

# Urban Governance and Contribution of Climate Change Consideration and Energy Efficiency: Case Study of Hashtgerd New Town, Iran

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## 1 ABSTRACT

Local government, as subset of national state and an organizational framework of city development have a great impact on efficiency and function of the city towards reaching sustainability and energy productivity; and determine interactive of urban management with the main subject of this paper, meaning climate change and energy efficiency. This paper is about best actions and policies that could change the local government of Hashtgerd new town in Iran,<sup>1</sup> to a key and effective elements to develop and optimum execution of urban energy consumption and decrease of CO<sub>2</sub> gases. Main efforts were on conformity of environmental conditions and making approaches and actions native, extracted from successful experiences of leading countries. The research approach to encounter with this issue is a combination of applying a multidisciplinary view, urban planning strategies, integrity of urban management and organizational capacity making. Finally, an action plan has been produced, which is a new plan for integrated and coordinated local management in Hashtgerd new town that have a specific look on energy consumption optimization, decreasing of CO<sub>2</sub> and sustainability.

In current situation, municipalities, as key elements of local government system in Iran, are responsible mostly in execution of urban development plans and have limited rights in preparing, approval, review and amendment of it. They encounter with several problems such as multiplicity of decision making institutions, implementation of parallel managements, ambiguity of authorization and responsibilities and power, absence of coordination, lack of institutional capacity and urban disintegration (including functional, political, planning, benefits (beneficiary and influential), spatial and structural disintegration). In addition, separation of urban planning and its execution section, resulted in abundant problems and challenges and is one of the main factors of non-fulfillment of comprehensive and detailed plans in urban areas.

New towns, unlike the existing towns have the potential to be energy efficient from the start of their construction. Sustainable urban development and efficient management system at local level are the two essential factors in this context. On the contrary, for new towns in Iran (such as Hashtgerd new town) no special local government system is defined and its position is not clear. This is resulted urban fragmentation, dual management because of interference of authority and responsibilities of New Town Development Corporation and municipality. Thus, due to mentioned insufficiencies, related actions about decreasing climate change, energy efficiency and sustainability, which are in planning and urban designing stages are left from the scope of authorities and responsibilities of urban management and adequate capacity and preconditions for taking any action are missing.

As a result, establishment of an intra-section institutions as an interactive point and homogeneity of organizations and institutions in Hashtgerd new town is necessary. Actually, this institution besides the city council that is a public and elected institution could help to increase the horizontal co-operation across multiple sectors at local and municipal level and the vertical co-operation between central, regional and local level. Also may provide more linkages and interaction among peoples, private sector and non-governmental stakeholders. The aim for establishment of this institution is to provide a multi-level governance framework for the management and planning of the city, to effectively tackle climate change and increase energy efficient urban development.

## 2 INTRODUCTION

Climate protection is an urban issue. Urban areas produced a high proportion of Greenhouse Gas (GHG) emissions, especially in high income countries. Also, cities are vulnerable to the impacts of climate change, particularly in developing countries. In addition, there are strong argues which support the relevance of the

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<sup>1</sup> New town of Hashtgerd is located 80 km west of Tehran. This new town is the case study of Young Cities project that is a German-Iranian research and development project set up for five years until 2013. The young cities project belongs to a worldwide “family” of ten research project that are funded by the Federal Ministry of Education and Research of Germany and dedicated to the question of energy efficient urban development in future megacities.

city level and climate protection. While, cities are places of aggregation of knowledge and wealth, they result in political matters. City levels are an effective scale for political interferences that have fewer obstacles than national and international levels. Also, local political and governance structures could be effective in policy making scopes such as transportation planning, urban planning, urban design and land-use planning and conduct them towards adaptation policies. The said scopes have significant influence on decrease of climatic change and energy consumption because they determine spatial and physical structures and affect energy consumption, directly or indirectly, and therefore diffusion of GHG. Thus, effective solutions need application of the most proper factors and actions in different spatial, physical, institutional, managerial and planning levels, which is resulted in improving of climate change adaptation and mitigation actions in various spatial levels.

This paper is about best actions and policies that could change the local government of Hashtgerd new town in Iran, to a key and effective element to develop and optimum execution of urban energy consumption and decrease of CO2 gases. Main efforts were on conformity of environmental conditions and making approaches and actions native, extracted from successful experiences of leading countries. This aim achieved through exploring good case studies on urban governance of climate change in pioneer and leading countries so that how climate protection is being addressed within local government and engaged with the different forms that through which governing take shape . In fact the processes and power through which governing is arranged is the matter of interest. However, the competencies and powers of municipal governments in these leading countries and Iran differ significantly. What can be achieved at the local level depends critically on the nature of central-local relations, and local competencies for climate protection. I begin by identifying the essential factors behind the growth of local climate governance. I then explore the current situation of urban governance system in Iranian cities (new towns in particular), and the role that local government can play in area of climate change policy and energy conservation . This leads to the formulation of potential, challenges and a model which shows the preconditions and reforms need the current urban governance system in new towns in Iran. The paper concludes by providing a local climate action plan through a multi-sector network approach. Thus, this research has examined both the character and capacity of local authorities particularly municipality and emergence of new forms of governance.

## 2.1 Local governance and climate change protection

### 2.1.1 Key determinates for governing climate change in cities

Review of literature shows in order to understand how climate change mitigation is being governed locally it is important to consider: actions across the different modes of governing, potential for local authority action on urban policy sectors, local governance capacity and multi-level governance. Bulkeley and kern (2006, p2243) have identified four modes of climate governance for a local authority. Table 1 outlined the key determinates for governing climate change in cities.

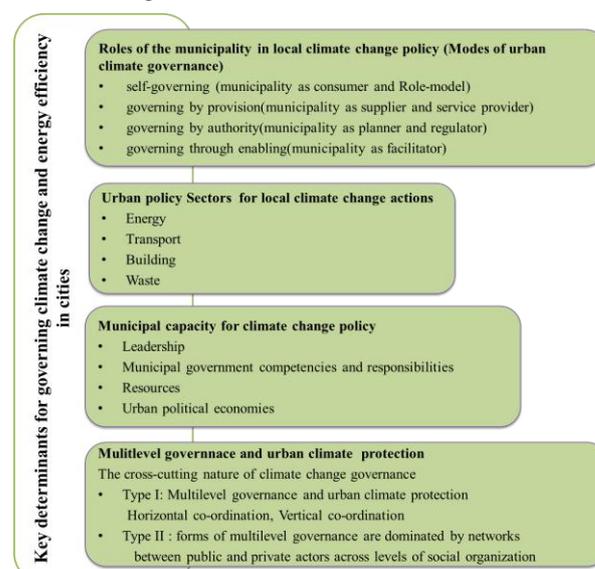


Fig.1: Key determinates for governing climate change in cities. Source: Author

### 2.1.2 Local governance capacity

A range of authors such as: Alber and Kern 2003; Betsill and Bulkeley 2007; Collier 1997; Schreurs 2008; Bulkeley and Betsill 2003; Bulkeley and Kern 2006; Qi et al 2008 identified crucial factors that shape local capacity to address climate change. The most frequently pointed factors are: leadership; municipal competencies; resources; and urban political economies. Table 1 shows these factors and their importance.

Key factors	Characteristics
<b>Leadership (committed individuals)</b>	In terms of the role of individuals as leaders within a municipality. The degree of institutionalization of climate change agenda by policy entrepreneurs and political champions is critical to local governance capacity.
	Available opportunities for municipalities to perform leadership roles with respect to their peer communities. E.g. the ability of London to position itself at the forefront of the movement of 'global' cities to address climate change through the formation of the C40 network gave strength to internal policy commitments to address climate change.
<b>Municipal government competencies and responsibilities</b>	Competencies, power and duties of municipal government in the key sectors of energy, transport, planning and waste are critical in shaping the capacity for local climate change policy and action. National policy and central-local relationship play very important roles. However, The capacity challenges facing municipalities with respect to their competencies and responsibilities are only partially derived from their relation with national government, but also dependent on their relation with other partners, and on the ability for local governments to create an enabling environment for local civil-society action. It demonstrates that municipalities have competencies both to shape their own emissions profiles, and through the use of different modes of governance (see 2.1) can affect the emissions generated at the local level by a range of actors and activities. Research shows that when competencies for regulation, provision and enabling modes coincide, capacity to act on climate change can be achieved at higher levels.
<b>Resources</b>	Local authorities' financial and human resources can deploy in relation to address climate change. Limited human resources can make a significant difference to the extent and efficacy of measures to address climate change. While lack of finance for basic service provision is acute in many cities, this is also a key issue in relation to the mitigation of climate change for investment in low carbon energy and transport infrastructures. Both, external and internal source of funding are critical. Significant difference in the local capacity to address climate change can happen through secure funding from external sources like national governments. Presence and ability of individual political champions or policy entrepreneurs are the key factors for securing internal funding. Innovative financial mechanisms within municipalities such as energy performance contracting can overcome their inflexible budgetary structures.
<b>Urban political economies</b>	Climate protection is a political issue, where different actors and groups have their own understanding of the problem and responding upon. A key aspect in this regard relates to the priority which is accepted locally. Often climate change responses considered as a negative connotation that slow economic growth and hinder development of basic needs. However, reframing or linking climate change problem to other pertinent local issue such as air quality can mobilize local action on climate change effectively.

Table 1: Local governance capacity for urban climate change mitigation. Source: adopted from Bulkeley et al. (2009)

### 2.1.3 Multi-level governance

Vertical and horizontal co-ordination (multi-level governance) is another key factor regarding capacities of local governance for climate action. According to Betsill and Bulkeley 2007; Abler and Kern 2008 evidence to date presents that municipal climate change mitigation policy remains concentrated in environmental departments, fragmented, and often isolated from national and regional climate change policy. This is due to dispersed nature of climate change governance which caused a highly fragmented strategies and actions. Therefore, a multi-level approach has increasingly been highlighted and demanded by different authors and expertise in the context of cross-cutting nature of governance (see Betsill and Bulkeley, 2007:448; DeAngelo and Harvey 1998; Bai 2007:24; Crass, 2008:7; Alber and Kern 2008:6 ). Regardless of the constitutional form of government, multi-level governance calls for a narrowing or closing of the policy gaps among levels of government. It also provides a flexible framework to understand relationships between different actors

horizontally across and vertically between different levels of government. The integration of climate change policies with other policy sectors such as transport, planning, economic development and etc. call for a greater co-ordination between different agencies and policy division within municipalities which calls horizontal co-ordination. On other hand, the vertical relation of different levels of government can enable or constrain municipal responses towards climate change mitigation. According to literature co-ordination of competencies and resources and national level commitment and political will play important roles regarding vertical co-ordination.

## **2.2 Urban governance and climate change in Iran**

In case of Iran, energy consumption and climate change consideration in urban areas is more significant due to its rapid population growth, young population and massive uncontrolled urbanization. One of best example in this regard, which is research area of this study, is the city of Tehran and its surrounding new towns which forming the Urban Growth Center, has a considerable impact on climate change and energy consumptions. Nevertheless, climate change in Iran is not high on the agenda and has low priority. Iranian cities are vulnerable to climate change and have potentially significant contribution to global GHG in the medium to long term, but their responses represents hitherto mostly neglected area for research. However, in recent years, the Iranian government has started to realize the importance of energy efficiency, the use of renewable energies, and is trying to apply them in developing different energy policies and strategies. At the national level, government has implemented the main national policy on energy-efficiency within its Five-Year- Development-Plans (FYDP). Several sectorial policies have also been ratified and several energy-related organizations have been established in governmental institutions. But results have not been very successful due to institutional problems such as parallel institutional structures and a lack of effective coordination. On the local level, which stands in the center of this research study, existing sectorial and national policies for energy efficiency and climate change mitigation have not been very successful yet. Local actors due to highly centralized and sectorial political structures have comparably low influence for these matters. In the case of municipalities, there is a lack of recognition and knowledge concerning the municipal role in improving energy efficiency and climate change mitigation. Also, there is an absence of a well-defined autonomy for municipalities regarding energy issues at the local level. In addition, municipalities are hindered by limitations associated with the power and competencies of municipal authorities and financial resources to implement energy efficient activities. On the other hand, organizations responsible for the planning and management of new towns such as the New Town Development Corporation, the city council, etc. are currently not sufficiently aware and have not performed adequately in this regard up till now (which is also the case in Hashtgerd new town). The importance of energy conservation and CO<sub>2</sub> reduction becomes readily apparent if one considers first the growing trend of new town construction in Iran, and second that these new towns, unlike existing ones, have the potential to be energy efficient from the start of their construction. Here, I review each of these factors in turn. This problem is also obvious in new towns of the country.

### **2.2.1 Macro administrative- executive system in Iran**

Studies and assessments about current situation of urban governance system in Iran demonstrated different problems. A large part of these problems are the result of inappropriate macro administrative-executive system of the country. The main features of this system are expressed in detail below.

Political- social history of Iran demonstrates that regarding political development level and its social-economical structures, it is classified in centralized systems. Factors such as long record of absolute governments and severe political and administrative centralization resulted in non-acceptance of innovation in creation of policy making and legitimacy (Ghavam, 1993). This is resulted in the fact that the current organizational structures were under dominance of dative and formal elements and there was less space for informal and selective elements. The mentioned general conditions caused tendency of managers and managerial systems towards absolute power and dominant of formal authorities and did not permit participation of management systems to informal and public participation. This problem is tangible especially in urban governance system that inherently needs more active participation of peoples and informal groups and had wide consequences. On the other hand, dominance and partial priority and/or absoluteness of the authorities on formal rules and regulations resulted in the fact that top managers have significant effects on their organizations and to fulfill organizational objectives and sometimes personal

benefits, ignore rules and regulations. Moreover to centralization and shortage of general participation mechanisms in the records of society's political culture, weakness and defects of management system and its supervisory mechanisms, gaps and defects in regulations, and inconformity of them with managerial realities and necessities caused more difficulties. The state's administrative organizations were generally established based on sector classification and have sectorial function with vertical relationships in all around of the country, while macro administrative- executive system of the country needs existence of organizations with spatial and multi- section functions. Current relationships are vertical and unilaterally top-down; in a way that decision making is done on top and execution is done on the bottom and there is no significant possibility for interference and participation of the lower levels in decision making process (Hamin, 1992). This macro system includes Iranian urban governance as well . In fact urban governance has been shaped in the framework of this macro system and act based on it. Consequently, these shortages and difficulties have a dominant impact on urban governance system as well.

### 2.2.2 Urban governance structure: related organizations and their relationships with urban management

Urban governance structure in Iran could be classified in three levels of macro (national), regional and local levels. In macro level, ministries or organizations are placed that their working scope is all around of the country and are capable of decision making about local government. Main units of political division in Iran are: country, province, county, district, city and village. The political division system sets out the spatial framework in which different organizations operate. Usually, all administrative organizations in Iran follow the levels set out by political divisions. Thus, the government system has a hierarchical order. There is no independent local government organizations in regional level, but available organizations are accounted as province branches of the ministries and state organizations that could be act in the province level and effect on urban management in that levels. In local or urban levels, except from municipality, which is the main element of local government in Iranian cities, other organizations, including official or unofficial ones are running the city. Official elements include municipality, city council, governor, county planning council and organizations related to infrastructure and urban services like water, electricity and gas departments.

Current objectives and policies in Iranian local government system are classified based on three resources: 1- Five-year economic, social and cultural development plan of the country; 2- Urban development plans and; 3- Regulations of municipalities. One of the main resources for determination of local government objectives that involves in macro targeting, is the five-year development plans. These objectives and policies are called urban development chapter that have a significant relationship with local government (Taheri, 1992). Knowing objectives and determining resources of the objectives and policies is essential. Objectives give meaning to management and determine what is necessary and why. So, by study and analysis of current objectives in Iranian urban government system we understand importance of decreasing CO<sub>2</sub> and optimization of energy in cities and their managerial systems, and necessity felt by the authorities, planners and national, regional and local policy makers. Study and analysis of the objectives and policies demonstrate the following problems and weaknesses: Lack of codified specific and specialized objectives and policies: objectives are implicitly propounded in the scope of local government in the framework of urban development discussions and have not a special part in official documents of the country's managerial and planning sections. This reflects the lack of legal recognition and enforcement of local government and urban management scope in policy making, planning, legislating, and executing as a principal. This marginalized local government and its objectives. Lack of an integrated and comprehended view: Interest and benefit Interference of influential organization and institutions in developing urban policies and objectives, frequent change of top managers and immoderation in basic principles related to local government caused dispersed sectorial approaches which often proved to be expensive, inefficient or even a total failure. Lack of a long term view and approach and no appropriate relationship between objectives and policies: One of the reasons for not fulfillment of the objectives and policies is shortage of specific relationships between macro and micro urban development objectives and the provided policies. It is as a result of excess consideration of micro urban management level, particularly municipalities and not regarding the role and responsibilities of other interfering organizations (at national, regional and local levels) in local government system.

### 2.2.3 Urban development plans, integrated urban management system and institutional capacity

In current situation, municipalities, as key elements of current local government in Iran, are responsible mostly in execution of urban development plans and have low rights in: decision-making, preparing plans,

supervision on plan preparation, approval, review and amendment. This problem originates in the fact that planning and executing system of urban development in Iran is defined basically in separated rules, indeed of one hand, urban development planning system is ruled by Ministry of Housing and Urban Development that includes wide expertise, which relates directly with urban development planning in all around the country under the supervision of Supreme Council of Urban Development and Architecture. On the other hand, implementation system of the approved plans is defined variously and a executive system is provided to the municipalities (Kazemian, 1995). This matter results in a severe distance and separation what is propounded in the plans and what is done by the municipalities. This is also one of the factors of non-fulfillment of comprehensive and detailed plans in urban areas. Also, in this planning and implementing cycle, no specific position is accounted for public participation in the planning. Actually, submitting planning to the Ministry of Housing and Urban Development is decreased participation in planning to the minimum. On the other hand, municipality has not established an appropriate position for public participation, or if it does exist, it is in the primary levels. In execution section, municipalities encounter with several problems, of which the most important are: the multiplicity of decision-making organizations, duties and responsibilities overlapping and parallel managements in different urban scopes, ambiguity of authorization and responsibilities of organizations and lack of coordination between other influential organizations in execution part of the plans . This matter emphasized on the current urban disintegration in Iranian cities. The disintegration include functional, political- planning, benefits (beneficiary and influential), spatial and structural disintegration. Another important aspect, is capacity and effectiveness of municipality organizational structure, their human and financial resources (Barakpur, 2010). However, in some cases, establishing working groups, agreements are concluded between these organizations, because of several reasons, including changing of managers, violation in benefits, inflexible nature of the organizational structure and no tendency towards participation for solving the common and complex problems, cooperation is not continued. Thus, two key factors, meaning integrity and cooperation between organizations and related institutes are established less. As a result, resources wasted, current situation became unorganized, cities are not appropriate and balanced, unfair and violation of Citizen's public benefits. So, necessity of intra-section institution as an interactive point and homogeneity of organizations and institutions is observable. Next part discuss this matter in detail (see 3.2).

### **3 A LOCAL CLIMATE ACTION PLAN IN THE NEW TOWN OF HASHTGERD**

#### **3.1 Current situation in Hashtgerd new town**

New towns in Iran like other old cities, encountering all problems and challenges that mentioned above, affected by inappropriate process of management and urban development plans; a process that was encountering with different problems and could not fulfill expectations and development perspectives. Based on my research, in new towns no special urban management system is defined and its position is not clear. Even, the New Town Development Corporation (NTDC) that is specifically responsible for new towns, has not fulfilled any research on this matter and relies on other problems of the new towns and believes that this issue is included in other discussions. This is resulted in various problems, of which the most important is urban differences, dual management because of interference of authority and responsibilities of NTDC and municipality. At present Hashtgerd NTDC and the municipality possess equal authority, since the town is developed enough to have a municipality, but not completely to dissolve the NTDC. This fact, quite often brings the two organizations into conflict, which is unhealthy for the development of new strategies and action plans and may cause delays and problems. Thus, lack of a distinguished and integrated system, we could not be involved in the research synthetic issue, which is the relationship of urban governance with optimization of energy and decrease of CO<sub>2</sub> gas. Therefore, the primary weakness shall be removed partially and then the combined issue can be involved. The research approach to encounter with these issues is combination of applying interdisciplinary view, urban planning strategies, integrity of urban management and organizational capacity making. My attempt was to find out the expert opinion, definition and understanding of the local climate protection actions and policies according to the functions and powers of local actors and municipality. Also, the preconditions needed for an effective implementation of local climate protection action plan. Following this, Stakeholder analysis approach was undertaken using a qualitative research method. Different levels of stakeholders, including city policy-makers, expert's member from municipality and city council, energy providers and community members were interviewed as either

individuals or focus groups. Interviews with actors within the municipality and NTDC revealed that not much is done regarding climate protection and energy efficiency and that these officials are little concerned about the climate change consideration, energy consumption pattern and efficient use. It seems that the critical role that energy plays in economic development, social welfare, and environmental sustainability is underestimated. This stems from the lack of awareness and information and the absence of an ethical consumerism culture, but could also be due to an optimistic dependency on fossil fuels (in which Iran is quite rich). Another obstacle is the absence of a dedicated budget for an energy efficiency program. However, to maintain a sustainable development which is the target of new towns, energy management in a sustainable manner is essential. Communication with the Technical Committee of Urban Development Studies and the Center for Cooperative Affairs of Hashtgerd NTDC, revealed that the scope of work of NTDC is mostly in infrastructure and urban development and their activities in the field of construction of residential units is done by participating in cooperative projects by transferring the land to public and private investors and developers. Therefore NTDC as a client and also as an executive organization must have a proper control on the construction and execution of projects. Hence one of its responsibilities is controlling the implementation of code19.<sup>2</sup> But since necessary measures and actions for energy conservation in buildings are costly and developers have to spend more money, the overall cost of the project will increase and consequently NTDC's share of the profit will decrease. Another important deficiency and objection which is directed to the City Council as legislator and decision-maker is the absence of policies and regulations regarding energy and climate protection (Jasbi, 2008). The City Council has to define a program, allocate staff and funds and institute policies to achieve continuous improvement in energy conservation and climate. Implementation of code19 of the National Building Code in Hashtgerd New Town is negligible. Energy auditing has not been carried out on any of the existing buildings. Since March 2007, the Municipality made the implementation of code 19 compulsory for all new constructions. This is clearly stated in building licenses issued by the local government. Issuance of the building license, depends on the provision of energy efficient concepts (e.g. envelop insulation, double-glazed windows, etc.) in the detailed design. But corruption, bribery, carelessness and lack of cooperation between responsible organizations and also lack of proper supervision hinders proper implementation. The fundamental reason behind this is that officials, residents and developers do not realize the importance of implementing this regulation and hence do not consider it seriously. In their opinion it is more of a theoretical concept and a farfetched ideal. Interviewing municipality officials revealed that the municipality is not actively involved in cultural training and awareness rising with respect to energy efficiency and use of renewable energy sources at organizational or community level. Without proper education through adequate programming, changing the attitude of the citizens will be very difficult. Community participation in matters and decisions, concerning the city is negligible. And as mentioned before the key issue is the absence of a well-defined energy management-climate mitigation sector within the municipality.

### 3.2 Formation and evolution of the intra-section institution

In this part of the paper, the actions taken against the problems and recommended approaches are provided. Based on the mentioned aspects, final part of the paper is about establishment of a coordinating institution for urban development planning and management system in Hashtgerd new town. Finally, I have provided an action plan that has a specific look on energy consumption optimization and decreasing of CO<sub>2</sub>. The aim for establishment of this institution is management and planning for city development, which is as a homogeneous point and unity for decision making in intra-section levels and particularly, between central and local governments. This institution should be established based on an interaction and homogeneous relationship to conduct towards more sustainable development of city. This institution, aside from interrelationship between effective organizations, could facilitate the fulfillment of development plans. In

<sup>2</sup> The Iranian National Building Code consists of common and consistent mandatory elements and applies to all activities related to construction of buildings, including demolishing of existing buildings, construction, change of purpose of a building, expansion of an existing building, and reinforcement of structures (NCEDO, 2003). According to code33 of the National Construction Engineering Disciplinary Organization (NCEDO), the Ministry of Housing and Urban Development is responsible for supervision on the implementation of national buildings regulation and codes in the design and construction of all buildings. Based on this code, the Ministry of Housing and Urban Development has made an effort to publish national regulations consisting of 20 codes, of which code 19 deals with energy conservation in buildings.

fact, this intra-section institution, away from any sectorial and organizational approach, could result in closeness of the government, municipality, city council and people, urban planning system and executive system. To establish the intra-institution, there is a need to take specific actions. Preparation of legal fields as the primary necessity for taking actions, establishing appropriate administrative fields according to institution's policies and objectives and designing the process and completeness of the institution are the most important things. In the first stage, which is creation of the institution, relates to institutional establishment idea based on specific aim. This stage that is based on mutual understanding and agreement builds initial ideas and aims. Here, regarding special problems in urban planning and development, several special approaches are considered. First, urban development plans are prepared by this institution. Since urban development plans (both comprehensive and detailed) define different policy sectors, regulation and guidelines, intersectional relationships and integrated decision making in conformity with organizational objectives, from one hand, and in conformity with fulfillment of appropriate development aim, on the other hand, can be achieved through integrated approach of this institution. In this period, organizational nature of the institution is not independent, but relates to central authorities such as Ministry of Housing and Urban Development of its related organizations and the most activities shall be established based on agreements (Andalib, 2011). Another important approach, which should be included in the organization's programs is involving energy consumption optimization and decreasing climate change in different urban scopes. Actually, in this stage, we only rely on the agreed titles and points and use already existed administrative and financial supports; because the institution has not independent identity and managerial body. The next stage is called institutional stabilizing stage. Here, which is in fact a new period of cooperation, moreover to the Ministry of Housing and Urban Development and municipality, the city council is also entered. Actually, an agreement shall be concluded by and between these three organizations as the main founders of the institution in order to facilitate the establishment of the institution. City council as an elected organization plays a significant role to stabilize this institution. Then, by defining of budget for the institution and approval of annual plan and budget, it will have stable identity and found legal status. But, it should be mentioned that to change an institution from a temporary and agreement stage to legal and formal one, and enters urban management and development planning, needs the parliament approval. At this point the institution enters a stable situation with persistent and permanent identity. As a result, considering problems establishment of an intra-institution in Hashtgerd new town is necessary. Actually, this institution besides the city council that is a public and elected institution could help more relationship of the peoples and government. The following diagram shows stages of establishment and evolution of the institution.

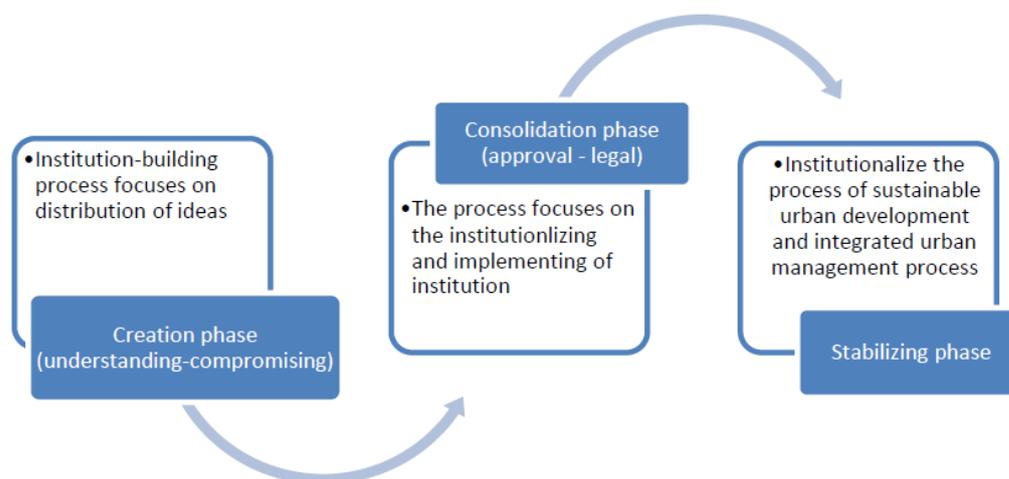


Fig. 2: Stages of formation for coordinating intra-institution. Source: Author

### 3.3 Development of action plan through a multi-sector network

The intra-institution not only integrates the urban management and planning in Hashtgerd new town, but also helps the local government in providing the action plan to combats climate change. The overall objective of the action plan is to enable local government to sustainability increase energy efficiency and reduce GHG emissions in their own operations and communities. This action plan which will be formed after stabilizing stage of intra-section institution operates through a network governance approach. So that, a multi-sector

network in an open dialogue has to be build inside the intra-institution. In this network participants are a diverse group of actors and organizations from public, private and non-profit sectors. This is because success in the institutionalization of a network as described by Milward and Provan 2006 can only be achieved when the goal formulation and the decision of participation are not dependent of one party or some parties. In this network all participants would strive for a common goal next to their own mission. The starting point is to determine and exchange initial views, their specific view on climate change and what to do about it. Therefore, the first attempt is to make the climate change and energy optimization as a topic of broad interest. After that groups will be formed according to their interests. Themes around climate change topics will agree upon and workshops will be held and fundamentals of the future structure of the network identify. According to output of workshops of each group, different alliances in relevance to their urban policy sector will be set up. The best way to organize such network is to set up a separate administrative unit (here called central board) to support the network, its alliance and activities. This unit plays a key role in coordinating and sustaining the network. Therefore the structure the network consists of the central board and its alliances. The central board is under the direction of intra-section institution.

#### 4 CONCLUSION

In summary, this paper reviews the factors that are important in influencing the development and implementation of urban governance and planning for climate change mitigation. Also the specific local competencies and powers for climate protection and how climate change policies are institutionalized at the local level have been discussed. In Iran, lack of desirable inter- sectorial coordination mechanism as well as integrated urban Management (as part of an integrated spatial management system in the whole country), and lack of policy integration is one of the most basic constraints in implementation of urban development programs including urban energy efficiency and climate protection programs. On the other hand, the study also showed that there are several organizations responsible for some dimension of planning of the city, but not one of them is designed to take the city's unique needs into account. None are enough empowered to bargain the priorities of citizens and municipality as central core of local government. Communication between different agencies, utilities and the city administration are fragmented. Strategies and action for energy conservation and climate change mitigation like improving air quality are often deployed in a highly fragmented manner. Municipality and its affiliated agencies and departments are frequently marginalized within administrative system so that they lack the power and authority needed to co-ordinate policy across a municipality. Therefore they are not able to implement the policies that are required. Climate change mitigation cuts across many sectors such as energy, transport, planning, finance, education and etc. Hence, the current local government system is increasingly calling for greater co-ordination within municipalities and demanding mainstreaming, coordination, and cooperation across government agencies.

Most of the cities that are active in optimization of urban energy consumption and decreasing or conforming actions in climatic changes have an effective and strong local governmental and managerial system. In these cities, discussions about climatic changes, energy efficiency and sustainability in local government system are constituted, and using potentials in the cities, governmental and managerial system could promote and develop these matters. Efficiency of urban governance, results in more sustainable and greater effectiveness of urbanism, have correlation to factors, including political stability, managerial and social integration, economical rise, skill, policy makers and appliers motives. In this condition, framework and organizational characteristics of urban governance, particularly role of execution of governmental, public and private sectors, have significantly essential effects on its success. We also need to consider the Iranian cities and off course new towns don not have a long history on climate change climate protection policies. A systematic climate protection strategies and action plans were not adopted in Iranian local government. Neither found that in municipalities. This very new and unknown subject is intangible for local authorities which makes changes and reactions more difficult in this situation. In addition, integration of climate change policies with other policy issues, the required capacity within the internal organizational structure of municipality is essential. Therefore it is clear that where there is a lack of capacity which is also in the case of Iran the potential of local climate change strategies and policies will be limited.

## 5 REFERENCES

- Alber, G., Kern, K. : Governing climate change in cities: modes of urban climate governance in multi-level systems. OECD International Conference, 'Competitive Cities and Climate Change', 2nd Annual Meeting of the OECD Roundtable Strategy for Urban Development, 9-10 October. Milan, Italy, 2008.  
Available from: [http://www.oecd.org/document/32/0,3343,en\\_21571361\\_41059646\\_41440096\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/32/0,3343,en_21571361_41059646_41440096_1_1_1_1,00.html) (accessed May 2009).
- Andalib, A. : Studies and reviews of Tehran Urban Planning and Development Agency. Tehran, 2011
- Barakpour, N., Asadi, I. : Urban management and governance. Research Center of Art University. Tehran, 2010.
- Bai, X. : Integrating global environmental concerns into urban management: the scale and readiness arguments. In: Journal of Industrial Ecology, Vol. 11, Issue 2, pp. 15-29. 2007.
- Betsill, M., Bulkeley, H. : Looking back and thinking ahead: a decade of cities and climate change research. In: Local Environment, Vol. 12, Issue 5, pp. 447-456. 2007.
- Bulkeley, Harriet, Schroeder, Heike, Janda, Katy, Zhao, Jimin, Armstrong, Andrea, Yi Chu, Shu, Gosh, and Shibani: Cities and Climate Change: The role of institutions, governance and urban planning. Report prepared for the World Bank Urban Research Symposium on Climate Change, 28-30 June. Marseille, 2009.
- Bulkeley, H., Betsill, M. : Cities and climate change: urban sustainability and global environmental governance. Routledge, London, 2003.
- Bulkeley, H., Kern, K. : Local government and the governing of climate change in Germany and the UK. In: Urban Studies, Vol. 43, Issue 12, pp. 2237-2259. 2006.
- Collier, U. : Local authorities and climate protection in the European Union: putting subsidiarity into practice. In: Local Environment, Vol. 2, Issue 1, pp. 39-57. 1997.
- Crass, M. : Reducing CO2 emissions from urban travel: local policies and national plans, OECD International Conference, 'Competitive Cities and Climate Change', 2nd Annual Meeting of the OECD Roundtable Strategy for Urban Development, 9-10 October. International Transport Forum. Milan, Italy, 2008.
- DeAngelo, B. and Harvey, L.D.D. : The jurisdictional framework for municipal action to reduce greenhouse gas emissions: case studies from Canada, the USA and Germany. In: Local Environment, Vol. 3, Issue 2, pp.111-136. 1998.
- Ghavam, A. : Political development and administrative transformation. Qoms Publication. Tehran, 1993.
- Jasbi, Gh. : Energy Management for New Towns at Local Level:Application to Residential Buildings in Hashtgerd New Town, Iran. M.Sc. Thesis. Technical University of Berlin. Berlin, Germany, 2008.
- Hamin: Studing Tehran management system.Consulting Engineering Company Report.Tehran, 1992
- Kazemian, Gh. : Designing appropriate urban management system for Iranian cities. Shahid Beheshti University. Tehran, 1995
- Kern, K., Bulkeley, H. : Cities, Europeanization and Multi-level Governance: Governing Climate Change through Transnational Municipal Networks. In: Common Market Studies, Vol. 47, Issue 2, pp.309-332. 2009.
- Milward, H.B. Provan, K.G. : A Managers Guide to Choosing and Using Collaborative Networks. Report of the IBM Center for the Business of Government. Network and Partnership series. 2006.
- NCEDO [National Construction Engineering Disciplinary Organization] : Code 19 of the National Building Codes, Nashre Toseyeh. Tehran, 2003.
- OECD : "Governing Climate Change in Cities: Modes of Urban Climate Governance in Multi-Level System," presentation prepared for OECD International Conference Competitive Cities and Climate Change, October 9-10. Milan, 2008.
- Qi, Y., Ma, L., Zhang, H., Li, H. : Translating a global issue into local priority,: China's local government response to climate change. In: Environment and Development, Vol. 17, Issue 4, pp.379-400. 2008.
- Schreurs, M.A. : From the bottom up: local and subnational climate change politics. In: Environment and Development, Vol. 17, Issue 4, pp.343-355. 2008.
- Taheri, A. : Local government and decentralization. Qoms Publication. Tehran, 1992.