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## The Role of Forests, Natural Landscapes and Cultural Heritages in Tourism Development: A Case Study of Marmol District, Balkh Province

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### Abstract

Ecotourism is a branch of tourism that can be serve as a source of sustainable economic income. The aim of this research is to examine the current situation, identify capacities and introduce tourism potential in the Marmol District of Balkh Province. The research method was field based, involving the distribution of questionnaires for data collection and analysis. The study results indicate that the Marmol District, with its unique geographical conditions and special climate, including the springs of Mullah Afghan, Rabatak, Parwaz, Gharmin, the forests of Rabatak, cultivated gardens, agriculture, mountaineering, hunting around the mountains and valleys of Marmol, as well as its natural forests and historical-cultural and archaeological sites, provides favorable conditions for the development of the tourism industry. Additionally, natural landscapes such as the pistachio foothills of Tepe Rajab Baqi and other

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areas of the district, as well as historical and archaeological sites like the Stone House, are other tourism attractions in this district. All these require comprehensive planning and effective management to attract and engage tourists. Furthermore, it is suggested that tourism promotional programs, infrastructure development, and better recreational facilities for tourists, identified as significant obstacles and limitations in the tourism pathway, be reviewed and implemented by knowledgeable and experienced professionals.

**Keywords:** Balkh Province, Historical and archaeological sites, Marmol District, pistachio forests, tourism development.

## 1. Introduction

Forests and natural landscapes, as one of the most valuable natural attractions, play a significant role in the tourism industry. These ecosystems, with their natural beauty, biodiversity, and unique tranquility, provide diverse opportunities for activities such as hiking, mountaineering, photography, and wildlife watching. Additionally, they contribute to the preservation and maintenance of nature and local cultures. Tourism is recognized as a key factor in sustainable development across economic, social, cultural, and environmental dimensions (Papli *et al.*, 2006). In today's world, tourism is shifting towards a broader approach to nature-based tourism (Zahra, 2018). "Nature-based tourism" goes beyond ecotourism and refers to all visits and activities conducted in nature, regardless of their sustainability. The difference between ecotourism and nature-based tourism lies in the sense of responsibility towards nature, where individuals seek sustainable environmental development in the region (Morakh, 2018). Marmol is one of the important districts with a small yet diverse geographical area and unique natural structure, located in the southeast of Balkh Province in northern Afghanistan, captivating every visitor and passerby. This study will be conducted using a field research method to identify and introduce the tourism capacities and potentials in this district.

Today, tourism, especially ecotourism, has attracted many countries around the world to invest in this sector due to its high revenue potential. The unique geographical conditions, climatic diversity, and topographical and geomorphological status of Afghanistan provide unique potential for ecotourism, mainly aligned with the natural areas in the north, northeast, and northwest of the country. Unfortunately, the natural tourism industry

in the country is underdeveloped, and efforts are being made to achieve significant growth and development in this sector. A study titled "Sustainable Ecotourism and Introducing Suitable Conditions for Attracting Tourists" was conducted using documentary and field research methods.

The results indicated that in Khorramshahr, given its specific climatic conditions and the presence of unique areas such as the Arvand River and Bahman Shir River, favorable conditions for the development of the tourism industry were established (Shujaei Zadeh and Asad Zadeh, 2012). In another study by Abdollahi et al. (2014) titled "Analysis of Nature Tourism Potentials in Lanjan County and Factors Affecting Its Development" conducted using a descriptive-analytical method, the results showed that the nature tourism capabilities of the region surpass other tourism attractions. The lack of awareness of the region's natural potential was evaluated as a significant factor in the underdevelopment of nature tourism. Shah Hosseini (2014), in a study titled "Identifying Motivations and Factors Affecting Nature Tourists' Satisfaction with their Trip to Qeshm," examined the motivations and satisfaction levels of tourists regarding their visit to the Qeshm Geopark and the factors influencing this satisfaction. The results from both his quantitative and qualitative research indicate that visiting the natural landscapes of Qeshm is the primary reason for their trip to this area.

The study titled "Barriers to Achieving Nature Tourism Supported by Local Poverty" in the eastern Semnan Province, using qualitative content analysis, shows that local stakeholders become the main barriers to achieving nature tourism in impoverished tourism areas (Rezvani, 2018). In a study titled "Development of Nature Tourism and the Perspectives of Rural Women in Isfahan Province, Iran," conducted using a descriptive-analytical method, the results indicated that natural attractions, favorable climate and the presence of medicinal plants are the top three factors from the perspective of women for developing nature tourism in the region. Given these findings, it can be stated that the villages in the area have high potential for nature tourism development, which itself is a factor in rural sustainable development. Improving recreational facilities and creating income for residents can expedite this process (2021). In a study titled "The Impact of Nature Tourism Culture on the Conservation of National Parks in Iran," conducted using a descriptive correlational method, the overall conclusion of this research indicates that culture is a determining factor in the behaviors of tourists in national parks and the environmental behaviors

of individuals in a community stem from this important factor (Kurobi et al., 2019). Sufi Mariyu, Hamid, and others (2016) in their research titled "Examining the Possibility of Developing Tourism in Forests Using Multi-Criteria Assessment and Geographic Information Systems" states that the goal of this study is to identify suitable areas for tourism in the Research and Educational Forest of Tehran University (Kheyroud) located in Mazandaran Province. According to the results obtained, the highest scores were assigned to sloped hills and water resources, while the lowest scores were given to soil and land. Considering the environmental indicators and the development of infrastructural and socio-economic criteria, there is significant potential for widespread tourism development in Kheyroud Forest. Khaledi, Shahryar, and others (2012) found in their research that the majority of residents have a positive attitude towards the expansion of desert tourism. Additionally, the development of desert tourism can act as a catalyst for rural advancement in this area.

It is evident that Afghanistan is a landlocked, mountainous country with a diverse climate and varied natural structures. The tourism industry in the country, in general, and in smaller locations specifically, faces numerous challenges due to the adverse conditions in the country, lack of awareness about existing tourism capacities and potential, insufficient knowledge of the benefits of the tourism industry, economic weaknesses, and lack of development in this sector. The Marmol District of Balkh Province is no exception. Natural landscapes and forests play a vital role in the tourism industry and the economic development of local areas.

By providing pristine and stunning vistas, they attract tourists and offer an opportunity to escape daily life and connect with nature, which can contribute to creating new jobs and increasing income for local communities. Additionally, they serve as sites for research and education, helping to raise public awareness about the importance of environmental protection and natural resource conservation. The aim of this research is to identify and analyze the tourism capacities and potentials in the Marmol District of Balkh Province and to identify the main obstacles and challenges facing tourism. This study seeks to investigate whether the capacities and potential for tourism in the Marmol District of Balkh Province have been properly identified and established. It explores whether the necessary conditions for tourism have been provided and whether tourist attractions are currently taking place in the area. Additionally, the study aims to determine the most important strategies that can contribute to tourism development in the district. Finally, it examines the primary reasons behind

the underdevelopment of tourism in Marmol and identifies the key obstacles hindering its progress.

## 2. Materials and Methods

### 2.1. Study Area

The Marmol District is located 35 kilometers southeast of Balkh Province and covers an area of approximately 375 square kilometers. It holds a unique and strategic geographical position, spanning from  $67^{\circ}20'09''$  to  $67^{\circ}20'29''$  east longitude and from  $36^{\circ}33'00''$  to  $37^{\circ}45'00''$  north latitude. The climate of the Marmol District is generally cold and dry, with temperatures typically ranging from 30 to 40 degrees Celsius. Precipitation is relatively low and mainly occurs in early spring and autumn, affecting agriculture and water resources. In terms of elevation, the district ranges from a low point of 399 meters to a high of 2,276 meters above sea level. This variation in elevation has resulted in rich biodiversity and attractive natural landscapes, making the region a valuable resource for tourism development.

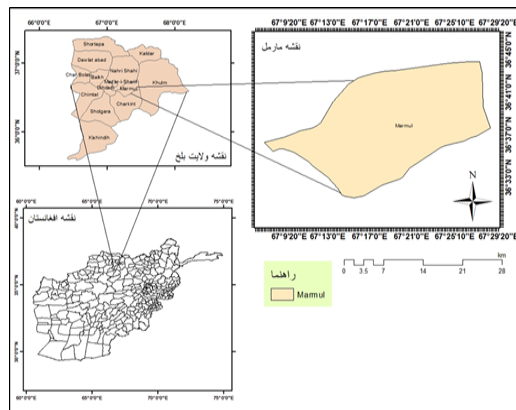


Figure 1: Map of the Study Area.

### 3. Research Method

This field study is applied in terms of its purpose and employs a "descriptive, survey, and inferential" method. It is based on field observations and documentation, with data analysis conducted using SPSS software. Since survey methods typically aim to identify and examine the relationships between specific factors and conditions, the aforementioned methods are utilized. The statistical population of this research consists of

the residents of this district. The sample size was determined using the minimum sample size formula from Morgan's table, with a confidence level of 93%, resulting in a random selection of 120 individuals. To collect data, a questionnaire developed by the researchers was utilized, containing 26 questions to assess the research variables. The questionnaire asked residents both within and outside the district about the role of forests and natural landscapes in the development of the tourism industry and whether the district has tourism potential, as well as the main obstacles to the tourism industry here. The questionnaire comprises two sections: the first includes five questions to assess demographic variables (gender, marital status, age, education level, and occupation), while the second contains 21 questions aimed at identifying and analyzing the tourism industry, its potentials, and the obstacles and challenges to tourism in the district.

A total of 120 questionnaires were distributed at tourist locations within the district, such as Rabatak Garden, cultivated gardens, forested hills, and springs, as well as outside the district. After collecting the questionnaires, the data was analyzed.

4. Results

In this study, the questionnaire was distributed to literate individuals, with more than half of the respondents engaged in self-employment. The results indicate that, in terms of demographic variables, the majority of respondents were men, while less than 30% were women. Additionally, based on the demographic data, individuals in the age group of 21 to 40 years constituted the largest share of the research sample. The results related to the demographic variables are presented in Table 1.

Table 1. Demographic details of the research

Demograph ic Variables	Options	Freque ncy	Percentage	Demograp hic Variables	Age (Years)	Freque ncy	Percentage
Gender	Female	34	28.3	Age	<20	36	30.0
	Male	86	71.7		21–40	54	45.0
Marital Status	Single	64	53.3		41–60	29	24.2
	Married	56	46.7		>60	1	0.8
Education Level	Literate	120	100.0	Occupatio n	Student	17	14.2
	Illiterate	0	0		Teacher	24	20.0
					Employee	23	19.2
					Self- employed	56	46.7

The results of the research regarding tourism variables in Table 2 indicate that the availability of tourism facilities, such as roads and suitable pathways, local guidance signage, traffic signs, clubs, shops, restaurants, fast food stalls, beverage vendors, shade structures, vehicle parking areas, and even restrooms and other essential services, is very limited or even nonexistent. Most local residents (Marmoli) occasionally travel for leisure and recreation up to three times a year using private places and relatives. However, the results show that despite numerous challenges, there is still a desire to travel to visit the forested areas, gardens, and natural beauties of the region among visitors (see Table 2).

Table 2. Results of Tourism Variables

Tourism Variables	Options	Frequency	Percentage	Tourism Variables	Options	Frequency	Percentage
Frequency of Travel to Marmol	Once a year	25	20.8	Duration of in Marmol Stay	3 days	67	55.8
	Twice a year	31	25.8		5 days	35	29.2
	Three times a year	33	27.5		10 days	11	9.2
	More than five times a year	31	25.8		More than 10 days	7	5.8
Place of Stay in Marmol	Personal home	44	36.7		Hotel	3	2.5
	Relative's home	73	60.8	Willingness to Travel Again	Low	9	7.5
Role of Forested and Garden Areas in Attracting Tourism	Low	5	4.2		Medium	36	30.0
	Medium	15	12.5		High	44	36.7
	High	37	30.8		Very High	63	52.5

The results in Table 3 indicate that the Marmol District has very high potential for tourism development. Among the various attractions, springs, mountaineering, forests, gardens, historical sites, and shrines received the highest scores, emphasizing the importance and vitality of these features in attracting tourists. These findings suggest that these facilities and

attractions play a significant role not only for domestic tourists but also for foreign visitors. Conversely, capabilities such as horseback riding and hunting animals and birds (due to restrictions to prevent their extinction) received the lowest scores, indicating a lesser role of this sector in attracting tourists compared to other factors. Therefore, the results in Table 3 emphasize that focusing on the development and utilization of natural and historical attractions in this district can play a vital and effective role in boosting the tourism industry.

Table 3. Results of Tourism Variables

Tourism Variable s	Options	Frequency	Percentage	Tourism Variables	Options	Frequency	Percentage
Spring season	Low	5	4.2	Hiking	Low	4	3.3
	Medium	20	16.7		Medium	35	29.2
	High	26	21.7		High	41	34.2
	Very High	69	57.5		Very High	40	33.3
Gardens	Low	5	4.2	Historic al Sites	Low	6	5.0
	Medium	17	14.2		Medium	27	22.5
	High	39	32.5		High	33	27.5
	Very High	59	49.2		Very High	54	45.0
Horse Riding	Low	20	16.7	Hunting	Low	53	44.2
	Medium	51	42.5		Medium	34	28.3
	High	35	29.2		High	23	19.2
	Very High	14	11.7		Very High	10	8.3

The results in Table 4 indicate that the role of information dissemination in attracting tourists is considered very important. The public believes that informing about the attractions of this district could significantly enhance the attraction of both domestic and foreign tourists. Additionally, the importance of transport capabilities, such as infrastructure and vehicles, as well as agriculture and animal husbandry, and social services (hotels, restaurants, grocery stores, baths, clinics, and pharmacies, as well as vehicle stopping areas) in attracting tourism is deemed very high. Conversely, the role of skiing has been viewed as less significant due to unfavorable terrain conditions and the high costs of preparation. If the mentioned issues, which are the biggest challenges for tourists in this district, are resolved, it could be very beneficial for the prosperity and economy of the local people.

Table 4. Results of Tourism Variables

Tourism Variables	Options	Frequency	Percentage	Tourism Variables	Options	Frequency	Percentage
Information Dissemination	Low	6	5.0	Vehicles	Low	9	7.5
	Medium	36	30.0		Medium	22	18.3
	High	45	37.5		High	36	30.0
	Very High	32	26.7		Very High	53	44.2
Skiing	Low	64	53.3	Agriculture and Animal Husbandry	Low	2	1.7
	Medium	32	26.7		Medium	14	11.7
	High	12	10.0		High	51	42.5
	Very High	12	10.0		Very High	53	44.2
Public Services	Low	21	17.5				
	Medium	18	15.0				
	High	36	30.0				
	Very High	45	37.5				

The results in Table 5 clarify that government attention to the tourist areas of Marmol District, Balkh Province, has been quite limited. Consequently, the option indicating the government's negligence towards the tourism areas and capabilities of this district received the highest score among respondents.

Table 5. Results of Government Attention to Tourist Areas in Marmol District

Options	Frequency	Percentage
Low	87	72.5
Medium	29	24.2
High	4	3.3
Total	120	100.0

The results in Table 6 indicate that the cultural and social attitudes of the people in attracting tourists to this district are considered very important by respondents. Fortunately, there are no significant cultural or social issues concerning tourism attraction.

Table 6. Results of Cultural and Social Attitudes of People in Attracting Tourists

Options	Frequency	Percentage
Low	2	1.7
Medium	32	26.7
High	33	27.5
Very High	53	44.2
Total	120	100.0

The results in Table 7 indicate that the lack of tourism infrastructure is considered one of the major obstacles to attracting both domestic and foreign tourists. It is hoped that in the near future, the government, national and international private and semi-private organizations, as well as local residents, will take action to resolve this issue in order to attract more tourists to the region.

Table 7. Results of the Role of Tourism Infrastructure in Attracting Tourists

Options	Frequency	Percentage
Low	8	6.7
Medium	17	14.2
High	47	39.2
Very High	48	40.0
Total	120	100.0

The results in Table 8 highlight the obstacles and issues related to the availability of tourism facilities such as supermarkets, hotels, vehicle parking, swimming pools, and modern baths. Attention from the relevant authorities could be a solution to these mentioned problems.

Table 8. Results of Tourism Facilities

Options	Frequency	Percentage
Low	83	69.2
Medium	31	25.8
High	5	4.2
Very High	1	0.8
Total	120	100.0

The results in Table 9 indicate that if attention is paid to the tourism capabilities of this district and more facilities are provided for domestic and foreign tourists, it will not only alleviate the economic problems of the local population but also create job opportunities and promote the growth of this district in various fields in the near future.

Table 9. Results of the Role of Tourism in the Development of Marmol District

Options	Frequency	Percentage
Medium	5	4.2
High	30	25.0
Very High	85	70.8
Total	120	100.0

The research findings also indicate that the collection of historical, cultural, and archaeological artifacts in this district is a result of the efforts of a local cultural figure. This shows that the Marmol region holds a treasure that reflects its rich history and culture, as well as a high potential for attracting tourists.

5. Discussion

In the research by Soofi Meryo, Hamid and others (1395), suitable areas for tourism in Tehran were identified. Their results indicated that the highest scores were attributed to sloped areas and water resources, emphasizing that the development of infrastructural and socio-economic criteria facilitates the expansion of tourism. Our research results show that the highest scores for tourism in the studied region are associated with natural springs, the Robat garden forest, natural pistachio forests and historical and cultural artifacts. It was also determined that infrastructural, social, and cultural criteria play a significant role in promoting tourism in the Marmol District of Balkh Province, aligning with the findings of the aforementioned research.

In the study by Shah Hosseini, Hadith (1393), it was found that visiting the natural landscapes of Qeshm is the main reason for tourists traveling to the island, which is consistent with our findings. The primary purpose of visits by respondents to the Marmol District is reported to be viewing natural landscapes, springs, and historical and cultural artifacts of the area. The research by Mohsen *et al.* (1400) revealed that natural attractions, favorable climate and the presence of medicinal plants are the top three factors for the development of ecotourism in the region. It was also stated that the villages in the area have high potential for developing ecotourism, contributing to sustainable rural development. Our findings indicate that, according to respondents, the tourist attractions in the Marmol District include recreational areas, springs, forested and agricultural regions, hills and historical and cultural sites that are key to tourism development in this district. Furthermore, our results suggest that these capabilities could

positively impact the economy and job creation for the local people, aligning with the aforementioned research. In conclusion, it can be said that the results of the research conducted in the Marmol District are consistent with the established objectives across all areas and correspond with the findings of researchers studied in the literature.

## 6. Conclusion

The Marmol District of Balkh Province, with its tourist attractions, can significantly improve the situation in the district and its surrounding areas across all aspects of life and it can be considered one of the tourism hubs of Balkh Province and the country. One of the main problems in this district and its surrounding villages is the lack of standard roads and issues related to public services and agriculture. The majority of residents in these areas rely on farming, which has led to unemployment due to recent water shortages. Therefore, strengthening the tourism potential in this district and region can serve as an alternative solution to mitigate this problem.

Factors such as weak and unstable management, inadequate promotion, lack of coordination among tourism-related organizations and the community and insufficient investment are key reasons for the underdevelopment and obstacles facing tourism in this district and region, which must be addressed through careful planning. The most important strategies for tourism development include reforming management institutions and employing specialized management in the tourism sector, as well as ensuring stability in management for the implementation of long-term plans, enhancing promotion and raising awareness about the tourism capabilities of the region.

To enhance tourism in the Marmol District, several key actions are recommended. Improving main and secondary access roads is essential for better connectivity. Public tourism services should be developed through collaboration with private organizations and local communities. Strengthening irrigation infrastructure will support both agriculture and scenic value. Establishing a national museum to showcase historical and cultural artifacts can boost cultural tourism. Public awareness campaigns are needed to promote understanding of the area's attractions and efforts must be made to prevent deforestation and protect natural landscapes.

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