Nishabour Country Geo-morphosites Evaluation Using Pereira Model

Siavosh shayan*

Assistant Professor, Department of Physical Geographgy, Tarbiat Modares University, Tehran, Iran. Fatemeh Zahra Hashmi

M.A. of Geomorphology in Environmental Management, Tarbiat Modares University, Tehran, Iran. **Hedieh dehestani**

Ph.D. Candidate of Geomorphology in Environmental Management, Tarbiat Modares University, Tehran, Iran.

Extended Abstract

Introduction

Geo-morphotourism is a new sub-discipline that relay on nature and try to maintain locality nature identity and introduce geologic phenomenon of a place to tourists. Geo-tourism has a wide audience nowadays all over the world. Geo-tourism is a kind of tourisms which try to maintain geographic, environmental, cultural characteristics of visited places or enhanced them; it may have economic development for visited places' citizens, too. It includes visiting places which have special landforms and geologic characters for spending leisure times and amazing feeling, improving their understandings of nature and educational & training purposes. Geo-tourism tries to relay on introducing natural phenomena and attractive geological landscapes to visitors in experimental aspect and in general attractive point of view. Several researches have been done on evaluation of geomorphic landscapes by researchers in Iran and all over the world, we can mention many of them such as Prolong (2005), Comanescu et al (2007), Reynard et al (2011), Mokhtari (2009), Maghsoudi et al (2011), Mani et al (2011).

Research Methodology

We used deductive reasoning in this research. By modification of Pereira model for evaluation of Geo-sites, we make a new model, and then we selected 11 main geomorphic features for implementation of our model. We used these stages to select geomorphic landforms:

- a). Preparing a questionnaire based of definite criteria mentioned in model in simple way that a major of questing people can replay its questions.
- b).Determining places which have a high potential for geo-tourism based on statistical analysis of replies to questionnaires, for completing the prepared list of sites we used researcher's experiments and field surveys in this stage, too. We find in this stage a mean value for rating every feature in the framework of the prepared model. This questionnaires filled by the regions mountaineers, expertise and local peoples.
- c). Preparing an identification card for each Geo-morphosites.

In this model quantitative and qualitative values of every site have been done based on figurative evaluation. Quantitative evaluation includes geo-morphosites selection and its characteristics which done by preparing questionnaires and an identification card. The second evaluation is quantitative in Pereira's model which will be done after final sum of geomorphic touristic capabilities and potentials. We consider personal point of views for completing our data to achieve real evaluation of landscapes.

Discussion and Results

Bojan waterfall get the highest rank (11.52), in our research and were outstanding site in the Nishabour county, we show this waterfall in fig. 7. Bojan Region Tafonys showed in fig. 8, it gets 3rd rank in our research out of 11 geo-morphosites. The least score (7.62) was for Bar waterfalls.

^{*} Email: Shayan@modares.ac.ir

Roudmian of Kharw and Dareh Hasar gets the highest rank inside scientific values by 2.83 score but the least score was for Haft Ghar (seven caves) in this study. Aerial view of Goring , Kharw have been shown in fig.9.

The highest score for value added was for Kharw and Bojan and the least one for this value was for Baghroud valley and Haft Ghar. Geo-morphologic values were notable in this survey because of that it gets the highest scores by interviewers and all scores for all sites were above 4. Although we see these scores similar to in managing values, but there were statistical scewness in personal points of views. In managing values the highest score is for Baghroud valley (6.08). In values section of our questionnaire Darroud waterfall, and in conservation values, Bojan Tafonys get the highest scores.

Conclusion

Based on results of this research - which have a high validity- and by notice to resulted rankings, mangers and decision makers of this regions geo-morphosites could decide accurately by scientific reasoning. We found Pereira model as an appropriate model for evaluation the study regions geo-morphosites, but we modified it by considering local conditions and modifying it by preparing a new model and questionnaire. Findings of this research can help decision makers to act reasonably based on results of ranks and scores of this evaluation mode.

Keywords: Geomorphology, Geo-morphosites evaluation, Pereira model, Nishabour County.

References

- 1. Ahrarirod, M. Shahrokhikhargard, Zh. (1381)." Geotourism in Chabahar".Journal of geoscience,67, pp 46.
- 2. Roostaei, Sh. Bahrami, Z (1392)." Assessment the geotourism potential in Pooledokhtar lagoons using prolong method." Journal of geography and territorial spatial arrangement.9. pp 69.
- 3. Shaeri, P (1388) "Geotourism and sustainable development in marivan county", master thesis, university of shahid beheshti, Tehran, pp 2.
- 4. Moghadam, M (1383)." Survey of kavir desert potential as a great geopark of central iran and its role in sustainable development of semnan county", journal of geography and development.
- 5. Maghsoudi, M. nekohisadri, B (1387) "a new view towards tourism industry of iran". Journal of sepehr,64, pp:61-64.
- 6. Maghsoudi, M. Alizade, M. Rahimi, S. Hodaei, M. (1391)." Assessment of geomorphosites potential in kavir desert national park". Journal of studies of tourism management. 19, pp 49-68.
- 7. Yamani, M. Negahban, S.Rahimi, S.Alizade, M(1391)." Geomorphotourism and comparison of geomorphosites assessment methods in tourism development (case study: hormozgan province) ", Journal of planning and tourism development. 1, pp 104.
- 8. Mokhtari, D (1389)" Assessment of ecotourism potential in geomorphic locations of asiab kharabe basin in the northwest of iran using prolong method". Journal of geography and development.18, pp 27-52
- 9. Mosavi, CH. Ahmadi, R. (1385)" Ecotourism and its role in sustainable tourism". congress of Tehran university
- 10. Nasirian, J (1389) "View towads types of tourism from tourist to tourism", Journal of Arianna tourist.85
- 11. Comanescu, L. Nedelea, A. Dobre, R. (2011). Evaluation of geomorphosites in Vistea Valley (Fagaras Mountains-Carpathians, Romania), International Journal of the PhysicalSciences Vol. 6(5), pp 1161 -1168.
- 12. Lee, Chien and Chun-Ping Chang. (2008): Tourism development and economic growth: A closer look at panels, Tourism Management, pp 29.
- 13. Nickolas C. Zouros, Mytilene (2007). Geomorphosite assessment and manage-ment in protected areas of Greece (Case study of the Lesvos island coastal geomorphosites), Geographica Helvetica Jg. 62 2007/Heft 3, pp 169-180.
- 14. Pereira, P. Pereira, D. Caetano, M. Braga, A (2007). Geomorphosite assessment in Montesinho Natural Park (Portugal), Geographica Helvetica Jg. 62 2007/Heft 3, pp 159-168.
- 15. Pralong, J (2005). A method for assessing the tourist potential and use of Geomorphological sites, Geomorphology, Relief, processes, Environment, 3, pp 189-196.
- 16. Reynard, E Fontana, G Kozlik, L. Scapozza, C (2007). A method for assessing scientific and additional values of Geomorphosites, Geographica Helvetica Jg. 62 2007/Heft 3, pp 148-158.
- 17. Fassoulas, Ch. Mouriki D. Dimitriou Nikolakis P. George I., (2011) Quantitative Assessment of Geotopes as an Effective Tool for Geoheritage Management; Geoheritage,21, pp 245-266.
- 18. Feuillet, T. Sourp, E., (2011) Geomorphological Heritage of the Pyrenees National Park (France), Assessment, Clustering, and Promotion of Geomorphosites; Geoheritage, 3, pp 151–162.
- 19. Bertram Bynum Boley, (2006) Geotourism in the crown of the continent: Developing and testing the Geotourism survey instrument (GSI).
- 20. Robert, w, (1980) Tourism prinsiples, Practices, philosophies. Mcintosh and Shashicant, Gopta.
- 21. Tourtellot, J. (2002)."About Geotourism", National Geographic Society, Conference of Sustainable Tourism, New York.