

GEOTOURISM; AN ALTERNATIVE TOURISM COMPATIBLE WITH THE CONSERVATION AND ORGANIZING OF ABILITIES OF LOCAL COMMUNITIES WITH EXAMPLES FROM NORTHWESTERN IRAN

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Abstract: *All evidence about Iran's villages and local communities, suggests a gradual disintegration of their capabilities. This phenomenon, more and more migration to cities has caused the residents of these areas. Geotourism, which is the protect and support the five key aspects of geographical features of the area, namely the environment, culture, aesthetics, science, education and well-being of local people insisted, can play a special role in maintaining the capabilities of local communities. This study is aimed to introduce some geosites and geomorphosites of northwest of Iran and explain of the role of development or vanishing of Geotouristic areas on protection and Organization of ability of local communities. Research methodology is based on literature review, taking advantage of the valuable experiences of other countries and researchers in the field of tourism, identify and analyze geotouristic issues of some geotouristic areas of northwestern Iran using landscape analytical techniques, and ultimately establish the position of geotourism in protection and organization geotouristic areas. Study of the dependence of local communities in the studied areas to the environmental changes and the impact of these changes on stability or disintegration of geotouristic areas showed that geotourism intrinsic properties such as environmentalism, productivity, resource conservation, respect local traditions and culture, qualitative review, synergy, collaboration, awareness, economic benefit, integrity, and ultimately satisfaction, all emphasized on the conservation and sustainable exploitation coupled with development.*

Keywords: *Geotourism, Conservation and Organizing, Geotouristic Areas, Local Communities, Northwest of Iran.*

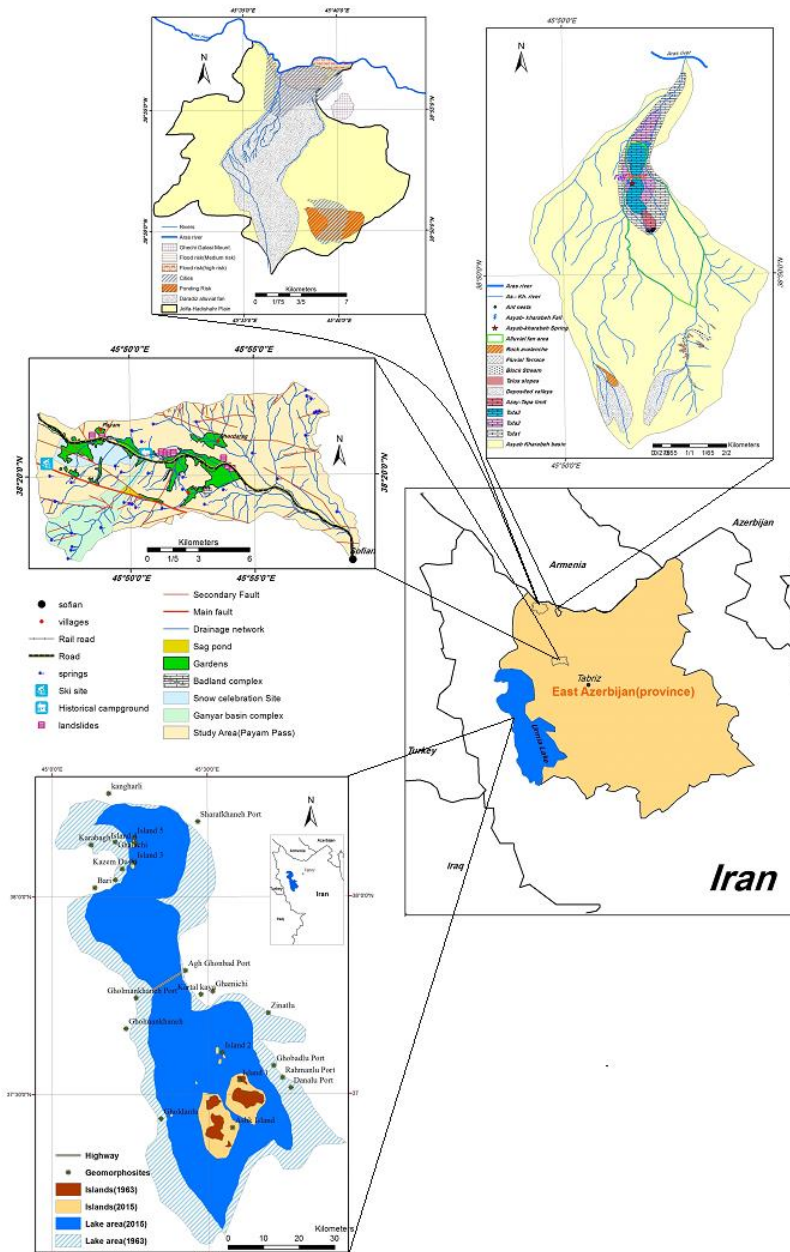
Introduction

In recent years, attention to geotourism as a strategy to achieve sustainable development (Tsaur et al., 2006), especially in rural communities by increasing economic capability (Vogt, 1997)

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on the one hand, and environmental protection (Cater, 2002) on the other hand, is rising. The expansion of geotourism, with its principles and dimensions, brings on its own conservation, the establishment and maintenance of the heritage of the site. Geotourism also provides the background for the establishment of communication and interaction with a wide range of people, with different cultures and desires (Kubalíková and Kirchner, 2015). In other words, one of the ways of organizing geosites and geomorphosites is the expansion of geotourism itself.

With the development of tourism, geotouristic capabilities are also at the center of the attention of tourists and tourism planners. On the other hand, geotourism is recognized as a factor in promoting the well-being of people in local communities and villages (Stokes et. al, 2003). The purpose of this article is to introduce geotourism as one of the strategies for sustainable development in villages and local communities in Iran. Local communities and economies must benefit from the tourism of natural areas, and this is a good justification for protecting nature in a developed and developing world. This research, based on the sustainable development of local communities, attempts to explain some geosites and geomorphosites in the northwest of Iran (Fig. 1) and the role of development or destruction of geotouristic sites in conservation and organizing the capacities of local communities.



In this research, four geomorphosites (Urumieh Lake, Jolfa-Hadishahr Plain, Payam Pass, and Asyab –Kharabeh catchment) have been studied. Development of tourism activities in recent years in these geomorphosites has caused disturbance and reduction of some of the ecological capabilities and, consequently, the ability of local communities and villages. It is assumed that geotourism can provide management and exploitation solutions of these geomorphosites, provide sustainability and continuous utilization and ultimately empower local communities.

Methods and Materials

This research based on literature review of geotourism, utilizing the valuable experiences of other countries and researchers in the field of tourism and personal research experiences on geomorphosites of northwest of Iran. In this regard, the geotouristic issues of some geotouristic sites in the northwest of Iran using Landscape Analysis Techniques and, finally, the

explanation of the position of geotourism in protecting and organizing geotourist sites in order to maintain the capabilities of local communities are identified and analyzed.

The Status of Studied Geomorphosites

1- Urmia Lake

Evidence suggests that more than 90% of valuable geomorphosites in the Urmia coast have been lost in the last half century. Comparison between the loss of coastal areas due to the recession lake during the past half century with trends in a period shorter (1998 to 2018), Indicates accelerated increase in the distance between the beaches with a geotouristic capability with the main body of the lake (Mokhtri, 2015). The accelerating decline in water level in the southern half of the lake is more significant. This situation not only indicates the disappearance of a large water source and has negative ecosystem consequences, but also created significant changes in the geotouristic landscapes of the region (Fig. 2). In fact, the disappearance of geomorphosites means the disappearance of the tourism phenomenon on the sides of the Uromiyah lake.

The Urmia lake caosts is therefore becoming an “open air environmental museum of geomorphosite changes” where people can see the effect of environmental and climate change on a hydrological system and on caost landscapes, even in short time frames. Furthermore, when the caostlines of lake have regressed, a major visible impact will occur in the aesthetic value of the caosts. The dynamic sandy and sludgy caosts will turn in to lifeless salt crusts without their medical and aesthetic values. In addition to these changes impacting on tourism and culture, the lack of water on suitable geomorphosites will also have consequences on the swimming experience. Field observations show unfortunate prospects based on the possibility that salt crusts will rapidly colonise the areas of the lake had regressed. This is an ongoing process on the upper regressed sectors but such processes requires longer time frames for completion and it is unlikely that the abandoned beaches will rapidly become a salty landscape with an crusted pattern surrounding some pretty remains of caostalsand, dried sludges, lacustrine terraces(Mokhtari, 2017).

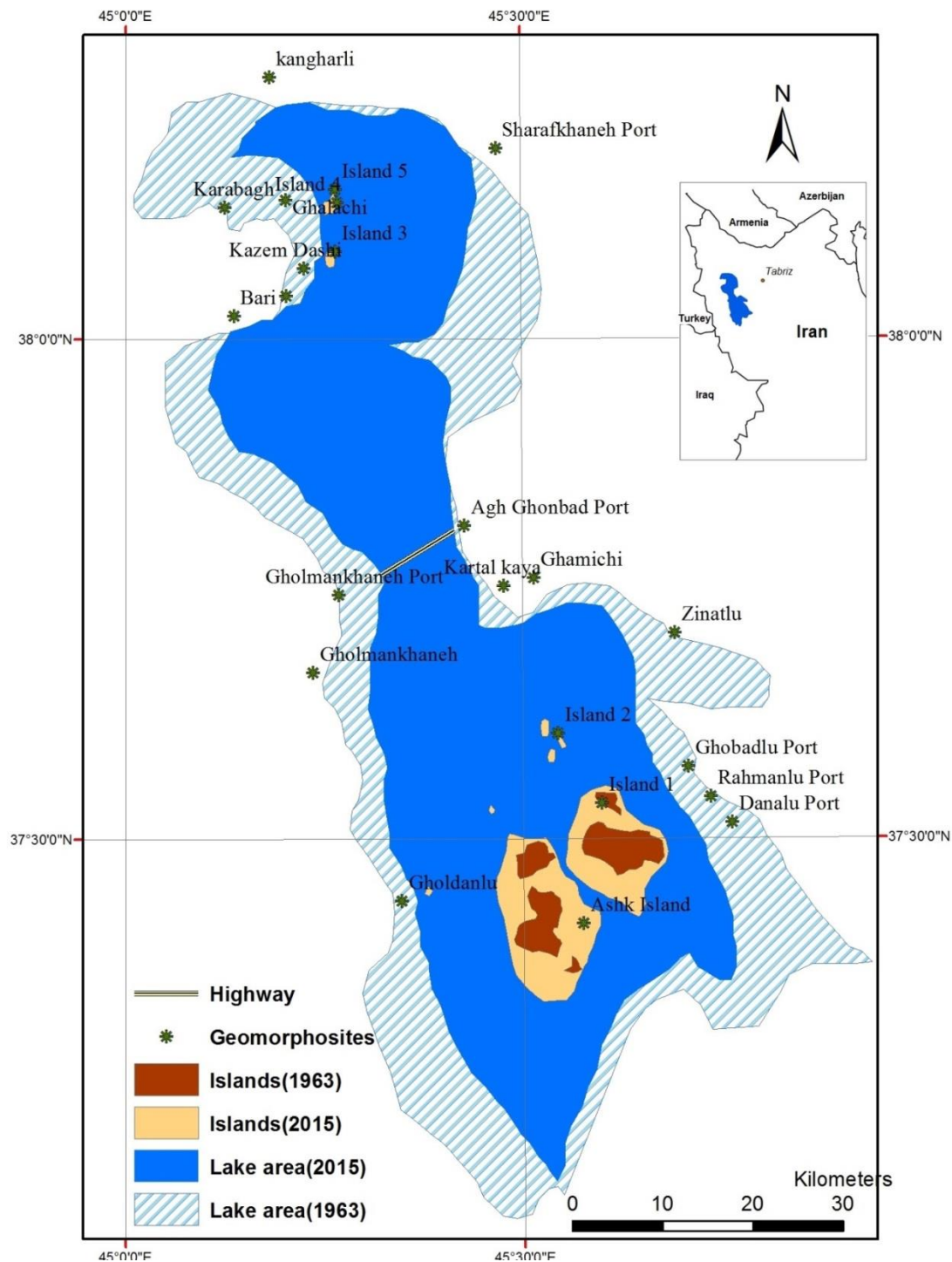


Figure 2: The situation of Urmia lake (1963 & 2015) and geomorphosites around it(Mokhtari, 2015).

In fact, it is feared that the recession in the coming decades gradually replaced by the complete abolition of the lake's lake. In this way, we will see a collapse in the balance in the lake biotic and abiotic sections that will have ecological negative impacts on the settlements around the lake, and this will be a prelude to the complete elimination of geotouristic abilities.

Natural systems are not the only survivors of the lake, but the economies of the surrounding areas and surrounding communities are also affected. In fact, the tourism industry in Urmia lake has greatly influenced by environmental changes and the increasing decline in lake water.

In the summer tourism and in the heat of summer, the consequences of environmental changes due to the recession of the lake is more significant.

2- Jolfa-Hadishahr Plain

In recent years, places like Jolfa-Hadishahr plain (Fig. 3) that their number in Iran is not low, tourists are welcomed, however, the attitude of tourists is enjoying the beauty of these places and that is why the incorrect use of the places we saw. Thus, although all tourism activities on the plain occur on geomorphological landforms, it seems that the planners and tourists are unaware of mechanisms and processes of the Earth beneath. That is why, today, we are witness to the irregular construction and manipulation on this sensitive geomorphological location, whether from the government or from the private sector.

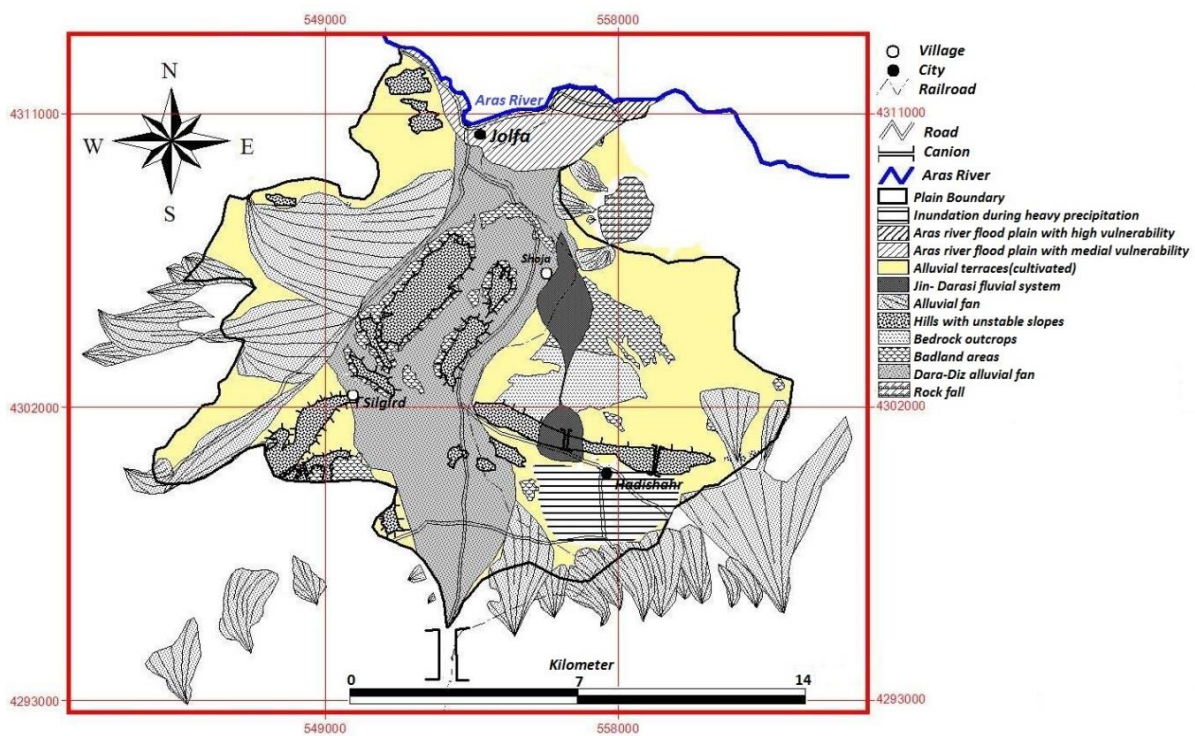


Figure 3: The geomorphological map of Jolfa-Hadishahr plain

In the meantime, it should not be forgotten about the destructive effects of the expansion of tourism activities as one of the factors of anthropogenic factors in changing morphology of the sites. Damage caused by this way in various ways creates a critical and dangerous situation in the tourist areas. The loss of vegetation and the provision of the ground for the activity of erosion factors, providing the detached elements from embankments and excavations for erosion factors, as well as the destruction of soil texture through traffic, including these damages. In principle, what is most damaged is the morphology of the region, in which case its equilibrium, which has been achieved over centuries, has been eliminated and transformed from a stable region to an unstable and highly sensitive region against the factors of morphogenesis factors.

Increasing population density in areas prone to the development of tourism and trying to maintain capabilities in these areas, they will put the serious challenge called environmental sustainability. It seems that this problem with the correct understanding of the landscape and

the dangers threatening it, can be solved easily. To this end, it is necessary to prepare geotouristic maps, identification cards and provide information to the authorities and planners in terms of it in development programs on the one hand and to induce this information to tourists through these maps on the other hand.

3- *Payam Pass*

Figure 4, shows geotouristic map of the Payam Pass. Looking at this map, can be found that with the exception of the mountainous areas in the southern side of the pass and areas covered by gardens and green spaces, other parts of the study area are only valuable scientific tourism. Such areas do not create a special attraction to the general public. In other words, tourists who come to the Payam Pass mainly those in search of clean air or on the pretext of participating in festivals such as the Festival of snow and winter sports, especially around the cities of Tabriz and Marand focused on tourism.

Despite the distribution of geomorphic phenomena in different parts of Payam Pass, the only possibilities and prospects that attracted the attention of tourists is apparent landscapes. Utilization of these facilities is carried out using non-geotourism methods. However, the geotourism viewpoint is required to exploit geomorphologic locations to tourism because the existential reason for these landscapes is the function of the morphogenetic systems that have shaped them over time. Here, it is also important to emphasize the role of geomorphologists in the management of such locations, because only factor-based modeling can provide the basis for the proper conservation and management of natural resources(O'Connor et al., 2005).

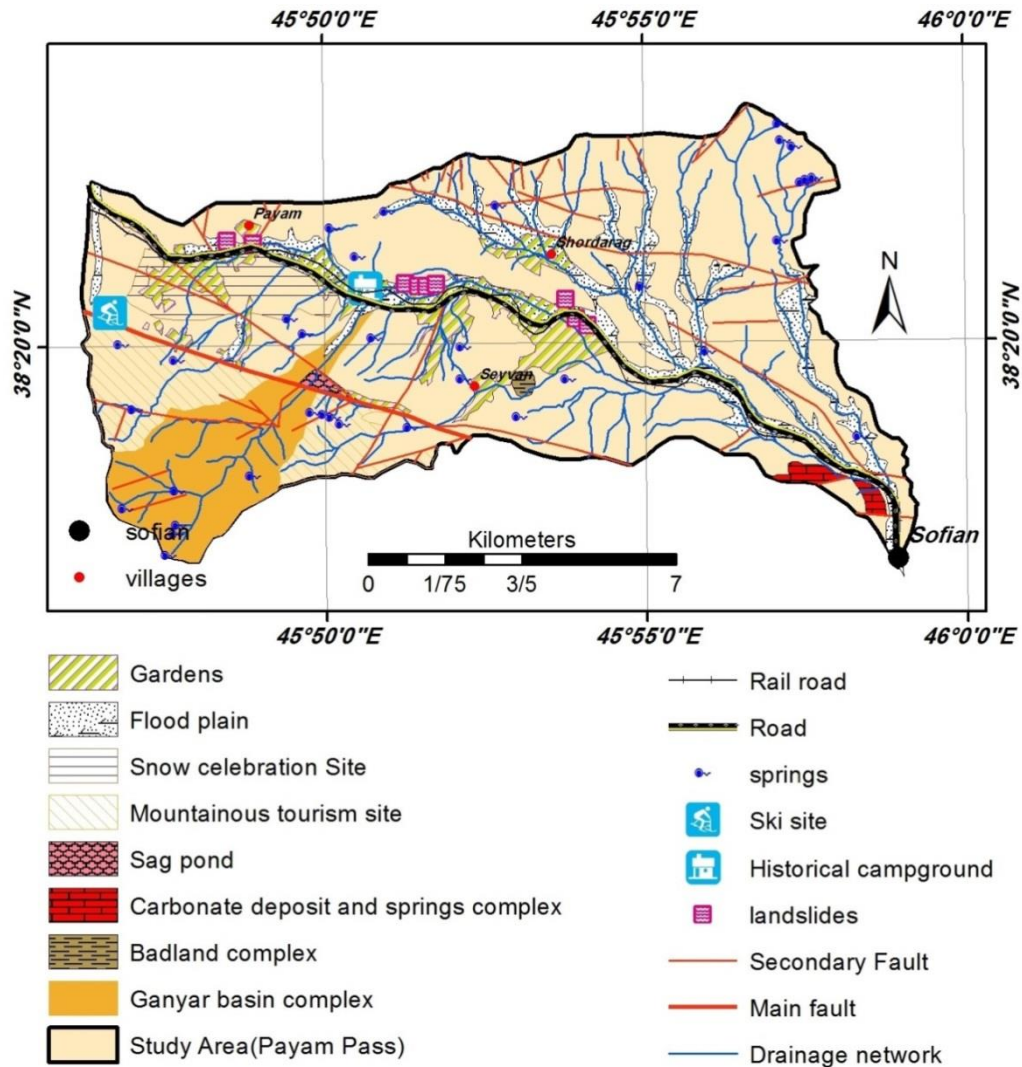


Figure 4: Geotouristic map of Payam Pass

4- Asyab–Kharabeh catchment and waterfall

Geomorphosites such as the Asyab–Kharabeh catchment and waterfall (fig. 5) can be regarded as natural and tourism resources, because human exploitation of aesthetic, scientific, cultural and economic capabilities plays an important role in the development of recreational activities, and undoubtedly has good economic effects. Asyab–Kharabeh Waterfall is the most important part of the catchment(fig. 6) and Keyamaki Wildlife Area and has unique characteristics in terms of the structural characteristics of the existing natural system, as well as human issues related to the location of the area. The current image of such areas is the result of the rule of natural and human processes that introduces them as a landscape, a natural environment, an ecosystem or a settlement.

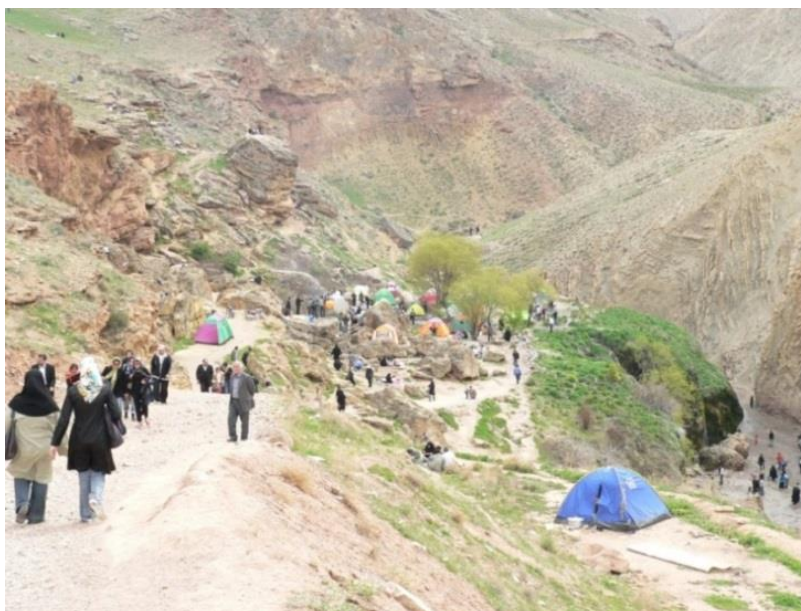


Figure 5: Geomorphosite of Asyab-Kharabeh

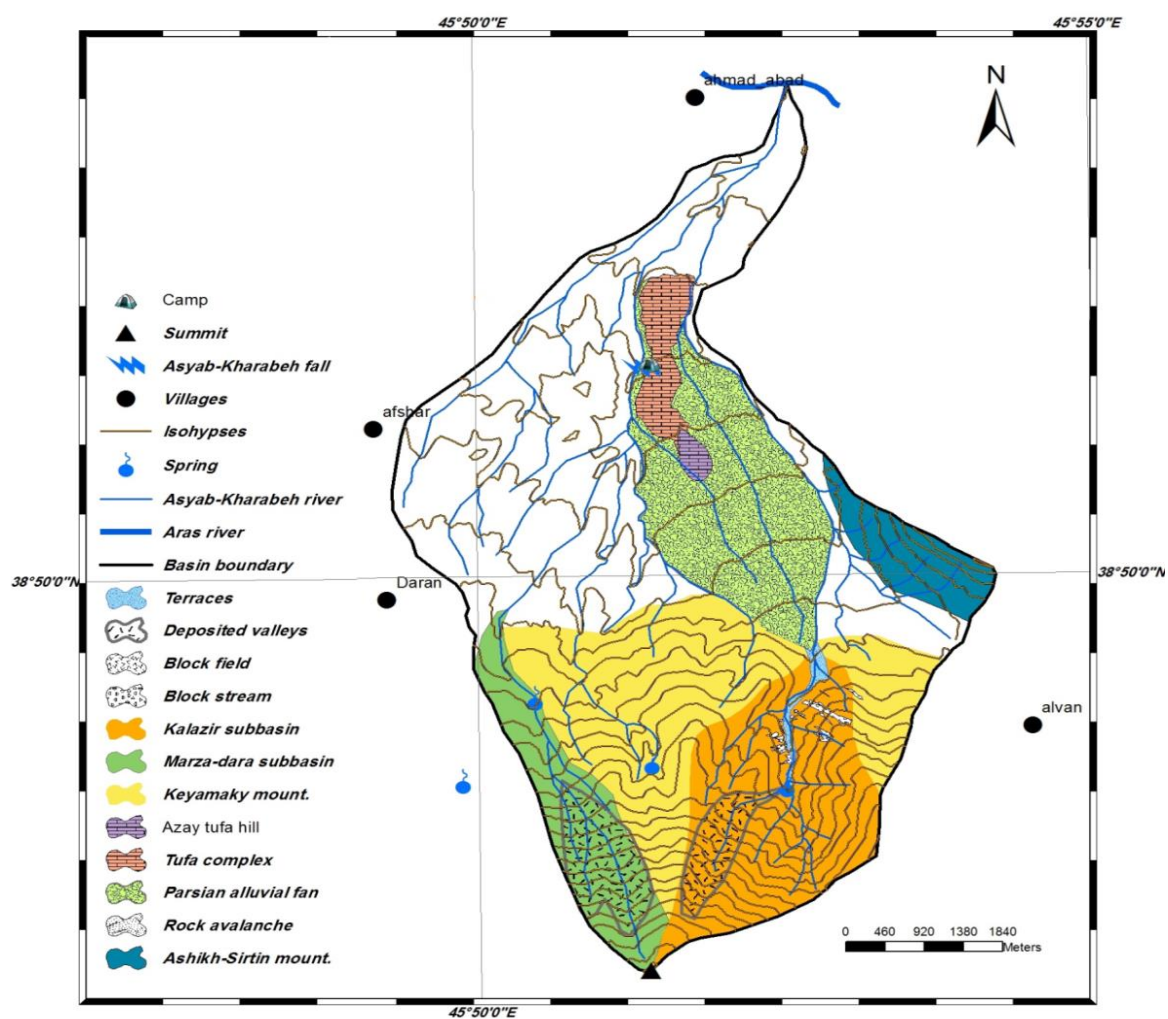


Figure 6: Topographic and geomorphological units of Asyab-Kharabeh catchment

At the moment, the main attention of tourists and, consequently, planners, is focused on the economic aspect of this geomorphosite in the waterfall, and other valuable features of this place are not well-known. Natural systems have their own characteristics and their operation and management must be in line with these features. This issue is very serious about geomorphologic systems, such as Asyab–Kharabeh Waterfall, and the lack of attention to this issue can lead to the permanent death of this beautiful waterfall. In this way, the livelihoods of many residents and local communities around this waterfall will be at risk.

Discussion

Geotourism and geotourist sites such as geopark have the potential to organize local economies with sustainable tourism (McKeever and Zouros, 2005). Some of these capabilities are :

Geoparkes, while increasing the number of tourists wishing to visit the geographical attractions, play an important role in the development of the local economy, and the presence of geotourists in the geoparks will push the flow of money towards them.

b) In addition to providing agricultural products and handicrafts to tourists in geoparks, geotourists become familiar with the feelings, experiences and knowledge of local communities in geoparks (Frey et al., 2006).

Geotourism provides new job opportunities and geo-marketing such as geotours, georestaurants, geoproducts, geomuseums, geosports, geolodging, geobakeries (Torabi Farsani et al., 2012).

Given the upward trend in the participation of local people as tour guides, geotourism increases public awareness.

Geotouristic sites such as geoparks, geosites and geomorphosites organize local economies (Pásková 2012) and increase people's awareness of geographic phenomena and landscape components. For this reason, guiding geotourism tours by local people is an effective strategy for entrepreneurship. These guides observe the shapes and phenomena of natural landscapes and describe the surface and underground processes that create this form for geotourists (Robinson, 2008).

A geotouristic site, along with its tourism market, can serve as a teaching mission for the local communities and the youth of those societies in all academic levels. The ultimate goal of creating these sites is protection and there is a close relationship between geotourism and the conservation of geographical attractions. This relationship directly affects the generalization of knowledge, teaching, and scientific studies related to geotourism, along with recreation (Alexandrowicz, 2006).

The life of some geotouristic attractions depends on the processes that are active in other parts of the environment and the change in those processes leads to a change in the value of the geotourist site. Reducing the water level in Urumia lake and its role in the degradation of the geotourism attractions around the lake can be seen as a prominent example of this type of variation in geotourist sites ; The phenomena that caused some of the geotouristic sites around the lake lost their property and turned into abandoned areas (Fig. 2). These sites have been considered as valuable geo-tourism attractions in decades.

Conservation of geodiversity seems to be more important than biodiversity protection, because in the event of a threat to a biological species, it may be possible to implement reproductive measures, while this action is not feasible for land resources, and in particular, geotouristic resources. For example, what happened during the winter of 2013 as a result of severe frosts(Fig. 7) at the crest of the Asyab- Kharabeh waterfall, during which a large part of the waterfall structure was destroyed (Fig. 8), is by no means compensable.

Many geotouristic attractions, especially those associated with geomorphologic or geological processes, are related to climatic and environmental conditions that are currently not available. These cases usually include inherited and fossil phenomena that, if destroyed, are permanently deleted from the scene. For example, a collection of Sand dunes in the Ghoom_Tappeh in the Azerbaijan area (Northwest of Iran) can be named, which, despite numerous warnings and warnings, has been eliminated (Fig. 9).

The role of humans in creating these disorders through tourism is more likely to be biophysical outcomes because any change in the non-living resources of the ecosystem will have a direct effect on the changes in its living part (Newsome et al., 2013). Certainly, any disturbance in the perspective and activity of ecosystems leads to a kind of heterogeneity and inconsistency in them, and the importance of recognizing and understanding these activities by the mercenaries and operators in this field is noted.

Many of these disorders create disturbances in the activity of active processes in the system, which results in most cases causing temporary changes in the ecological conditions of the landscape. Disorders caused by recreational activities and tourism are multifaceted and many factors contribute to their creation. Depending on their nature, these disorders may be temporary or more durable.



Figure 7: Photos from the hard freeze in January 2013 and destruction of Asyab-Kharabeh waterfall crown.



Figure 8: The beautiful waterfall of Asyab- Kharabeh before destruction (right) and after destruction (left)



Figure 9: Geomorphosie location of the Ghoom_Tappeh sand dunes, image of the situation in 1996(left) and the image of the location in 2017 (right) and after 21 years.

Conclusion

Geotourism characteristics due to its nature, coupled with the development of conservation-oriented and sustainable exploitation. These features include:

Geotourism is environment-focused and emphasizes conservation of resources and conservation.

Sustainable tourism is based on the optimal use of the tourism product for tourism purposes, and geotourism is also immune from the trait of love for death.

Geotourism preserves resources. Geotourists familiar with the environment act in such a way as to minimize pollution, waste generation, energy consumption, water consumption, chemical release, and unnecessary nighttime lighting.

Geotourism respects local traditions and culture. Alien visitors will see local customs and learn some of them. For example, every tourist at the start of an unfamiliar area tries to learn some of the region's friendly words to create a relationship.

Geotourism is based on quality rather than quantitative. In geotourist circles, the success of tourism, rather than the number of tourists, is measured with the length of the trip, the amount of money spent by the tourist and the quality of the tourism experience.

Geotourism in its geographic character and with the aim of "understanding the place", while observing these principles, guarantees a kind of tourism that emphasizes the protection of the unique aspects of the place and also respects the interests of tourists and local residents. Geotourism supports the geographical characters of a place, including the environment, culture, heritage, beauty and well-being of the people. For this reason:

Geotourism has a synergistic nature. What a tourist gains from the experience of all the elements of the geographic characters of a place is richer than the sum of the achievements of tourists with different interests from different parts of it separately.

Geotourism requires the participation of local communities. Business and civic groups cooperate with each other to organize and enhance a memorable visit.

Geotourism is based on knowledge of tourists and host societies. Local residents adhere to their heritage and know how to introduce their heritage. As local people move away from their origins and heritage, tourists also show less interest in visiting that place.

Geotourism has economic benefits for local residents. It is better to use local labor, services and facilities in travel business. When a society realizes the usefulness of geotourism, it will strive to make logical and optimal exploitation an ever-increasing incentive.

Geotourism supports the integrity of the place. Travelers familiar with the destination of tourism are looking for businesses based on the capabilities of the place. Income from tourism, in turn, increases the local value of existing assets in the area.

Geotourism means a favorite traveler. Satisfied and excited tourists bring home a lot of information and encourage their friends to experience this hearty journey, and this will provide more ground for business in the geotourist area.

Undoubtedly, leisure is the most important goal of tourism. On the other hand, one of the goals of geotourism is to protect and organize the capacities of local communities. Given the challenge, designing tools and providing solutions that can combine these two, namely, leisure time and conservation and organizing, is necessary.

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