

Neighbourhood Classification and Organization of Informal Settlements Using Development Method of Morris (Case Study: Bonab City)

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ABSTRACT: Informal settlement is influenced by unequal global political-economic relationship, weakness of national programs in middle level and urban planning in micro level. Ever increasing expansion of the phenomena leads to the emergence, development index pansion of conflict in the urban soul and body, and creates abnormal biological conditions with dissimilar development indicators that not only questions equitable allocation of resources and services in line with social justice, but challenges sustainable development of urban life. However, any urban planning and designing considers comprehensive content-physical, scientific –practical understanding of urban systems, subsystems and outreach systems in relativist position of space and time; therefore, it is necessary to understand neighborhood and informal settlements based on different physical, business, economic, social, cultural, and infrastructure indicators. In this regard, development method of Morris is used. To investigate neighborhood development, physical, economic, social and infrastructural characteristics of all neighborhoods in Bonab city are studied. Results of the study show there is obvious difference between physical, economic, social and developmental indicators of neighborhoods in Bonab city that lead to inequitable distribution of services and resources. Finally, based on results of Morris development model and neighborhood classification, suggestions and priorities of neighborhood-oriented urban planning and informal settlement organizing are presented.

Keywords: Informal Settlement, Quantitative Techniques, Urban Systems, Relativism, Organizing, Morris Development Model, Bonab City

ORIGINAL ARTICLE

INTRODUCTION

Increasing urbanization, especially in developing countries often creates hetero generous and incompatible condition in urbanization (Ahmadi pour, 1995 and Haji-Yousefi, 2003). Along with increase of urbanization, the world encounter poor and low income residents (Shakouei, 1986 and Ahmadian, 2003); therefore, expansion and increase of informal settlement has been one of the obvious signs of urbanization in this era (HosseinZadehDelir, 1982; Piran, 2002; Kharat Zebar Dast; 2002). Poor people migrate from rural areas and small cities to big cities and metropolitans to improve their condition and are mostly settled in marginal and surrounded areas of the cities (ZahedZahedani, 1990; AsghariZamani, 2000; Zanjani, 2003). Marginalization is a social phenomenon that belongs not to this era but is rooted in ancient times. The phenomenon is typical in both developed and developing countries (HosseinZadehDalir, 1991; Drakakis, 1998; Piran, 2003; HatamiNejad, 2004). Their only difference is their historical roots and their physical and social behavior (Shakouei, 1976; Nangia, 1996; Knox, 2000). Iran, also suffer this phenomenon, but its evolution is different in Iran (Sarafi, 2004; Abdollahi, 2009; DallalPour Mohammadi, 2009). Marginalization is a kind of deprivation, and what creates deprivation and increase it is forgetting poor groups of the society in urban planning

and lack of management in accurate recognizing of problem and finding suitable solution in society. This phenomenon is a social issue which needs comprehensive overview (Sarafi, 2003; Sclar,2005).

Informal settlement and creation of urban low income groups is a manifestation of urban poverty and function of environment as an open bed to create poverty (GhasemiJouzani, 2003; UN –Habitat, 2005(2), Angles, 2006). Informal settlement, in the form of hut and slum to informal settlements surrounding the city in different times and places, is defined not only based on characteristics of its residents and origin of their migration, but based on severe and continuous deprivation from standard criteria of urban life (house, infrastructures, resources, services, etc.)(Piran, 1995; UN –Habitat, 2005(1); Masoudi Far, 2006).

This study aims to determine distribution of resources, services and the overall level of assets indifferent localities of Bonab city, and to determine different levels of development in urban neighborhood, regarding some physical, economic, social, etc. indicators using Morris development model. The main objective of this research is to recognize different localities of informal settlement in Bonab city and to help empowerment and organizing habitants to use this instruction in solving different physical, socio-economic and spatial problems of localities. Another objective of the research is to offer suitable suggestions and solutions

appropriate to human society organizing approaches in order to improve their deteriorating conditions.

Other objectives include:

- Recognizing socio-economic and physical phenomena and analysis of insufficiency and deteriorations, and finally to determine geographical and urban planning problems and limitations.
- Achieve more suitable suggestions to organize the issue based on research studies and community-based urban planning.
- Recognizing different informal settlement of localities in Bonab cities using Morris developmental method and preparing a suitable bed for urban planning regarding native condition and capabilities and potentials of tissues in the city
- Determining physical condition of habitats in informal settlements of Bonab city

Research requirements

Bonab city, like other organic cities of Iran, has faced the problem of informal settlement. Informal settlement has created some problems in Bonab, such as cultural and social conflicts, increasing crime and insecurity in the city, heterogeneity of physical texture of the city, ugly face of the city, using poor material in constructing buildings and inappropriate architecture, urban development without a predetermined plan, increasing urban pollution, etc. that challenged the Bonab city toward urban sustainable development and creating healthy city. Although there is no accurate statistic on the number of marginalization, but based on studies, about 17000 people live in north-east and east marginalized areas of the city and this number is ever-increasing. Most of the residents of these localities comprised of poor people in the society with many of the aforementioned problems of settlements.

Regarding the fact that all urban planning and urban management is based on comprehensive recognition of the issue, and inaccurate recognition of the issue will lead to unrealistic urban planning, therefore, informal settlement neighborhood classification, discovering cause and effects of creation of these neighborhoods, especially offering appropriate solutions to solve the problem is necessary. Therefore, in this research it is tried to recognize the issue based on different indicators using Morris development method and understanding spatial distribution of the neighborhoods in Bonab city, to review some of the features of neighborhoods, different types of unstable housing as a part of complex biological and minor components of urban systems, and some functional solutions have been offered based on the results of study.

Research place and time

The study has been carried out in Bonab city in its neighborhoods. Time data of the research include information about Bonab city during different times acquired from population and housing census in 2006. Neighborhood classification of the research is based on conventional neighborhoods in accordance with physical divisions in approved plans, including detailed design of Bonab City. Different variables of the research

(economic, population, physical, infrastructural, educational, etc.) are collected through Iran Population Housing Census, results obtained from the population and housing census in 2006 and the author's field research in 2011.

RESEARCH QUESTION

- What are informal settlement neighborhoods of Bonab City and how they are distinguished from other neighborhoods?
- Can Morris development method be used to distinguish informal settlement texture (marginalized area) from other urban texture?
- What are effective factors on creation and expansion of disorganized neighborhoods of Bonab?
- What are appropriate strategies and policies to organize different informal settlement neighborhoods related to other neighborhoods of Bonab?

METHODOLOGY

Localities and areas are compared in informal settlement classification of Bonab city, and development level of them is determined in comparative view. These 13 localities are urban system elements of Bonab and different processes are playing role on their developmental level. Meanwhile, this research tries to organize and empower localities based on directive theory of political economic space that is in high coordination with systematic view and relate universal situation in informal settlement analysis and present it in micro and macro analytic level. In this research, micro level of informal settlement is investigated.

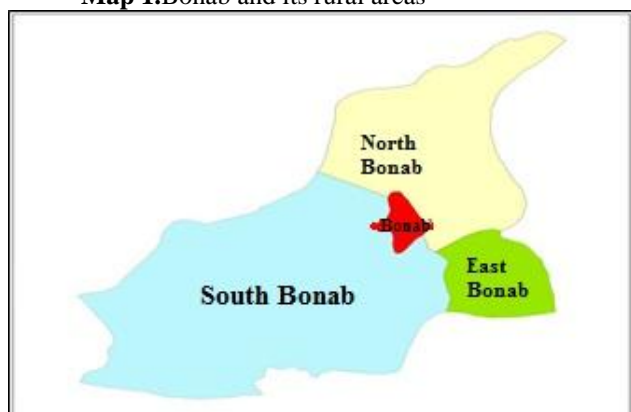
As it was mentioned, the research is descriptive-analytical method using variable contribution method and their relationship, and regression functions. After initial pre-test to ensure reliability and validity of the questions in questionnaires, field study was carried out by 13 researchers (graduates of geography and urbanism). 390 questionnaires were prepared for 13 localities of Bonab, 30 questionnaires for each locality. Because of the difference in extension and population of localities, more questionnaires were needed for larger localities, then, randomly and using blocking plan of census center of Iran, 500 questionnaires were used in the research. To show the place of each locality and area regarding their development, and analysis of data, Arc GIS, AutoCAD, SPSS, and Excel software, and finally Morris development method were used.

All in all, informal settlement of Bonab was classified and planning and performance priorities were presented according to the results. Finally, after conclusion, some suggestions were presented to organize informal settlement in micro level.

STUDY AREA

Bonab is one of the 19 cities of East-Azerbaijan province, located at the western part of Maragheh and south of Ourmia Lake. The city is limited to Maragheh from north and west, to OrmiaLake from north-west, west and Malekan from south.

Map 1.Bonab and its rural areas



Map 2.Position of Bonab city in the province



Bonab is about 778.79 km² extents, in 6 degree and 54' to 37 degree and 10' of northern latitude, and 45 degree and 30' to 46 degree of longitudinal. Based on the last census of the country division, Bonab is comprised of one central county, 3 rural area, one urban area and 28 villages.

Population of Bonab, but since 1956 to 2006 the population growth was 5 times. Population growth rate of Bonab in 1956-1966 was about 4.32, in 1966-1986 it was 4.6, and during 1986-1996 was about 3.25 and 1.93 during 1996-2006. According to Iran census in 2006, population of Bonab is 76586, among which 37815 individual is male (49.38%) and 38771 individual is female (50.62%).

Demographic characteristics of Bonab

Before 1956, there were no evident about the exact

Table 1.population of Bonab according to gender

City	Number/percent	Bonab		Gender	
		Total	Male	Female	
Total		58676	37815	38771	
Percent		100	49.38	50.62	

(Source: population and housing census of East-Azerbaijan Province, 2006)

Table2. Population based on gender and birth place

Gender	Total	Residents of urban area					Undeclared
		Total	Born in living city	Born in other place			
				Urban area	Rural area	Abroad	
Female and male	126888	76610	55058	7437	12701	18	1396
Male	64482	38784	27707	3675	6359	9	1034
Female	62406	37826	27351	3762	6342	9	362

(Source: population and housing census of Bonb 2006)

Table 3.different age range of population of Bonab (male and female)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and more
Number														
total	5418	5556	6164	9196	9763	7718	6772	6257	5046	4137	2979	1956	1666	3958
percent	7.07	7.25	8.05	12.01	12.75	10.08	8.84	8.17	6.59	5.4	3.89	2.55	2.18	5.17
male	2712	2763	3092	4705	4748	3799	3415	3258	2706	2216	1498	1003	846	2010
percent	3.54	3.61	4.04	6.14	6.2	4.96	4.46	4.25	3.53	2.89	1.96	1.3	1.1	2.6
female	2706	2793	3072	4491	5015	3919	3357	2999	2340	1921	1481	953	820	1948
percent	3.53	3.65	4.01	5.86	6.55	5.12	4.38	3.92	3.06	2.51	1.93	1.24	1.07	2.54

Migration characteristics of Bonab

According to population and housing census in 2006, about 71.87 percent of population of Bonab is born in their mother land or localities. Comparison of birth date of people who were not measured in census show that

16.59 percent of rural population have migrated to Bonab city, and 9.7 percent have been migrated from other cities to Bonab.

Table 4.residents of Bonab based on gender and birth place

Residents of Bonab				gender	total	total	gender	Male and female	male	female
Born in other places		Born in living city	total							
undeclared	abroad			rural area	city					
1396	18	12701	55034		76586	126888				
1034	9	6359	27693		37815	64482				
362	9	6342	27341		38771	62406				

From 1996-2006 about 12348 individuals have migrated to Bonab. 40.85% of migrants were from other provinces, 35.03 from other cities of the province, and 23.07 from rural area of Bonab to city.

Table 5.migrants of Bonab during last 10 years based on their living place

gender Birth place	total	percent	male	percent	female	percent
Bonab	76586	100	38774	50.63	37812	49.37
Born in Bonab	55044	71.87	27702	36.17	27344	35.7
Urban area	7427	9.7	3670	4.8	3745	4.9
Rural area	12701	16.59	6359	8.3	6342	8.29
abroad	18	0.02	9	0.01	9	0.01
undeclared	1396	1.82	1034	1.35	362	0.47

Occupation in Bonab city

According to population and housing census of 2006, 27.61% of population of Bonab is working in agriculture, 27.58% in industry, and 38.43% in servicing.

Table 6.Estimating the relative distribution of workers more than 10 years of working in agriculture, industry, and servicing sectors of Bonab comparing to other cities (gender-based)

Sector	City			Resident of urban area		
	Male and female	Male	Female	Male and female	Male	Female
Total	100	100	100	100	100	100
Agriculture	27.61	28.53	20.34	8.09	8.69	3.28
Industry	27.58	26.38	37.00	23.17	33.07	33.92
Services	38.43	38.78	35.65	54.08	53.92	55.41
Undeclared activities	6.38	6.31	7.01	4.66	4.32	7.39

RESEARCH FINDINGS

A. Localities and suggested areas of research

In this research, Bonab city is divided to 5 areas and 13 localities. Region boundaries are fully compatible with suggested areas in comprehensive plan. Map 3 represents region boundaries and localities of Bonab city and their spatial distribution.

Historical core of the city

This core is probably extended to defensive wall of the city for 9 km. Historical and natural time passing created fall and rise in growth of Bonab.

Initial core of the city

This core is formed based on survival of Bonab city and includes a central part around the central square of the city; Zargaran mosques, Mamaghani caravansaries, Ismaeil Beik mosques, and city mosque are located around the center.

City limits until 1956

Until 1956, Bonab was mostly in radial form around initial core of the city and included half of Lab

Nahr area, Kamlu distinct, Bagherabad, and most part of the Gazavasht distinct. Qazi Bath, Kaboud mosque, Haj Reza mosque, Mehr Abad mosque are also located in this limit (map 4)

City limit until 1986

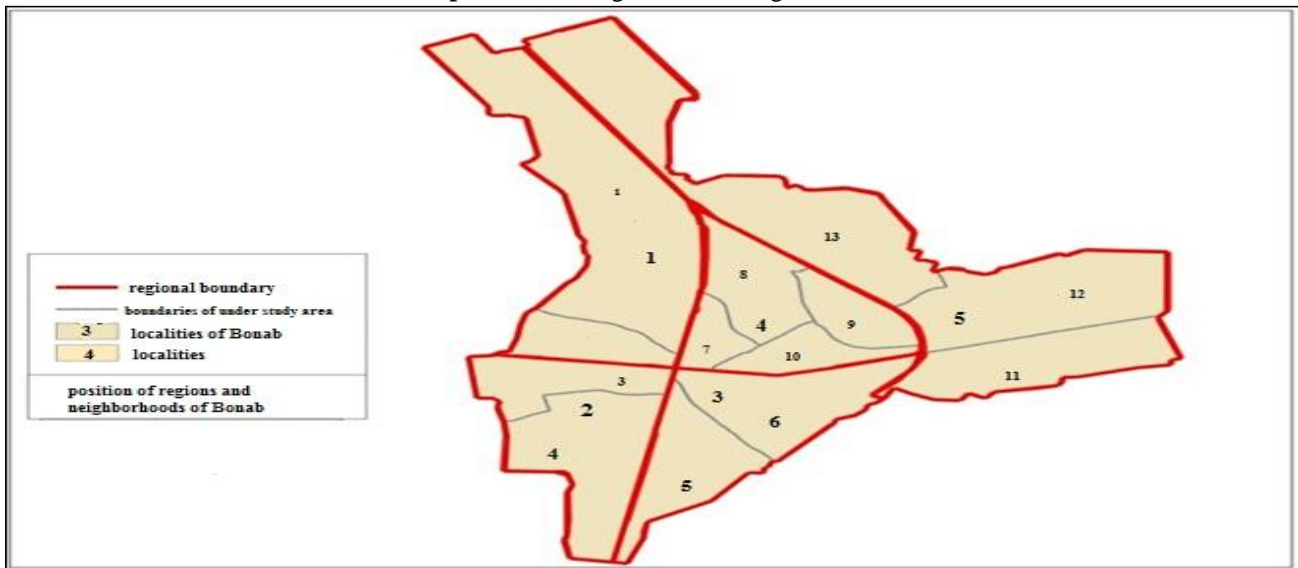
During 1956-1986, another part of the city was formed that was mostly expanded linear along with communication ways and main streets of the city and stretched the city toward eastern part. Maragheh-Bonab road created industrial buildings in this path.

In 1986, the city limit include part of DizajNavlou localities, Agh Dash, Karmandan, Imam, Farhangian, Akbar Abad, Aghajari, Danesh, TazehKand, Pasgah and Farhangian 1, and Asghar Abad. Soleiman Sultan and Mehrabad mosques were also located in this area.

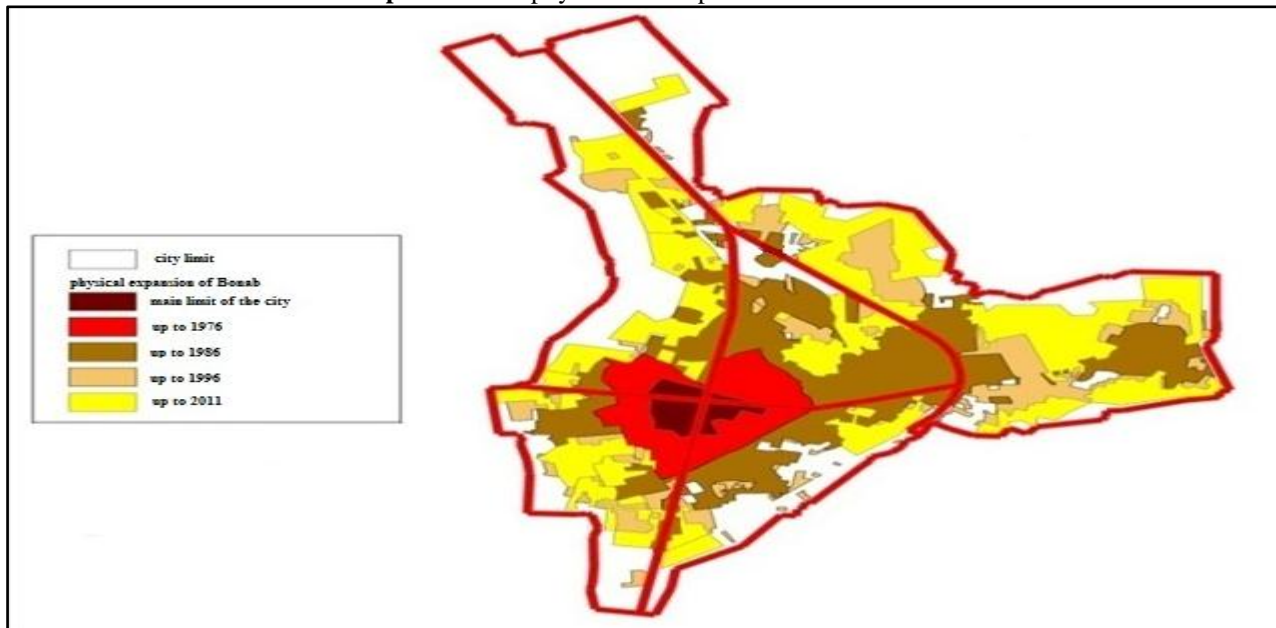
City limit until 1996

During 1986-1996, the city confronted scattering constructing, especially in north, east, and south-west of the city which lead to creation of new localities such as Farhangian 2, Laleh, and Iran garage. During this time, Bagher Abad, Kamlou, DizajNavlou, Shahr-dari, Akbar Abad, MahalehEmam, Farhangian 2 localities was significantly developed.

Map 3. Determining areas and neighborhoods



Map 4. Different physical development levels of Bonab



Expansion of urban lands of Bonab until 2011

Urban expansion process from 1996-2011 added some other localities to the city including Farhangian 3 and 4 neighborhoods, newly established neighborhood near Basij square, expansion of Dizaj Navlou in south toward farms, expansion of localities behind Iran Garage, and expansion of Shahr-dari and Karmandan neighborhoods, Agh Dash, Azadeghan, Janbazan, Milad, Banafsheh, marginalized blocks of Farhang streets, Aghajari, Aab, Kowthar, and Bargh Localities.

B. The process of recognizing disorganized settlements

To study the characteristics of neighborhoods in Bonab city, and determining disorganized settlements (informal settlement) and classifying them in Bonab city, Morris development method is used. Results of the studies show a distinct limit of the city, with physical-

economic-social disruption of the limit with other area of the city as its main characteristic.

1) Understanding and introducing required indicators to recognize self-organized settlements

A general understanding of Bonab city is required to recognize this settlement from other localities based on required indicators. Collecting and codifying authentic data in the city based on urban neighborhood is a complicate issue that needs many researches. In this base, and to recognize neighborhoods, required data from Iran census center as the main data collection base of the country and also urban approved projects, such as comprehensive plan, etc. are used. Field studies also use questionnaire to prepare some indicators. The research data are prepared after processing results of field studies using Excel, SPSS software.

The last reported data from Iran census center that offer useful information in urban block-block level, are information and data of the last official census of Iran in 2006. In this census, most of the comprehensive and useful information of the whole country are collected and compiled in urban blocks. These data are one of the most significant tools to recognize characteristics of urban area and detecting homogenous area using data based indicators.

Primary studies about type and characteristics of data and information of Iran census center in 2006, represent that indicators determined by these data are useful and lead to valuable and significant results when combining with each other to recognize self-organized settlements from other settlements. Research indicators are classified as:

- **Physical indicators:** investigating different land uses in neighborhoods, type of construction material (durable, low durable, etc.), building life, quality of building (newly built, refurbished), number of stores, cost of the lands, building density, type of ownership, infrastructure, etc.
 - **Economic indicators:** monthly charge of household, monthly income of household, percent of employers in the industrial sector to all workers, percent of employers in the health and social work sector to all workers, percent of employers in the training sector to all workers, percent of employers in the transportation sector to all workers, etc.
 - **Social indicators:** composed of indicators such as the ratio of total literate population, ratio of male literate population, ratio of female literate population, ratio of female students in post graduate levels, ratio of male students in post graduate levels
 - **Infrastructure and developmental indicators:** ratio of families owning PC, internet, cooler, electricity
- 2) *Determining basic required information and taking their files from Iran census center, and asking question from neighborhoods*
 - 3) *Transferring data and files of Iran census center to processed files in computer software and collecting data from questionnaires and changing them to variable and then indicator; that is prepared by information bank section of Bonab neighborhoods.*

- 4) *Preparing required indicators (indicators used in understanding and recognizing disorganized settlements):* after compiling all required indicators, 9 main indicators have been selected and their results are used in determining disorganized settlements.
- 5) *Indicator analysis methods:* after selecting required indicators in recognizing self-organized settlements, they are performed using Morris development model. Finally, using results of the model, absolute neighborhoods of disorganized settlements are clarified.

Comparative study, identification and classification of the disorganized settlements and their neighborhood classification using Morris development method

As a comprehensive model, this model can be used in studies such as spatial organization, organized and disorganized settlement distinction, settlement classification, and determining their development place. It is highly valuable because of the use of economic, social and physical variables in this technique. Different levels of Morris development method include:

1. Setting the table with neighborhood columns and indexes and composing the index number in the table.
2. Standardize numbers using Morris anharmonic coefficient formula:

$$Y_{ij} = \frac{X_{ij} - X_{ij \min}}{X_{j \max} - X_{j \min}} \times 100$$

Where, Y_{ij} is Anharmonic coefficient of Morris, X_{ij} indicates the variable (indicator) number, $X_{j \max}$ is the maximum variable in each column, and $X_{j \min}$ is the minimum variable of each column.

3. Ranking numbers of Morris Anharmonic coefficient in a way that the highest number takes 1 and so on; that is, number 1 indicates a more developed and facilitated neighborhood.

4. Calculating final coefficient of expansion based on formula

$$D.I = \frac{\sum Y_{ij}}{N}$$

Where, D.I is the final coefficient of expansion, $\sum Y_{ij}$ is total Morris anharmonic coefficients in a specified row for specified neighborhood, and N is different applied indicators (Asayesh and Estelaji, 2007).

5. Codifying and classifying neighborhoods based on final coefficient of expansion (higher D.I indicate more developed and more expansion facilitated neighborhood)

Table 7. neighborhood classification based of Morris development method

Indicator	Percent of having electricity	Percent of having cooler	Percent of having personal computer	Percent of total income more than 6 million rls	Percent of occupation in training sector	Percent of residential lands with more than 2.5 million rls value	Percent of post graduate male students	Percent of more than 2 store buildings	Percent of quality of newly built houses
1	100	62	38.4	57	14	56	13.2	15.31	84.72
2	100	66	50.2	62	17	60	13.9	22.89	85
3	68	68	34.8	50	13	49	14.1	17.4	76.6

4	90	62	34	47	11	47	14.2	11.4	75.3
5	89	56	36	45	16	45	13	14.4	74.6
6	100	72	36.2	52	15	50	13.1	15.24	79.9
7	100	78	54.4	71	20	65	14.7	24.69	89.8
8	95	64	46.2	61	15	53	13.6	10.72	84.3
9	97	52	30.4	43	16	44	10.4	4	62.74
10	100	73	40.4	69	18	63	14.4	12.27	94.06
11	81	20	6.4	22	7	16	8.3	4.1	57.45
12	88	24	12.6	29	8	28	8.8	3.36	60.1
13	86	40	24.6	29	12	32	10.1	7.57	70.2

Table 8.standard matrix of indicators based on Morris development model

Neighborhoods	Percent of having electricity	Percent of having cooler	Percent of having personal computer	Percent of total income more than 6 million rls	Percent of occupation in training sector	Percent of residential lands with more than 2.5 million rls value	Percent of post graduate male students	Percent of more than 2 store buildings	Percent of quality of newly built houses	Total
1	100	72.4	66.7	71.4	53.84	81.6	76.6	56	74.5	653.04
2	100	79.3	91.2	81.6	76.92	89.8	87.5	91.6	75.2	773.12
3	0	82.7	59.2	57.1	46.15	67.3	90.6	65.8	52.3	521.15
4	68.7	72.4	57.5	51	30.76	63.3	92.2	37.6	48.7	522.16
5	65.6	62	61.7	46.9	69.23	59.1	73.4	51.7	46.8	536.43
6	100	89.6	62	61.2	61.53	69.4	75	55.7	61.3	635.73
7	100	100	100	100	100	100	100	100	88.3	888.3
8	84.4	75.9	82.9	79.5	61.53	75.5	82.8	34.5	73.3	650.33
9	90.6	55.1	50	42.8	69.23	57.1	32.8	3	14.4	415.03
10	100	91.4	70.8	95.9	84.61	95.9	95.3	41.8	100	775.71
11	40.6	0	0	0	0	0	0	3.5	0	44.1
12	62.5	6.9	12.9	14.3	7.69	24.5	7.8	0	7.2	143.79
13	56.2	34.4	37.9	14.3	38.46	32.6	28.1	19.7	34.8	296.46

(Source: calculations of the author)

Table 9.calculating final coefficient of 13 neighborhoods

Neighborhoods	1	2	3	4	5	6	7	8	9	10	11	12	13
D.I	72.56	85.9	57.9	58.02	59.6	70.64	98.7	72.26	46.11	86.19	4.9	15.98	32.94

(Source: author)

Table 10.neighborhood classification, performance priority and neighborhood planning based on Morris final coefficient

Neighborhoods	7	10	2	1	8	6	5	4	3	9	13	12	11
D.I	98.7	86.19	85.9	72.56	72.26	70.64	59.6	58.02	57.9	46.11	32.94	15.98	4.9
Ranking	1	2	3	4	5	6	7	8	9	10	11	12	13
Prioritize	third									second	first		

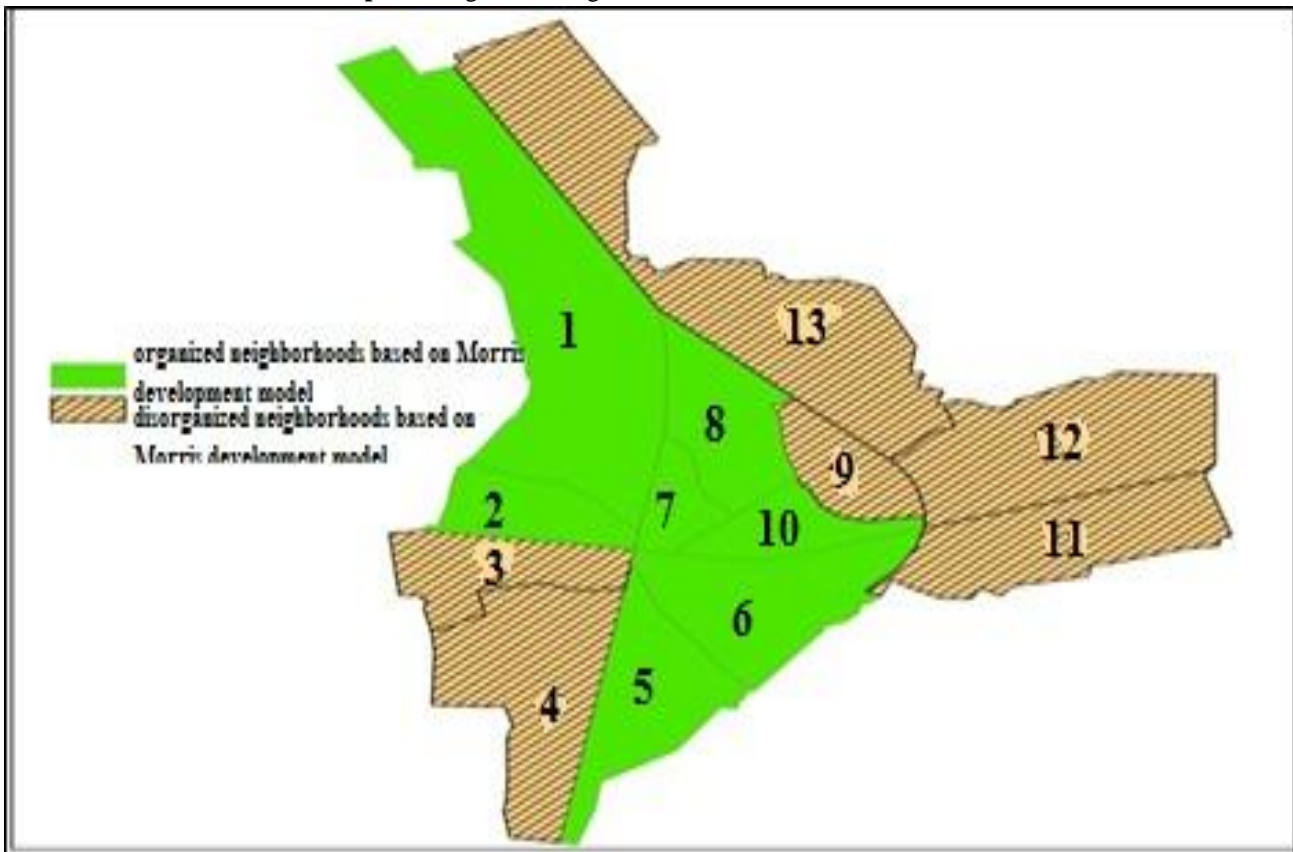
(Source: author)

As indicated from results of the calculations of Morris model, neighborhood number 7, 10, and 2 are more developed. Regarding the average scores of development in total neighborhoods, and average final coefficient of total neighborhoods (58.59), neighborhood 4, 3, 9, 11, 12, and 1 are disorganized neighborhoods and neighborhood 12 and 11 are the most disorganized neighborhoods. Results of the calculations and table of Morris development model in determining disorganized and organized neighborhoods are represented in map 5 and 6. Based on Morris development model, planning

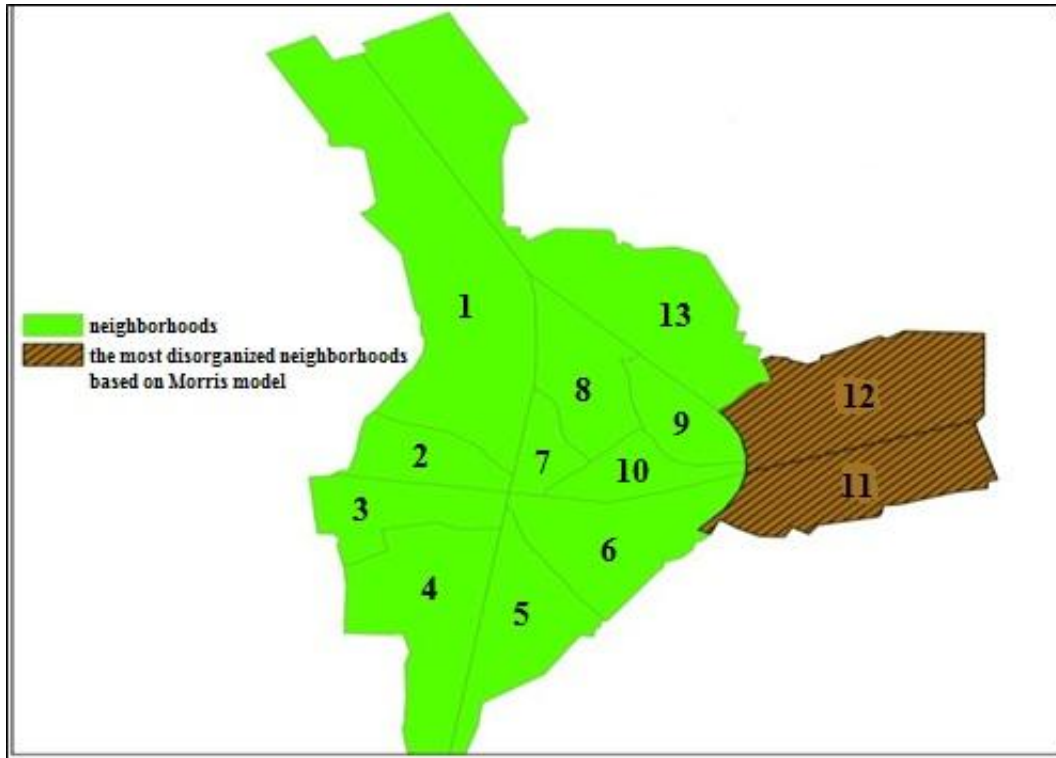
priority and performance priorities to organize informal settlement neighborhoods are as follow:

1. planning and performance priority of the most disorganized neighborhoods in Bonab (neighborhood 11 and 12)
2. planning and performance priority of disorganized neighborhoods in Bonab (neighborhood 3, 4, 9, and 13)
3. planning and performance priority of the organized neighborhoods in Bonab (neighborhood 1, 2, 5, 6, 7, 8, and 10)

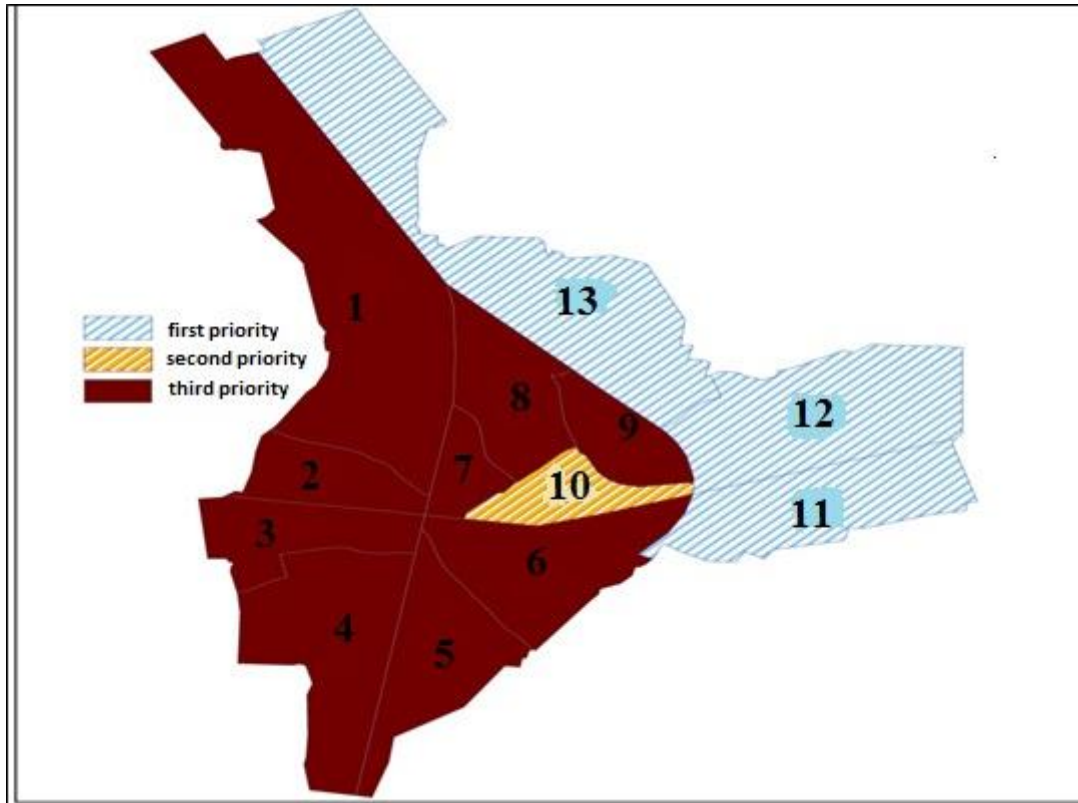
Map5. Disorganized neighborhoods of Bonab based on Morris model



Map 6.the most disorganized neighborhoods in Bonab based on Morris model



Map 7.planning and performance priority of neighborhoods in Bonab based on Morris development model



CONCLUSION AND SUGGESTIONS

Informal settlement is a way of living and a geographical phenomenon emanating from the human relations and environment. This kind of living is spatial manifestation of unequal human relations in the availability of facilities in environment.

It can be concluded that using 9 different indicators and calculating final coefficient of expansion, and neighborhood classification based on Morris development model, neighborhoods number 7, 10 and 2 are the most developed localities. Average development scores of total neighborhoods and average final coefficient of total neighborhoods (58.59) indicates neighborhood number 4,

3, 9, 11, 12, 13 are disorganized and neighborhood 12 and 11 are the most disorganized localities of the city.

Informal settlement is urban problems of our country that manifest wrong socio-economic plans of the government and poverty of human groups in geographical area of the cities, which grow outside the urban development plans and their standards and criteria. Therefore, the first step in organizing informal settlement is accurate understanding of these societies, their forming and strengthening functions. Organizing plan can be offered based on specified objectives. Therefore, macro and general objectives of offering organization plan of informal settlement area in Bonab include:

1. Making bed to promote sustainable and inclusive environment for the development of health, safety, hope, faith and human dignity in informal settlements areas of Bonab
2. Preparing bed for residents of the informal settlement areas of Bonab to benefit from the urban advantages and urban culture enrichment.
3. Participating residents of informal settlement area of Bonab in decision-making and local activities

To achieve these objectives, a set of activities and policy making in micro-macro and middle level are suggested. Proposed activities in macro level are mostly preventive rather than treat. Based on experiments in informal settlement of Bonab, some suggestions are presented:

1. The first and the most important approach in macro-level to prevention and eradication of informal settlements is adjusting regional inequalities and disparities between distribution of facilities and services in urban and rural area.
2. Considering low income groups in planning

Suggestions in middle level

1. The first step that must be taken in the middle level is considering informal settlement residents as a citizen by urban organizations and bodies, especially municipalities.
2. Forming informal settlement empowerment and improvement campaign
3. Ensuring the security of residence and housing
4. Training residents and increasing occupational skills
5. Formation of local institutions in informal settlement neighborhood of Bonab
6. Formation of interest free funds in informal settlement neighborhoods of Bonab

Executive actions in micro level

Actions of this level are according to studies of spatial organization of informal settlement in Bonab and its results. Suggested actions are trying to spatially organize activity pattern to organize disorganized spatial institutions of these neighborhoods.

Strategies followed in this part and suggestions based on them include:

1. Removing Obstacles in line with main role of formed or forming areas
2. Strengthening the axis formed in informal settlements of Bonab

3. Creating and strengthening dynamic neighborhood in informal settlements of Bonab
4. Appropriate distribution of different areas in informal settlement of Bonab

One of the suggested actions is constructing social housing that not only is effective in physical organizing of neighborhood, but is in fluencies in increasing occupation and economic activities. Thus, allocation of necessary funds to local organizations and owning barren lands particularly in residential areas constructing by the state, housing is provided to the area and use many employees in constructing housing that leads to creation of job to the residents and decrease the cost of house and prevents landspeculation and Irregular and illegal building and housing developments.

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