

Investigation of Hour Alazim Wetland Geotourism Capabilities

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Abstract: The Hour Alazim in Khuzestan province in the south west of Iran and south east of Iraq is one of the international wetland registered on UNESCO's natural heritage list. It is the one of the beautiful and notable phenomenon in this region that is limited from one side to Persian Gulf and from other side to Arvand River that this has created a very interesting sedimentary environment for sedimentary, hydrology, geology and ecology studies as well as it has created an attractive and controversial place for each viewer and the other hand can say it is one of the geotourism attractive in Khuzestan plain and will be discussed in follow.

Key word: Geotourism, Hour Alazim Wetland, Iran, Iraq.

INTRODUCTION

Nature tourism is one form of tourism which it can be possible leisure human activities in the nature (Neville, 1975). Geological, morphological, climate and mineral waters facilities are considered as the most important representation factors in tourism in the economic policies. Geotourism is a new branch of ecotourism that it focuses on the tourism subject of geological and geographical phenomena in a region. The attractive structure of geotourism phenomena is important for tourists' attraction (cartner, 2002).

Since the each of these phenomena and their formation over millions of years are unique, they are named "Earth Heritage " named. Therefore, the United Nations Educational, Scientific and Cultural Organization "UNESCO" decided to identify the international importance of these phenomena in form of a serious and global organization. In order to logical protect and stable exploitation of them, a kind of management, protective structure called "geo-parks" was proposed by UNESCO in 1999. Geopark (abbreviation Geology Park) is defined as a region with a sufficient extent that its boundaries clearly marked where several prominent geological phenomenon is located in it. Geoparks may also have prominent historical monuments, ecology, cultural heritage in addition geological phenomena. Iran has the appropriate potential in introduction and registering the various global geoparks because of having ancient history and variation geological phenomena. The first activities in this field starts since 2002 in Qeshm Island and finally registered the first and only Iran and the Middle East geo-park on the island in the global network of geo-parks in the last month of 2006. Another area with potential to create geo-park is Khuzestan province and Hour Alazim wetland can be one of these Geotourism phenomena. Zagros has structures due to pressure from Arabian plate that in some situations has created very beautiful and eye-catching sites that we can see one of these beauties in Hour Alazim wetland (Fig 1).



Fig. 1: Hour Alazim view to the north, http://www.khouznews.ir/files/fa/news/1389/11/29/110_210.jp

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Geographical Position:

47° 34' to 47° 54' eastern longitudes and 31°00' to 31°44' Hour Alazim wetland with northern latitudes is located in the South West of Iran and the South of Khuzestan plain between Shadegan, Abadan and Mahshahr towns. Hour Alazim wetland in Khuzestan province is one of the international wetlands registered on UNESCO's natural heritage list. It is Iran's largest wetland where located 52 km from Abadan and 105 km from Ahvaz and plays interface role between Arvand(Shat Alarab) river and Persian Gulf Waters(Fig 2).



Fig. 2: Hour Alazim wetland google earth image.

Wetland Hour Alazim In addition to unique geological features has very high diversity of fauna and flora and due to having an International value according to the Supreme Council of the Environment Protection legislation (approved) was handed to the environment organization as international wildlife sanctuary Shadegan. The wildlife dependent to wetland has economical and social value. Vegetation cover within the wetland is considered as a pasture and an important providing source of forage and fed for the margin wetland villagers' livestock. Considering that Hour Alazim wetland is considered most diverse wetland in the view of vegetative so that it has many tourism opportunities, potentially (Fig 3).

Nowadays is not considering to this sample tourism and environmental protected area, it's beautiful and unique nature will lost in the short time.



Fig. 3: Hour Alazim wetland view to the east,
http://media.farsnews.com/media/Uploaded/Files/Images/1390/06/26/130155381_PhotoA.jpg

The Geology of Region:

Khuzestan's geological formations as part of Zagros folded belt are formed in different tectonics and sedimentary conditions therefore they have Notable differences based on the time and place in the facies. The outcrops rock can be divided into two following tectonostratigraphy units by relying on the three factors means lithology, age and tectonics of geological formations.

1. The Jurassic - Cretaceous rows of marine what have young Tethys basin facies. Mentioned rows are exposed at the core of anticlines with a general northwest - southeast trend, generally.

2. Cenozoic Sequences the syn alpine orogeny are represented particularly by the deposits accumulated in a marine is retrograde to the south. these Sequences may be marine or non-marine, including some following units:

A. Eocene rows (Pabdeh formation) and Oligocene - Miocene marine limestone (Asmari Formation) that makes reservoir rock of the province's oil reserves.

B. Miocene units of clastic - evaporated called Fars Group, which are along with the late orogenic Alpien and they have been formed in the retrograde marine environments. These evaporated rows in the base of collection are cap rock for oil reserves (Gachsaran Formation) in Khuzestan province.

C. Post orogenic clastic units called Bakhtiari conglomerate that represents relatively severity erosion of pot late Alpien orogeny.

D. Quaternary clastic deposits must remember that are formed by the weathering of rock fragments of various formations in different dimension, type and age.

Hour Alazim wetland actually is where it dumped into Arvand River and eventually via it found away to the Persian Gulf and the open Sea. This region often contains fine silt and clay sediments were deposited in a quiet area. In the view of morphology this region is a basin that has played the role of a barrier between the Persian Gulf and the Arvand River that it can be an appropriate place for entertainment people, studying geology and geological fields (Fig 4).



Fig. 4: Hour Alazim wetland view to the east,
http://farm3.staticflickr.com/2231/2114982044_31caf23bbf_b.jpg

Discussion:

Geotourism:

Geotourism is one of the newest types of tourism that was considered by UNESCO after state the geoparks since 2000 geotourism project manager country different definitions is presented for geotourism in the several view that mention to them all does not fit in this brief, so just defined it based on the definition what has presented by Rahimpour in 2006.

Geotourism, geological tourism is one of the specialized majors of ecotourism that introduces the geological phenomena to the tourists with protection spatial identity. Geotourism has benefited from geomorphological, geotechnical science, terrestrial geophysics, geochemical and it invites climatology and earth sciences experts and nature fans to visit the attractions of the Earth. Environment Protection and its prospects, lack of change and avoid human interference in the disassembling of the earth face is the main objectives of geotourism. In general studies about geotourism has done by American Union of Travel Industry and geographic Travel for the first time in the large scale and the national level and in which has noticed to stability and comprehensive development of the environment, and even has noticed to the issues of cultural (Nazeri 2006). According to the site of geological survey of Iran organization, in Iran Alireza amri Kazemi geotourism

project manager country has introduced this new field of tourism by providing an article entitled “introduce Iran Geotourism “at a conference in Australia in 2002.

The Shadegan Wetland’s Geological Phenomena Classification:

In the view of expert every geological tourist’s attraction has a grade based on its importance and value and also the amount of charisma to attract tourists, in this paper are used two classifications to determine the Shadegan wetland Rated.

A. The proposed classification:

In this classification, geological phenomena based on their value for the age and work groups and also their charisma has divided to the six groups for the inland and overseas tourism: being unique, single provincial phenomenon, rare, the pattern and identifier, assembling (Chndgvny and Nvndh). Based on the properties of wetland, this area below in following class:

1. The pattern and identifier (it has a great value for the education purposes and also it has charisma for the ordinary tourists).

Other properties of this geological phenomenon based on proposed classification (Nabavi 1999) has presented in the below table.

Table 1: Proposed classification (Nabavi 1999) for Hour Alazim wetland’s geotourism.

How Being in natural	The access road	Tourism value for	charisma for	Near province-city	The classification of phenomena	The name of phenomena
wetland , morphological and hydrological characteristics	The asphalted road	All age groups, particularly students and researchers	The Education, Research, Sailing, and Tourism	Iran and Iraq	The pattern and identifier	Hour Alazim wetland

B: Classification Of Regions Based On Geotourism:

The experts have divided the geotourism areas into three classes generally:

1. There are many places in the world where are less known for geologists and rock climbing and ordinary people are more familiar with these. Where all can throw the rocks with the toe and they can make their hands dirty or muddy.

2. In the near of some major cities, despite their tough appearance, and only a few kilometers away to them there are features and Landscapes of unique geological phenomena where attracted Interested persons. The places are less known for the ordinary people.

3. Finally, there are places in the world where are gifts only for the geologists and some few of the public, Professional areas, such as Siccar point on the east coast of Scotland and Hutton's Section in the Holy road park located in Edinburgh, places that James Hutton, the father of earth science, has worked them and has stated concepts such as new stratigraphy.

In the view of geotourism, Hour Alazim wetland placed in the second class, according to its specific characteristics:

- The wetland Hour Alazim tourism values.
- The geotourism of the Hour Alazim wetland has special role in the geotourism industry due to having some rates of tourism.

These rates are as follow:

1. It is located between Iran and Iraq town.
2. Ahvaz- Abadan and Mahshahr- Abadan road passes near it in Iran.
3. It has very little walking.
4. It is available easily (all people old and young, men and women will be able to view it.)
5. This area has good capabilities for sailing.
6. Geologists could also see Khuzestan, Iran and Iraq plain in its path before seeing any geological phenomenon.

7. The wetland is the beauty and notable phenomenon in this region where it limited from one side to Persian Gulf and from other side to Arvand River that this has created a very interesting sedimentary environment for sedimentary, hydrology, geology and ecology studies as well as it has created an attractive and controversial place for each viewer.



Fig. 5: Hour Alazim wetland view to the south, <http://www.irandeserts.com/pics-6/shadegan-3.jpg>

Conclusion:

The protection of natural wetland conditions is possible only with notice to its requirements that In this regard the exploitation of Maroon Dam considering environmental wetland requires and control the entry of Karun river's floods to the wetland can be an appropriate management actions for achieving to the aim of wetland health.

In this article Hour Alazim wetland are reported as a geotourism attraction in the class of pattern and indicator of the Zagros folded zone for the first time.

Recommendations:

1. It is worthy that these geological phenomena registered and preserved in the national geoscience database of Iran and Iraq also in the list of national natural phenomena.
2. It is essential to add the name of this natural heritage to the Geotourism Atlas of Iran and Iraq.
3. Ministry of Industry & Mine Geological Survey of Iran with the assessment of Iranian Cultural Heritage and Tourism Organization, Khuzestan Water & Power Authority, Department of the Environment and the oil company can introduce this geological phenomenon.

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