

**Provide the infill development strategies in the urbanvillage worn-out tissue by using SWOT Technique (case study: Naeemabad, Yazd, Iran)**

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**Abstract:** Following widespread and outer developing cities, rural habitation that are placed in course of development gradually are adopted civic features and are account for as sector of city, in this research are remembered from this villages as city- village. The sample of this city-village can found in Yazd that number of this village are 17 village. One of this villages is Yazd Naeim Abad that in running incorporating this village in Yazd are created changes in performance and normal life procedure in this village. Beside of this problem, skeleton problems and accessing this textures has been creating problems such as wearing for this city-village. This city –village texture such as other city village textures are possessed from significant levels of agriculture land and gardens and uncultivated and derelict lands, for example, more than 30% from Naeim Abad city village are formed uncultivated lands. In regard to what are explored can say main present research aim is providing inter increase development guidelines in Yazd Naeimabad civic-village worn texture using SWOT technique, in this line, after literature study related to issue and understanding its lands and studies limitation with inter software approach are come to weakness and strength points and opportunities and available threat in Naeimabad and in proceeding, we are discussing guidelines using SWOT technique. With regard to what in recent study are discussed about integrated villages in cities, we can said that peripheral villages insertion to city have negative and positive impacts for village and also for city. However, this issue is effort clear in order to realization consistency in city-village textures and exploitation from them for developing inter-increase, of course, it is not doubt that accessing to effective guidelines in order to developing inter-increase this civic textures needed extensive and precise study, but we can find with analyzing texture features and inferring available potentials and limitations on them to their role rate in developing inter-increase and in line of this work, we can represent guidelines and procedures.

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**Keywords:** guidelines, developing among-increase, civic –village, wear texture, SWOT

**Introduction:**

With increasing population and today life producer changes rather to past, central cities' texture are empty from population and city are developed its peripheral areas and continuing this procedure swallow peripheral city lands. While in parts of peripheral city lands are formed habitations in form of village previously. While, this issue is posed that integration of villages in city with all positive and negative outcomes occurs for city and villages and now have to accept this villages as part of civic texture. In this study are remembered from this villages as civic-village. many of this texture lands are as useless and unbound make to increase widespread city development. surviving this texture lands from developing in addition to widespread city intensify are caused disappear agricultural lands and natural environment, increasing civic servicing costs, environment and pollutions problems' resulting from it, inconsistency in neighboring use and reducing safety in residential textures. In other word, structure in this textures have no minimum quality due to

structural problems and it is not possible to remedy and rehabilitation due to skeleton problems as case form. 1970 decade was beginning reaction and urbanization society criticism than widespread negative and destructive outcomes. In this case are set forth new ideas and concepts include civic constant development, compressed city, modern urbanization, intelligent grow, borderline. Here is that is beginning civic development policies change from extogenous development to endogenous ( in response with over widespread challenges ). Considering to what are explored can said main current study aimed to providing endogenous development guidelines in civil-village wear textures.

**Research question:**

Question this research include: what is guidelines and procedures optimal use of lands and areas of Naeimabad wear civil-village texture for developing Yazd?

**Literature review**

**Rural-urban old texture**

The village-cities are environments where the city-village-nature or rural-urban systems have met and combined (urban-rural action place) (Daneshpur, 2006: 7) and their land use has changed from rural to urban (Cowan, 2005: 428). In fact, some kind of urbanization process happens for a village. (Goli and Askari, 2006: 140) Thus village-cities in this article are former villages around cities that have joined the city today and are considered a neighborhood of the city (Akbari-Qaderyan, 2013: 99) and are different from village-city in its classical meaning (the common term in the world urban literature).

The rural area has remained physically rural only in the heart of the city, but the residents, their culture, jobs and livelihoods have changed from rural to urban (Nooshafarin, 2010: 20). Since the beginning of the emergence and formation, this type of rural textures have been deprived of many urban services and infrastructure (Utopia, phase II, Volume I, 2007: 15). Changes did not end here and unplanned changes caused many problems such as a lack of designing organic texture and passageways for large population and complexes, lack of proper land division and united construction pattern, native and exotic culture mismatch and its social problems (Nooshafarin, 2010: 20). With the passage of time and the effects of economic weakness of residents for texture modernization, old textures assumed large dimensions. (Utopia, phase II, Volume I, 2007: 15). Attention to rural-urban textures as an opportunity requires an approach in order to benefit from urban facilities and opportunities in addition to rural potentials and strengths; thus rural-urban textures must be considered as opportunities to create sustainable urban settlements (Akbari-Qaderyan, 2013: 90).

#### **Infill development**

The urban growth pattern in the years after World War II (1940) was urban dispersion which made cities to spread horizontally and caused many adverse consequences such as distributed development and the loss of agricultural lands and gardens, population evacuation for inner-city textures and their destruction, service delivery problems due to uncontrolled expansion of the city, environmental problems and pollution as well as an increase in the city scope and the destruction of natural centers (Rahnama-Abbaszadeh, 2008: 61). But the 1970 decade is the beginning of critics and reaction of urban planning society to negative consequences of scattered development (Mohammad Zadeh, 2007: 94). Thus this is the beginning of change for urban development from exogenous to infill development policies (in

response to the challenges of scattered development) (Rahnama-Abbaszadeh, 2008: 61).

The infill development talk was first raised in Habitata Conference in Canada in 1976 (Ardjmand, 2008: 32). Three years later, the concept of infill development was officially defined for the first time in 1979 by the Real Estate Association of America and was used for economic purposes (Hudnut, 2001: 1). After combining with the concepts of sustainable development, it became ecologically important. Among the benefits of infill development, one can point to environmental, social, economic and physical benefits (APA, 2006: 456).

There is a wide range of definitions to describe infill development. But it should be noted that all these definitions focus on common concepts, some of which are noted below:

- Infill development is a usually residential development on a land remained among buildings (Saifodini, 1998, p. 230). In other words, development of vacant lands and non-usable buildings that are often found in developed areas is called infill development. (City parish planning commission, 2004, p.1)

- Infill urban development is a practical way to prevent the spread of city in underdeveloped countryside lands and green urban areas and develop vacant and abandoned lands within urban areas. It somehow supports urban restoration and revitalization. (EPA, 1999: 2)

- Infill development fills the gaps in the city's neighborhoods and plays a vital role in the use of existing urban potentials, protecting unused lands and preventing urban dispersion. (Kienitz, 2001: 5)

- Infill development refers to the use of existing buildings and parts of vacant or unused lands in the center of a metropolis for directing the growth against the development of outdoor and farmlands on the periphery of the city. This type of development is a regional smart growth strategy. (Caves, 2007: 258)

#### **Experience in the field of infill development**

In developed countries, given the high importance of sustainable development, environmental protection and efficient use of various resources, issues such as smart growth, infill urban development were and still are considered. (MRSC, 1997: 56) In this section, due to extensive experiences in the field, Table 1 summarizes some works done in the field of infill development in different cities and states in 3 areas: demolishing old textures, arid and abandoned lands and spaces with ownership issues. Then examples of each type of infill development are presented.

Table 1: Summary of works done in the field of infill development

Classification	Development name/location	Scale/type of development	Use of the previous site
Demolishing old textures	Southern District of Greensboro, North Carolina	10 acres, mixed uses	Abandoned residential area near the historic main street of Greensboro
	Marston area, San Diego	1.2 hectares, 42 residential units	Demolishing commercial and residential buildings
	Franklin Square	3 acres, 105 residential units	Demolishing school
	Belmar, Lakewood, Colorado	3.5 million square feet, creating 22 urban blocks with mixed uses	Abandoned lands of the city's old market (NJDC, 2006: 14)
	Boca Raton and Florida	Neighborhoods with mixed uses, pedestrian-oriented and transit-oriented	In the stagnant demolishing central and commercial parts (Northeast-Midwest Institute, 1999: 7)
	City of Portsmouth, Virginia	A mixed neighborhood unit including new and traditional homes, parks and open spaces	A 45-acre public housing project (Northeast-Midwest Institute, 1999: 8)
Arid and abandoned lands	Western Region, Fort Worth	11 acres, 350 residential units	14 aggregated empty parts
	Greenwich Park, Cincinnati	1.8 acres, 212 residential units, retail units at ground floor	Previously flat parking parts
	Jersey City, New Jersey	19 acres, 1,000 residential units	Arid lands near Roosevelt Stadium
	Asbury Park, New Jersey	56 acres, 3,200 residential units, 450,000 square feet of retail units and hotels	Arid and empty lands (NJDC, 2006: 14)
Spaces with ownership problems	Kuala Lumpur, Malaysia	The plan includes residential users (504 units), commercial spaces (retail), recreational-cultural facilities and parking	Ground project around and along Mushi Abdullah Street with an inherited ownership (Yean, 2006: 138-140)

### A review of the research question

How can we measure infill development capacity in lands and spaces in old textures of the Naeem Abad village-city and the zoning and their priority based on the infill development indicators?

In this study, the infill development program was selected as the theoretical research approach for capacity assessment of land development which was presented theoretically and its analytical and administrative models were introduced and explained. To answer the question, the following steps must be performed:

- Understanding the general, physical, functional, social, economic and managerial characteristics related to the lands of rural-urban old textures: In order to identify the research areas, we identify the status quo in the scope. In this section, we identify the demographic, economic, social, physical and institutional-managerial characteristics and examine the research indicator in the studied area through the use of available documents, GIS maps of Yazd as well as field harvests and observations, interviews and questionnaires.

- Identifying effective indicators in the development of rural-urban old textures in different dimensions, with particular attention to the specific characteristics of the lands

- Determining the importance factor of effective criteria and indicators using Analytical Hierarchy Process (AHP)

- Preparing maps for each indicator and criterion and overlaying maps by applying the relevant weights

- Preparing the final map by combining maps for criteria, showing the land development capacity of the rural-urban old texture

- Prioritizing them in terms of development capability

After reviewing indicators, the information layers for basic location indicators are provided in the GIS environment. Then, for zoning and prioritizing lands in terms of development, the layers are overlaid by applying calculated weights for each indicator through AHP. The end result is the map for zoning and prioritizing lands in Naeem Abad, Yazd. Finally, a table provides characteristics of each zone.

**Criteria and sub-criteria for the study in the AHP method**

Some criteria are required to evaluate development capabilities of infill levels and their priority in relation to the physical, functional, economic, social, and managerial areas. Accordingly, based on the criteria and indicators used in the world experiences and of course, the subject of this study, terms and problems of the studied scope, and a special

emphasis on the rural-urban old texture, the criteria and indicators of interest in this study will be introduced below.

The main criteria which have different dimensions include physical, functional, economic, social and managerial. For each of these criteria, indicators are considered which act as sub-criteria in the hierarchy structure of AHP, as shown in Figure 1:

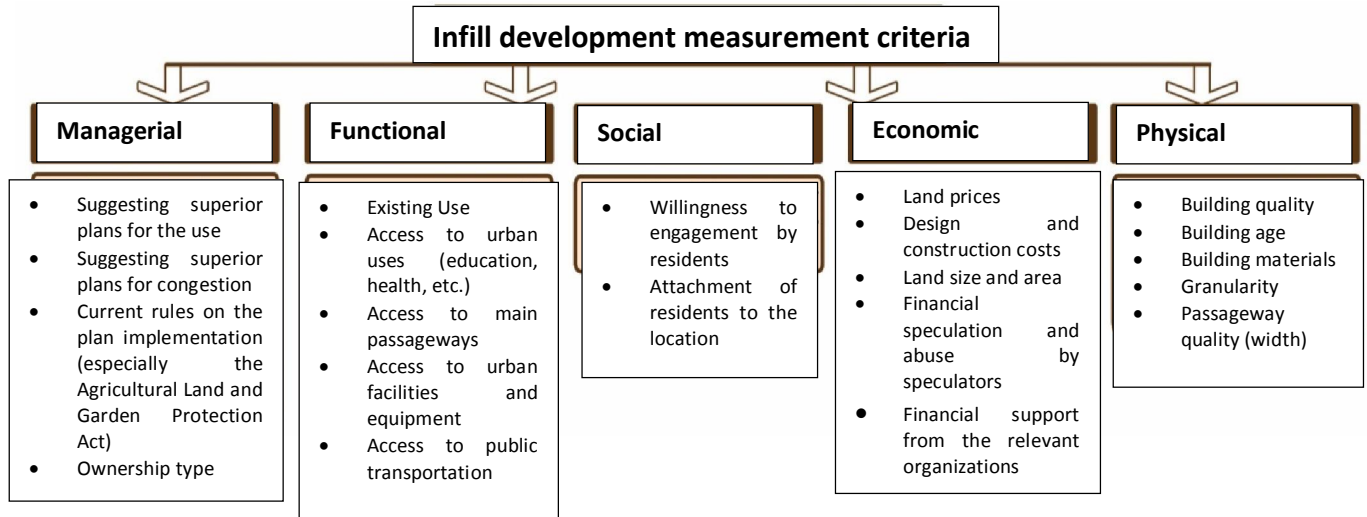


Figure 1: Measurement criteria and indicators for infill development

**Research range and scope**

Naeem Abad District of Yazd, which is also called Abshahi, is delimited by north to Akbar Abad neighborhood, by south to Daneshjoo Boulevard and Feyziyeh district, by east to Ayatollah Kashani Avenue and Mehdi Abad district and by west to Qasim Abad district. This district was constructed in the eighth century AH by Nusratoddin Shah Yahya (Khademzadeh, 2005: 201). Naeem Abad is currently considered as a neighborhood of Yazd in public opinion as well as in urban projects, including detailed plan and comprehensive plan prepared by the consulting engineers.

It can be said that Naeem Abad is worthy of study in two parts: old (rural) and new (urban). The first part is the old and rural area which includes gardens, farms and mainly rural homes, while the second part is composed of a series of new constructions mainly around the urban passageways of the village-city which is considerably different from the first part.

In terms of location, Naeem Abad has a good and valuable position in Yazd. It is located quite in the city and close to the downtown areas, and close to the old and new urban centers. In terms of access, it is located

in the immediate vicinity of the arterial roads (Kashani Street and Daneshjoo Boulevard) which facilitates relations with other parts of the city, representing the high quality of the scope.

**Study method:**

Infrastructure core each research is its method. choosing study method are depended on both study case problem type and penetration stage about it. There is also another effective criterion in choosing method type and it is personal researcher interest to study type (Nayebi: 1388). In line of answering to this question, we arrive to weakness and strength points, circumstances and available threat with recognizing wear civil village texture lands' features in 5 management, social and operational and skeleton fields and their analyze (based on said methods in previous question), that in this case are discussed guidelines using weakness and strength points, circumstances and threats available in sector. In this case are used from SWOT technique. In this project are discussed SWOT tool analyze and programming applied to understand strength and weakness points, circumstances and complex threats. SWOT aims are used as part of guideline planning process. Table 2-3 are shown SWOT model. For we can consider



presented guidelines can pass them from aim filter. Because our objectives are very large, this aims can break too. This objectives are same aims that should pass guidelines from their filters and are prepared to present methods.

This research from nature view is applied studies that can from obtained results in this study used for make decision and planning. Retroactive study strategy and data analyze method is descriptive and case study. Also in collecting data are used documentary and field method. in this case are exploited also from tool, library information, documents available, maps available specially Yazd GIS maps and also field notes, observation and questionnaire.

Endogenous development strategies:

1- Attract private sector partnership for investing in among development with description profits this expansion.

2- Reducing development costs with performing actions such as: reducing primary development cost with issuing partnership papers, security loan presentation and acceleration on its payment, having persuasive aggregate, discount in taxes construction.

3- Reduction section oppositions performing works such as: designing development projects according to urbanization standards in order to ensure from new development consistency with present sector situation, holding sessions and assembly with section habitants in order to asking their demands and considering in designing project before finalizing development design, eliminating lawful barriers and amendment and rehearing in classification principles, deletion improper development laws.

4- Reducing administrative delays with ways include: development running procedure revision and deleting revisions and unnecessary sessions.

5- Improvement and reinforcing facilities and convenience and public services.

6- Improving availability with revising road systems conducted to developed area (MRSC,1994:4)

7. There was development matching in territory by encouraging and facilitating new improvement in deposited empty land or less used in areas that there was infrastructures, civic services and public facilities from past while it be answering section inhabitant needs.

8. providing developers and lord as flexible in order to obtain to high level from design quality and among-increase development projects that they are enforcing by societies.

9. making high- quality environmental society by massive balanced combining from residential, recreational use, open area, formal and employment organizational uses and variety of structures (Willaima, 2008:99).

10. limiting land proposal for aimless developments and encouraging effective use from land and civil services in field of available societies.

11. specifying development limits toward out of city.

- taking possession open area
- development standards in face land are endangered in respect lands that environmentally are sensitive areas.

12. preparation standards, zoning and land use regulations.

- Designation validity for performing review process on standards and regulations so that in order to help better performing among-increase development.

- Providing flexible zoning regulations in order to access to safety, welfare, peace and health in addition consistent with increasing development conditions.

13- between-organizational partnership activities

- Codifying common view
- Long-term political commitment for among increase development

- Providing economical development in order to lead new jobs to areas of among increase development.

- Providing and facilitating physical project development utilities by local government. (infill development plan for the southern Nevada Regional planning Coalition, 2001:29-33)

In order to gain social support via among increase development design can used from following policies:

- Presenting guidelines for attract project for modern habitants.

- Promoting standards and policies for more section compatibility.

- Choosing variety of compatible house with existing house.

- Using traffic slower designs

- Considering habitant wishes and tendency before finalizing development design

- Providing more talk field among developer and local inhabitants.

- Presenting successful development project samples (MRSC,1977:82-95).

- Presenting guidelines for to attract projects for future habitants.

- Presenting useful trading services for resolving section needs.

- Use of plan that increase society safety and preventing crime and villainy.

- Providing effective, comfort public transportation and afoot system supplement

**SWOT analyze:**

In this section for presenting guidelines are provided SWOT technique. so that strength point, weakness points, circumstances and threats are represented as table, then in form of table of SWOT technique are represented desired strategies. In order

to provided guidelines from SWOT analyze, they pass from objective filter. Because our objectives are huge, we can break this objectives too. This objectives are same objectives that should pass guidelines from filters and are prepared to provide approaches.

Huge objective	micro objectives	guideline	ways
Among increase development of naeimabad wear civic -village	Promoting Naeimabad civic-village texture in different dimensions and reducing texture wear	Eliminating skeleton wear and promoting spatial qualities in texture.	Determining criteria for rehabilitation destroyed in compilation with natural elements.
			Reinforcing Permeability and availability textures that from this criteria have problem. with increasing length and road geometrical correction and also repair and flooring and shafting roads.
			Setting encouragement regulations for wear habitant devices owners for exploiting from them in residential designs.
	Eliminating functional wear and prompting texture performance and functional relation between different texture parts	Producing recreation and assembly spaces with mixed and various uses	
			producing walking and cycling with using natural factors such as water and plant in way of garden alley in heart of civil-village to its margin parts
			Producing local scale use in heart of city-village for revival central city-village part and servicing to newer parts for increasing communications
			Effective use of public transportation capacity in main roads
			Transferring inconsistency users to residential texture

Strength	Weakness	SWOT
The constant presence of people and different walks of life in the center of The main focus and focus the activity of tissue at the edges of Village Mixing and diversity of activity and create vitality and diversity of space in some places Historically significant elements within the date range of activities Village There is a wide range of orchards and agricultural land in the context of Village Low population density There are several elements to address urban index Low price of land in the old Despite the strong edge of the commercial streets Abshahy	The focus of activities in the border area Lack of diversification of activities in the tissue Village One activity of some axes, centers and departments Lack of leisure and recreational facilities No normative definition in the context of a system of consistent performance No distribution services based on the hierarchy of key divisions and needs of residents There is environmental pollution in rural areas User inappropriate distribution of sports entertainment Lack of complex and diverse range	

<p>The boom of new construction Active and responsive in the area of Business Solutions To change some of the historic buildings and old There are offices with functional urban scale in the neighborhood south Easy access to the city's main thoroughfares in most areas Public transport facilities on the edge of the main street There stream with trees around it in different parts of Village Regular waste collection by municipalities Proper lighting main thoroughfares There are good roads for easy access to areas in the new context His attachment to neighborhood residents Unity and local commitment User capabilities for the development of cultural and religious sites and to promote social interaction Willingness to participate in the organization because of his attachment to the neighborhood and community commitment</p>	<p>of applications The low quality of the environment in the context of Lack of proper road hierarchy There are barren and desolate parts of the neighborhood Land and buildings are dilapidated Promoting new construction and destruction of agricultural lands and gardens deployment of incompatible activities in different areas such as animal tissue There are many pieces of endowment in the neighborhood The lack of green space in the neighborhood The lack of a defined position to move on foot sidewalks on Main Street and insecurity Abshahy The destruction of agricultural lands and gardens Of land in old worn The lack of paved road in some places new and old tissue No cleaning of the main thoroughfares Not suitable flooring in some streets and alleys Physical exhaustion, especially in the context of the old neighborhoods The lack of public transport facilities in the neighborhood</p>	
<p>Use of gardens and agricultural land use allocation proportional to the participation of residents in the community spirit of utilizing Village</p>	<p>Allocation of land to wasteland and dilapidated buildings. Eliminate fatigue and enhance performance functional fabric and functional relationship between the different parts of (the old and new)</p>	<p>Opportunity to redefine and enhance the qualitative aspects of the main activity of the historic fabric Village Chance of uses appropriate to rural identity and historical context There is no activity in different parts of business units Despite the historical context as a core function for improving the quality of Proximity to the administrative center of the city and to create a functional relationship between the tissue and the city center There are barren and desolate land needed to create activities Construction has brought in new people to the community and help establish new social interactions There are plans to build high street in the neighborhood There are many public spaces</p>

<p>Strengthening of tourist attractions and entertainment, according to the specific characteristics of natural Village Benefiting from the spirit of the residents participate in local community</p>	<p>In regard to support for the development of land Elimination of physical exhaustion and improve the quality of the environment in the context of</p>	<p>outside the neighborhood Crime and delinquency in meeting the social development of rural parts in the neighborhood Lack of appropriate standards and modernization with an emphasis on texture Village Construction waste and debris in the land barren and desolate neighborhood Deformation of the old quarters of the new traffic plan Failure to Villagey tissues, highlighting their identity Short-term use of some spaces and activities, resulting in a dramatic reduction in the level of activity at different times of the day Drain old resident Intensification of the contradiction between the needs and new activities in the context of activity The unwillingness of the private sector to invest in the local area neighborhood</p>
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The purpose of the macro	Targets	Strategy	Solution
<p>The increasing erosion of rural-urban development Naeem Islamabad</p>	<p>Making the most of existing potential for the development of increasing Naim Abad city (in the city)</p>	<p>Enjoying the gardens and agricultural land use allocation in accordance with the texture urban village</p>	<p>Construction of educational spaces such as botanical gardens and nature in agricultural land as well as construction-related recreation such as garden birds and flowers in the gardens Agriculture land</p>
		<p>Entertainment strengthen the tourist attractions and natural features of the village according to town</p>	<p>Educate and empower farmers and gardeners The right to benefit from the orchards and agricultural land area</p>
		<p>User assigned to a wasteland of ruined buildings</p>	<p>Introduce and promote the construction of garden houses in order to prevent the destruction of orchards and farms</p>
		<p>Enjoying the spirit of the participation of residents in the local community</p>	<p>The proper operation of the gardens near the main road (good access) for the construction of the garden to garden, restaurant, hotel, leisure, events and accommodation of passengers</p>
		<p>Land held for development, taking into account support</p>	<p>Capacity utilization of historical buildings in the neighborhood and reduce fatigue life performance</p>
		<p></p>	<p>Plan and model construction (with an emphasis on residential) preset on the arid with the participation of</p>



			the private sector
	The implementation of proposals in the field of development through increased		Construction of cultural spaces - Education As Cultural center At Face Hector City Mainly At Background Arid Margin Naem Abad
			Construction of recreation - Welfare As Ground Sport And Ground Play Children The
			The introduction and use of new and diverse patterns of building in harmony with the old and in accordance with the texture urban village
			Interference the soviet government, unions and non-governmental organizations in the neighborhood, in the definition, development and implementation of the development projects increasing
			Given the economic incentives for land development (Such as loans guaranteed, low-interest loans, tax concessions and licenses) for investment and allows the user to open ten significant income
			Considering incentives for land development management (eg, density incentives, reducing the administrative procedures and remove some of the bureaucratic obstacles and administrative) for investment and job creation go to the village with a substantial income

### Conclusion:

With regard what in present study are discussed about integrated villages in cities can said insertion peripheral village in city has negative and positive impacts on village and also for city. However, this subject is effort for realization consistency on city – village texture and exploiting from them for civic development. In end, we can interested in from current research results especially other civic-village texture, but it is not doubt that accesss to effective ways for developing this civic texture need to extensive and precious, but overall, we can with analyzing textures and finding potentials and limitation can find their role rate.

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