

## Opportunities and Challenges of Ecotourism in Jiri, Dolakha, Nepal

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### ABSTRACT

*Tourism is a socio-cultural and economic activity and the process of spending time far from their usual surroundings for recreation and other special purposes. Ecotourism is a form of tourism where tourist travel to the natural places and responsible for conserving the environment and improving the well-being of local communities. This study has attempted to explore the opportunities and challenges of ecotourism in Jiri area of Dolakha district. Household questionnaires survey among local communities, focus group discussions and key informant interview with tourism entrepreneur, school teachers, senior citizens, local government representatives has been conducted as main primary sources of information. Furthermore, field observation and map interpretation has been also carried out. In addition to these, published articles, government documents, census data and cash study have been reviewed as secondary sources of data. It is concluded that Jiri has facing many problems including poor transportation facilities, insufficient infrastructural development for the communication, lodging, fooding, sanitation and securities for the development of ecotourism beyond to having numbers of opportunities of trekking, hiking, mountain biking, bird watching, exploring local customs and culture by visiting nearby temples and monasteries, provides breathtaking panoramic views of the mountain landscapes and Himalayas including Mount Everest and so on.*

**Keywords:** economy, employment, environment, landscapes, mountains

### INTRODUCTION

Tourism is a key economic sector in many advanced and emerging economies (Fang, 2020). Ecotourism is considered the most environments friendly and has grown up very fast in the past few decades. Many countries consider tourism as a major industry because it provides the highest amount of GDP to the country especially (Telfer & Sharpley, 2015). Tourism has become the main source of employment and income generation activity in Nepal (Rijal, 2018). Nepal has a high potentiality for tourism development having diverse physiographic landscapes with natural beauty, and cultural diversity (Khanal & Shrestha, 2019). Mountaineering and rock climbing, trekking, hiking, biking, bungee jumping, mountain flights, paragliding, ultra-light aircraft flights, hot air ballooning, rafting, bird watching, jungle, safari etc. are the main tourist adventure activities in Nepal (NTB, 2023).

In the context of Nepal, nature, culture and adventure-based attractions are considered the three pillars of tourism (Badal & Kharel, 2019). The unique geography plays a crucial role in creating adventure tourism attractions, which rarely exist in other places (Zurick, 1992). Almost 20 percent of total

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tourist arrivals in Nepal are adventure seekers wandering in and around the high hills and the mountains (Byers & Shrestha, 2022). The Nepali tourism industry is facing some challenges, including underprivileged infrastructure, inadequate air connectivity, political unsteadiness, and poor safety and security that are having a negative impact on the tourism industry (Bhattarai & Conwey, 2021). Humanizing rural and urban infrastructure, promoting trained personnel and developing safe trekking systems would help to improve quality and tourist experience (Bhandary, 2022). Nepal has huge prospect in the ecotourism sector with its diverse topography: the world's highest peaks, protected areas with floral and faunal biodiversity, snow-fed perennial rivers, incomparable trekking routes, breathtaking lakes and generous people having cultural, traditional and religious diversity (UNWTO, 2021). Jiri is one of the famous tourist hot spots of Nepal since long back, renowned gate way to Mt. Everest for trekkers and also known as the Switzerland of Nepal having favorable weather and beautiful hilly landscapes. In this connection, present study has been attempted to fulfill the gap on insufficient fact information and research activities about challenges and possibilities of ecotourism in Jiri area.

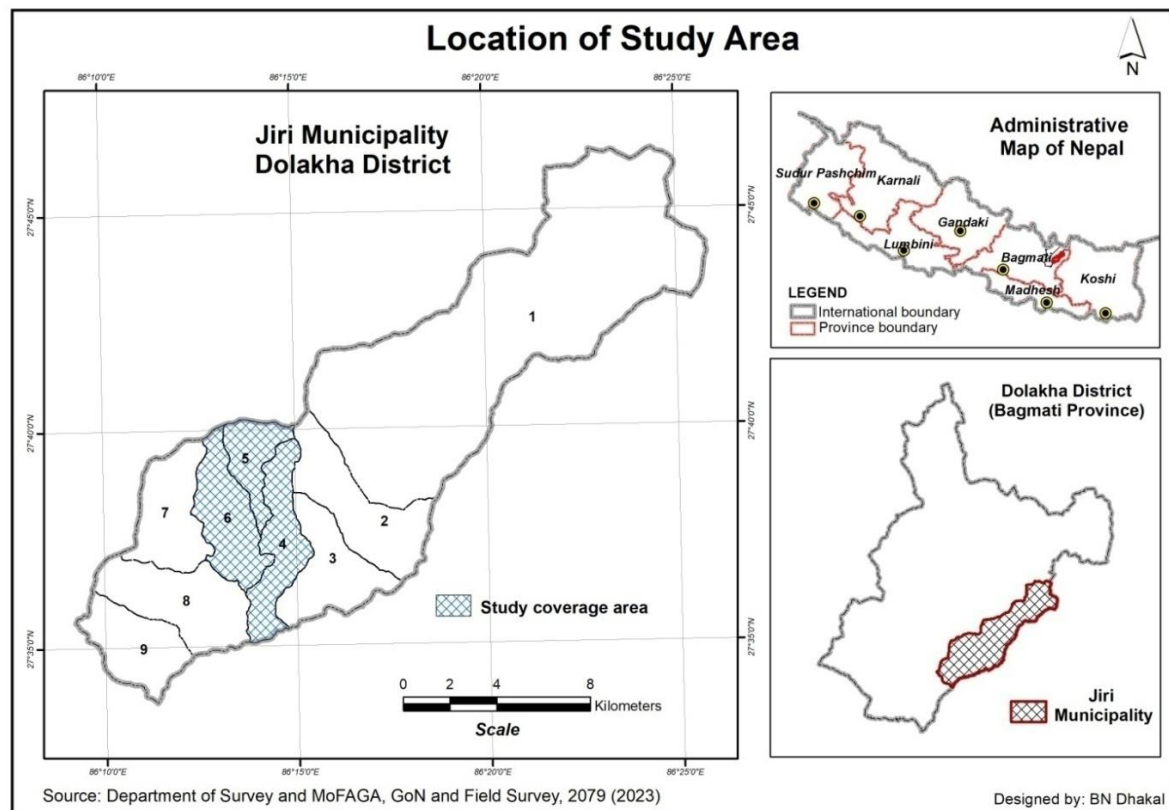
### **MATERIALS AND METHODS**

This study has been conducted based on primary and secondary sources of data. Demographic condition, occupational structure, educational status, tourism sites and their perception of tourism development have been compiled through household questionnaires along with 101 respondents. In addition to this, four focus group discussions and key informant interview has been conducted with tourism entrepreneur, school teachers, senior citizens, local government representatives, domestic and foreign tourists for past trend of development, perception on existing facilities, limitations, challenges and future possibilities as the sources of primary data. Furthermore, field observation in the tourism sites have been also carried out through existing maps interpretation, alignment of infrastructural network and GPS location. Apart from these, published articles, government documents, census data, case studies have been also consulted as secondary sources of data. Collected data has been processed and tabulated through the application of Ms Excel and SPSS computer software's for the interpretation of the result.

#### **Geographical Setting of the Study Area**

Jiri is placed in Jiri municipality; it was the gateway of Mt Everest in the past. Jiri municipality is located in the Dolakha district of Bagmati Province which is 182 kilometers north east from Kathmandu, Nepal (Figure 1). It is extended from 86°09' 14'' to 86°25' 48'' East longitude and 27°33' 42'' to 27°46' 25'' North latitude covering the surface area of 211.25 sq km and elevation ranges from 1649 to 5341 meters above sea level. Having extended along Mahabharata range, climatic condition is typically mild and pleasant in this area. Mean temperature extends from 0<sup>0c</sup> to 25<sup>0c</sup> and precipitation falls more than 148 mm annually with humid subtropical and dry winter climate.

There are nine wards in this municipality and altogether 16,109 populations (7809 male and 8300 female) are residing in 4244 households within municipality area; however only 5743 population with 2744 male (47.8 percent) and 2999 female (52.2 percent) are living in the ward number four, five and six (study area) of the municipality along 1567 households having average household size of 3.66 and sex-ratio of 91.5 (NSO, 2021). Chhetries, Jirel and Sherpas are the major dominant ethnic communities with agriculture, business, off-farm employment, and daily wages as major occupations found among the residents in the study area.

**Figure 1***Location of the Study Area*

## RESULTS AND DISCUSSION

Socio-economic condition along with demographic characteristics of population plays a dominant role in the development of tourism activities. The study reveals that there are 47.8 percent male populations and 52.2 percent female population in the study area. The sex ratio is found 91.5 which is less than national level of 95.6 (NSO, 2021). Most of the population (71.3 percent) has been found in active age group of 16-59 years old where it has found 15.8 percent above 59 years of dependent age group and 12.9 percent of populations have been reported less than 16 years of child and also dependent age group (Table 1). It indicates that dominance of active age group could contribute more actively in the development of study area.

**Table 1***Age Composition*

| Age structure | Number of respondents | Percent |
|---------------|-----------------------|---------|
| Below 16 Yrs  | 13                    | 12.9    |
| 16-59 Yrs     | 72                    | 71.3    |
| Above 59 Yrs  | 16                    | 15.8    |
| Total         | 101                   | 100.0   |

*Note.* Field survey, 2023

The occupational structure of inhabitants plays an influential role in tourism development through employment generation. It can create jobs and support to develop the multi range of skills for sustainable development of tourism. Agriculture has been found the dominant occupation in the study area where 39.6 percentage of total population have been involving in agricultural activities including

cropping and livestock raising too. Cow, buffaloes, goat, yak, horses and poultries are the major livestock raising in the study area. Yak and goat milk based cheese factory is also one of the major tourism sites functioning near by the Jiri market. Similarly 32.8 percent of the total populations have been involving in business activities including whole sell and retails shops, hotels, restaurants and recreational activities. Whereas, 20.7 percent of the total resident have been involving in different service activities including government and private sectors, banking and finance, small cottage industries and so on. In addition to these, few people (6.9 percent) have been doing other activities for their subsistence included daily wages, porters, tourist guide etc. (Table 2).

**Table 2**

*Occupational Structure*

| Occupations                                | Number of respondents | Percent |
|--|-----------------------|---------|
| Agriculture                                | 40                    | 39.6    |
| Business                                   | 33                    | 32.8    |
| Service                                    | 21                    | 20.7    |
| Other (porters, wages, tourist guide etc.) | 7                     | 6.9     |
| Total                                      | 101                   | 100.0   |

*Note.* Field survey, 2023

Education is one of the influential and proven vehicles that play a key role in tourism development. Educated people who involve in tourism activities can able to improve equality of life for both local people and tourists. Trained and literate people can enhance training to other inhabitants and entrepreneurship development. The literacy rate has been found satisfactory in this area. Around 80 percentage of the total population has been found literate in the study area. Among them, 49.5 percent of the populations have achieved secondary and above level of education (Table 3).

**Table 3**

*Educational Status*

| Education  | Number of respondents | Percent |
|------------|-----------------------|---------|
| Illiterate | 21                    | 20.8    |
| Literate   | 30                    | 29.7    |
| Secondary  | 40                    | 39.6    |
| Above      | 10                    | 9.9     |
| Total      | 101                   | 100.0   |

*Note.* Field survey, 2023

**Development of Tourism in Jiri**

Jiri, one of the famous tourist destinations in mountain region of Nepal has become famous as an entry point for hikers travelling to Mt. Everest since 1950s. However, agricultural development centre has been established in Jiri town by the Swiss Government aid in 1938 AD. One of the early expedition team led by John Hunt mentioned that Tenzing Norgay from Nepal and Edmund Hillari from New Zealand have conceded through Jiri on their summit to Everest so it is also famous as the Gateway to Mt. Everest. This place is also well-known for the land of ethic people originally from here called Jirels. In addition to these, Swiss Geologist Dr Toni Hegen has compared the people, weather and environment of Jiri with the Zurich in Switzerland and named the ‘*Switzerland of Nepal*’ for Jiri. Eye-catching landscapes, favorable climate and friendly people of Jiri and surrounding are the major attraction for the nature based tourist in this area.

Gurans and Buddha park, Haritban, Pumba stone park, Tony Hegen, Tenzing and Hillari parks, Jiritai, Hanumante Sikri park, Yalung Valley park, historical Jiri airport, Technical institution, Cheese factory are the major places to visit in Jiri. The majority of the respondents (37.6 percent of the total) informed that eco-park is the major attraction of tourist in Jiri area. Most of the visitors have given first priority to visit eco-park when they visited in this area. After the eco-park, 36.6 percent of total respondents mentioned temple as another attraction of tourist. In addition to these, Buddha gumba, mountain landscapes, lake and cheese factory have been listed other important tourist sites in Jiri area (Table 4).

**Table 4**

*Major Tourist Sites*

| <b>Tourist Place</b> | <b>Number of respondents</b> | <b>Percent</b> |
|----------------------|------------------------------|----------------|
| Eco-Park             | 38                           | 37.6           |
| Temples              | 37                           | 36.6           |
| Gumbas               | 9                            | 8.9            |
| Mountain landscapes  | 9                            | 8.9            |
| Lake                 | 7                            | 6.9            |
| Cheese factory       | 1                            | 1.0            |
| Total                | 101                          | 100.0          |

*Note.* Field survey, 2023

Availability of basic facilities is the major important indicators for the development of any tourist area. Regarding to the measurement of perception of respondents and validation with other sources of information, it has been asked about the availability of basic facilities in the Jiri area for tourist development, more than 54 percent of total respondent have informed with sufficient accessibility whereas around 40 percent of them expressed with insufficiency of facilities and some of them have noticed innocent condition (Table 5).

**Table 5**

*Availability of Basic Tourism Facility*

| <b>Sufficient facilities</b> | <b>Number of respondents</b> | <b>Percent</b> |
|------------------------------|------------------------------|----------------|
| Yes                          | 55                           | 54.5           |
| No                           | 40                           | 39.6           |
| Do not know                  | 6                            | 5.9            |
| Total                        | 101                          | 100.0          |

*Note.* Field survey, 2023

Sources or origin of tourist also play a vital role for economic development of any area. In general, international tourist used to expense more than domestic tourist. Furthermore, international tourists use trekking guides and porters that generate employment opportunities to the local residents and support for the livelihood sustainability. This study has explored that more than 74 percent of the total visitors covered by domestic tourist and only around 26 percent by international tourist visit in this area (Table 6). This indicates that there should be prioritized to develop basic facilities to promote and attract for foreign tourists also.

**Table 6***Type of Tourist Visited in Jiri*

| Arrival of tourist | Number of respondents | Percent |
|--------------------|-----------------------|---------|
| Domestic           | 75                    | 74.3    |
| International      | 26                    | 25.7    |
| Total              | 101                   | 100.0   |

*Note.* Field survey, 2023

Tourism extensively contributes to economic growth in the particular tourist area by providing employment and income opportunity that is determined by the duration of visit and stay by tourist in that particular area. Length of stay of tourists has a casual affiliation with the economic development. This study has found that most of the tourist (43.4 percent of the total tourists in that particular fiscal year) stays one day only. Similarly it has found that around 32 percent of the total tourists stay for two days, 13.9 percent of the total tourists stay for three days and 10.9 percent of them stay for four and more days (Table 7).

**Table 7***Duration of Stay by Tourist*

| Time spent by tourist | Number of respondents | Percent |
|-----------------------|-----------------------|---------|
| One day               | 44                    | 43.4    |
| Two days              | 32                    | 31.8    |
| Three days            | 14                    | 13.9    |
| Four and more days    | 11                    | 10.9    |
| Total                 | 101                   | 100.0   |

*Note.* Field survey, 2023

This study reveals that most of the tourists visit the area with the purpose of traveling to enjoy with natural beauties. More than 75 percent of the total tourists visit this area for the main purpose of nature based observation and travel. Furthermore, 9.9 percent of tourists have been traveled as an educational tour because of having old and renewed technical institute known as Jiri Technical Institute provided different vocational training in multi fields since long. Similarly,

Total of 5.8 percent tourists have been travelled for the trekking and hiking purposes, 5.1 percentages of tourists have been travelled for the promotion of their trade and commerce, 4 percent of them travelled for entertainment and recreational purposes (Table 8).

**Table 8***Purpose of Visit by Tourist*

| Purpose of visit             | Number of respondents | Percent |
|------------------------------|-----------------------|---------|
| Travel for natural sceneries | 76                    | 75.2    |
| Education tour               | 10                    | 9.9     |
| Trekking and hiking          | 6                     | 5.8     |
| Trade and commerce           | 5                     | 5.1     |
| Entertainment and recreation | 4                     | 4.0     |
| Total                        | 101                   | 100.0   |

*Note.* Field survey, 2023

### Major Problems Face by Tourist

There are many problems has been suggested by respondents that faced by tourists in Jiri area. Most of the respondents (more than 54 percent) have noted the poor transportation facilities as the common problem that everyone has faced during their visit in this area. Broken and narrow road, unsafe turning points along the road, lack of traffic signals, irregular, unsafe and lacking on proper maintenance of public vehicles have been found in this area. Further, insufficient budget allocation by the different level of governments, poor communication, not enough accommodation, lack of proper sanitation, political instability and not promoting in community base home stay facilities (Table 9) have been informed by the respondents.

**Table 9**

*Major Problems Faced by Tourists*

| Problems                                   | Number of respondents | Percent |
|--|-----------------------|---------|
| Lack of reliable transportation facilities | 55                    | 54.5    |
| Lack of communication facilities           | 13                    | 12.9    |
| Insufficient budget                        | 9                     | 8.9     |
| Political instability                      | 8                     | 7.9     |
| Lack of infrastructure                     | 6                     | 5.9     |
| Lack of touristic area                     | 4                     | 4.0     |
| Lack of accommodation                      | 2                     | 2.0     |
| Lack of sanitation                         | 2                     | 2.0     |
| Home stay                                  | 2                     | 2.0     |
| Total                                      | 101                   | 100.0   |

*Note.* Field survey, 2023

This study has also found some of the recommendations of tourists for the minimization of above mentioned problems and challenges. Most of the respondents (more than 50 percent) have recommended giving first priority on transportation facilities. Similarly sufficient budget allocation and implementation (around 13 percent of respondents) based on the priority sectors from all three levels of government as well as tourism development organizations should be invested in this area. Further, there should be focus to invest on infrastructure development like accommodation, maintenance of religious places, health and communication related service centers. In addition to these, create political stability, promote to ropeway/cable car system, home stay facilities, construction of helipad, develop documentary for the publicity of this area through different media and so on would be also the some measures for the ecotourism development in this area.

### CONCLUSIONS

Encircled by the Mahabharat range, deep canyons and steep valley, mild and pleasant climate, gateway to Mt. Everest trekking route, panoramic view point of Himalayas, typical costumes and culture and so on are the major opportunities of ecotourism development in Jiri. However, poor transportation facilities, unmanaged and insufficient infrastructure, lack of awareness among the local communities and domestic tourists, lack of publicity, poor coordination among the different level of governments for budget allocation and waste management are the major challenges behind the proper development in this area. Further, respondents from the study area have suggested that promotion of community based home-stay activity with local product would be one of the attractions for ecotourism development in this area.



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