

Prioritization of negative migration control strategies with policies to increase biological attractions in Khuzestan

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ABSTRACT

Due to various environmental, economic and social reasons, people migrate from Khuzestan to other provinces of Iran and no efficient ways are adopted to control migration. According to the official census report (2016) on the status of negative migration among the Iranian cities, Khuzestan province and Ahvaz city occupies the sixth position of net negative migration and the fifth position of net migration to Tehran. If the migration process does not stop within the next 20 years, Khuzestan will be permanently depopulated. The present study was conducted to prioritize negative migration control strategies with policies to increase biological attractions of the province. The present study is an exploratory-applied research in terms of aim and a descriptive-analytical research in terms of methodology. The statistical population consists of provincial government managers and officials, sociology and environment experts, and former members of the Islamic Consultative Assembly. Using purposeful sampling method, 13 participants were selected as the sample. Then, using fuzzy Delphi methodology and AHP hierarchical analysis, four migration criteria (economic, political, socio-cultural, environmental indicators) with 22 sub-criteria were identified as solutions to control negative migration with policies to increase attractions in Khuzestan.

Keywords: Negative Migration, Biological attractions, Khuzestan Province, AHP Method

Introduction

As a global phenomenon, the growth of urbanization and migration to large cities has affected all countries including Iran where a large population has migrated from rural to urban areas in recent decades. Due to urban growth and population increase, metropolitan green space declines in favor of residential land. Urban green space affects various environmental, economic and social aspects (i.e. the basis of urban sustainability) and thus improves life quality and city livability. Moreover, through aesthetic functions, it plays an effective role in the realization of more desirable environment in big cities (Heidari et al., 2014).

Bilsborrow (1993) considers migration as an individual choice and states that individuals decide to migrate when their expectations for economic benefits outweigh their costs. Migration may be deemed as a mental pursuit of greater benefits whereby personal characteristics such as age, gender, material aspects,

level of education and type of job can motivate migration (Hosseini et al., 2016). Migrations of different and purposeful types occur in human societies individually or collectively as the result of diverse situations and conditions. The phenomenon is particularly remarkable in Khuzestan, Iran since the province has lost a great deal of capital due to human capital migration, adversely affecting development of the province (Khodakarami et al., 2014). Migration takes place as the result of various economic, cultural and social reasons. War and environmental crises like drought, or development projects such as dam construction and water intake might also lead to migration. However, as a manifestation of urban modernity, migration from rural to urban areas is the general trend of migration around the world (Hosseinzadeh & Abhari, 2013).

Biological attraction refers to implementation of strategies to deal with negative migration. Kennedy and Buys (2010) believe that the concept of livability is defined by terms like community welfare and represents the characteristics of a place where people desire to live. In addition to economic, social, environmental factors, biological attractiveness consists of critical components like equality and social justice, mental health, public health, local economy development, urban furniture and road access (Issa Lou, 2011).

In the last 50 years, abandonment of the countryside and the increase of marginalization and migration from the villages have been of the top crises in Iran. Since 1956, more than 34,000 Iranian villages have been deserted and abandoned. Now, the villages of Khuzestan in the Hur al-Azim region are among the victims of environmental migration. In fact, the destruction of ecosystems such as wetlands, on which the livelihood of the people around depends, has fueled the crisis. Khuzestan is seriously influenced by environmental predicaments (Ahmadi et al., 2013).

The issue is of a great importance for Khuzestan since the province should be one of the migrating provinces for being blessed with rich oil and energy resources, abundant rivers and water, fertile soil and cultivation of strategic crops (e.g. wheat and sugar beet); but, the policies adopted so far have been ineffectual to control and stabilize the natives. Accordingly, the purpose of this study is to prioritize negative migration control strategies with policies to enhance biological attractions in Khuzestan.

Theoretical basis

Negative migration

In the general sense, migration refers to the movement of people from one place to another. The new place is usually located at the boundary of a city or a village, though the movement of population within a geographical unit is not considered migration. The United Nations Demographic Dictionary defines migration as: A form of geographical or spatial mobility that takes place between two geographical units. Geographical mobility means the movement of populations from the origin to the place of departure or destination (Hatami Nejad et al., 2015). The highest rate of migration (52.8%) in 2018 occurred because immigrants followed their family. However, factors like the search for job (10%) and the search for a better job (6.5%) were also effective (National Statistics Portal of Iran, 2020).

Migration is a social and economic phenomenon as the result of a complex set of socio-psychological, economic and political factors. The migration process not only affects the size and population growth of a community, but also has a significant impact on population construction and distribution. Migration has increased the number of young men in large cities and has upset the ratio of men to women balance in the urban destination and the origin land (Sotoudeh, 1995).

Negative migration means movement of populations from one place to another in such a way that the place of origin faces a population challenge (Zamani, 2015).

Migrants' return to their own country for various reasons including the development of infrastructure and facilities for economic activities or cultural and political growth leads to repatriation. Repatriation in Iran mainly pertains to the return of populations from large cities to small cities or from cities to rural areas.

At the international level, repatriation refers to the return of immigrants from the destination country to their original homeland or the first emigration country (Abdullahi, 2016).

Homecoming or negative migration is the process of returning an asset, an item of symbolic value, or a person - voluntarily or compulsorily - to the owner, to the place of origin or to the original citizenship. The term may refer to non-humans, such as the conversion of foreign currency into their own currency, as well as the process of returning military personnel to their place of origin after the war. This also applies to diplomatic envoys, international officials, and migrants in the event of an international crisis. Returning to the country means voluntary return or exile for refugees, asylum seekers and illegal immigrants (Pedro, 2020).

Repatriation is often the forgotten stage of the migration cycle. The emphasis is on more real-time support abroad. However, many returnees report difficulties due to practical problems, uselessness of the new knowledge gained, being influenced by various factors such as self-management, spouse adjustment, time spent abroad and use of skills. The way a returnee perceives the difficulty is of a prominent importance. Reintegration is the process by which a person re-enters a group or process, and may prevent repatriation (Field, 2015).

Biological attraction

In general, all environmental characteristics might attract people for various purposes, including commercial, recreational, entertainment, cultural, learning, and educational purposes. Further, biological attraction contributes to preservation and sustainability of the area and the bestowal of benefits and interests for the residents (Yahyapour Masrouri, 2015). There are many types of environmental attractions, some of which are mentioned below:

1. Urban furniture

Urban furniture refers to components and facilities that play a significant role in improving the quality and quantity of the environment, visual features, serving people and meeting their needs due to the features like color, shape, frequency, convenience, etc. Components and facilities are considered urban furniture if, firstly, they are located in open urban spaces and have a public function, and secondly, their presence in urban space meets the general needs of citizens. In fact, the removal of furniture from urban spaces or their inadequacy causes inefficiency and dysfunction of the urban system. Moreover, the numerous needs of citizens can't be satisfied (Zarouni & Pir Mohammadi, 2016).

Components of urban furniture have three basic features: functionality, beauty and identity. Functional, visual and identity needs of citizens will be satisfied simultaneously if all features are present. However, this requires consideration of several categories in the design of urban furniture components. In addition to color, harmony with the environment, durability, safety, and economy, urban furniture needs to provide functionally appropriate localization in order to be able to meet citizens' needs (Mohammad Sadeghi Jahed, 2015).

2. Green space per capita

Green spaces at different scales, including neighborhood and regional parks and the like, should be adapted to their respective physical structure; e.g. a regional park within the area. "Accessibility" is another criterion that should be considered in locating green space. It means urban parks should have access to the communication network from four directions in order to be used by more crowds and increased level of social monitoring and park security to be implemented. Thus, the possibility of visual exploitation of the beautiful effects of the park is provided for passers-by from four directions (Hoshyari and Maleknia, 2016).

3. Social vitality

People's happiness and satisfaction with life is one of the indicators of development. Expansion of urbanization, more access to technology, busyness, imposing multiple stresses on people, high cultural interaction and the risk of weakening cultural identity, reducing emotional connections among people and increased mental disorders are common in today's society and so-called modern life. Iranian society is not as happy as it should be and perhaps suffers from the lack of the bed and ground for expressing happiness in a collective and public way. In other words, there are limited known and conventional ways of public happiness that might be considered in conflict with social order and security. However, if the people of a society enjoy social vitality harmony, there will be higher levels of solidarity, social belonging, desirable social interactions, life satisfaction as well as mental and social health of individuals. As a normal consequence, levels of parallel social harms will decrease while motivation for work and effort will increase (Sepahvand, 2014).

4. Healthy drinking water

Drinking and agriculture water supply and water scarcity is of the main reasons for villagers' migration to cities. Drinking water is the water with good quality to be drunk without short or long-term adverse effects. In many developed and some developing countries, drinking water is supplied to homes through a piping system. Less than 5% of this water is used for drinking. In many parts of the world, there is no easy and cheap access to drinking water and the people mostly use the water that either contains germs and contaminants or causes health risks in the long run due to excessive salts and particles. In Chinese cities, to prevent the waste of drinking water, unlike other cities in the world, drinking water is delivered to homes through a separate pipe (Kiani Salmi, 2017).

5. Housing

The growth of population and migration to cities has turned housing into an economic and social problem in developing countries. Shelter with good physical and mental conditions to provide the required standards of physical and mental health, comfort and security, access to services and facilities, suitable and fun ecosystem, and family identity are the essential needs of any family. Affordable housing is the basic need of any low-income household; so, all governments consider the construction of affordable housing as one of their main responsibilities (Hassani, Khezri & Baqaei, 2017).

6. Cultural development

Achieving cultural development as a strategic goal that itself provides other dimensions of development (economic and political) is a challenge for managers, especially cultural managers at all levels. This is because the fulfillment of Islamic Republic of Iran's 20-Year Vision Plan and also achieving the goals of five-year development plans mainly rely on cultural development. Cultural development is of a great importance in national development and particularly sustainable development so that necessities and the requirements are taken serious in executive management of the country, especially by cultural organizations (Hosseini & Shahnoushi Foroushani, 2015).

Method

This is an applied-exploratory research in terms of purpose and a descriptive-analytical study in terms of methodology. The statistical population includes provincial government managers and officials, sociology and environment experts, and former members of the Islamic Consultative Assembly. Due to the qualitative nature of the research, 13 experts were selected by purposive sampling. The desired criteria and indicators were identified from the literature. Fuzzy Delphi methodology and questionnaire were used to collect experts' opinions. Then, the data was analyzed via Fuzzy Delphi techniques, Expert choice software and AHP hierarchical analysis.

Findings

According to the existing theoretical frameworks, the criteria and sub-criteria for measuring and ranking the indicators were identified using the experts' perspectives. The panel includes 13 experts with different specialties. Using a questionnaire made by research experts, the reasons and strategies of negative migration with policies to increase biological attractions in Khuzestan were classified as 4 criteria 22 sub-criteria, with 5 degrees of importance (the least, low, moderate, high , the most) (Table 1)

Prioritization of economic solutions

Table 1: Criteria and sub-criteria

The AHP method and experts' opinions were used to prioritize development of border markets, facilitated investment of sustainable employment in rural and urban areas, development of greenhouse and

Criterion	Source	Sub-criteria (reasons)	Sub-criteria (solutions)	Source
Economic criteria	Ahmadi & Fathi (2009), Hosseini et al (2016)	Low employment rate	Development of border markets	Mottaghi (2015), Ahmadi et al. (2013)
		Low per capita income	Facilitated investment of sustainable employment in rural and urban areas	
		High living cost compared to the national average	Development of greenhouse and mechanized agriculture towns	
		High sustainable housing compared to the national average	Matching the average cost of living and sustainable housing with the national average	
		Ignored small businesses and rural-urban cooperatives	The use of all capacities of free zones	
Political criteria	Zamani (2015)	Inclusion of security view in urban development	Development of syndicates and scientific students' associations	Ladoni & Maslahati(2003), Nonejad (1998)
		Ethnic diversity and the growth of ethnic conflicts, the formation of non-Islamic religions and the growth of deviant sects	Dissemination of the elitism and collaboration of people against ethnicity with the help of the provincial radio and television and NOGs.	
		Lack of public security- growth of crime	Severe punishments for the leaders of groups promoting ethnic conflicts and deviant sects	
		Insufficient and inefficient political organizations, syndicates, and parties against tribal ethnic circles	Improvement of electoral institutions with political approaches to manage ethnicity and justify the leaders	
		Managers' dependency in local decisions due to the heartland economy	Enhancement of public security by establishing patrol police	
Environmental criteria	Alamdard (1394)	Low green space per capita	Development and completion of green belt projects to combat dust	Heydari et al (2014)
		Ecosystem changes due to dam construction, wetland drought and interbasin transfer	Increased green space per capita	
		Existence of dust of foreign origin	Facilitated ecotourism investment	
		Polluted drinking water, rivers and air due to industrial wastewater, sugarcane effluent, oil flares and oil and gas by-products	Prevention of chemical industrial wastewater discharge into rivers and relocation of polluting industrial units at less vulnerable sites	Ashtari et al (2019)
		Growth of child birth with heart disease, asthma, kidney and lung disease	Rehabilitation of wetlands, rivers and ecosystems	
Socio-cultural criteria	Ahmadi and Fathi (2009), Samiei (2014)	Contrast of traditional local lifestyle with quasi-modern lifestyle	Increased per capita for urban furniture, parks, lighting, and local elements- livestock control to enhance urban identity	Sadeghi & Jahed (2015)
		Spatial structure imbalance due to unbalanced development	Revitalization of the social responsibility unit of the National Company of Southern Oilfields with a balanced spatial development approach in urban areas	
		Lack of urban and local identity	Enhancement and improvement of leisure centers particularly for women and youth through private sector investment	Hakimzadeh, Talaei (2013)
		Lack of a bed for the growth of individual creativity	Establishment of centers for the intellectual development of child and adolescent in cities and villages	Jafari Niad & Bazrafshanam (2012)
		Lack of recreation and leisure sites	Establishment of NGOs in cities and villages	
		Lack of social vitality and the sense of psychological security	Improvement and enhancement of municipal services	
		Dissatisfaction with government, educational, health, and urban facilities and services	Holding religious, traditional and local festivals and ceremonies in public	

mechanized agriculture towns, matching the average cost of living and sustainable housing with the national average, and the use of all capacities of the free zones as the following:

Table 2. Normalized weighted matrix

Factor	Developments of border markets	Facilitated investment	Development of agricultural towns	Matching the average cost of living and housing with the national average	The use of all capacities of free zones
Developments of border markets	0.1566	0.141	0.1546	0.1589	0.1668
Facilitated investment	0.2453	0.2286	0.2343	0.1874	0.2465
Development of agricultural towns	0.1845	0.2457	0.2047	0.2556	0.2169
Matching the average cost of living and housing with the national average	0.1365	0.2375	0.2439	0.2273	0.2348
The use of all capacities of free zones	0.2384	0.2475	0.2845	0.2556	0.2993

Table 3. Compatibility Ratio (CR)

CV	max λ	CI	CR
5.0178	5.0181	0.0034	0.0030
5.0172			
5.0192			
5.0184			
5.0175			

According to Table (3), since CR is 0.0030 (less than 0.1), the compatibility of expert comparisons is accepted.

Prioritization of socio-cultural strategies

Socio-cultural strategies including the increase of urban furniture per capita, revitalization of the social responsibility unit of the National Oil Company of the South, improvement and development of leisure centers, establishment of centers for the intellectual development of child and adolescent, establishment of NOGs, improvement and enhancement of municipal services, and holding public celebrations and ceremonies were prioritized by experts as follows:

Table 4. Normalized weighted matrix

Factor	Increased urban furniture per capita	Revitalization of the social responsibilities unit of the National Oilfields Company	Development and improvement of recreational centers	Establishment of centers for the intellectual development of child and adolescent	Establishment of NGOs	Improvement and enhancement of municipal services	Holding public celebrations and ceremonies
Increased urban furniture per capita	0.2462	0.2972	0.2581	0.2662	0.2655	0.2565	0.2485
Revitalization of the social responsibilities unit of the National Oilfields Company	0.2993	0.2787	0.2658	0.2725	0.2458	0.2455	0.2365
Development and improvement of recreational centers	0.2562	0.2505	0.2451	0.2555	0.2444	0.2366	0.2477
Establishment of centers for the intellectual development of child and adolescent	0.2682	0.2300	0.2484	0.2555	0.2154	0.2336	0.2879
Establishment of NGOs	0.2332	0.2145	0.2665	0.2895	0.2321	0.2456	0.2356
Improvement and enhancement of municipal services	0.2144	0.2135	0.2323	0.2987	0.2459	0.2145	0.2366
Holding public celebrations and ceremonies	0.2365	0.2145	0.2988	0.2333	0.2444	0.2466	0.2369

Table5. Compatibility Ratio (CR)

CV	MAX λ	CI	CR
4.0054	4.0052	0.0015	0.0017
4.0043			
4.0053			
4.0053			
4.0053			
4.0052			
4.0044			

According to Table (5), since CR is 0.0017 (less than 0.1), the compatibility of experts' comparisons is accepted.

Prioritization of environmental solutions

Environmental solutions of development and completion of green belt projects, increased green space per capita, facilitated investment in ecotourism, prevention of sewage discharge into rivers, and rehabilitation of wetlands, rivers and ecosystems were also prioritized by the experts (Table 6).

Table 6. Normalized weighted matrix

Factor	Development and completion of green belt projects	Increased green space per capita	Facilitated ecotourism investment	Prevention of chemical industrial wastewater discharge into rivers	Rehabilitation of wetlands, rivers and ecosystems
Development and completion of green belt projects	0.2362	0.2472	0.2541	0.2642	0.2635
Increased green space per capita	0.2493	0.2287	0.2628	0.2735	0.2358
Facilitated ecotourism investment	0.2662	0.2605	0.2751	0.2575	0.2244
Prevention of chemical industrial wastewater discharge into rivers	0.2682	0.2500	0.2484	0.2555	0.2454
Rehabilitation of wetlands, rivers and ecosystems	0.2632	0.2745	0.2665	0.2595	0.2521

Table7. Compatibility ratio (CR)

CV	MAX λ	CI	CR
4.0052	4.0053	0.0016	0.0019
4.0044			
4.0053			
4.0053			
4.0056			

According to Table (7), CR is 0.0019 that is less than 0.1. Therefore, the compatibility of expert comparisons is accepted.

Political strategies, including development and improvement of syndicates, development of elitism, sever punishments for leaders of groups promoting ethnic conflicts, improvement of electoral institutions, and enhancement of public security with patrol police were prioritized by the experts as the following:

Table 8. Normalized weighted matrix

Factor	Development and enhancement of syndicates	Dissemination of elitism	Severe punishments for leaders of groups promoting ethnic conflicts	Improvement of electoral institutions with political approaches	Establishment of patrol police
Development and enhancement of syndicates	0.2362	0.2572	0.2581	0.2552	0.2355
Dissemination of elitism	0.2333	0.2747	0.2558	0.2445	0.2458
Severe punishments for leaders of groups promoting ethnic conflicts	0.2562	0.2505	0.2551	0.2455	0.2444
Improvement of electoral institutions with political approaches	0.2656	0.2300	0.2467	0.2555	0.2145
Establishment of patrol police	0.2532	0.2545	0.2565	0.2495	0.2351

Table 9. Compatibility ratio

CV	MAX λ	CI	CR
4.0052	4.0051	0.0016	0.0019
4.0041			
4.0053			
4.0055			
4.0054			

According to Table (9), CR is 0.0019 that is less than 0.1. Therefore, compatibility of experts' comparisons is accepted.

Conclusion

The present study was conducted to prioritize negative migration control strategies with policies to increase biological attractions in Khuzestan, Iran. According to the findings, development of border markets, facilitated investment of sustainable employment in rural and urban areas, development and enhancement of greenhouses and mechanized agriculture towns, matching the average cost of living and sustainable housing with the national average, and the use of all capacities of the free zones were identified as economic strategies. Moreover, the increase of urban furniture per capita, parks, lighting, as well as installation of local elements, livestock control to enhance urban identity, revitalization of social responsibilities of the National Company of Southern Oilfields through the balanced spatial development in urban areas, development of leisure hubs particularly for women and youth through the private sector investment, establishment of centers for the intellectual development of child and adolescent in cities and villages, establishment of NGOs in cities and rural areas, improvement of municipal services, and holding religious, traditional and local festivals and ceremonies in public were identified as socio-cultural solutions. Furthermore, development and completion of green belt projects to deal with dust, the increase of green space per capita, facilitated ecotourism investment, prevention of chemical industrial wastewater discharge into rivers, relocation of industrial polluting units at less vulnerable sites, and rehabilitation of wetlands, rivers and ecosystems were identified as environmental solutions. In addition, development of syndicates and scientific students' associations, dissemination of elitism and collaboration of people against ethnicity with the help of the provincial radio and television and NOGs, severe punishments for leaders of groups promoting ethnic conflicts, improvement of electoral institutions with political approaches to manage ethnicity and justify ethnic leaders, and improved public security with the establishment of patrol police were identified as political solutions. The results are in line with the findings of Ashtari Mehrjerdi and Eslami (2019), Ali Babaei and Jomehpour (2016), Tajeri Moghaddam and Kouhestani (2014), Jalalian and Yavarian (2014), Pidget (2020), Brenda (2020) Chakraborti (2020), Rasmus (2017), Rafigh(2017), Taylor (2016), and Michael (2015). Explaining the findings, it can be said that the destructed or low-quality environment leads to the migration of the residents to neighboring or migrant cities. As a result, the immigrants cause problems in cities, including marginalization, poverty, corruption, insecurity, etc. Urbanization and industrialization are usually taken synonymous with civilization and development. However, there are complications with the management, organization, and development of a modern society, resulting in numerous troubles like environmental crisis, poverty and marginalization. Migration is a seriously complex demographic phenomenon. Its relationship with the process of urban development and urbanization is even more complex. However, adjusting immigrants to cities is the most complex phenomena since urban life is not only living in the city, but also observing the principles and customs on which the social and economic infrastructure and urban culture is based. The alienation of immigrants, especially rural ones with the principles and their lack of a clear economic and social status result in several demographic, behavioral, moral and psychological consequences.

References

- Ahmadi, Z. Shirani, Sh. Eslami, h. Hossein Zehi, A. (2013). Assessing the social and economic effects of marginalization on urban environmental degradation, First National Conference on Urban Services and Environment in Mashhad.
- Ashtari Mehrjerdi, A. Eslami, A. Khanjari, M. (2019). Rural agriculture development in the shadow of reverse migration, 4th International Congress on Agricultural Development, Natural Resources, Environment and Tourism of Iran, Tabriz, University of Islamic Arts.
- Tajeri Moghaddam, M. Kuhestani, H. (2014). Investigating the role of the young farmers club in reverse migration from urban to rural areas, National Conference on Sustainable Rural Development in Iran's 20-Year Vision Plan, Isfahan, Tourism Development Company.
- Jalalian, H. Yavarian, H. (2014). Investigating the effects of rural housing loans on reverse migration process, Third National Conference on Sustainable Rural Development, Hamedan, Civil Engineering and Development University.
- Hatami Nejad, H. Almasi, b. Ghorbani, R. Farhadi, A. (2015). The impact of migration phenomenon on the structure of the three economic sectors in Tehran, 2nd International Congress of New Horizons in Architecture and Urban Planning with Development and Technology Approach, Tehran, Tarbiat Modares University, Ferdowsi University,
- Hassani, A. Khezri, H. Baghaei, Sh. (2017). Evaluation of Mehr Housing as a government policy to provide affordable housing for low income groups (Case Study: Bojnourd City), 5th International Congress of Civil Engineering, Architecture and Urban Development, Tehran, Permanent Secretariat of the Conference.
- Hosseini, G. Mehrjerdi, M. (2016). Description and analysis of inter-provincial migration in Iran over 2006- 2011.
- Hosseini, N. Shahnushi Ferooshani, M. (2015). Investigating the impact of migration and lack of coordinated development of new technologies on unbalanced cultural development of Mallard city, First National Conference on Strategies for Development and Promotion of Educational Sciences, Psychology, Counseling and Education in Iran, Tehran, Association for Development and Promotion of Basic Sciences and Technologies.
- Heydari, M. Albooghish, d. Yarmoradi, K. Ali Mohammadi, A. (2014). Evaluation of green space per capita in Tehran Region 8, International Conference on Sustainable Development, Strategies and Challenges focusing on Agriculture, Natural Resources, Environment and Tourism, Tabriz, Permanent Secretariat of the International Conference on Sustainable Development, Strategies and Challenges.
- Zamani, S. Yesiyan, M. (2011). Study of migration trend in Khuzestan from 1956 to 2006, 11th Congress of Geographers of Iran, Tehran, Geographical Association of Iran, Shahid Beheshti University.
- Sepahvand, A. (2014). Social vitality and youth, First National Congress of Religious Thought and Research, Qom, Scientific Association of Passive Defense of Iran, Panam Khat-e Novin Company.
- Zaruri, A. Pir Mohammadi, M. (2016). Investigating the role of urban furniture in city beauty, International Conference on Research in Science and Engineering, Turkey, Permanent Secretariat of the Conference, Istanbul University.
- Ali Babaei, M. Jume Pour, M. (2015). The process and pattern of reverse rural migration and the affecting factors (Case study: Hajiloo village - Kaboudar Ahang city). *Rural Research and Planning*, Vol. 5. Winter 2016. No. 16.
- Kiani Salmi, P. (2017). Impacts of natural hazards on rural migration, the First International Conference of the Silk Road Geographic Information System, Isfahan, University of Technology.
- Mohammad Sadeghi Jahed, F. (2015). Urban furniture and identity creation in Ardabil, the First Scientific Conference on Modern Horizons in Geography and Planning, Architecture and Urban Planning in Iran, Tehran, Scientific Association for the Development and Promotion of Basic Sciences and Technologies.
- Hushyari, Z. Melek Nia, R. Naghavi, H. Brazmand, S. (2015). Per capita standards of urban green spaces, 2nd National Congress in Development of Agricultural Sciences and Natural Resources, Gorgan, Department of Education and Research, Baroogostar Pars Engineering Company, Golestan Farhangyian University.
- Yahya Pourmsaruri, M. Pourmiandehi, P. (2015). The study of natural sports attractions affecting sport tourism development in Guilan province from sports managers and experts' perspective, First National Conference on Sustainable Tourism with Sport Tourism, Health and Environment Approach, Ardabil, Institute for Supporters of the Ideal Environment.
- Chakraborty. B. (2020). COVID-19 outbreak: Migration, effects on society, global environment and prevention, *Science of The Total Environment* Volume 7281 August 2020 Article 138882
- Fields, P. (2015). "Ostarbeiters". *Coffee Lounge*. Retrieved January 11, 2015.
- Michael.P. (2015). Factors driving Salvadoran youth migration: A formative assessment focused on Salvadoran repatriation facilities, *Children and Youth Services Review* Volume 59 December 2015 Pages 97-104.
- Pedro.L. (2020). Drivers for emigration among healthcare professionals: Testing an analytical model in a primary healthcare setting. *Health Policy* In press, corrected proof Available online 23 May 2020.06.14
- Piguet. E. (2020). *Environment and Migration*, International Encyclopedia of Human Geography (Second Edition), 2020, Pages 163-168
- Rafiq, Sh. (2017). Effect of internal migration on the environment in China, *Energy Economics*, Volume 64, May 2017, Pages 31-44
- Rasmus. K (2017). Do they make a difference? Professional team sports clubs' effects on migration and local growth: Evidence from Denmark. *Sport Management Review* Volume 20, Issue 3 June 2017 Pages 285-295
- Taylor. M. (2016). International migration, land use change and the environment in Ixcán, Guatemala, *Land Use Policy*, Volume 54, July 2016, Pages 290-301.