnerability of materials used in them, has been changed into one of the challenging problems. According to the approval of Iran's High Council for Planning and Architecture, 12% of the fabrics of the City of Isfahan is in the group of distressed areas. Region 3 of the City of Isfahan is among old areas of this city which has imposed cumbersome challenges of distressed fabrics on this area and different indices of distress such as narrowness and impenetrability of passages, old buildings, and the use of less durable materials in buildings, are among the characteristics of the buildings of this neighborhoods, and since, according to the documented reports, this region is on the fault; therefore, it can be predicted that regarding the status quo of this region, in case of occurring possible crises, the risk of irreparable damage to the lives and property of residents of this area is very high. The most outstanding significance of the present study for researchers is the necessity of identifying characteristics and shortages of the principles of passive defense in the distressed fabrics of region 3 of Isfahan in case of crises. Accordingly, the present study is to revise the principles of passive defense as an approach for crisis management in urban distressed areas and analyze the process of weak or strong application of these principles in planning distressed areas, and at last provide suggestions for contributing to improving problems and hazards of the distressed fabrics of region 3 at the time of accruing crises using passive defense. In addition, the present study is to answer the following questions:

Have principles of passive defense been observed in the distressed areas of region 3 in Isfahan City? Is there any difference between sociocultural characteristics of residents in region 3 of Isfahan regarding the observance of principles of passive defense in distressed areas?

REVIEW OF LITERATURE

Satler *et al.* (2012) in an article titled as "Erosive Processes in Urban Areas in the Island of Maranhao Brazil", investigated the indicators endangering urban distressed area. In the study, they know urban distressed areas in Brazil due to the lack of appropriate design regarding environmental features and socioeconomic conditions of urban

development, and also the lack of attention to the prevention of the establishment of indiscriminate and unplanned population.

Haase et al. (2014), in their study titled as “Modeling and simulating residential mobility in a shrinking city” investigated the damaged City of Leipzig in the West Germany and declared that the very high increase in the effects of crises is principally related to the distressed houses and buildings, the exit of indigenous people who had a sense of belonging to their neighborhoods, and unsanitary of neighborhoods.

Nabati (2012), in the book *principles and basics of passive defense*, after evaluating the history of passive defense in Iran, referred to the strategies of civil dense in other countries and its application in the planning of Iranian metropolises. The results of his research indicate that the application of principles of passive defense in urban projects before the occurrence of crises can be greatly effective in reducing losses of crises.

Zangiabadi et al. (2014), in their study titled as “evaluating the vulnerability of urban distressed areas with the approach of passive defense (case study: Ameri Neighborhood of Ahvaz), concluded that since in Iran, due to its geographical location and being located on the earthquake belts of the world, has regularly faced with natural disasters related to earthquake, urban distressed areas and peripheral and non-standard settlements in Iran, due to reasons such as not observing technical and engineering criteria in construction of buildings, inefficient communication network, the lack of facilities and equipment, are exposed to natural and human disasters and crises more than other areas; therefore, the appropriate positioning of users and reinforcing buildings in executive plans and planning should be seriously considered and rules and regulations should be developed in this regard.

Theoretical framework

Definitions and concepts

Distressed areas

Distress means the inefficiency due to the passage of time and consequently the oldness and burnout. If a city is considered as a living being, when the urban life in some parts of the city is facing recession due to each reason, its urban fabric started to become distressed (Forouzandeh, 2012: 37).

Risks and crises

The disasters are engendered naturally or by human beings, suddenly and increasingly and impose calamities and distress to human beings. In order to eliminate them, tremendous and basic measures should be done. In order to consider them as instable and serious events, determinative decisions should be adopted for preventing their unfavorable and serious consequences. The WHO divided crisis in terms of speed into two sudden and gradual groups and in terms of origin as two natural (earthquake, landslides, floods, storm, etc.) and human-made (technological disaster and intervention in nature, a political disaster like war, ecological disaster and indiscriminate use of natural resources) (Hosseini Amini, 2012: 7).

Passive defense

Passive defense refers to a set of measures which does not require the application of war and in fact is the most peaceful and most of the defensive method which results in reducing financial losses to the crucial civilian and military facilities (Fesharaki and Mahmoudzadeh, 2012: 14). Passive defense includes nine main principles illustrated in figure 1. In addition, in figure 2, the advantages of passive defense are generally referred to.

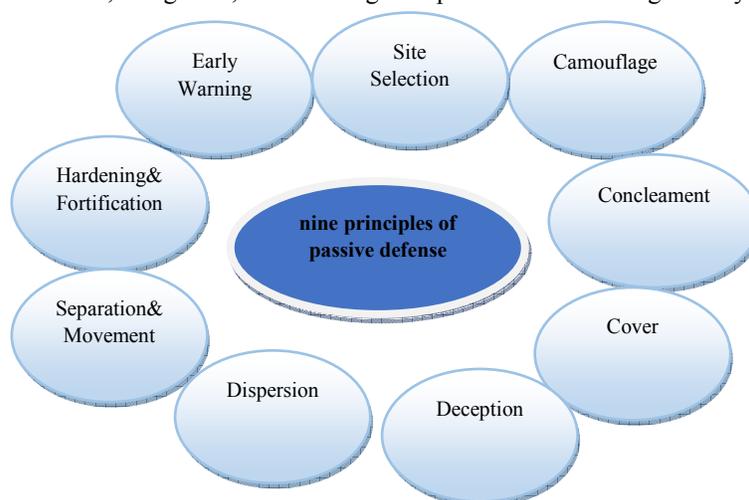


Figure 1: nine principles of passive defense, resource: Karbasian, 2011: 25

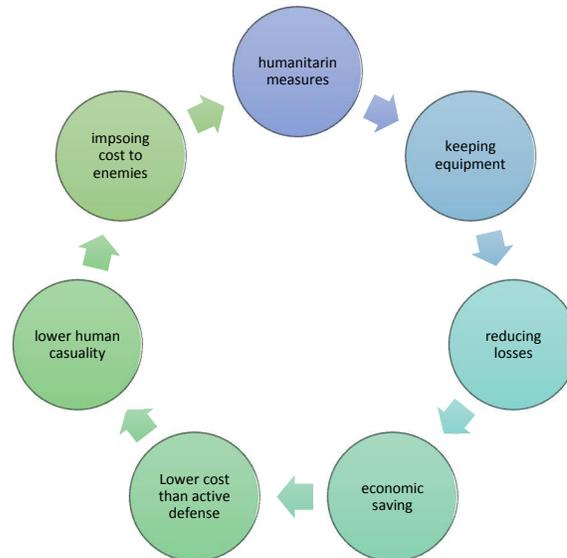


Figure2: advantages of passive defense resources, resource: Ghorbani, 2012: 22

Theoretical ideas

around factors of vulnerability of distressed areas in critical conditions:

If we assume that cities are living and active beings, the central parts of cities are their hearts (Arab Ahmadi, 2012: 12). Since in the central parts of cities, generally, the density of buildings, population density, and user density are higher than other parts, factors such as the lack of width passages due to compatibility with the old fabric in the central part of cities, the existence of old and distressed buildings, the concentrations of commercial, administrative, and decision making units, and the concentration of materialistic capitals in the central part cause rising the vulnerability coefficient of cities in critical conditions (Tavassoli, 2011: 18). In terms of vulnerability of a city according to physical indices, we can reach one of the most important physical indices, i.e. the structure of the city and neighborhoods. It can be said that in the single-core structure, and the concentration of economic and human facilities and equipment in one part of the city compared to other cities having several cores, the possibility of vulnerability increases. The vulnerability of cities to natural crisis or the fall of the city in case of military invasion of enemies can occur in less time duration (Movahedinia, 2013: 21).

John Warden in his book *Air Battle*, believes that the most important method in planning a war and the best strategy is to identify and the destruction of the centers of gravity of a country in case of invasion because the highest concentration of population and infrastructures are concentrated there and in case that these centers are identified accurately, in the least time duration, the invader can reach his aims, i.e. defeating the invaded country (Abdollahi, 2012: 37).

Ayatollahi in the book *defending towns against modern warfare factors*, believes that the most appropriate map of passages and streets in the case of defense against crises are for cities with a star structure which consider the nearest loophole for citizens and the more the number of streets with the same origin is, the more alternatives are provided for citizens, and with the reduction in the possibility of traffic jam the issue of population concentration which is one of the issues deteriorating damages after crises, can be solved. Another physical indices is the fabric type (Ayatollahi, 2012: 57).

Asgharian in the book *architectural requirements in Sustainable civil defense*, believes that each type of urban fabric are directly involved in capabilities of residents in escaping and refuging, in emergency facilities, on how to clean and even settle in temporary housing in case of crises and after it. For example, in case of crises, the disciplined fabric enjoys more possibility of fleeing and refuge or more easy relief, but the undisciplined fabric have more resistance against invasive crises. Alternatively, fabrics with supergranulation and seeking shelter in cases of crises, human causality increases and faces the possibility of relief operations and temporary housing with problems. In fabrics with high housing and population density, his vulnerability of fabrics in the time of crises is more. Areas in which the ratio of the constructed area to the open space is moderate or low, considering that after being devastated or damaged, the possibility of relief or fee from them will be easier, enjoy less vulnerability (Asgharian, 2013L 62). In addition, planning of land use can have a basic role in decreasing the degree of vulnerability of cities to natural disasters in general, and military invasions in particular. In case of observing proximities in determining

urban users, and the lack of placement of heterogeneous and incompatible users beside each other, it can provide the possibility of rapid evaporation of buildings, and on the other hand, if users in urban structures are distributed in such a way that they cause the lack of concentration in the urban cores and sensitive regions within cities, it can be expected that in the process of the cycle of crisis management, in addition to vulnerabilities of cities, in the process of relief and even construction after disasters, it can be effective (Andalib, 2014: 61). From the viewpoint of vulnerability in cases of crises and for the perspective of social structure of places in crisis, Kasperson in his book *Research and evaluation of sustainability: a framework for vulnerability* believes that the degree which makes people more vulnerable to dangers does not merely depend on nature or proximity to the source of danger, but it depends on social conditions as well. Accordingly, different populations which live under different social, economic, and institutional conditions, suffer from different levels of vulnerability (Kasperson, 2012: 65).

METHODOLOGY

The present study is an applied one in terms of objectives and descriptive-analytical one in terms of nature and method. In addition, its intellectual method is inductive reasoning. Data collection was conducted via two library and field studies. Regarding that in the present study, researchers were to analyze the vulnerability of urban distressed areas based on principles of passive defense based on ideas of residents of region 3 in Isfahan with employing a questionnaire; therefore, the research method was descriptive and data collection was survey study. The research population included all residents aged at 20-50 years old and older of region 3 in Isfahan in 2014 whose

$$n = \frac{Z^2 S^2}{D^2}$$

exact number was unknown. To determine the research sample size, the formula was used. According

$$n = \frac{1.96^2 \times 0.28}{0.05^2} = 430$$

to conducted calculations, () the sample size was obtained as 430 participants, but the completed questionnaires (returned ones) were 414 ones. The sampling method, regarding the fact that the individuals were aged at 20-50 years old and older were scattered in different regions of the city, the sampling method was the purposive random sampling was used. The time of doing research was May 2015 and the spatial scope of the research was region 3 of Isfahan City. To calculate data a researcher-made questionnaire was used. Specialized questions of the questionnaires have been developed based on components of the features of buildings and trust in the degree of the strength of the dwelling inhabited by residents, and evaluating the degree of observing principles of passive defense in region 3. The questionnaire has 16 questions in the close-answered form and with five-point Likert scale (very high, high, to some extent, low, very low) whose scoring method was 1-2-3-4-5. To determine the content validity of the questionnaire, firstly using resources, primary resource and consulting with elites, 20 questions were designed. Then, to determine the content validity, 7 professors and experts were asked to evaluate each questions by on a scaled ranging from “very poor to very good”. Four questions were considered as poor. The mean scores of the evaluation of 16 other questions was 4/11 (in the five-point Likert scale) indicating favorable validity. Then, in line with increasing the validity of the questionnaire, it was revised and finally, the final form of the questionnaire was prepared with 16 items. According to the Kendall’s coefficient, the validity of the questionnaire was obtained as 0.70 indicating favorable validity of the questionnaire. To evaluate the reliability of the questionnaire, after doing a primary study and determining the variance of questions, via Chronbach’s alpha coefficient, the reliability coefficient was obtained as 0.84. For inferential analysis, the obtained data were processed by SPSS software and one sample t-test and ANOVA were used.

Introducing the studied scope

The City of Isfahan with the area about 15080.34 hectares with 14 regions¹. Region 3 has been located in 51 degrees 41 minutes 22 seconds east longitude and 32 degrees 40 minutes and 8 seconds north latitude of the City of Isfahan (Governorate of Isfahan, 2015) (map 1) which in the detailed project, region 3 northerly is connected to Soroush and Moddares streets, easterly to Bozorgmehr street, southerly to Zayandehroud River and its surrounding streets such as Kamal Esmail, Moshtagh Aval, and westerly it reaches to Chahar Bagh Street. The area of the region as the status quo of it in the current report is 1118 hectates. As the suggested project, the western angle with an area about 26hectare and population as 3000 individuals was added to the studied scope. In the suggested project, region 3 was divided into 14 neighborhoods including Sarcheshmeh, Sartaveh, Ahmadabad, Joybareh, Shahshahan,

¹ It should be noted that in 2014, Khurasgan was added to Isfahan as the region 15 (resource: Statistics Book of Municipality of Isfahan).

Sonbolestan, Naghsh Jahan, Emamzadeh Esmaeil, Golzar, Ghaleh Tabareh, Malelk, Charkhab, Khajou, and Bagh Karan) among which the smallest one is neighborhood 8 (Emamzadeh Esmaeil) with a population about 600 individuals and the biggest is neighborhood 10 (Ghaleh Tabareh) which has about 14000 individuals (Bavand Counseling Engineer, 2012: 9).

Research findings

Research hypotheses

Hypothesis 1: principles of passive defense have been observed in the distressed areas of Bagh Ferdows Neighborhood.

Table 1: results of one sample t-test, comparing the mean scores of the degree of observing principles of passive defense in the distressed areas of Bagh Ferdows Neighborhood with hypothetical mean scores 3

Variable	Hypothetical mean scores	Mean scores	SD	t	Sig.
Observing passive defense in distressed areas	3	2.57	0.79	10.62	0.001

In the inferential analysis, to investigate the significance level, t-test used at $\alpha=0.05$. regarding that the obtained mean scores is 2.75 smaller than the hypothetical mean scores (3), and the obtained t-value is bigger than the critical t-table (1.95); therefore, it can be concluded that principles of passive defense in the distressed area of Bagh Ferdows has not been observed and these findings are statistically significant. As a result, the null hypothesis stating not observing principles of passive defense in the distressed area of Bagh Ferdows is confirmed.

Hypothesis 2: there is a significant difference between sociocultural characteristics of residents of Bagh Ferdows regarding observation principles of passive defense in the distressed area.

In this part, sociocultural characteristics of residents of Bagh Ferdows based on education, employment state, income, and area of residential units regarding observing principles of passive defense in the distressed area are presented in tables 2 and 3.

Table 2: the results of F test of mean scores of ideas of residents of Bagh Ferdows regarding the degree of observing principles of passive defense in the distressed area based on literacy

Source of changes	Total squares	df	Mean squares	F	Sig.
Intergroup	2.2		0.7	1.20	0.31
Intragroup	240.48	378	0.64		
Total	242.77	381			

In the inferential analysis, to investigate the significance level, the f-observed at the level of $p<0.05$, the result do not indicate any difference between the mean scores of the ideas of residents of Bagh Ferdows regarding the degree of observing the degree of observing principles of passive defense in the distressed areas based on the degree of literacy. In addition, the investigation of mean scores indicates the biggest mean scores is related to individuals with education level of diploma, and the smallest mean scores is related to individuals with academic educational levels.

Table 3: the results of F test of mean scores of ideas of residents of Bagh Ferdows regarding the degree of observing principles of passive defense in the distressed area based on employment state

Source of changes	Total squares	df	Mean squares	F	Sig.
Intergroup	33.72	4	8.43	15.20	0.001
Intragroup	209.45	377	0.55		
Total	242.77	381			

In the inferential analysis, to investigate the significance level, the f-observed at the level of $p<0.05$, the result do not indicate any difference between the mean scores of the ideas of residents of Bagh Ferdows regarding the degree of observing the degree of observing principles of passive defense in the distressed areas based on the

employment state. In addition, the investigation of mean scores indicates the biggest mean scores is related to workers' employment state, and the smallest mean scores is related to farmers' employment state.

Table 4: the results of F test of mean scores of ideas of residents of Bagh Ferdows regarding the degree of observing principles of passive defense in the distressed area based on income

Source of changes	Total squares	df	Mean squares	F	Sig.
Intergroup	69.65	3	23.22	50.69	0.001
Intragroup	173.12	378	0.46		
Total	242.77	381			

In the inferential analysis, to investigate the significance level, the f-observed at the level of $p < 0.05$, the result do not indicate any difference between the mean scores of the ideas of residents of Bagh Ferdows regarding the degree of observing the degree of observing principles of passive defense in the distressed areas based on income. In addition, the investigation of mean scores indicates the biggest mean scores is related to individuals with income from 500 to 700 thousand tomans, and the smallest mean scores is related to individuals with income 700 thousand to 1 million tomans.

Table 5: the results of F test of mean scores of ideas of residents of Bagh Ferdows regarding the degree of observing principles of passive defense in the distressed area based on area of residential units

Source of changes	Total squares	df	Mean squares	F	Sig.
Intergroup	107.70	2	53.85	151.10	0.001
Intragroup	135.07	379	0.36		
Total	242.77	381			

In the inferential analysis, to investigate the significance level, the f-observed at the level of $p < 0.05$, the result do not indicate any difference between the mean scores of the ideas of residents of Bagh Ferdows regarding the degree of observing the degree of observing principles of passive defense in the distressed areas based on area of housing units. In addition, the investigation of mean scores indicates the biggest mean scores is related to individuals with area of residential units below 100 m², and the smallest mean scores is related to individuals with area of residential units as 150-250 m². Regarding the results obtained from tables, it can be concluded that the second hypothesis stating "the existence of different between sociocultural characteristics of the residents of Bagh Ferdows regarding the observation of principles of passive defense in the distressed area" in terms of components of employment, income, and area of residential units can be confirmed.

DISCUSSION AND CONCLUSION

Regarding non-natural and human-made disasters such as war and also the field of natural disastrous events such as earthquakes and flood, etc., the necessity of defense and crisis management for each country is vital. Therefore, to obtain aims of passive defense in a country and reuniting people, the role of their place of residence, i.e. cities is very important. The result of the theoretical studies and field studies in the present study indicate that the results of one sample t-test obtained from the comparison of mean scores of ideas of residents about the degree of observing principles of passive defense in the distressed area of region 3 of Isfahan indicate that these principles have not been observed in the region and these findings are statistically significant. Therefore, the null hypothesis stating not observing principles of passive defense in the distressed area of Bagh Ferdows is confirmed. Since about 87% of the residents declare the lack of observance of principles of passive defense in the region, the most important reasons for this issue can be the lack of developing technical regulations and considerations of passive defense in the field of urban development, building and urban infrastructures, the lack of adopting and performing principles of passive defense in comprehensive and detailed urban projects, no institutionalization of urban comprehensive management plans, the lack of preventing urban authorities from creating or expanding new industrial centers and centers increasing dangers and fire as well as environmental pollutions, the lack of attention to executive organization for doing projects appropriate to the conditions of the region, the lack of financial supports from projects, the lack of financial aids in the form of cooperation, loans, or tax relief to residents for participating in the improvement and reconstruction plans as well as legal problems such as submitting the Construction License and

etc. in urban regions which can face the issue of reconstruction of these distressed areas with more challenges. It can be observed that planning and projects conducted for reconstructing these fabrics are whether partial or they have not completely cover all aspects of environmental needs of residents in this region. These case are among the most important factors in creating the attitudes of the residents about the nonobservance of principles of passive defense in distressed areas of region 3 and at last, the conclusion of the research. In addition f-observed in ANOVA at the level $p < 0.05$ does not indicate any significant difference between the mean scores of ideas of residents of region 3 about the degree of observance of principles of passive defense in distressed areas of region 3 in terms of individuals' educational level. But, the f-observed at the level $p < 0.05$ indicates significant difference between the mean scores of ideas of residents of region 3 about the degree of observance of principles of passive defense in distressed areas of region 3 in terms of components such as employment state, income state, and area of residential units in general. In line with the evaluation of residents' ideas and their declaration about the observance of principles of passive defense in distressed areas of region 3, the working class due to more presence in this region both in terms of work and residence, i.e. the class with income about 500 to 700 thousand tomans as income, has assigned to itself the highest mean scores than other classes in this region due to the fact that this class is the dominant class in terms of population in this region and also, lowness of their income and residing in cheaper houses, the lack of financial ability in reconstruction and renovation of their houses, and being resided in houses with area less than 100 m². Therefore, it can be said that if managers and urban planners, with accurate and comprehensive investigation of residents' needs and with the approach of passive defense provide plans and strategies for eliminating problems and exert their efforts in this line, it can be expected that in the future, instead of scattered urban development and people's migration from central neighborhoods of cities which itself has consequences for the whole city, we can observe the development and reinforcement of central fabrics and areas of the City of Isfahan and these neighborhood can be changed into places with qualified biological capabilities.

Suggestions

- Considering ultra-physical components such as the social structure of these areas (the concept of quality and quantity of relations and participator) in plans and projects as tools and motivations for reconstruction of neighborhoods.
- Planning based on social needs and public participation and capacity building in the neighborhood.
- The establishment of the Advisory Committee for neighborhood councils in various fields.
- Giving legal role for councilors in the renovation and revitalization of neighborhoods.
- Supporting and encouraging the systematic participation of residents.
- Government financial support from residents through long-term loans for modernization and improvement of housing.
- Encouraging the renewal of distressed areas if a stable and regular physical structure is formed with local conditions.
- Providing multi-functional spaces such as parks and green spaces and etc., in the region and its neighborhoods during the crisis in order to be able to be used to provide relief in these spaces.
- Providing points of energy for the development of distressed areas.
- Widening the road network for easy commute in cases of crisis.
- Creating shelters for emergencies.

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