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Survey the role of bird watching for Tourism development of Sistan and Baluchestan province by using Pearson Correlation

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A B S T R A C T

Sistan & Baluchestan province of Iran with the extent of 178502 Km² and 11.2 percent is the country's biggest province by area. It is located in South East of Iran and has 35 wetlands where annually a large number of water birds migrate to spend their winter. With such potential as Oman's long beach (approximately more than 360 km) is the most suitable place for bird watching and has a significant role for tourist attraction and the development of tourism in this province. So we collected data via questionnaire by using Lickret method with a good permanence of 0.982 Cronbakh Alfa. The results obtained from 54 questionnaires were analyzed by using SPSS software and Pearson Correlation. The result prove that there is a conceptual relation between tourism development and bird watching factor such as variety, accumulation, richness, habitat, preserved and endangered extinction species.

Introduction

Today large number of countries have perceived spread dimension of tourism industry from production, employment and as an income source, though they have anticipated a lot to develop this industry from past few decades (Rezvani, 1390). Islamic republic of Iran is one of the countries that potentially enjoys natural,

historical and cultural attractions and for this reason a lot of tourists from all over the world have visited this region due to its great expanse ,climate variety, special geographical position and altitude longitude varieties, Iran possesses different habitat and animal species (Akbari and Garakhlu 1389). The variety in birds and species is on

of the major cause for Iran to be one of the important tourist attractions. People always pay a lot of attention to the world of birds because of their versatility, beauty and number in comparison with other animals (Cheraghi and Sateie 1389). Iran has different bird species had been located in three bio geographical region, Pale arctic, Indomalial and African (Cheraghi and Sateie 1389). This is the main reason that makes Iran one of the attractive countries for watching birds (Seeling and Dekeyser, 2009). Bird watching is one of the main branches of ecotourism which studies role and effect of birds on tourism development in wetland sites (Cheraghi and Sateie 1389).

Wet lands or winter immigrant birds habitats cover 6 percent of the earth and play an important role such as; weather and water settlement, survival, feeding underground water canals, marine life and bird habitat, preventing desert expansions and other features (Dugan, 1990). More than hundreds sites have been recognized as bird habitat in Iran (Amozaga, 2006). The existing eight different habitable types have made Iran an attractive and suitable place for bird watching tours. Among these two types are mentioned in this survey related to studied sites (Bagherzadehkarimi, 2007).

1. Iran south east region (Oriental habitat type) this site is farthest end of oriental region or India and Malaysia which also includes Hormozgan and some parts of Sistan and Baluchestan. The climate of this region is hot and humid most of the birds came from oriental region. The most attractive bird of this region includes, Great White Egret, Indian Pond Heron, Indian lark, osprey, Indian green finch, Great Stone Plover and Western Reef Heron. Gando conservative region, Mangrove forests in Govatr, Oman beaches, Mangrove forests in the east of

Bandar Abbas and south parts of Makkoran mounts are the main part of this habitat type (Bagherzadehkarimi, 2007).

2. Wet lands and seashores are Considerable habitat type all over the country where water birds and side water birds migrates. Most of the endangered and attractive species are found in this region. Iran has 22 wetlands (Sistan and Baluchestan has 3 international wet lands) and more than 2000 km seashore (Khazar seashore and Persian Gulf and Oman sea). Among all other habitats these types has suffered the most. Unlimited hunting, poison the surrounding and damaging the habitat are only few cases of harming this habitat. Sea shores are the best habitat for Gulls and Terns. We can also view a large number of side water birds like plovers, sander ling and sandpipers in seashores (Bagherzadehkarimi, 2007).

Officials in Iran and Sistan and Baluchestan have ignored bird watching which is a branch of ecotourism and no essay, article and study have been done independently. Although a few birds and tourism surveys have separately been done. The surveys performed by foreign counties have proved that bird watching have a positive financial effect on the development of tourism.

A survey titled as development of ecotourism and bird watching through training and conservation environment in Vietnam have been done in Hanovi university by Huyang lung hanson and lea teragdav in 2011. The conclusion shows that development of bird watching helps economic growth and environment conservation. According to this survey Vietnam government decided to establish 30 parks, 67 conservative regions, 50 wild life shelters and 16 marine conservative regions,

they helped to improve this type of tourism by increasing personal knowledge via training in credible scientific institution. The tourists are being guided by establishing comprehensive information bank for recognizing birds. For example some tourists were able to recognize the bird species just by their voice (Hanson, 2011).

In Extremadura another survey titled planning, developing and income of bird watching tourism have been done by Joz mineral Hernandez & Maria Kampan in 2011. Its results shows that bird watching tourism is a reality and everyday people loves to visit natural places and enjoy wild life. Extremadura has considerable bird watching potentials and capacities. Unfortunately lacks facilities in order to increase its tourism growth. This region has caused to increased growth and improved conservative situation in Extremadura. For economic development point of view services such as accommodating convenience must be used so that living standards will rise (Hernandez, 2011).

Materials & Methods

Sistan and Baluchestan province with 187502 km expansion have been located in south east of Iran with geographical characteristics, between 25 degree, 3 minutes to 31degree and 28 minutes north width 58 degree and 47"to 63degree and 19"east length. This province has 11.2 % of countries land and is the biggest province by area (Ebrahimzade, 1386).Because of Oman sea salt water in the north and beautiful Loot desert in the vest and fresh water lake and Hamooninternational marsh in the north, it has a high climate and ecosystem variety.

335 bird species has been recognized and lives here and are increasing constantly. More than 75 species are winter immigrant

water birds (Mansoori, 1379).bird watching is a kind of tourism that provides scalability among people of the world for years. A large number of nature fans have been attracted to this safe entertainment. Bird watching has such a tranquility and pleasure that many psychologists advise it for mental and spiritual patients.

Because of limited information on this case we have prepared a questionnaire by using Likert method (according to Kronbakh Alfa test its permanence is 0.982 at a good level) to gather required information, our statistical group includes consists of experts of Department of Environmental Science which are well trained. Questionnaires include 16 questions in Likert method and 11questions that reflects special features of society. Correlations between variables were achieved by using Pierson correlation.

38 wetland sites where immigrant birds spend their winter has been recognized and recorded in Sistan and Baluchestan,29.These sites have water and birds throughout winter season.

Result and Discussion

- ❖ 72.2 percent of statistical community were men and 27.8 percent were women.
- ❖ 81.5 percent have M.A, 7.4 have B.A and 11.1 have PhD degree.
- ❖ 83.3 percent of statistical team has a degree in environmental branches.
- ❖ 55.6 % of people were at the age of 35-25, 33.3% were at the age of 45-35 and only 11.1% were under 25.
- ❖ 96.3% of the people were able to recognize and distinguish immigrant birds.

- ❖ 88.9% of them were expertly acquainted with features, benefits and harms caused to birds specially immigrant water birds.
- ❖ 31.5% of people would like to travel with expert tours 24.1% with their colleagues and 14.8% with their friends and others with their family.
- ❖ 40.7% prefer to have 4- 5 days trips and 20.4% like to have 3-2 days trips and 27.8% Most of the female tourist prefer one day tour.
- ❖ 79.6% knows the expressions like tourism and ecotourism.
- ❖ 85.2% of people know the meaning of expert as regarding bird watching.
- ❖ 94.4% of statistical team members were equipped and familiar with endangered species of birds and were able to distinguish between them.
- ❖ 79.6% are acquainted with the effective role of variety and accumulation, richness and ...of the birds in tourism development and they confirm that.
- ❖ 83.4% enjoys watching and hearing the birds.
- ❖ 90.7% had traveled just for bird watching.
- ❖ 94.4% believes that going to the nature and watching the birds reduces mental and spiritual pressures from industrial and mechanical life style.
- ❖ 75.9% believes that bird watching industry have been ignored by officials.
- ❖ 22.2% of people have mentioned that the main reason of ignoring this subject is lack of knowledge and administrator, 18.5% said lack of informing, and 16.7% believed economic problems and 13% have said lack of enough training.
- ❖ 46.3% choose winter, 35.2 spring, 14.8% autumn and 3.7% summer for bird watching.
- ❖ 88.9% are completely acquainted with expression like wet land and its benefits and uses and....
- ❖ 92.6% believes that bird migration to wet land habitats increases not only natural beauty but also develop tourism aspects.
- ❖ 77.8% of tourists are willing to spend 10-25 thousand Tomans, 13% less than 10 thousand Tomans and 9.3% 25- 40 thousand Tomans daily for bird watching.
- ❖ 38.9% of people hold tourism and cultural inheritance organization responsible for bird watching, 25.9% department of environment, 16.7% the ministry and 18.5% other organizations.
- ❖ 25.9% chose bird book, 24.1% binocular, 20.4% telescope and 13% camera as the main equipment for bird watching.
- ❖ 94.4% believed that bird watching causes tourism development.
- ❖ 92.6% believed that bird watching can conserve environment and wild and are willing to volunteer to help.
- ❖ 91.8% believed that the income from bird watching may increase development of tourism
- ❖ 87.1% says income from bird watching can help to support programs such as wild life preservations and environmental safety.

Conclusion

According to the gained information we can conclude that S.B is a suitable site for migration of 68 species of immigrant water birds .This province have many natural attractions and enough ecotourism potentials in the realm of winter immigrant water birds and their habitats including 3 international wetlands (Bahoo estuary wetland, Hamoone Poozak wetland, Hamoon, Hirmand and Sabery wetland), 38 wetland sites suitable for winter immigrant birds and 360km beaches.

Table.1 Bird watching sites situation of Sistan and Baluchestan

| NO. | Name Site | Situation | NO. | Name Site | Situation |
|-----|---------------------------|---------------|-----|---------------------------------|-----------|
| 1 | Nargesidam | With bird | 20 | Estuary and Govatr Gulf | With bird |
| 2 | Mashkid dam | With bird | 21 | Pishin dam | With bird |
| 3 | Kheirabad dam | With bird | 22 | Bahoo Estuary | With bird |
| 4 | Shikalak dam | With bird | 23 | Port and Pasabandariland | With bird |
| 5 | Parak dam | With bird | 24 | Estuary andBeris port | With bird |
| 6 | Zirdan dam | With bird | 25 | Ramin Port | With bird |
| 7 | Tang Estuary | With bird | 26 | Liparseasonal Marsh | With bird |
| 8 | Estuary and seashore park | With bird | 27 | Lolokdan Marsh | With bird |
| 9 | chahnime lake | With bird | 28 | Estuary andPozm Gulf | With bird |
| 10 | Mydani Estuary | With bird | 29 | Galak Estuary | With bird |
| 11 | Kavari Marsh | Without bird | 30 | Javaher Gulf | With bird |
| 12 | Samsoor River | Without bird | 31 | Estuary andTiss seashore | With bird |
| 13 | Apatan dam | Without bird | 32 | Estuary andKonarak seashore | With bird |
| 14 | Hamoon Marsh | Without water | 33 | Konarak Gulf | With bird |
| 15 | Jazmoriyan Marsh | Without water | 34 | Bahokalal River | With bird |
| 16 | Sardarya Marsh | Without bird | 35 | Rashedi Estuary | With bird |
| 17 | JoJak dam | Without bird | 36 | Konarak Cliff | With bird |
| 18 | Bampor dam | Without bird | 37 | Hoomadan Estuary and Kalat port | With bird |
| 19 | Bazman dam | Without water | 38 | Shirgovaz dam | With bird |

Table.2 Recognized immigrant water birds list

| NO. | Species Name | NO. | Species Name | NO. | Species Name |
|-----|-------------------------|-----|------------------------|-----|-------------------------------|
| 1 | Green Sandpiper | 24 | Red-crested Pochard | 47 | Great Crested Grebe |
| 2 | Terek Sandpiper | 25 | Pochard | 48 | Little Grebe |
| 3 | Common Sandpiper | 26 | Greater Scaup | 49 | Dalmatian Pelican |
| 4 | Ruddy Turnstone | 27 | Water Rail | 50 | Great Cormorant |
| 5 | Sanderling | 28 | Moorhen | 51 | Grey Heron |
| 6 | LittleStint | 29 | Common Coot | 52 | Great White Egret |
| 7 | Dunlin | 30 | Crab Plover | 53 | Western Reef Heron |
| 8 | Broad-billed Sandpiper | 31 | Eurasian Oystercatcher | 54 | Little Egret |
| 9 | Slender-billed Gull | 32 | Black-winged Stilt | 55 | Squacco Heron |
| 10 | Parasitic Skua | 33 | Great Stone Plover | 56 | Indian Pond Heron |
| 11 | Sooty Gull | 34 | Red-wattled Lapwing | 57 | Striated (Little Green) Heron |
| 12 | Great Black-backed Gull | 35 | Grey Plover | 58 | Black-crowned Night Heron |
| 13 | Armenian Gull | 36 | Ringed Plover | 59 | Black Stork |
| 14 | Caspian Gull | 37 | Kentish Plover | 60 | Spoonbill |
| 15 | Heuglin'sGull | 38 | Mongolian Plover | 61 | Greater Flamingo |
| 16 | Great Black-headed Gull | 39 | Greater Sand Plover | 62 | Ruddy Shelduck |
| 17 | Black-headed Gull | 40 | Black-tailed Godwit | 63 | Shelduck |
| 18 | Lesser Crested Tern | 41 | Bar-tailed Godwit | 64 | Eurasian Wigeon |
| 19 | Sandwich Tern | 42 | Whimbrel | 65 | Gadwall |
| 20 | Gull-billed Tern | 43 | Eurasian Curlew | 66 | Common Teal |
| 21 | Caspian Tern | 44 | Redshank | 67 | Marbled Teal |
| 22 | Great Crested Tern | 45 | Marsh Sandpiper | 68 | Mallard |
| 23 | Northern Shoveler | 46 | Greenshank | | |

Table.3 total statistic of the bird censuses in different sites of Sistan and Baluchestan

| NO. | Scali Marsh sites | Number of bird species | Total Bird Population |
|-----|---------------------------------|------------------------|-----------------------|
| 1 | Estuary and Govatr Gulf | 54 | 1881 |
| 2 | Pishin dam | 31 | 446 |
| 3 | Bahoo Estuary | 53 | 13190 |
| 4 | Port andPasabandar island | 23 | 2492 |
| 5 | Estuary and Beris port | 28 | 731 |
| 6 | Ramin Port | 21 | 225 |
| 7 | seasonal MarshLipar | 27 | 327 |
| 8 | Lolokdan Marsh | 15 | 139 |
| 9 | Estuary and Pozm Gulf | 37 | 2313 |
| 10 | Galak Estuary | 38 | 2581 |
| 11 | Javaher Gulf | 18 | 421 |
| 12 | Estuary and Tisseashore | 34 | 894 |
| 13 | Estuary and Konarak seashore | 28 | 3522 |
| 14 | Konarak Gulf | 19 | 1747 |
| 15 | Bahokalat River | 39 | 1553 |
| 16 | Rashedi Estuary | 35 | 1239 |
| 17 | Konarak Cliff | 21 | 2414 |
| 18 | Hoomadan Estuary and kalat port | 27 | 551 |
| 19 | Shirgovaz dam | 27 | 165 |
| 20 | Nargesi dam | 30 | 326 |
| 21 | Mashkid dam | 38 | 294 |
| 22 | Kheirabad dam | 33 | 284 |
| 23 | Shikalak dam | 27 | 262 |
| 24 | Parak dam | 32 | 198 |
| 25 | Zirdan dam | 16 | 102 |
| 26 | Tang Estuary | 40 | 2932 |
| 27 | Estuary and seashore park | 29 | 1347 |
| 28 | Chahnimeh lake | 25 | 1865 |
| 29 | Mydani Estuary | 57 | 3387 |

These capacities have made S.B an important case in ecotourism and bird watching by virtue of gained information from questionnaires by analyzing them via SPSS soft ware and evaluating them, we conclude that first there is a meaningful relation between bird watching, its related parameters and Sistan and Baluchestan tourism development. And secondly there is a good relation between our variables according to Pierson correlation, which shows relation between bird watching and tourism development in S.B. The numbers achieved from this survey are correlated with each other and are near one which according to Person is a positive sign. Hence the theory proposed by us that bird watching and its effects on tourism development is proved to be right.

References

Akbari, A. Gharakhlu, M. 1389. Ecotourism a new concept in tourism geography, Entekhab publishers.

Amozaga. H. 2006. Decision Support for Participatory Wetland Decision-Making, Ecological.

Bagherzadehkarimi, M. and Rouhany, M. 2007. Directory of Iranian Wetlands. Designated under the Ramsar Convention.

Cheraghi, S. Sateie, N. 1389, Bird watching in Iran, Makan Nashr publishers.

Dugan, P. 1990. Wetland conservation. A Review of current issues and Required Action, IUCN – The worldconservation union.

Ebrahimzade, E and colleagues, 1386, Complete plan of S.B,third section from first step analyzing and conclusion.

Mansoori, J. 1379, Field guide to the birds of Iran, ZehnAviz publishers.

Phillips, A. 2002. Management guideline for IUCN category protected areas protected landscapes Seascales. International for conservation of nature and natural.

Rezvani, A. A, 1390, Geography and tourism industry, Payamenoor university publishers.

Schiermacker-hansen, P. porter, R. Fchristense, S. translated by. Sml, langman, M. Gale, Y.Birch, A, 2004, birds of the middle east, London.

Seeling, B. and Dekeyser, D. 2009. Water Quality and Wetland Function in the Northern Prairie Pothole Region.