



Tabriz Intra-urban Spatial Disparities

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ABSTRACT: To achieve sustainable urban development and values from social justice; it is essential that all citizens enjoy resources, facilities and life opportunities equally. Due to lack of a stable or systematic approach of measuring urban problems, disparity in environmental conditions or access to social and physical infrastructures is more obvious, especially in the cities of developing countries. In this article, a hybrid method is presented using urban indicators and geographical information system (GIS), as reliable identification tools and a criterion, to produce information related to policies in complex and multidimensional aspects of spatial disparities. His information could be used by the policy makers in order to inform them about where the first target is and in what proportion they should invest. In case study of Tabriz, this method indicates how the combination of urban indicators and GIS is a valuable tool for access of better management in resources towards balancing and spatial order in population and activities. The results of this study can help to apply reforming policies through better understanding of intra-urban disparities and optimal trace of resources. It can also help to identify poor households based on redistribution credit with the geographical component attractive to planners and decision makers.

Keywords: Intra-urban Spatial Disparities, Spatial Segregation, Spatial Interpolation, Tabriz.

INTRODUCTION

In agenda 21, one of the most important objectives of sustainable development is disparities reduction in the cities (European Commission, DG XI (1994), in Mega, 1996; UNCHS, 2001; United Nations, 1992b). In addition, progress towards achieving the UN millennium development goals remains unchanged by rising disparity indicators (UNDP, 2005). Disparity in environmental conditions or in access to social and physical infrastructures especially in the cities of developing countries is more obvious. In these cities, the concentration of problems is on certain areas which effect on residents' quality of life in these regions. Quality of urban life covers places where people live and have both objective dimensions and subjective dimensions (Marans, 2015). Moreover, widening the gap between rich and poor neighborhoods lead policy makers to remedy and compensate disparities and achieve relative

balance in deprived areas. However, many countries suffer from information crisis that result in capacities analysis for effective development of urban policy (Moor, 2000). Due to lack of a sustainable or systematic approach of measuring urban problems, these cities are not able to assess rate of success in their operational policies. Use of geographical information system (GIS) with a set of indicators to measure spatial disparities can help to monitor disparity, target deprived areas, set priorities and reallocate resources. Chapter 4 of agenda 21 titled (information for decision making) particularly emphasized on the development of using information and indicators; and chapter 3 on the importance of identifying target areas (United Nations, 1992). In many studies, some proposals have been presented to monitor on urban poverty and urban sustainability. For this purpose, some indicators are also formulated at the national and urban level. But, what should not be neglected in progressive studies is that the need to monitor on intra-urban spatial

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disparities is more tangible. This affair is especially concerned in the developed countries. Despite an increase in experiences to use geographical information system and indicators in urban planning, there is currently a need to focus more on disparity problems rather than problems related to poverty. The method presented in this study supports the use of reforming policy through better understanding of complex and multidimensional aspects of spatial disparities and optimal use of resources. Reforming policy and reactive urban planning can reduce spatial disparities and thereby, guarantee a more sustainable urban environment. In this sense, the accepted principle of social justice is the precondition for the achievement of sustainability. Therefore, inequitable distribution of wealth causes unsustainable behavior and also makes it more difficult for any change (Mega, 1996). It also supports a better executive management and policy makers' awareness of the needs and differences in urban society. In fact, social justice, according to Rawls (1999), is "the basic structure of society, or more exactly, the way in which the major social institutions distribute fundamental rights and duties and determine the division of advantages from social cooperation" (p. 6). Economic developments are taking place in the world; and globalization, privatization and illegality are recognized as the factors of increasing spatial segregation, social polarization and spatial disparities (Castells, 1996; Harvey, 2000; Knox & Pinch, 2000; UNCHS, 2001).

Recently, because of reducing the discussion about disparities and taking urban poverty into consideration; an increasing worry has been yielded (Mitlin et al., 1996; UNDP, 2001). Increasing attention to disparity and distinction from poverty returns in global report on human settlements in 2001: "although absolute poverty is sufficiently bad, but it will be worse when these conditions frequently occur. Relative poverty is a reflection of disparities resulted from this main question about equitable access to rights and resources." (UNCHS, 2001, p. 15). Urban land has social and spatial dimensions. The governance of urban land should consider these dimensions. Existing methods of evaluating land governance tend to focus on the social dimensions: the spatial dimensions are considered lesser. A socio-spatial approach developed here is argued to fill this gap (Alemie et al., 2015). Because of increasing concern about disparities, local executive managers have considered the deprived areas further more. One of the tools which have been used since 1990s for geographical target areas with several problems was based on spatial policies. This tool has been used in order to improve the quality of life for the residents of these regions. In England (Smith,

1999) and in the rest of Europe, changes from overall policies to targeted policies have been identified as a trend in urban policies. Namely, this procedure will be valid by providing a coordinated framework of efforts to deal with multiple deprivations (Andersen & Kempen, 2003). Increase in polarization and spatial segregation between slums and very rich regions has been known as one of the acceptable reasons to justify the use of this policy in geographical target areas (Smith, 1999). One of the characteristics of third world countries is a high concentration of population and activities, and space disparity in the enjoyment of social conveniences. This was found before the Revolution in Iran and in its effects after the Revolution in Iran. Based on this tendency, a main portion of facilities and the population concentrate in one or more places. Other regions act as boundaries resulting in regional disparities (Zali et al., 2013). Poverty and disparities have become the major and complex problem faced by administrators and urban planners in the countries such as Iran with macro-economic changes in which the demographic, cultural and social infrastructures have not reached to the relative stability yet, and the marginalization and the urbanization of poverty is also a dominant trend in most urban areas. So, monitoring on disparities is a goal to redistribute urban welfare that local executives and policy makers strictly follow at the macro level. Study patterns of disparity and use of some indicators to analyze equitable access to facilities have been common traditions dating for several decades (Smith, 1973; Talen, 1998). The use of social indicators at the level of urban suburbs returns to the early twentieth century (Booth, 1902, in Pacione, 2005). However, it has been tried in some studies to apply GIS-based indicators, for example, in discussing the quality of life at neighborhoods scale (Ghose & Huxhold, 2002). Since, absolute fragmentation of the population can be the result of spatial disparity patterns (Langlois & Kitchen, 2001); this study focuses on multidimensional characteristics of intra-urban disparities through determining urban spatial indicators and displaying different aspects of disparities by the use of these indicators.

URBAN SPATIAL DISPARITIES

The major goal of monitoring on spatial disparities in many successful experiences is to identify and prioritize objective areas with deteriorating situation. Quality data and spatial information about areas are required at small-scale to effectively evaluate the extent and patterns of spatial disparities. Usually, urban indicators are used to monitor on the existing problems of urban areas.



However, there are rarely any data at different parts and neighborhood level and most of these data are collected at the global, national and urban levels; (a sample for the use of indicators at the lower level than urban unit is the measurement of rate of deprivation in England by use of administrative data and general census). The latest version of multiple deprivation indices in 2004 was as follows: revenue poverty, occupational deprivation, health deprivation and educational accessibility, skill deprivation, deprivation of housing and services, living in limited and crime-prone areas (Driouchi, 2011& ODPM, 2004). This also includes the deficiency of space-related indicators (Kunzmann, 1998).

In the case of micro-scale application, these indicators would be misleading when they are produced quantitatively at the macro scale (Smith, 1994). Focus and precise understanding of the needs are important and determining for analysis, in addition to have little information about target areas at the local scale. Since, the variables such as rate of car ownership cannot be an appropriate indicator to assess deprivation situation in developing countries like Iran; Townsend's index is mostly used as a sample in the developed countries (Heidari & Farajollahi, 2010). Since everyone who lives in the affluent area is not necessarily rich and vice versa (Knox & Pinch, 2000); some scholars argue that the approach of spatial strategy in reducing disparities has some challenges. For example, we cannot simply judge individuals on the basis of data such as census data.

GIS is considered as the important and strategic tool for the application of these indicators, besides determining measurement indices of spatial disparity. These tools are used for triple functions: to organize data, determine quantity and make communication between them. Simultaneous conformity and applicability of these functions are usually recognized as GIS benefits (Ghose & Huxhold, 2002; Burrough, 1986 in: Huxhold, 1991; Webster, 1993). By making a combination of measurement indicators of intra-urban spatial disparities, besides the help of implementing special policies to develop ICT technology; GIS application had an increasing growth in the late 1980s (Innes, 2004).

It is necessary to adopt a specific approach in the perspective of social justice, in addition to the goals and tools to measure intra-urban spatial disparities. In this case study, the selected indicators can represent political goals of intra-urban disparities in order to display special disparities. Smith (1994) believes that justice includes fair treatment to individuals, and distributive justice means

that everything should be distributed among individuals in equal amounts. He claims "justice" means that equal behavior should occur in the same conditions. The difference is considered allowable between mathematical equality and relative equality. In mathematical equality, everyone get the exact equal amount of something; and in relative equality, equal distribution takes place based on certain indicators such as need or demand in the market. Selection of the perspective of social justice refers to these essential questions: who gets, what, where and how; and more precisely, who should get, what things, whence and in what way? (Smith, 1977., Pacione, 2005).

MATERIALS AND METHODS

For planners and decision makers in the fields of applied policies at a local level; GIS-based indicators should be easily understandable and clear. Identification of complex dimensions that are the resultant of social justice landscape is the first step in selecting indicators in Tabriz city. The strategic goal of this landscape is relative equality on the basis of needs. A review on research background of social and urban factors and also existing indicators was done to determine problem dimensions. In this study, spatial disparity was considered in the form of heterogeneous, multidimensional and complex phenomena. Accordingly, two major topics were identified: quality of life (in both physical and social environments) and distribution of opportunities (access to physical, social and virtual infrastructures). Finally, a list of disparity dimensions was surveyed during interviews which involved the city officials. Selecting indicators in this evaluation was based on connective and functional capabilities for the applied policies.

To determine how authorities understand disparity as a problem and identify disparity dimension, thirty semi-structured interviews were done. These two goals (understanding disparity and identifying disparity dimension) were associated with optimal selection of indicators. There were 12 members of 21 city council members and 8 district mayors of 10 district mayors among the interviewees. Criterion for the selection of interviewees, cover the main decision makers, not only in the city but also in the region. Also, in order to analyze topics in detail and more specifically, interview was expanded in relation to the topic and in the framework of scientific and administrative records in the period of July to September 2014. It was conducted at the level



of Management level in province of east Azerbaijan (5 people), general department of road and urban development in east Azerbaijan province (3 people) and government of the city of Tabriz (2 people). According to poll, the macro statistical sample (different groups of populations), the reason for the lack of evaluating the dimensions of selective disparities was that the final indicators and methodology proposed to monitor disparities were used by policy makers, not only as a descriptive tool, but also as a standard tool. This issue clarifies the importance of the applied policies at the local level and also functional horizon of the main policy makers in the city area and its surroundings. A questionnaire, including a list of 13 dimensions related to disparity, was given to interviewees. They were asked to specify the importance of each dimension by 5-points Likert scale. Due to several applicable alternatives in the studied indicators, Likert scale was selected to use. Participatory and consensus approach of Likert scale is the use of Delphi method (Hemphill et al., 2004). However, in the present case study, there is no consensus among policy makers in different areas. Likert scale is frequently used to measure the satisfaction level of different dimensions of the quality of life in the studied statistical population (Tuan Seik, 2000). Cities are complex ecosystems affected by social, economic, environmental, and cultural factors. The problem of attaining urban sustainable development is thus, an important challenge (Li et al., 2009).

Moreover, in order to analyze the problems associated with the studied issue; a similar alternative is considered to prioritize the factors selected by policy makers (Wong, 2002). Determining the importance of each aspect independently without the influence of other factors is the advantage of using Likert scale instead of prioritization for policy makers. In these interviews, five important aspects of disparity were achieved on the basis of policy makers' views: density, education, occupation, access to drinking water and primary school. These priorities are based on the concepts about the needs or basic rights of citizens that most policy makers have consensus on. After interview, it was decided by the main policy makers to add the index of housing need to disparity indices. Because according to population and housing census of 2011, Tabriz city with the population of 1.494.988 is the fifth metropolitan city of Iran. These different levels of need for housing and access to physical and social infrastructures include almost 26% of the population living in slum areas. About 400.000 peoples of the population in Tabriz city are almost 80 households marginalized in Tabriz. Totally, there are 18 marginalized neighborhoods in Tabriz; the highest level of marginalization is in the north of the city (Akhlaghi, 2015). The population who live below the poverty line in Tabriz was reached to 32.3% and with Gini coefficient to 0.412, in the first six months of 2013 (Poverty map of the provinces, 2013). This continuous process generates an increase in physical disparities and



		Accessibility and Distribution of Facilities					Quality of Life					
		ICT Infrastructure	Social Infrastructures		Physical Infrastructures		Socio-economic Environment			Physical Environment		
Municipal Districts	Number of Households	Internet Access (Households)	Access to Medical Centers (m)	Access to Primary School (m)	Waste Splitting (Residential Units)	Drinking Water (Household)	Therapeutic Coverage	Unemployment (10 and more)	Education Level (Person)	Lack of Declared Housing (Household)	Housing Shortage (Unit)	Population Density (Hectare)
Tabriz	454289	193434	2670	984	291654	448643	958850	63654	586564	118763	841826	61.14
District 1	63166	26975	1040	507	57195	61898	173698	10170	82976	15596	116984	137.71
District 2	51859	32908	2740	685	45510	51037	23252	8315	97769	14535	100361	81.27
District 3	74818	31566	2066	724	38477	74415	134692	9647	95308	18149	140225	87.40
District 4	96889	33613	2102	1003	33720	96276	255650	12960	103976	23672	175639	124.46
District 5	28350	16839	3352	1232	27531	26967	20837	3497	45872	10139	55406	29.27
District 6	29118	14064	3480	1754	25505	28850	75374	4052	40531	6252	56015	13.15
District 7	43794	16090	3754	831	28150	43311	57271	5528	47996	14077	83442	49.61
District 8	9749	5257	752	242	7261	9614	27584	1564	13804	2196	18919	73.96
District 9	80	24	5795	1948	9	80	0	6	76	14	132	0.40
District 10	56466	16098	1628	917	28296	56195	186548	7915	58256	14133	94703	185.12

Operational definitions, solutions and recommendations provided by UN global report on human settlements have been also considered in determining indicators and criteria of this study (UNCHS, 1995, 2000a, 2000b). Because of experiences gained in the development and application of urban indicators, this program has been recognized in the international level. Also, this organization is the only international association with special mission to collect information in urban districts (Hall & Pfeiffer, 2000, p. 199). Some of Un-HABITAT criteria for selecting indicators are: the importance of applied policies, ease of understanding and collecting based on a cost-effective and systematic method. Segregation of geographical areas from political issues is another important criterion in selecting indicators. Also, the operational definitions were compared with existing data. Therefore, in addition to political relationship; access to data is one of the criteria for selecting indicators.

RESULTS

Although, analysis of disparities at the region level is a good starting point to identify unbalanced state of cities, but, a more detailed analysis of intra-urban disparities can be done at the level of block groups. Statistical variables of population and housing census in statistical center of Iran in the year 2011 were used in GIS environment to do this kind of map-based analysis. Statistics of indicators location units were compared with municipal boundaries in Tabriz.

Tabriz city has 184 scopes of census; each statistical area averagely consists of 15 blocks. In total, Tabriz city includes 8531 block groups; on average each block has 190 inhabitants. Each block group has a minimum and maximum density of 7 peoples – 6796 peoples. This study provides a multi-level approach for a better understanding of disparities.



For this reason, the deprived areas and conflicts are emerged in moving from lower levels of density. While on the contrary, analysis of index in the whole city adjusts or removes these conflicts. The results presented in table 2 indicate that the mentioned intra-urban spatial disparities models (especially affluent centers against suburb areas) are emerged as soon as inter-urban disparities are analyzed by comparing ten districts.

Social justice is a multidimensional concept but two topics of investigating quality of life and distributing

opportunities (access to social, physical and virtual infrastructures) are always the base of studies in this field (Martenz, 2009). Figure 1 indicates a number of GIS-based indicators created in block groups especially population density, the level of education and unemployment. The most appropriate places are shown in the white-colored areas and the most inappropriate in the black-colored areas. An intra-urban spatial disparity patterning associated with the needs in certain areas is found for each indicator (Fig. 1).

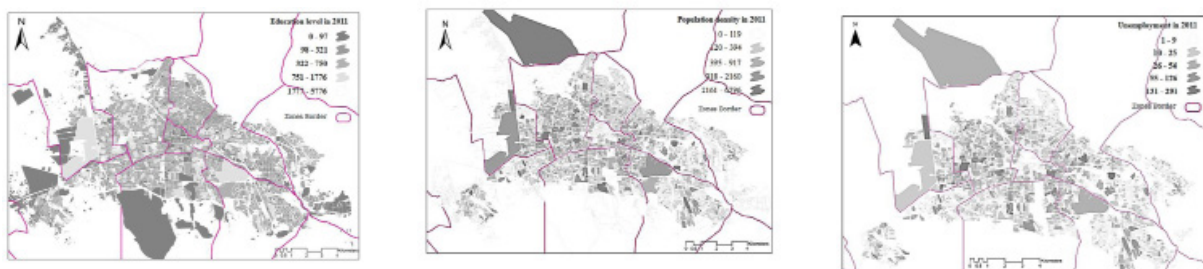


Fig. 1. Intra-urban Spatial Disparities Patterns

As expected, the analysis of spatial disparities may be less in larger units. As Kingsley stated, intra-urban spatial disparity is so significant that average social indicators in the region lead to wrong results (Kingsley, 1999). Therefore, use of these indicators in the higher level of density, such as region or city, can be misleading; if these factors are not taken into account.

Various GIS-based indicators that were selected for analysis of spatial disparities revealed a deep and obvious spatial-social difference. Tabriz is a divided and dual city (Page 482); this is due to social divisions in the city, Shokuei noted in 1994. This social polarization clearly explains social structure of the city in the affluent centers and the deprived areas around.

In terms of distribution of opportunities and access to social infrastructures (health centers and primary schools), the results show that there is a progressive social model that supports the deprived areas. This indicator provides the calculation of distance from central statistical blocks to the nearest basic remedial and health services. Minimum distance (2 kilometer for hospital and 750 meter for clinic) were selected as measurement indicator of access distance. This indicator comes directly from the actions of policy makers. In this case, access to basic remedial and health services minimally is influenced by external factors (residents of the neighborhoods mainly use basic remedial and health services). Figure 2 indicates the map of classifying each

block group with respect to access indicator of 0 to 1, according to the greatest accessibility. In other words, the distribution of schools and health centers supports the deprived and jobless households, low-educated and underprivileged people. These indicators can describe disparities in the quality of life and access to physical and social infrastructures. However, disparities between the deprived and wealthy areas become clearer through gap analysis. The measurement of gap between block groups is a method for the analysis of equality or intra-urban disparities.

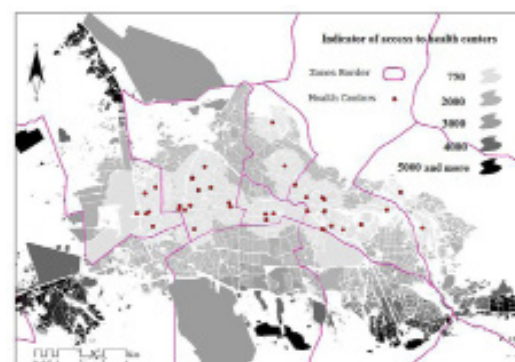


Fig. 2. Accessibility to Health Centers



It is possible to understand the gap between the deprived and the wealthy block groups, through comparing 10% of the deprived block group with 10% of the wealthy block group (Table 2).

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Table 2. The Gap between the Deprived and Wealthy Regions

	Access to school (m)	Access to drinking water (%)	Unemployment (%)	Education level (%)	Population density (%)
Wealthy Block Group	189	100	8	100	0
Deprived Block Group	3532	92	38	73	61
10% Wealthy	550-189	100	8-16	94-100	0
10% Deprived	3532-977	92-97	38-55	73-89	23-61

The gap between these two extreme groups is significant. For example, in 10% of the most deprived regions; the concentration of households is 23-63 times greater than it in the most affluent groups.

Communication gap between administrative areas: city, area and neighborhoods based on the approach of reform strategies and use of these indicators at criteria level are of great importance. A good example to display the quality of disparity by intra-urban indicators is the indicator of population density.

Diagram 1 indicates when the problem of population density is divided into different levels of administrative

units; how difference between indicators becomes clear. In the neighborhoods, the gap between the deprived and wealthy areas is also important. Tabriz city has a population density of 61.14 people per hectare. When this density is analyzed at the level of city area, the disparity emerges between them. The gap between density of the deprived and wealthy areas in the neighborhoods is even more at administrative level. Also, it seems that administrative areas with more density have also more disparity. This means that there is the greatest disparity between the deprived and wealthy neighborhoods in district 1 of Tabriz municipality.

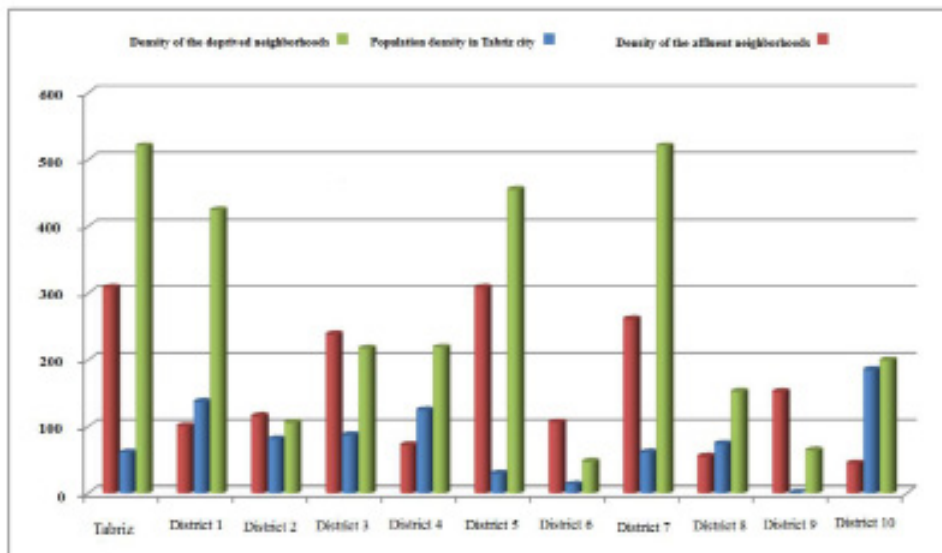


Diagram 1. The Gap between Population in the Deprived and Wealthy Regions



Census data are used to measure the indirect needs. But, they cannot measure the demand of population's direct needs. Needs expressed by public are directly measurable; while, the imputed needs can be assessed indirectly using spatial data (Webster, 1993). For example in case of housing need, this indicator can be assessed indirectly through indicators by calculating the percentage of households in each block group. On the other hand, the expressed need or demand is directly related to the demand of some citizens for a larger house or more rooms. An alternative indicator can also be the demand for more appropriate residential units (Mega & Pedersen, 1998). In this study, a plan of block groups in different areas of Tabriz city was created in the form of database using population and housing census data in 2011 in order to identify these demands. GIS operations and matching addresses were used to connect the expressed demands. The approximate location of an address by matching street name, house number and the specification table including personal address are determined through this method. In identifying the types of need for housing in the neighborhood or hidden demands, this method is effective. It is also helpful in identifying "forms of poverty" which remain hidden because of many indicators of census data. Unlike structural poverty, these forms of poverty not only exist in slum areas but also spread throughout the city. Educated people who involved in this situation are also placed in this group, due to joblessness or drop in real income. Figure 3 shows the expressed need for housing in 10% of the most affluent block groups.

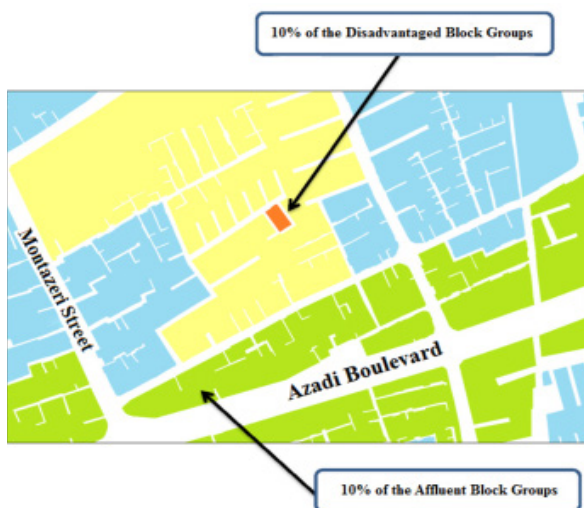


Fig. 3. The Objectivity of Interactive Neighborhoods (The Disadvantaged and Wealthy)

There are two diverged realities in the neighborhoods; so that the deprived and affluent block groups are located with the distance of 400 meters from each other. This is important to identify statistical block groups that, on the basis of geographical regions, are located in the affluent areas and require reform and support strategies. These findings indicate that the inclusion of indicators based on self-expression demand is important to identify the disadvantaged people who live in the best areas. Judging people based on population density data, such as census data, can be misleading. Therefore; everyone who lives in the affluent area is not necessarily rich. This study put the adoption of location-based policies as criteria into operation. And regardless of situation of individuals' location, it monitored the identification of new needs in the old and the new areas, center and around the city. A comparison between the disadvantaged areas that have been identified, due to this study, by poverty maps of remote measurement or satellite images (Hall et al., 2001) will show that some deprived areas are not clear just by use of remote sensing or physical aspects of housing.

An affluent area with socio-economic aspects, such as unemployment, is certainly not identified by remote sensing techniques. Since, the poverty is growing in middle-class neighborhoods, especially in Iran; it is not limited to the defined and special areas such as slum areas. The poverty is a phenomenon that also includes the surrounding neighborhoods (PrevotSchapira, 2002).

DISCUSSION

Due to correlation between various indicators and through communications of the deprived areas in Tabriz; negative charge of economic and local poverty in resident population has been increasing. Accordingly, targeting priority areas should be considered as a supplement to other social policies. Moreover, people who live in the deprived areas experience multiple deprivations; because they are not only poor but also live in disadvantaged areas that double their demands, due to this deprivation. Therefore, allocating the applications and services required by neighborhoods, especially in low wealth and populous neighborhoods, was an indispensable category to improve their quality of life and satisfaction in order to reduce social and spatial disparities. This category had a direct relationship with the concept and criteria of spatial and social justice, as one of the basic needs for modern society (Ziari et al., 2013).

The major issue that was considered in this study compared to other similar studies, on the analysis of intra-urban spatial disparities, was a comprehensive



approach to the issue of urban neighborhoods relative to the intensity of disparity (Dadashpoor & Rostami, 2011); (Cain et al., 2013); (Shah & Bell, 2013); (Santos and Martins, 2014). This is an issue that was generally analyzed in in line researches. The strength and weakness of disparity have been neglected in relative to other factors affecting the intensification of disparity and lack of multiple allocations of resources.

Therefore, GIS-based indicators should facilitate the equality based on the vision of social justice, regardless of the concept of similarity in the investments of urban management. As presented in the case study, local managers expressed their desire to reduce disparities in the objectives of decentralization program. However, it should be noted that, up to now, each area has received the same share of participatory budget, independently from their needs. But, more justice distribution of resources was proposed as “future challenges”, especially for the cities such as Tabriz that suffer from obvious spatial disparities with hidden needs (Bifarello, 2005, p. 123).

In this approach, GIS-based indicators allow policy makers to know where the prime target was and what proportion should be their investment. Then, the ranking of areas was suggested due to the severity of problems or need for intervention and budget allocation in the field of participatory budget. Participatory budgeting approach assisted to identify the issues that recognized as important and basic by citizens. On the other hand, by using GIS-based indicators, “spatial budgeting” was highlighted in identifying geographical areas where the needs were concentrated. Through the analysis of connection between indicators, it was observed that the households who suffer from high density in the deprived areas, is more likely to suffer from all aspects of disparity. For this reason, since this aspect of disparity is very valuable to policy makers, it was recommended for disadvantaged areas to be ranked based on congestion and population plurality.

For example, it was suggested to redirect one third of participatory budget to the neighborhoods in order to guarantee investment on the deprived areas. Using different cutting points between the deprived and wealthy areas, priority areas in the neighborhoods can be defined (Fig. 4).



Fig 4. Density Ranking in the City

the city as a cutting point. Another option was targeted in 10% of the disadvantaged areas in the neighborhoods. Finally, a certain percentage of population was affected, for example, 50% of populous households were considered. In any case, the final decision for inclusion or exclusion of neighborhoods should be adopted by policy makers along with other criteria such as other programs in the neighborhoods.

Therefore, it was suggested to lead spatial intervention at both levels of areas and city; and to evaluate the need of poor people in the affluent areas (non-target) by use of a combination of needs. The spatial budgeting for the preferred neighborhoods should be distributed in accordance with their rate of households' density. As a result, neighborhoods with more needs; will have a larger share of budget. This was looking for social justice method related to need-based relative equality. Resource allocation should be done in consultation with district administrators and Islamic city council as a partnership association; in which each region has two agencies. Finally, policy makers should determine a program of activity for use of budget; provided by deposit in the preferred areas.

In order to take the path, intervention method was considered as a common practice of participation in the operational concepts. Also, using other criteria of “thematic analysis” can be done. For example, targeting block groups with poor education and high unemployment to implement the educational policies. “Analysis of target group” in this research took place by considering the quantity of population groups, such as children.



CONCLUSION

The method selected for evaluation of intra-urban spatial disparities with GIS-based criteria includes a methodology that leads policy makers towards the selection of indicators and criteria to control gaps through better understanding of complex and multidimensional dimensions of spatial disparities. According to the findings of this study, households' density in 10% of the most deprived areas is 23-61 times greater than the most affluent block groups. This density requires the reforming policies through a better understanding of intra-urban disparities and helps the optimal tracking of resources. This is useful for policy makers who should recognize the problems of disparities, set the priorities and target the most deprived areas. Data organization, quantification and communication are necessary for operating these indicators. So, the integration of various resources of data such as census and administrative data, quantification of needs and analysis of gap between the deprived and affluent areas, providing a map for communication and identification of problematic areas will be possible. Moreover, the results of this study show that the usefulness of multilevel analysis of intra-urban spatial disparity, areas and neighborhoods can be used to describe the gaps and spatial demonstrations.

As a result, spatial disparity can be taken into consideration through redistribution of credit with geographical factor. Then, the practical application of its results in the city, need-based relative equality and the vision of social justice will be partly realized. Finally, the following recommendations are offered:

- Both imputed and self-expression needs, especially in spatial and participatory policies, should always be considered for identifying the disadvantaged households in the affluent areas.
- In the functional analysis of indicators, local requirements must be in line with strategic requirements of the city; so that a certain range of measures could be realized in significant with time intervals.
- Local policy makers continuously analyze the effectiveness of measures in both selection and evaluation of indicators and also in relation to citizens before and after application of spatial policies.



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