



Research Note

The environmental constituents of eco-tourism in Jordan

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Abstract

Because of the growing universal importance of ecologically sustainable eco-tourism, and in line with the recommendation of the Stockholm Conference this research identifies and analyses the environmental components of tourism in Jordan. The objective is to discern the most significant environmental elements that constitute Jordan's eco-tourism and how each of these elements shapes tourist attractions while managing ecological balance. To achieve this objective the researcher adopted an empirical and analytical approach by conducting field visits to identify the basics of the environment involved which was recorded in eighteen illustrations. Main findings of the study demonstrate that ecotourism crucially influences the future of Jordanian tourism as reflected by initiatives taken by the Jordanian Tourism Development Agency to promote Jordanian ecotourism all over the world especially through the Arab Gulf Union. In this vein the study puts forward several recommendations to enhance the ecological sustainability of Jordanian ecotourism including widening the reserve area between Alghor and the semi-Ghor mountains, and alleviating population pressures on the sites' natural resources.

Keywords: eco-tourism, environmental constituents, environmental pressures, environmental sustainability, natural resources, tourist attractions

Introduction

It is noteworthy that from the second half of the twentieth century ecology and environmental factors have gained and shaped global interest such that Environmental Constituents have become recognized as important value parameters beside Economic and Socio-political values in important global deliberations such as the Stockholm Conference of 1972. This Conference has defined the following critical elements of the environment (www.wildlife-pal.org/environment.htm):

- (1) Natural Environment: this comprises the lithosphere, hydrosphere, atmosphere, and biosphere;
- (2) Biological Environment: this includes the human individual and his family and society as living organisms beside other living creatures in the surrounding environment; and
- (3) Social Environment : this refers to the civilized environment which provides the relationship framework of the individual human beings with members of his community and society. It consists of two domains; one is the material domain which pertains to physically tangible aspects of human social life including housing, food, clothing, education, health, transportation, communication and safety. The other is the non-material domain catering to human social traditions, culture, ideas, values and worldviews.

Ecologically sound and sustainable eco-tourism requires that all the elements of the three environments and their mutual relations and interactions be properly understood so that conflicts may be minimized and the tourism activities may be implemented without much disturbance and damage to them.

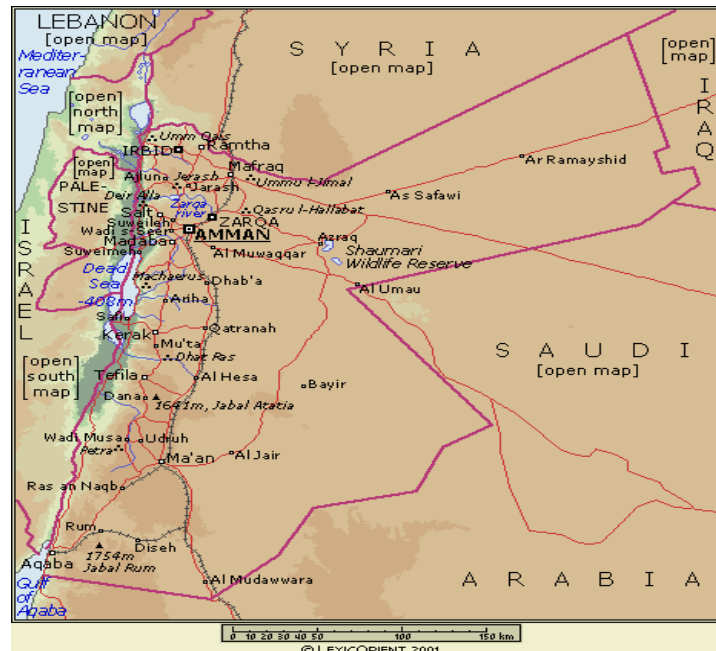
This research identifies the types of environmental resources or constituents in Jordan which form tourist attractions in Jordan, examines the underlying factors that influence the development of eco-tourism in Jordan, and explores possibilities for improving the state of Jordanian eco-tourism.

The study area

Jordan is situated in the southern west of Asia between meridians 34° and 52' to 39° in the east and 12' and between the latitudes 29° and 17' and 33° and 23' in the north (Fig. 1). Amman is the capital city which together with other cities has made Jordan a strategic ecotourism destination in the Middle East region (Fig. 2).



Fig 1. Geographical location of Jordan



Source: LexicOrient, 2004

Fig 2. Jordan-main cities

Materials and method

Definitions

Environment: For the purpose of this study the definitions of environment are derived from two sources. One is following the 1866 German scientist Earnest Haeckel's conception in which environmental science refers to the study of the relations of living creatures with the media they live in. Such science considers the survival of living organisms, their habitats and their social or colony organisations. It also examines unfavourable climatic factors such as air temperatures and humidity and the physical and chemical properties of land, water and atmosphere (<http://www.iid-alraid.de/arabisch/abwab/Ecology/Ecol.htm>). The other is in accordance with the Arab Planning Institute of Kuwait which defines environment as the media in which humans live and from which they obtain all the resources they need to perform various activities of their life (Arab Planning Institute, 2006).

Based on these sources this study takes the view that environment encompasses everything in nature that constitutes both constraints and opportunities to human life. Environmental constraints or obstacles in terms of terrain, climate, hydrosphere, flora and fauna pose challenges to human life while environmental resources provide its economic bases. This study also takes the view that by way of such constraints and resources the environment finds its functional equilibrium thus manifesting the supreme wisdom of the Creator (see for eg. Quran, 27:88).

Environmental balance: It is the way the components and elements of the natural environment interact without changing the capability of the ecosystem to return to its original state intact (Gharaybey, 2007). Thus in terms of eco-tourism it pertains to tourist activities that do not incur any environmental danger and threat to the ecosystems and natural habitats of the sites.

Method

To achieve its stated objective this study adopted an analytical approach based on the 1972 Stockholm Conference conception. Field studies were conducted to gauge the various facets of eco-tourism in Jordan as illustrated by the eighteen figures presented.

Results and discussion

Eco-tourism attractions and sites

Jordan is located near the center of the old world in the southern west corner in Asia. Its moderate climate allows for tourism to thrive throughout all the seasons of the year while its diverse geographical and ecological sites give rise to a wide range of tourist attractions from winter terrains and summer terrains to natural springs, forests, and deserts (*bawadi*) and shores. Following Albohairy's (1973) general study of Jordan's natural geography there are six large natural environments forming the bases of eco-tourism in Jordan, namely, the wild life environment and the sites of bare rocks (Gharaybeh, 2007).

Geological tourism sites

Geological tourism sites are sites of rock constructs or formations. Jordan is geologically related to the pre-Cambrian Paliozoic, Mezozoic, and Cenozoic periods (Bender, 1974). One significant feature is that it has the lowest point on the earth in the form of the Dead Sea (Fig. 3). In addition, there are several mineral springs which become famous eco-tourism attractions. Jordan's geological tourism caters to nature adventurers and enthusiasts.

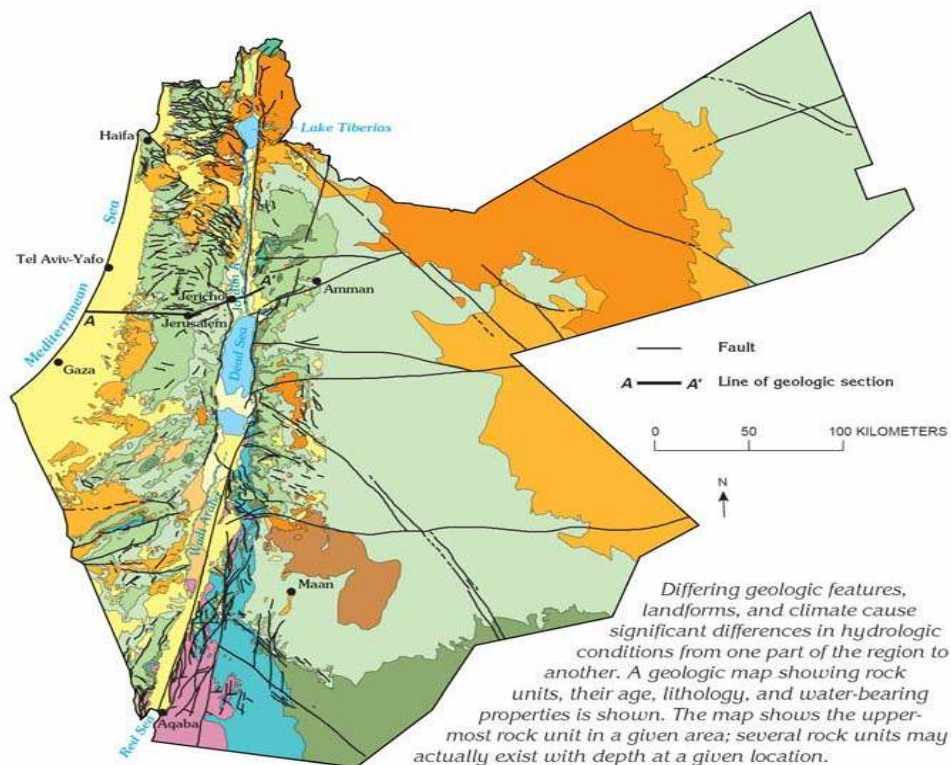
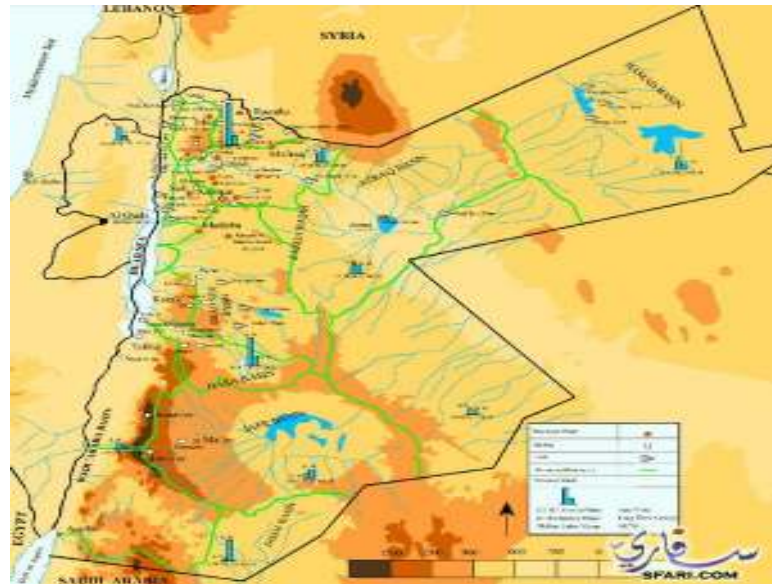


Fig 3. Geology of Jordan

Geomorphological sites

These pertain to Jordan's three large terrains of the Al-Ghor, the Mountains and the Jordanian Desert (Fig. 4). Wind and water erosion has sculptured the sites into tourist attracting landforms such as grooves, canyons, sand dunes, rocky masses and other types of intriguing physical features (Figs. 5 and 6).



Source: Safari.com

Fig 4. *Relief of Jordan*

Climate – related sites

These refer to tourist attraction sites which are the result of climatic elements such as the summer resorts in the mountains of Ajloun and Al-palqa and the winter resorts of Jordanian Al Ghor catering to tourists looking for contrasting weather experiences.



Fig 5. *Wadi Rum (desert tourism)*



Source: Jortjo.com

Fig 6. Sand tourism in the al-Badiya environment

Water – related sites

These relate to such tourist attractions as the mineral water of the Dead Sea, the shoreline of the Aqaba city (Fig.7) and other similar attractions pertaining to lakes, rivers, dams, artificial and natural pools, and renewable groundwater and fossils.



Fig 7. The coast of Aqaba

Al-Ghor environment

Comprising approximately 5.6 percent of the area of Jordan this is the low land stretching from AlBaqora in the north to Aqaba in the south. Here lies three iconic landmarks of Jordanian eco-tourism: (1) the 110 km long Jordan River (AlSharea'a) which is the site of AlKharar Valley noted for Christian baptism (Fig. 8) where Jesus was believed to have stood with prophet Yahea as he started to preach (Tourism Board of Jordan, 2002); (2) the Dead Sea which is the lowest point on planet earth. Extending 70 km in length and

10-16 km in width the Dead Sea has high salt ratio of 33% making it a most famous health treatment tourist attraction in the country (Fig. 9); and (3) the 150 km long Wadi Arabah straddling between the Dead Sea and Red Sea.



Fig 8. *The baptism site by the Jordan River*



Fig 9. *The Dead Sea*

Semi Al-Ghor environment

This is the land located between AlGhor in the west and the mountains in the east 600 m above sea level and contain a host of ancient tourist attractions such as the Umm Qayes of Jadara, Apella, Karkamah, AlSberah and Hneedeh, Hajejeh, Fiqaris, Amta and two Decapolis towns of Gadara and Pella (Figs. 10 and 11).



Fig 10. *The ruins of Gadara*



Fig 11. *The ruins of Pella*

Desert environment (AlBadiya)

Comprising approximately 77.4% of Jordan's total area desert tourism activities cover ecological sites as well as several historical reservation and oasis sites such as the Albadia, Roweshid, AlSafawi, AlJafor, the AlShomari Reservation, and the Umayyad ancient palaces of AlHalabat, Amrah and Altobah.

The mountains

These comprise approximately 5.8% of the Kingdom's area. Herein lies most of the Jordanian cities such as Irbid, Ajloun, Jarash, AlSalt, AlKarak and AlTafela. The mountains vary in altitude. For example, the Irbid and Ajloun peaks reach up to 1247m at the Um Al Daraj while the AlBalqa range reach up to 1097m at Ypusoua and the peak of Muab and AlSharah is even higher at 1952m near the Baqer. The variation in altitude creates a mountainous landscape of tourist attractions such as the Ajloun Castle, the AlKarak, and the AlShoubak (Figs. 12 and 13).



Fig 12. *Ajloun castle (mountain tourism)*



Fig 13. *Al Karak castle (mountain tourism)*

The Interior plains

These are flat regions approximating 11% of the Kingdom's area in which are found the northern plains which ancient name is Ahra'a Roma or 'the stores of wheat' of Irbid, AlRamtha, AlMafraq, Jerash, Beit Raas and AlHussun; the middle plains which extend into the cities of attractions



Fig 14 .*The ancient city (decapolis) of Jerash*

as well as those of ancient tourism (Shuumacher, 1890) because they contain the decapolis cities of Arabela (Irbid), Jerasa (Jerash), Capitoliass (Biet Raas), Dion (AlHussun) and Philadelphia (Amman) beside many more ancient cities such as Madaba, Deeben and Kerak. (Fig. 14), AlKhezana, AlMushata, Hamam AlSarah, AlAzraq, and AlMowqer (Figs. 15 and 16).



Fig 15. *Qasr Al Hallabat (al-Badiya environment)*



Fig 16. *Qasr Amra (al-Badiya environment)*

Coastal environment (Aqaba Gulf)

This environment which extends to the Red Sea where the Aqaba port city is the main tourist attraction with diverse aquatic life and aqua sports like diving.

Natural reserves

These reserves are for the purpose of protecting rare species of Jordan's wild life from extinction (Gharaybeh, 2012) the most important of which are the Dana Reserve at the southern part of Jordan in the Altafalah City, the Alshomari Reserve in the eastern desert near AlAzraq, the AlMoujib Reserve on the east shore of the Dead Sea, the Ajloun Reserve at the north of Jordan near Ajloun City, and the AlAzraq Reserve of the AlAzraq Oasis (Fig.17).

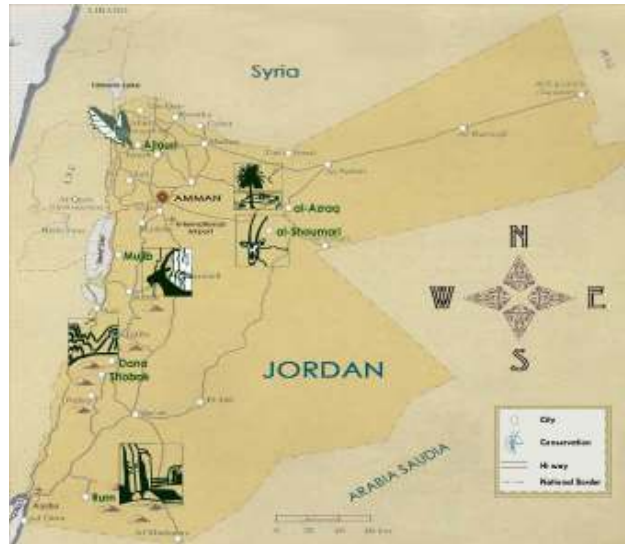


Fig 17. Natural reserves

Rocky sites

In Jordan sites of bare rocks can be tourist attractions in their own right. Rocky or bare rock environment comprising rocky mountains, dry valleys, rocky flat lands and grooves cater to the interest of adventure tourists. The flower tourism city of Petra is considered a model for the bare rocks environment and because of this natural beauty of the city it was ranked second as one of the Seven Wonders of the World in a festival held in 2007 at the Lycopen City of Portugal (Fig. 18).

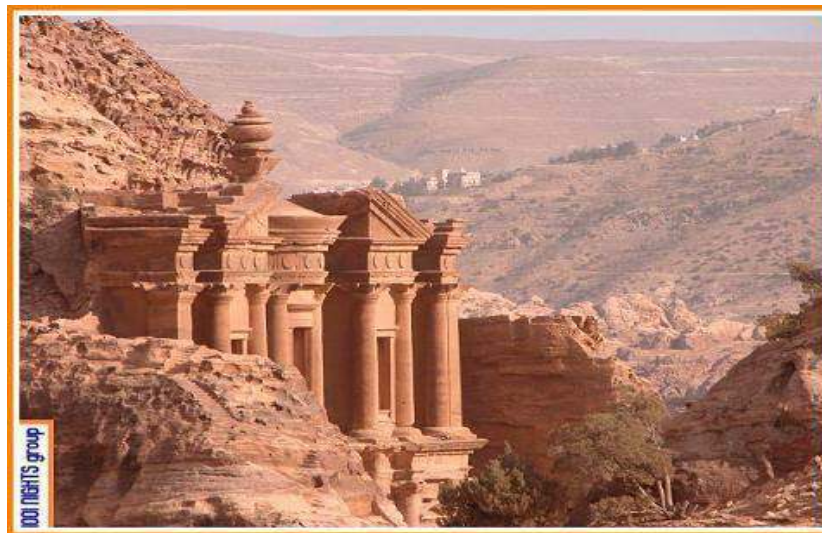


Fig. 18. The pink rocky city of Petra (rocky environment.)

Economic aspects

In spite of Jordan's small size the diversity of its natural environments is such that the tourism sector is able to grow and contributes significantly to the country's economy. For instance, tourism generated 18% of Jordan's GDP in 2012 from seven million tourists. The largest number of tourists (27.6%) came

from foreign countries followed by Arab countries (24.5%) in particular from the Arab Gulf (19.2%) countries (<http://www.mota.gov.jo/ar>).

Activities performed by these tourists ranged from visiting ancient places (historical tourism), visiting religion places (religious tourism), getting health treatment with mineral water and in private hospitals and private sector (medical-tourism), studying for higher degrees, conferences and international seminars (scientific tourism), and following various environmental expeditions (eco-tourism). Some of the most popular eco-tourism activities include hunting wild animals and birds in the Jordanian desert, touring natural reserves, diving and engaging in aqua sports at the Aqaba Gulf, touring the AlGhor and semi AlGhor mountains and deserts , climbing the mountains of Alsharah, riding horses and camels in the Ajloun and AlBalqa'a forests, camping in the golden triangle of Petra- Wadi Rum- Aqaba Gulf, exploring the Jordanian Badia deserts of AlHorah, AlHamad and AlHasmi , and visiting places of historical interest.

Sustainability concerns

The sustainability of Jordan's eco-tourism has a lot to do with human factors. It is of utmost importance that Jordanians realise and appreciate God's environmental gifts to them by formulating and implementing best practices that would safeguard these gifts from being threatened with all forms of environmental degradation. History and the nature has enabled eco-tourism to offer a real future for the Jordanian economy. Thus it is imperative that more efforts must be made by the country to further invest in its ecotourism through properly planned and designed physical development of the sector as well as public education on sustaining the ecological integrity of the tourist attractions. In this regard the Jordanian Tourism Development Agency could certainly lead the way.

Recommendations

Taking the cue from the findings of this study the following measures are recommended to ensure the sustainability of Jordan's eco-tourism:

First, inculcating environmental awareness among members of the public by introducing educational programmes at the school and university levels, and by engaging mass media to disseminate knowledge and information on the importance and techniques of preserving the environmental integrity of Jordan's eco-tourism assets.

Secondly, encouraging the utilization of environment friendly and sustainable construction materials for tourist accommodation, and the adoption of environmental practices such recycling.

Thirdly, to prevent further population pressure between the AlGhor and the semi AlGhor mountains.

Fourthly, to take into account the carrying capacity of the tourist attractions and sites to prevent them from unmanageable human erosion.

Fifthly, to enhance local participation in eco-tourism by promoting local handicrafts and organizing cultural festivals to showcase the life styles of local communities.

Finally, to enact special legislations and regulations to protect the environment from pollution such as by requiring environmental impact assessments of all eco-tourism related projects.

References

- Albohairy S (1973) *Geography of Jordan*. 1st edition. East Press, Amman.
Arab Planning Institute (2006) *The analysis of the economic impacts of environmental problems*. Kuwait.
Bender F (1974) *Geology of Jordan*. Gebruder Borntranger, Berline.
Gharaybeh K (1998) *Historical geography to Western District of Ajloun Mountain*. Alrozana Press, Irbid.
Gharaybeh K (2007) *Ecotourism*, dar Yaffa for publication and distribution, Amman.

Gharaybeh K (2012) The developmental role of Ajloun Forest Reserve in Jordan, *Planner and Development Magazine No 25*. Institute of Urban and Regional planning, Baghdad university.
<http://www.iid-alraid.de/arabisch/abwab/Ecology/Ecol1.htm> [cited 12 December 2012].
<http://www.wildlife-pal.org/environment.htm>
Ministry of Jordanian Tourism. [cited 23.October 2012]. Available from <http://www.mota.gov.jo/a>.
Shumacher G (1890) *Northern Ajloun within The Decapolis*. Palestine Exploration fund, London.
Tourism Board (2002) *Jordan - Visitor's guide*. Amman.