

Reflection of Economic Developments on the System of Livelihood and Spatial Activity of Rural Housing (Case Study: Mountainous and Plain Villages of Qazvin Province)

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Abstract

Rural housing expresses the concept of widespread interference of livelihood, housing, and lack of time separating activities in the rural life system. In Iran, the abolition of the landlord-peasant system with the implementation of the Land Reform Law (1962) was the source of major changes in the economy, social relations, and the beginning of a change in the physical form of rural housing. Because economic developments with three basic sources of non-economic affairs - change in the quantity and quality of societies, change in human knowledge, and change in the institutional framework - have affected the body of rural housing and is a function of motivational institutions, empowerment, and technology. Therefore, the process of economic transformation has caused the body of rural settlements to move to quasi-urban housing and productive rural economy to the consumer economy due to changes in the living patterns of residents, which is affected by the weakness in providing a suitable model of livelihood-oriented housing. Technologies of the day. In the present study, field and library methods have been used to collect data. Three villages of Hir, Ziaran, and Hesar Khorvan were selected from mountainous and plain villages of Qazvin province. The results show that the productive nature of villages requires decision-makers to work to create the necessary conditions for the continuation of both biological and economic activities, to revive what lies like life, body, and rural housing. In the meantime, architects can read the patterns of indigenous and traditional architecture and design in modern language, and the efficiency of new technology tailored to the type of livelihood of the villagers - Rural Style - Create a combination of tradition and modernity that both connects the village landscape to the past and represents our modern future.

Keywords: Rural housing, economic developments, agricultural architecture (Agritecture), livelihood

1. Introduction

In line with climate and traditional patterns, rural architecture in the past was built for housing and livelihood by villagers. Such architecture in all historical periods has caused the sustainability of rural communities. But the economic approaches of the last five decades have led to fundamental changes in lifestyle and inevitably resulted in intended and unintended changes in the body of rural housing. Due to the encouragement of urbanism and the lack of necessary attention to the relationship between the structure and function of rural housing, in some cases a kind of dichotomy between has been shaped between housing and the basic activities of the rural family.

Every social, cultural, and economic change has an overt or covert effect on the housing pattern of the villagers. A group of economists, including Douglas North, believe that economic growth will increase if everyone can take advantage of social and economic opportunities. From an economic point of view, the underdevelopment of societies is the result of various causes, among which are natural problems and obstacles, lack of resources or lack

of proper use of them, or not being aware of the great changes that profoundly affect societies. Major institutional changes that are necessary for major economic changes occur as a result of the interaction between institutions at critical historical junctures. Therefore, explaining uneven changes in rural housing architecture requires economic knowledge to understand the quality of the impact of different social procedures and approaches and arrangements on economic stimuli and behaviors. Because it is economic policies that explain the ultimate performance. The general purpose of the research is fundamental and practical so that by redefining the elements of traditional rural housing and use of "comparatively compare" is redundant, we can explain how the process of economic transformation affects rural housing and present a model for a rural house based on a native and traditional house with a modern structure.

2. Significance of the Research

Rural housing is one of the most important economic elements of the village. Because rural housing, unlike

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urban housing, is not just a place for people to live and rest, but also a place for keeping and raising livestock, and poultry, producing livestock products, handicrafts, and storing tools and tools for production and agricultural products. Since the most important vital and biological (biological) needs of urban dwellers, which are redundant, are provided in the villages and by the nomads. Hence, the life of cities depends on the survival of villages.

Today, the physical transformation of the country's villages in a short period, lack of sufficient satisfaction of officials, experts, and villagers from the current process of housing production in villages, construction of residential houses according to the patterns of the ruler developed by the Housing Foundation of the Islamic Revolution and the lack of proper built of designers to the needs and desires of the villagers concerning residential units and finally, the continuous trend of decreasing rural population and increasing urban population and other cases of this hand, has doubled the need to address the issue of rural housing architecture.

3. Research Background

The background of research on this article can be analyzed from two perspectives: first, the history of attention to rural architecture at the global level, and then the history of domestic efforts in the field of rural housing architecture and construction of contemporary housing for villagers. These two perspectives are summarized.

• Foreign research

What we know in Iran is rural livelihood with a focus on agriculture and animal husbandry, in other countries with different titles such as self-sufficient housing, residential farms, backyard, agricultural architecture, and so on. The book "Architecture and Agriculture", a guide to rural design, while emphasizing the relationship between rural housing and performance, culture, climate, and location, deals with the design and architecture of rural housing and the architecture of rural spaces in the village. Educates the reader about the potentials, opportunities, and values of rural architecture by evaluating case studies from around the world, including Australia, China, Japan, Norway, the Netherlands, Portugal, North America, Africa, and South Asia. How we can keep pace with rapid changes in the future of the village by creating sustainable landscapes and buildings (Thorbeck, 2017).

In "Agritecture", Krista Hulshof also presents a design for agricultural spaces along with residential space and according to the function of space. The design of a sustainable family farm is in line with effective and efficient contextual changes and the adaptation of rural architecture to today's lifestyles. The purpose of architecture is to use architectural creativity in the design of rural housing, to solve livelihood problems on the farm. The plan takes a holistic approach, including the energy cycle, animal husbandry, and landscape management, passively from the building system, to evolve and adapt to the needs of the new generation on the farm. The goal is to use technology tailored to the needs of life based on energy, environment, economy, convenience, and culture (Hulshaf, 2012).

• Internal research

Here are some comprehensive studies conducted during the last decade in the field of rural housing:

Ali Shams-al-Dini et al. (2011) in his article "The Impact of Rural Housing Renovation on the Livelihood Economy of the Villagers" states that in the field of livelihood economics, due to the incompatibility of the "plan" of some housing built with the type of productive activity, more than 75% The villagers have been deprived of activities. Saeedi et al. (2013) in "Housing Renovation and Structural-Functional Transformation of Rural Homes" concluded that implementation of the improvement and renovation plan has led to the structural-functional transformation of rural housing and transformation in the livelihood activities of villagers in the agricultural sector and the desire for service work Ali Akbar Koosheshgaran et al. (2016) with a "theoretical approach on how to reproduce contemporary rural ecosystem housing" says the need for housing design that belongs to the contemporary period and at the same time does not conflict with the original rural values. It requires an eco-oriented view of contemporary rural structures, the revival of indigenous techniques and methods, and appropriate and intelligent use according to the design context and characteristics of the physical environment.

Jamaluddin Mehdinejad et al. (2015) considered the result of "the effects of economic factors on the physical structure of sustainable rural housing" as the body of rural housing architecture, which is a manifestation of the multifunctional role of space due to its functional nature and response to human needs. Behrouz Mohammadi Yeganeh et al. (2019) in "Analysis of economic factors affecting the development of livelihood-based housing in rural areas" concluded that the function of housing in rural settlements is evolving towards "dormitory" and the continuation of this trend, which is affected by the weak position of the rural economy, will reduce the level of production in the future.

Research shows that in recent years, after the land reform, economic developments have led to distancing themselves from indigenous patterns and turning to new patterns, which I would choose a different working than physical disorder and inconsistency of housing with biological and living needs.

So the question arises as to how the physical-spatial transformation that has taken place in rural housing is affected by economic developments in rural communities? And how have economic developments been able to affect the rural housing architecture?

4. The Theoretical Basis of the Research

A. Livelihood

Livelihood means life, being alive and the set of abilities, assets, and activities that are needed to live, and thinking about access to assets and management to maintain them (Chambers, 2006: 5). Livelihood is more than a job and includes everything that people do to make a living, and the basis of human development and economic development is based on livelihood (Helmer & Sing, 2001). Therefore, livelihood has caused different

behaviors in the daily life of villagers and the response to behaviors related to livelihood has led to the formation of a variety of bio-productive spaces.

B. Arena and Built in rural housing

The architecture of the village begins with the house and ends with the house (Akrami, 2009: 25-48). The fabric of this architecture, including housing, is linked to issues related to the environment, the type of livelihood, and the form of production, and the survival of the rural people depend on the rotation of the economic wheels of the village and production. Therefore, "every rural house is firstly a self-sufficient unit and secondly has a direct and close relationship with the type of livelihood" (Zargar, 2007: 104) (Fig. 1).

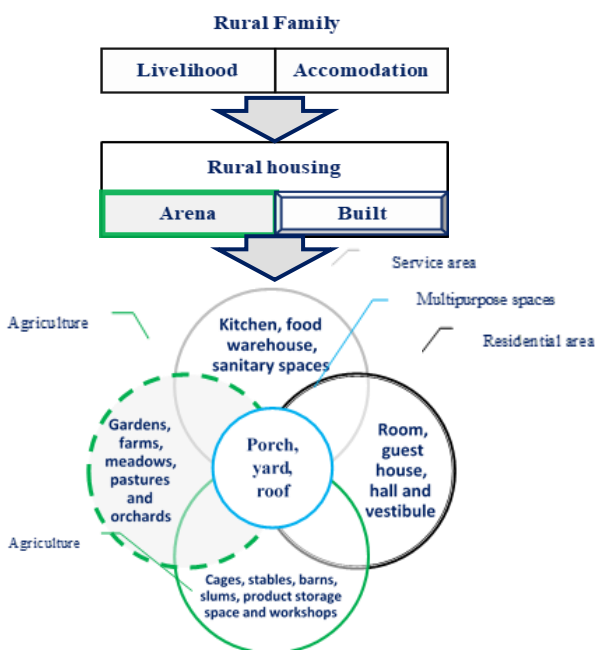


Fig. 1. Conceptual model of different areas in rural housing

In the encyclopedia of architecture and urban planning (illustrated), the built is used in front of the arena, and the arena is a piece of land on which buildings are built. Residential farms, built by the farmer on farmland that did not belong to others, such as his house, barn, and trees. Elements of agricultural architecture include a farm, villa or cottage, granary or barn, and a rural landscape, each built with a specific purpose. The farmhouse is self-sufficient in food production and has a land-based activity (Ackerman, 1990, 15). A farmhouse should include functional spaces, such as milking space, storage, and product storage space, backyard.

In the past, the house was seen as the first structure built on a farm only as a temporary shelter. The barn was also used as a shelter for animals and food storage, as it played a vital role in the family's livelihood, and eventually, the workshops were for processing crops, orchards, and livestock. Other activities of the villagers were carried out outdoors. All over the world, there are unique features in

rural landscapes with special climates and cultural features, which have influenced architecture (Thorbeck, 2017).

In different climates of Iran, there are residential farms from the combination and proximity of service, religious and residential elements, and structures with agricultural lands and gardens. Such as baths, mills, prayer halls, mosques, old trees, pigeon houses, lord and serf castles, lord and serf houses, mills, water reservoirs, and so on. A centralized and self-sufficient productive and economic complex that was culturally and socially intertwined with the surrounding villages and towns, can be studied and redefined as an architectural model and biological complex (Raei et al., 2016: 3-23).

Therefore, open spaces in the village, due to their function and impact on the body, are one of the most valuable components of the rural fabric and an undeniable part of rural housing. A type of rural open space is living open spaces that have taken on various functions and created a flexible spatial environment. An example of living space is a threshing floor or harvest place (place of accumulation, threshing, and threshing of wheat) which is considered a place with this name between fields and houses (Memarian, 2008). Hence, rural housing provides a wide range of different functions and spaces necessary for living, working and activity, warehousing, animal husbandry, and the like. In general, the various functions of rural housing are divided into three categories: biological functions, economic functions (livelihood-production), and logistics functions (services), each of which has its functions, areas, and spaces (Mohammadi Yeganeh, 2017: 62). Such a performance can serve housing as one of the levers of economic development in the service of production (Sartipipour, 2009: 67). Theoretical studies also show that the occupation of residents is one of the most important and influential factors in how the spatial elements of rural housing units are arranged (Torkashvand, Raheb, 2014: 44). Therefore, their preservation and existence are very important in maintaining life and mobility in the village.

Therefore, there are two basic principles in traditional rural housing: First, the employment relationship in agriculture, which is a family relationship. Second, a small rural person whose only asset is his means of production, his goal is not to produce, make a profit, or double his annual income. His goal is only to provide for himself and his family, and so far, if his production has grown, it has been exactly through manual agriculture (Peru, 2004: 118-119).

C. Rural economy and housing

Economics is about balancing the living standards of the family and society. Agriculture and animal husbandry are the fields of the rural economy. Rural economics is a branch of microeconomics and plays a very important role in the national economy. The rural economy includes all activities that are carried out in the rural environment, whether agricultural or non-agricultural, to provide a livelihood for villagers (Portaheri, 2010: 7). The

economic transformation that is the subject of this study includes processes that have ultimately led to changes in lifestyle and elements of rural housing architecture. Iran's political economy approach in the last sixty years has been neoclassical or conventional economics based on fixed and static laws of productivity and profitability in production and pays less attention to social and cultural issues. In trying to understand economic, political, and social change - one of which cannot be changed without changing other dimensions - we need to consider a network beyond mere economic change (Douglas C. North, 2018: 46).

New institutional economics (NIE), or institutionalist economics, sees economics as dynamic and based on knowledge, technology, and social institutions and focuses on the beliefs that form the basis of human cultural and social relations and institutions (political, economic, and social) that determine the framework for the structure of human interactions. Institutional economic schools see economic productivity and profitability in providing public livelihood of society and thus shape and continuously shape economic transformation (Douglas C. North, 2018: 46). Hence, economic developments are a function of three basic sets of non-economic affairs, which are:

- **In the quantity and quality of human beings**

Quality means the level of skill and ability of a community, or the amount of population ready and able to do work. Quantity and quality refer to the ratio of a capable population in society to the total population. Academic and research institutions such as agricultural colleges and agricultural and livestock research centers, which play a key role in empowering the rural farming community.

- **In the stock of human knowledge, particularly as it applies to the human command over nature**

It means the practical use of knowledge and experience in production. Institutions that provide farmers, ranchers with tools, machinery, and finally techniques for the production, processing, and supply of agricultural and livestock products. Including factories, industries, machinery, and agricultural tools, and in general, agro-industrial centers as a technological institution, which cause prosperity in human material life.

- **In the institutional matrix that defines the incentive structure of society**

It consists of legal, political, and social structures, i.e., the norms, customs, and culture of each society. In Iran, before the land reform (1962), the framework of the social institution of the village, the lord-servant, and tribal institution was dominant and after that, the institutions of the Ministry of Jihad for Agriculture, the Agricultural Bank, and the Housing Foundation of the Islamic Revolution are known as rural social institutions (motivational institutions).

5. Research Methodology

This article is based on applied-developmental research with a descriptive and causal research strategy. Paying attention to a case study in the geographical region of Qazvin, which is based on documentary evidence and written sources. On the other hand, it looks at the economic situation and understands the body of the village from a holistic point of view. Its information has been collected based on library documents and field studies through the participatory observation method.

The theoretical foundations of this qualitative research, in most parts, are based on the paradigm of structuralism and independent of numerical documentation. The theoretical approach is not positive, but a medium-range norm. Field study data of this article have been collected from 37 mountain villages and 37 plain villages of Qazvin province, out of about 842 inhabited villages, for consecutive years (more than four decades).

Because the criterion for describing or explaining a phenomenon in the most detailed to be possible and continuous comparison is the basis of qualitative research and tries to better understand each phenomenon in its specific and unique field. We also purposefully compared and explained the obvious examples of these two groups of villages. Respectively the most populous village in the mountainous region "Hir" has been chosen in front of the most populous villages of the plain species, "Ziaran" and "Hesar Khorvan" - which have seen the greatest impact on economic developments over the years - in terms of generalizability to all parts of the province. Although the impact of economic developments has not been limited to this region, a case study in this region makes the aspects of this research more tangible.

Obviously, in this study, which is dedicated to the effect of economic developments on the structure of the living body, features such as the natural characteristics of the independent variable, livelihood characteristics, and economic characteristics of mediating variables and physical characteristics are considered as dependent variables. Although some political, cultural, and social characteristics are also considered as independent variables in some contexts, to extract the meanings hidden in the phenomena of architecture and rural housing from the context in which the events took place and to explain through inference tools and observable phenomena.

6. Area of the Study

A) The mountain village of **Hir** is located in the Alamut region at an altitude of 1,600 to 2,000 meters. Its main agricultural water resources are from the Ninehrood river. Its predominant livelihood is agriculture, 80% of horticulture, at the level of 500 hectares (cherries, hazelnuts, and blueberries) and livestock. Hir village in the last population and housing census of 2016 has 726 inhabitants and is the most populous village in the mountainous region (Fig.2).

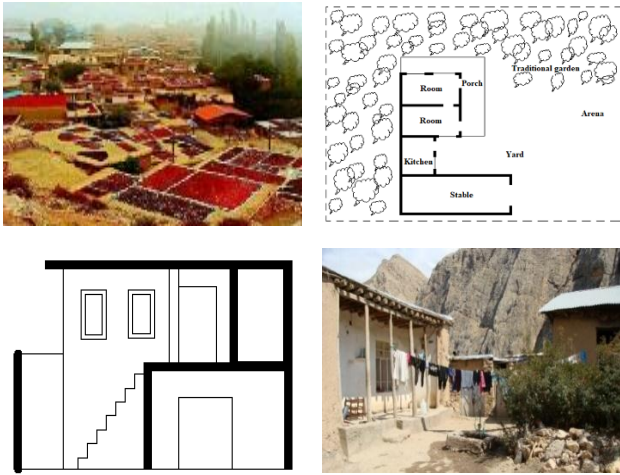


Fig 2. Traditional housing in Hir village, Rudbar district of the city, north of Qazvin province

B) The foothill village of **Ziaran**, one of the functions of the central part of Abyek city in Qazvin province, is one of the most populous villages in Ziaran village. Ziaran village is one of the dryland villages, located in a foothill area at an altitude of between 1500 and 2000 meters and its climate is semi-arid cold Mediterranean. Ziaran village is located on the Abyek-Taleghan axis and as one of the passing villages, it has a special geographical position and has a high level of infrastructure services, and has relatively full access. Industrial development (Abyek Cement Factory) has transformed its living-biological areas. Its agricultural status is irrigated agriculture and horticulture, and most of its settlements are agricultural-service (Fig.3).

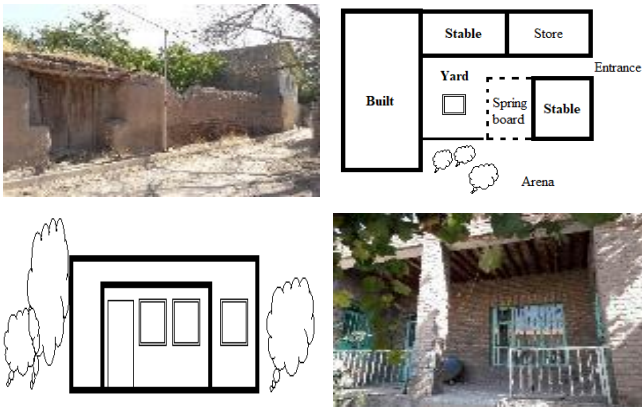


Fig. 3. Traditional and contemporary housing of Ziaran village, Abyek city, Qazvin province

C) The plain village of **Hesar Khorvan**, with the center of Hesar village as a part of Alborz city, is located in a plain region at an altitude of between 1200 and 1500 meters and with a cold semi-arid climate of the Mediterranean. This village is located on the axis of Qazvin-Tehran highway and as a passing village in the countryside and has a special geographical position.

Factors such as the location of Hesar village on plain and flatlands, the ability of these lands for irrigated cultivation, and the existence of water resources such as streams, Taleghan dam channel and numerous deep and semi-deep wells, proximity to urban centers, and access to communication roads, are effective factors in the special situation of this village. Hesar village in the last population and housing census in 2016 had a population of 3949 people (Fig.4).

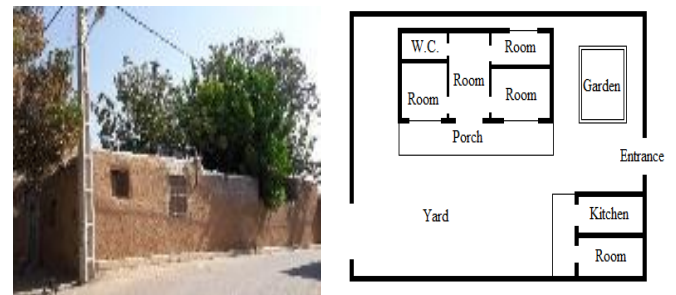


Fig. 4. Traditional and contemporary housing of Hesar Khorvan village, Alborz city, east of Qazvin province

In (Fig.5) the geographical location of the study villages is presented on the map.

7. Data and Indexes

Descriptive findings

The housing situation in the study area

The economic developments that began the Iranian society in the early 1960s (1340 AH) began with rapid growth and are marked by historical periods of land reform, the Islamic Revolution, and the imposed war. It has had virtually no positive impact on the economy of the closed society, and its root causes have been the distance from the industrial, agricultural, and service hubs and the lack of infrastructure, especially access. So that in the earthquake disaster of 1989, due to the lack of access, the possibility of assisting this village was facing major problems.

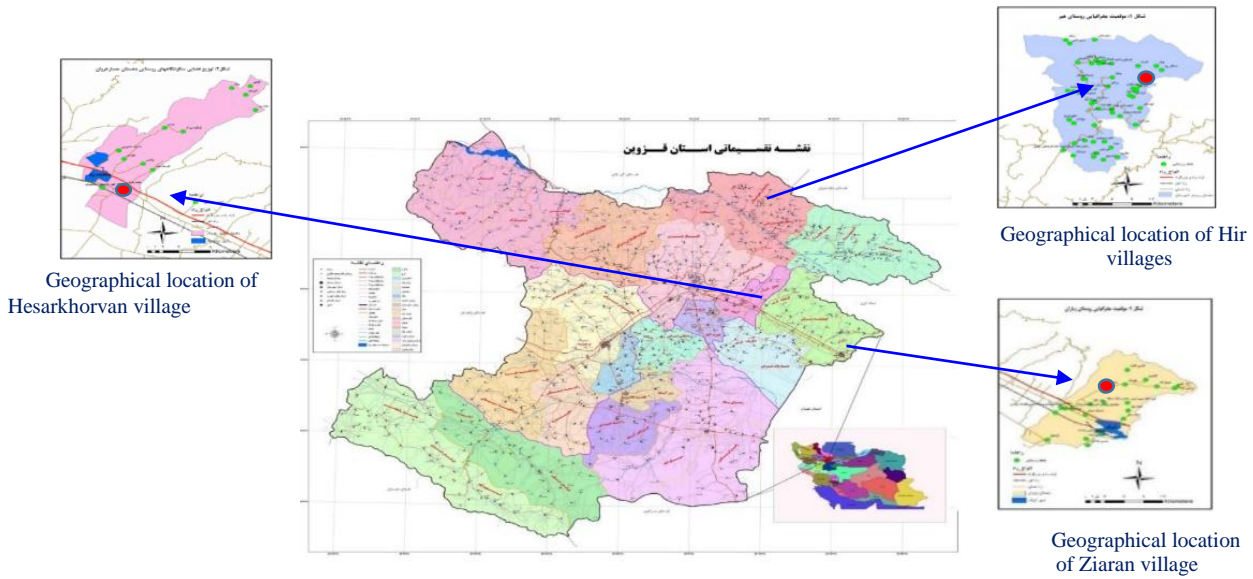


Fig. 5. Location of the mountain villages of Hir, the foothill Ziaran and the plain of Hesar Khorvan, in the division map of Qazvin province.(Source: Ministry of Interior, Qazvin Governor's Office, Deputy of Planning, Planning and Budget Office, Alborz Development Consulting Engineers.)

As agricultural incomes declined, the new generation of villagers turned to other industrial and service occupations in the city to help increase household incomes. With the migration of young job seekers from the village of Hir. On the other hand, the family structure has changed dramatically, which in turn has reduced the productivity of the village, on the other hand, it has left the family in old age and has not transferred the activity-living experience to the youth. This phenomenon has upset the age and gender balance of the families, and changing the quantity and quality of the rural community of Hir, has caused the opportunities for economic growth in the village to continue to be lost. On the other hand, the lack of governmental support for traditional agriculture has also contributed to these factors. Because the main policy in the villages was to provide more and more services

with the lowest cost strategy, many plans ignored the different conditions in the villages. Hence, the growth of the rural economy in Hir is not yet in line with the rapid growth of the economy and industry in the city. Therefore, social and economic factors in the village of Hir have caused agricultural production in orchards and processing to remain traditional and old, but with the housing changes to the suburbs, which have begun over the last decade, changes in the type of roof from flat (function in product processing) to gable, removal of the oven and warehouse from the residential space, removal of stalls and changes in its function due to changes in the type of livelihood, as well as the lack of a new method in new spaces, these gardens will soon be destroyed (Fig.6).

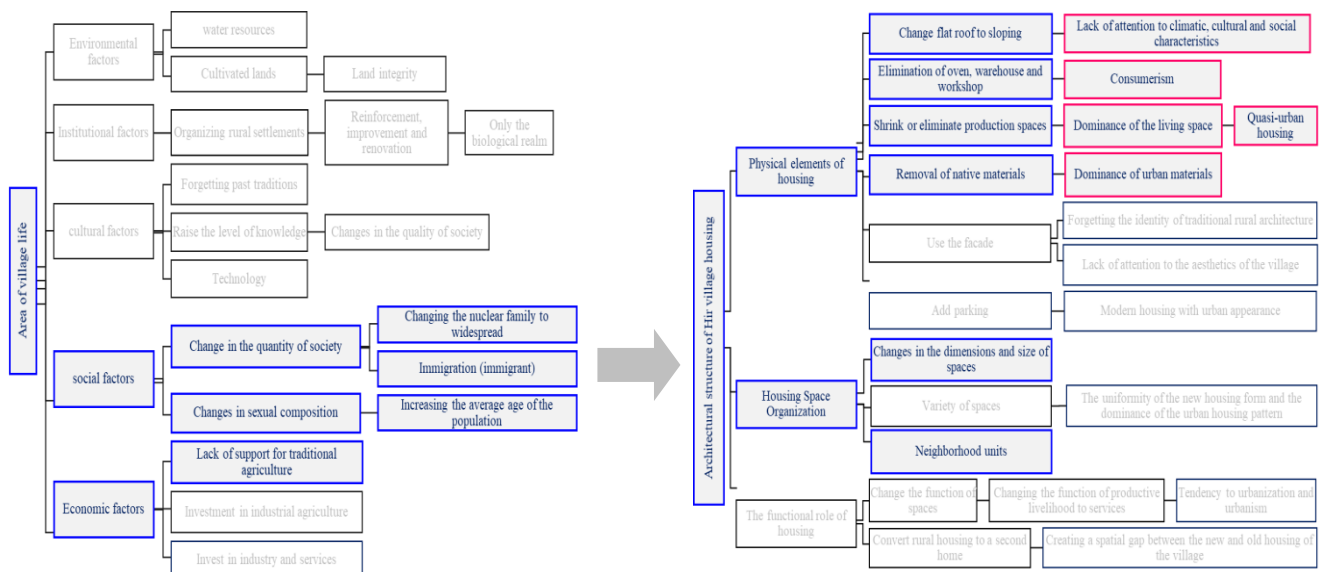


Fig. 6. Factors affecting the architectural structure of Hir village housing

The most important factor of economic developments in Ziaran village is located in the agricultural hub of Qazvin plain and benefiting from the transferred water from the Taleghan catchment area and irrigation network, the groundwater aquifer of Qazvin plain. Following the government's investments in the agricultural and industrial centers, which began in the early 1960s, on the one hand, the proper communication network of the village and being located in the communication route of Qazvin-Karaj cities and on the other hand, the interactions between the village and the city have caused the formation of two new types of housing (Quasi-urban) and villa housing in recent decades. In this way, Ziaran village has fully benefited from the macroeconomic approach and governmental

investments in the agricultural sector, and shortly, we will see that the village of Ziaran, which is one of the most populous villages located in the selected area, will become a green villa town.

As a result, environmental factors (access to transferred water resources and groundwater aquifers and first-class agricultural lands), cultural factors (due to rising levels of knowledge and the use of modern technology), finally, economic factors following the government's investment in agricultural and industrial centers, and the location of Ziaran village in the agricultural centers of Qazvin plain, during these years has caused a change in the structure of rural housing architecture of Ziaran to residential and villa (Fig.7).

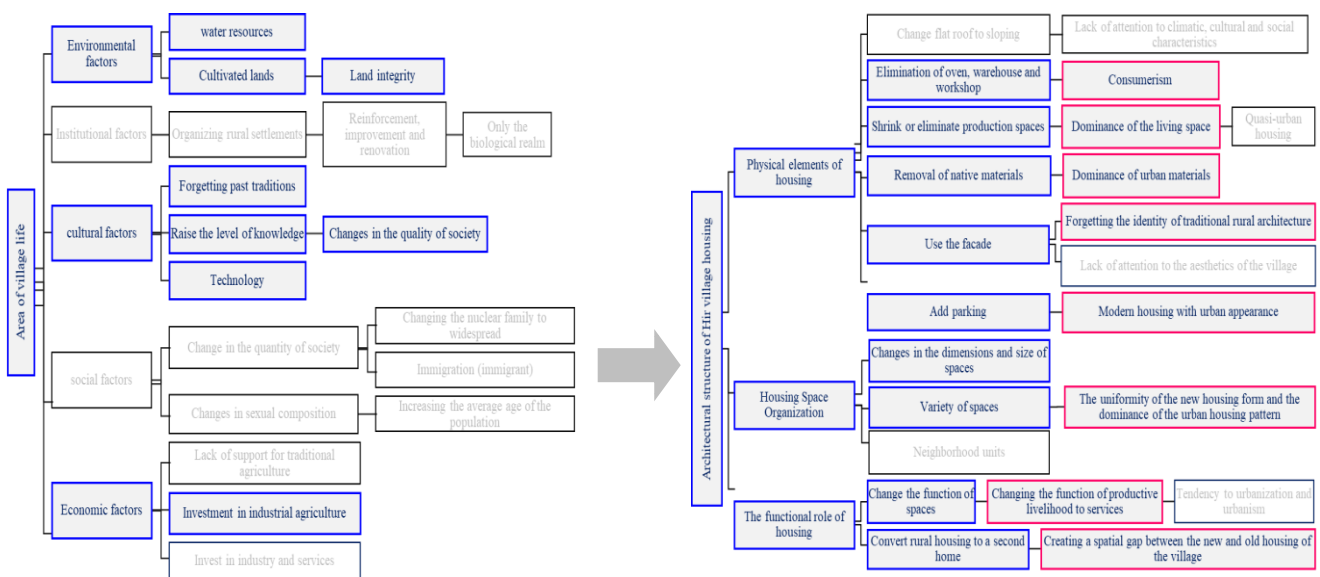


Fig. 7. Factors affecting the architectural structure of Ziaran village housing

Hesar Khorvan village is located within the irrigation network of Qazvin plain and close to Alborz Qazvin industrial city. As a result of economic developments, Hesar Khorvan village, although due to environmental (use of water resources and having flatlands and first-class agriculture), and cultural factors, was in a good position to pursue economic investments aimed at land integration and mass production. But on the one hand, traditional gardens and lands of traditional farmers who had the right to cultivate, due to the area of fewer than 5000 hectares, were not covered by the irrigation network of Qazvin plain. And a group of local farmers who had vast lands under the irrigation network and had favorable economic conditions, due to social conflicts, after the Islamic Revolution (1978), were forced to leave the village and migrate. As a result, they failed to modernize and upgrade their rural housing architecture. On the other hand, the cheapness of land and housing made this village one of

the targets of immigrants from out-of-the-way villages, who migrated to work in industrial and service centers. Such conditions led to extraordinary population growth in the village (nearly 4,000 people). But gradually, the architecture of housing without living spaces, with minimal infrastructure facilities, replaced livelihood-oriented housing. Manifestations of this inconsistent phenomenon can be seen in the abandonment of the traditional gardens of Hesar Khorvan along with the irrigation network of Qazvin plain and the influence of small industrial workshops in the residential texture of the village.

Therefore, political economy has been the most important factor of change, which has caused greater changes in housing and livelihood of villagers by creating social and cultural consequences. And Hesar Khorvan is a clear example of the adverse effects of economic developments on the body of rural housing (Fig.8).

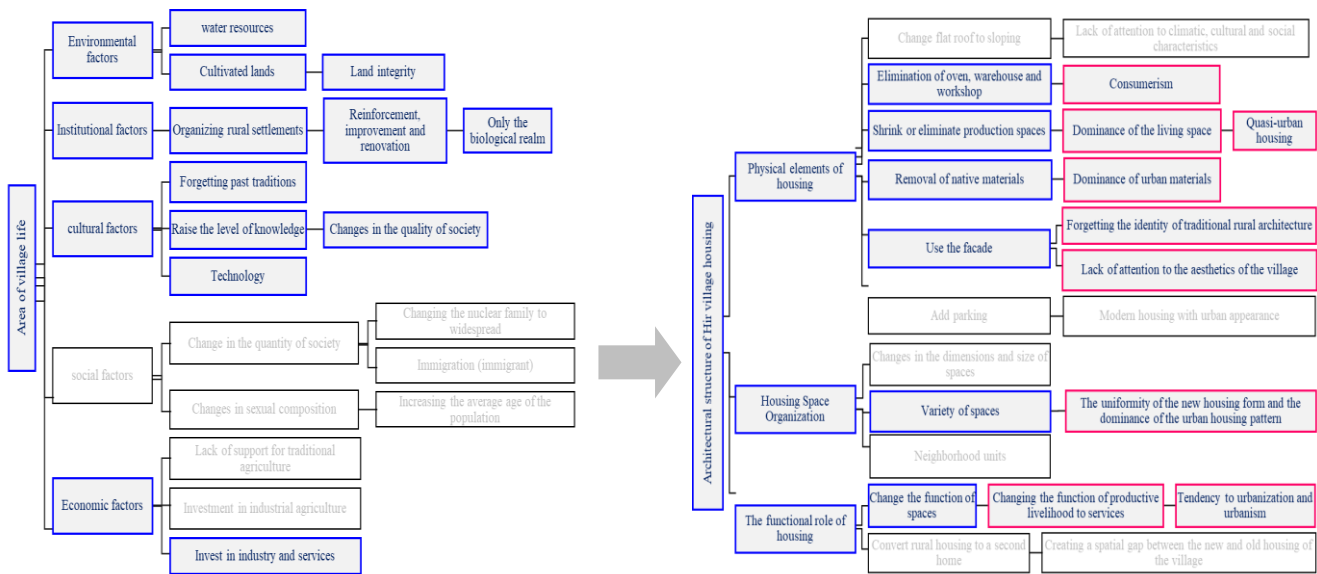


Fig. 8. Factors affecting the architectural structure of Hesar Khorvan village housing

8. Analysis

Analytical findings

How economic developments affect traditional rural housing

In recent years, huge changes have taken place in the way of life and economy of rural Iran following the economic changes. Mutual influences spatial and functional relationships between cities and surrounding areas gradually led to changes in various fields that have been different. Housing, as the main component of the physical texture of the village, has evolved over time and in coordination with social and economic changes and the expansion of facilities and technology. These changes were more pronounced among the new housing models than the traditional and indigenous models in terms of construction quality, materials used, spatial organization, and its physical structure.

On the one hand, following the change and growth of villagers' awareness and knowledge of rural-urban interactions and changes in the structure and socio-cultural framework of villages, and on the other hand, the inadequacy of traditional agricultural and animal husbandry activities and their incomes, and the lack of biological and livelihood facilities during these years, the type of housing has changed them from subsistence-based housing to quasi-urban housing with residential and dormitory function according to their needs today. As a result, livelihoods have led to different behaviors in the daily lives of villagers. Therefore, economic developments with demographic structure changes (Rural-urban migration, rural depopulation, etc.), functional structure changes, and institutional aspects have been subject to change in the body of rural housing during the last five decades (Fig.9).

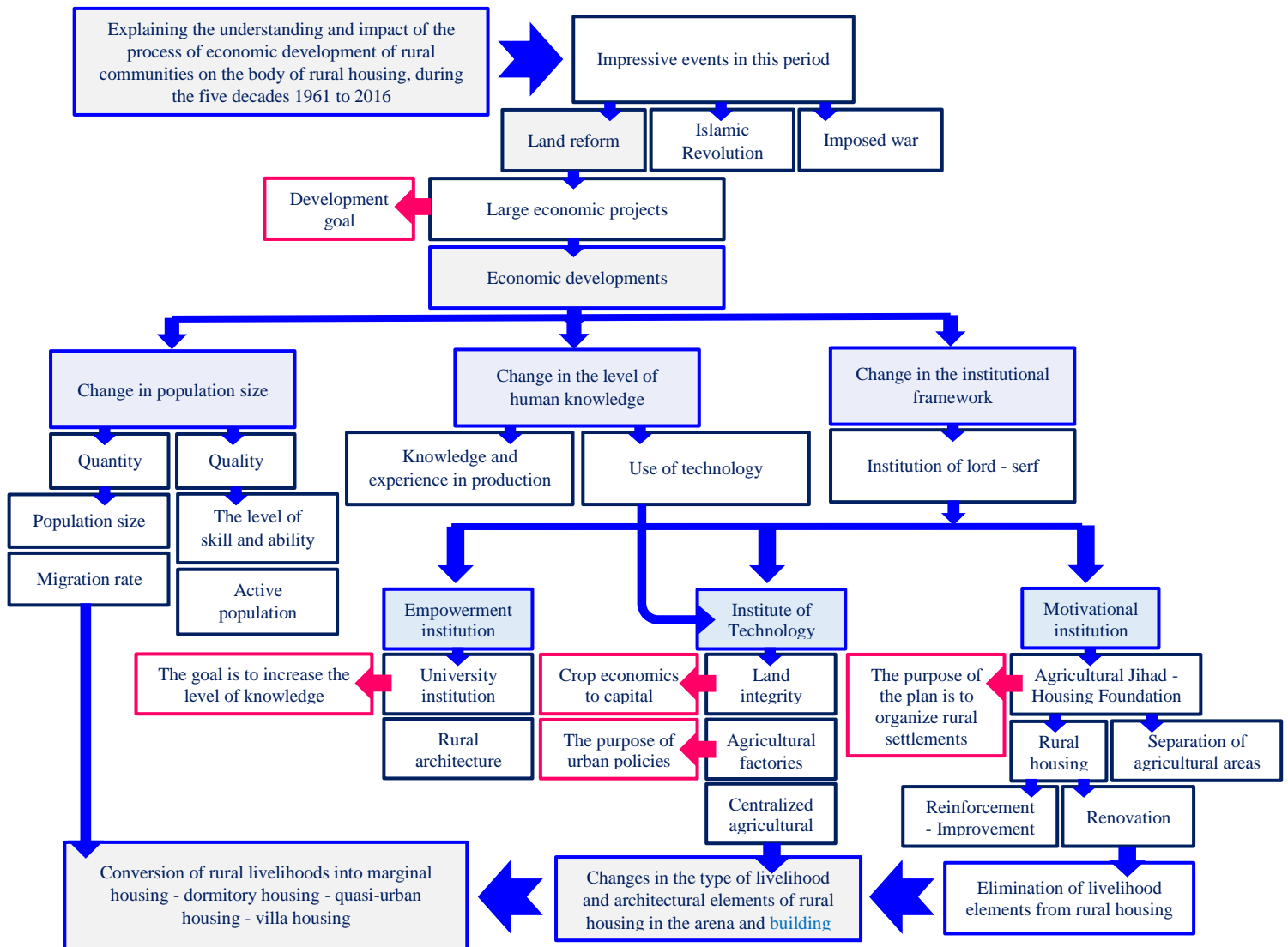


Fig. 9. How the process of economic transformation affects the body of rural housing

In a brief analysis (Fig.9) of the process of effective economic developments can be said:

• **Change in the institutional framework**

In the past, the dominant social institution in the village was the lord-servant and tribal institution. Gradually, from 1929, new government-affiliated institutions were formed with the aim of centralization (motivational, empowerment, and technological institution). Until 1362 with the occurrence of land reforms, which announced the end of the lord-servant and tribal system and the acceptance of the developments of the new era. The three institutions operated under different titles for the socio-economic management of the village, the tendency to integrate the scattered exploitation units in the villages,

and the establishment of large agro-industrial units is a manifestation of this approach in those years.

• **Lack of targeted planning for rural housing**

Forty years of performance of institutions show that the lack of overlap and coordination of the three institutions (motivation, capability, and technology), the specialized demarcation between activities, and finally, following the goals of the neoclassical economy (mass production, higher profits, and yields) has reduced financial support for agriculture and home-based livestock. On the other hand, due to the existence of a mass production strategy in agricultural and livestock centers, there has been no change in the quality of rural housing and living standards of villagers. Therefore, the most important sign of this failure can be seen in reducing the ratio of rural and nomadic population to the population of the country in this period. Finally, the idea of urban life in the

countryside is the destruction of agricultural lands, old gardens, and squalid houses that have repeated the experience of years of simple agricultural life.

Causes of economic policy failures

We said that the economic developments of the contemporary period, due to the lack of alignment and synergy of institutions, have led to distancing themselves from indigenous patterns and turning to new patterns in rural housing, in some cases, physical disorder and inconsistency of housing with bio-living needs have followed. As a result, many villagers did not benefit enough from the economic developments, which were planned to improve the lives of the villagers. In summary, economic changes (E.c.) are a function of the interaction between the three social institutions, and the incentive institution approach (i), in interaction with science and knowledge (s) and technology (t) institutions, has an

increasing or decreasing effect on rural architecture and housing.

$$E.c.=f(i.s.t)$$

As a result, it can be said that the formation of three institutions to make a change in the rural economy in society is the only necessary condition, and a sufficient condition is provided when the approach of the incentive institution and consequently the activity of technology and science institutions to promote the rural economy and the architecture of rural livelihood-oriented housing are aligned. In other words, "there is a logical relationship between economic developments and how they affect the body of rural housing, and the extent and type of impact depend on economic approaches and dependent social institutions (incentive > science and knowledge > technology)." (Fig.10).

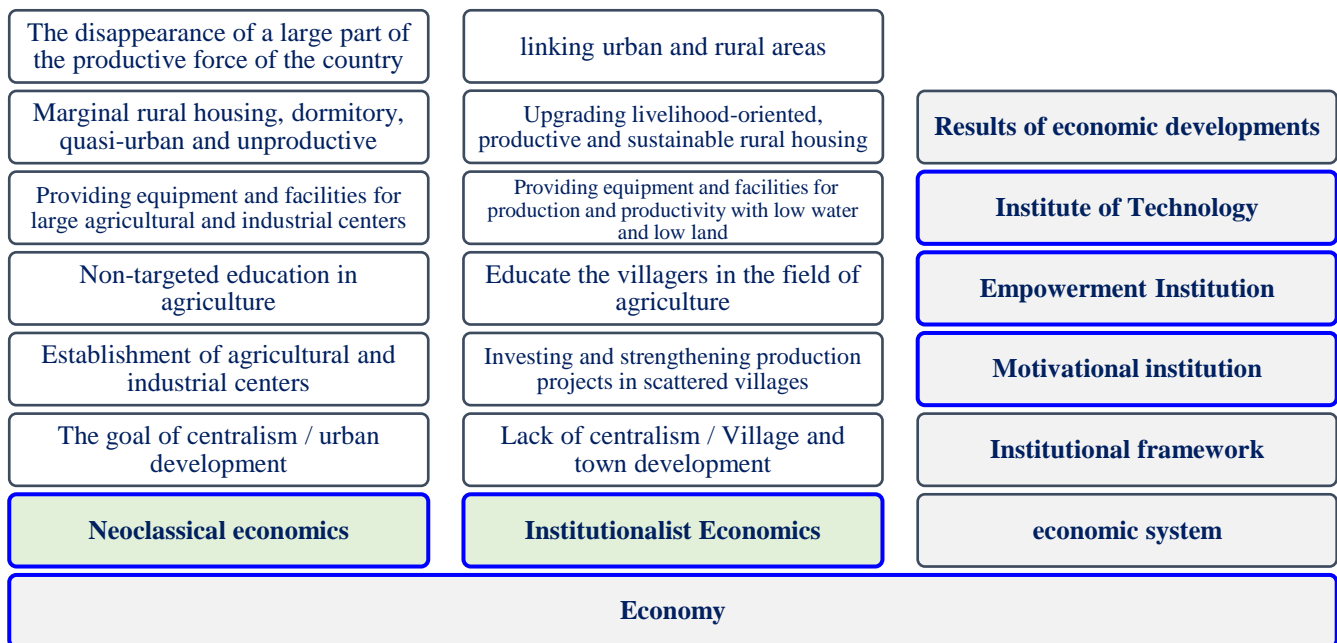


Fig. 10. The Impact of Economic Policies and Developments on the Sustainability of Traditional Housing in Rural Areas

Therefore, recent economic developments have ultimately led to less access to natural resources in some villages, the inability to use appropriate technology due to centralized investment, the use of more vulnerable agricultural lands that are less productive. Apart from the general trend affecting the incidence of poverty in the country's villages, economic challenges such as limited employment opportunities, limited access to capital to increase production capacity, and the lack of application of new technology in the agricultural sector has led to the persistence of this fundamental problem as a "sustainable crisis."

Reasons for the inadequacy of contemporary rural housing

- A. The problem of designer thoughts
Most designers are more concerned with urban issues, working on urban projects, and design challenges at universities prepare them to design urban environments. As a result, even when working on a rural project, they have the necessary foresight in urban projects in mind.
- B. Specific and purposeful strategy
As developed for urban design, has not been developed by design activists and universities for villages. If one wants to present a version of the 21st-century farm law to

revitalize rural communities and create an attraction for rural migration, it must be called the "livelihood-based housing law." Because agriculture is the main activity in rural areas. Thus, the transition from traditional agriculture, introducing new technologies for rural agricultural production, ensures the ownership of their wisdom, according to the education, finance, and has worked in the agricultural sector and could lead to the revitalization of these communities.

C. A comprehensive and systematic view

In urban and rural communities, if there is a systematic and comprehensive view of the design, it will certainly be possible to provide better quality conditions at a lower cost and architects are the most appropriate guild group with which to address this issue. Thinking about the design and implementation of the process can be the most effective way to solve urban and rural problems in the future.

Contemporary rural livelihood housing

In this regard, it is necessary to pay attention to the following points for the livelihood of rural housing and planning for the design and construction of livelihood-based housing:

a) Indigenous and traditional values

Rural design is a manifestation of design thinking that appears as part of the transition from rural to an industrial economy. Rural design as a way to solve problems can create patterns that rural areas realize the value of their assets.

If architects and other designers involved in the use of new materials in their design process have a broader view of agricultural and architectural heritage and are aware of how indigenous peoples live without degrading nature, new and creative ideas will be much more effective. As Tom Fisher puts it: "We are accustomed to looking at old-fashioned ways of life as rudimentary and obsolete. While it is necessary to re-examine them carefully as efficient, flexible and cost-effective projects to get the world out of this critical and fragile situation" (Fisher, 2013) Therefore, any planning regarding this process should be formed in the context of this tradition and the prevailing logic, and the most important axes to adopt an approach to the method of construction of rural housing should be emphasized and maintained to maintain local continuity.

b) Linking urban and rural areas

The process of solving design problems requires connecting the future of urban and rural areas. Design can minimize the negative effects of these changes and increase the positive effects by promoting economic benefits, social interactions, and respect for different cultures and arts.

c) Rural design education

A new way of design in which both the cultural heritage, agriculture, and architecture of villages are preserved and more efficient use of agricultural land is considered has

been proposed. It's a new topic that requires more work in academia around the world. There is a great opportunity for designers (architects, landscape designers) to develop new ideas, taking into account the potential and possibilities available in the future.

d) Architecture

Architecture is the best tool to deal with competitive and complex problems facing urbanization. Design thinking and the design process is a way to address urban and rural problems and common issues. It is the design process that brings everything together and brings together all the architects, builders, planners, environmental architects, engineers, government officials, and citizens.

A significant challenge for architects is to build rural buildings with higher efficiency and fewer negative impacts. They can help ensure that these buildings while preserving the cultural features of the region, are in line with future production needs and can feed the growing population of cities and villages.

I hope this research will help designers to better and more fully understand rural perspectives and to find effective ways to interact with agricultural environments and rural communities. Finally, an attempt was made to guide this study to design and build rural housing architecture with a focus on livelihood in rural areas. Also, introduce investors, farmers, politicians, and rural communities to the values of rural architecture and how to use it to build buildings rooted in the region's history and increase the quality of life in these areas by preserving agricultural heritage and adapting to climatic conditions.

e) Use of technology and technology

The use of technology to produce products and services must be in a way that strengthens the rural economy, improves environmental conditions, and improves the quality of life.

Rural agriculture, which has reached maturity, can be effective in establishing a link between urban and rural areas by reminding that food security is endangered in the growing population of the planet. Indigenous agricultural heritage should be widely recognized around the world and be used to help the modern world find a way to live in harmony with the environment and preserve it for future generations.

9. Conclusion

Rural housing architecture seeks to express human relationships with landscapes and animals through agricultural activities and cultural and social traditions. Today, agriculture means more than bringing food to the table and must lead to sustainability in three dimensions: economic, social, and ecological. Crop production is not the only function of the agricultural sector, but also creating jobs, improving the income of villagers, providing environmental services, and providing healthy food are other functions that should be considered based on the philosophy of multifunctional agriculture. Ignoring this relationship has led to the collapse of the traditional

system of production and the migration of villagers to the city in search of job opportunities. Therefore, according to the results of the research, it is suggested:

- Improving the economic approach concerning village architecture

The experience of the last fifty years in Iran has shown that the collection, storage, and transfer of water to large agricultural lands for the creation of large agro-industries, in the vicinity of population centers, although in the short term has economic justification. And it seems like a good policy. But in the long run, it causes the destruction of the rural environment and the migration of villagers to the outskirts of cities. Therefore, long-term economic justification, investment in small and scattered rural centers, and revitalization of living spaces with microtechnology are possible by relying on low water and low land.

- "Rural development" versus the word "urban planning"

Separation of architectural and urban planning criteria, taking into account the climatic conditions of Iran and the dispersion of small villages.

- Revival and continuation of the functional system of rural housing

Rehabilitation of rural agricultural lands with the benefit of new technology, to protect the cultural and physical heritage of the village, to improve the quality of life for acceptance and return of life to the village.

- Recreating livelihood-based housing architecture

Fortunately, sufficient instructions have been prepared for the architecture and design of rural livelihood-oriented housing.

It is obvious that the revitalization of living spaces is not contrary to modernization and having new facilities and technologies in residential, as well as the agricultural, garden, and livestock spaces in rural housing. Despite these technologies, it will be easier and more efficient to do so. Therefore, the need to accept water and soil (agriculture) as the main elements in the design and architecture of rural housing, relying on the attitude of providing housing that responds to the living conditions and livelihood of rural households promptly, is an undeniable perspective towards which one must move. This is a great opportunity for architects and if they take advantage of it, we can hope for a brighter future.

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