

## ROLE OF AIR TRANSPORTION IN TOURISM DEVELOPMENT OF KARNALI PROVINCE, NEPAL

Bhima Chunara  
bhimac365@gmail.com

### Abstract

Air transportation is a key driver of tourism development in Karnali Province, where difficult terrain and poor road infrastructure limit accessibility. This study highlights the critical role of air travel in connecting tourists to remote and mountainous areas, making it the most reliable mode of transportation in the region. Surkhet Airport, serving as the central hub, plays a pivotal role in facilitating tourist movement within Karnali. The research confirms a strong, positive relationship between air transport and tourism, revealing that factors such as political stability, economic conditions, environmental seasonality, and travelers' destination choices significantly affect air travel. The study also emphasizes the importance of improving infrastructure and policy support to ensure sustainable tourism growth. Enhancing air transport will not only boost tourism but also contribute to the overall socio-economic development of the province. Continued investment in aviation infrastructure is essential for unlocking Karnali's full tourism potential and supporting broader national development goals.

**Key words:** Tourism of Karnali Province, Modes of Transportation, air transportation in tourism.

### Introduction

Air transportation is the fastest and the most regulated transportation system. Currently With new technology and development came along fastest aircrafts, that allowed traveling faster the ever. Now the travelers can explore new areas and long distance travel in short time. The expansion in air transportation directly or indirectly connects in tourism industry introduced many untouched and non-popular areas to western sector. As a matter of fact at the moment any corner of world can be reached under 24 hours. A scheduled air transportation system offers a safe, convenient, reliable, frequent, and consumer-centered service. Air transportation is becoming more and more popular among the travelers who want to arrive at destinations quickly (Cooper, Fletcher, Fyall, Gilbert & Wanhill, 2008).

Tourism and aviation regularly interact with each other. Aviation is the backbone of the tourism industry. Both these industries play an important role in the country's economy as both are important for the creation of jobs and to generate a large income stream for the country economy. The valuable and dynamic interaction of these two aspects of the economy can lead to increased economic growth and job creation. Although air transport and tourism are mutually dependent sectors there has been little research on the interaction between them both (Spasojevic, Lohmann et al., 2017).

Globally, tourism is one of the world's largest and fastest growing economic sectors, witnessing 1.4 billion international tourist arrivals in 2018 (UNWTO 2019). According to new data UNWTO, more than 900 million tourists travelled internationally in 2022 – double the number recorded in 2021 though still 63 percent of pre-pandemic levels. Over all, international arrivals reached 80 percent of pre-pandemic levels in the first quarter of 2023.

Airports are the most important infrastructure of tourism industry globally. Beyond that airports are very significant infrastructure for the people all around the world. Therefore, airports, airlines and the entire aviation industry are the indispensable part of daily life. The development of aviation sector in any country is an indicator of mapping its holistic development. Let us see and make analysis, of a small data below of airports domestic and international as a model study of Nepal. According to CAAN (Civil Aviation Authority of Nepal) report 2020, Nepal, has a total number of 54 airports, out of which 35 are at operation level and 19 are not in operation. Among 54 airports, Tribhuvan International Airport is one of the busiest high traffic volume international airports. Recently in 2022 GBIA (Gautam Buddha International Airport) is congruence as international airport. The growth of tourism industry has a direct relation to efficient airports and strong national airlines. The history of aviation in Nepal dates back to 1949 with the landing of a Beech craft Bonanza carrying the then Indian ambassador to Nepal. The first jet aircraft to land at Tribhuvan International Airport was a Lufthansa Boeing 707 in 1967. Five years later, the then Royal Nepal Airlines commenced jet operations with Boeing 727 aircraft. The air transportation in Nepal started 66 years ago in 1949. Since the major part of the roads is still in a primitive and insufficient state, and the country is landlocked with no railway services, air transportation is considered to be a comparatively safer and more reliable source of transport.

Karnali province is very rich not only in terms of language, literature, and culture, natural also in history. Karnali is a mine of adventure tourism, mountain climbing, wildlife natural and wilderness based tourism, water and river based tourism, pilgrimage and yoga based tourism, culture, history and resource based tourism and special taste tourism activities.

The Karnali Province is the largest Province of Nepal expanded in total area of karnali province is 24 thousand 453 square kilometers, the population is 15 lakh 69 thousand 3 hundred 7 (According to census 2068), there are 10 districts in karnali province namely humla, mugu, jumla dolpa, kalikot, jajarkot, paschim, rukum salyan, dailekh and surkhet. Out of them 72 local levels of this province, 25 municipalities are rural municipalities. Karnali Province is endowed with rich biodiversity, natural resources, and cultural heritage backed by its strategic location as a popular gateway to Mt. Kailash and Lake Manasarovar. Also broadly known to be the center of the origin of the Khasha Civilization, Karnali Province is extremely rich in natural and cultural heritages, all forming the strongest base for the development of tourism in the province. Currently, only very limited number of tourist sites, such as Simkot/Hilsa-the gateway to Kailash Manasarovar pilgrimage by the Indian pilgrims, Rara Lake, Phoksundo Lake, Upper Dolpa etc. are in the bucket list of international visitors. Karnali Province hardly receives about 21,291 international visitors, accounting for about 1.5 to 2 percent of the total international visitors welcomed by the nation in FY 2075/076 (NTS 2019).

### **Objective**

To analyze the importance of air transportation for the development of the tourism in Karnali province.

### Literature Review

The purpose of this chapter is to review the literature which are related and have important links in analyzing and formulating the ideas about role of air transportation in tourism. For this purpose, the chapter is divided into two sections: theoretical literature review, empirical literature review. Scholar's concrete ideas and thinking on air transportation and tourism development from its beginning to present. The second section includes the major observations and study conducted by various researchers and scholars in identifying the aviation and tourism situation. For the study wide range of relevant book, articles, and research reports has been reviewed, special care has been taken to avoid duplicating and maintain quality in research.

Ground transportation mode operates in various sizes and scales. Rail transport, bus, car, coaches, cycles, motorbikes are the examples of ground transportation. Ground transport can be categorized into two categories under the tourism activity, first is personal transport and the second is supplied transport. Personal transport includes motor vehicles that are used for transport of people, and off-road, motorized vehicles and pedal-powered bicycles. Supplied transport includes package tours that consist of coaches or buses and rail travel (Duval 2007).

Water transportation has been around for thousands of years and much like ground and air transportation it also has an integral relationship with tourism industry. Unlike air and land transportation potential of water transportation has been overlooked in relation to tourism development, and it is not widely used as popularly as ground and air transportation. Water transport dominated in transport services for many years, until the development of air transportation. The main advantage of water transport compared to other transportation is lower price. Travelers can carry themselves and their own vehicles as well and use them at the destination (Cooper et. al. 2008)

Air transportation is the fastest and the most regulated transportation system currently. With new technology and development came along fastest jet planes and aircrafts, that allowed traveling faster than ever. Now the travelers can explore new areas and long distance travel in short time. The expansion in air transportation in tourism industry introduced many untouched and non-popular areas to western society. As a matter of fact at the moment any corner of world can be reached under 24 hours. It has managed to gain significant part of the transportation market in recent years, especially to destinations longer than 500 kilometers away. A scheduled air transportation system offers a safe, convenient, reliable, frequent, and consumer-centered service. Air transportation is becoming more and more popular among the travelers who want to arrive at destinations quickly (Cooper, Fletcher, Fyall, Gilbert & Wanhill 2008). The government of Nepal in November 12 Out of 100 new tourist destinations selected by the government, Karnali Province alone consists of 21 destinations. The Ministry of Culture, Tourism and Civil Aviation recently announced the list of the destinations having tourism potential but requiring promotion. Though Karnali Province is geographically backward, it is rich in natural beauty. The province is considered to be religiously, historically, culturally and archeologically rich. Seven tourist destinations from five districts of Karnalal have been included in the list that needs to be promoted. Similarly, 14

destinations from 10 districts have been included in the new destinations that are to be developed. Shey Phoksundo National Park of Dolpa, Sinja Sabhyata of Jumla, Rara lake of Mugu, Panchakoshi Jwala Area and Kakrebihar, Deutibajai and Madan Ashrit Park of Surkhet fall under the destinations to be established and promoted. Similarly, destinations like Kupinde lake of Salyan, Dudul Chaitya of Jumla, Limi Upatyaka of Humla, Panchal fall of Kalikot, Khalanga Durbar of Jajarkot, Kotgadhi-Panchal-Belaspur-Mahabu Tourism Development Area of Dailekh, Jajura lake of Surkhet, have been selected as the new destinations that need to be developed. The provincial government has inaugurated the 'Karnali Visit Year 2075'. The provincial government has been operating different activities with an aim of promoting and disseminating information about the tourist destinations of Karnali. With the federal government declaring 2020 as the 'Nepal Tourism Year', state and local governments are working on plans for tourist attractions. Karnali which has a lot of potential for tourism is also eager to welcome tourists. The Karnali government is launching the year of tourism from Surkhet today with the objective of supporting the promotion of tourist destinations. The state government is planning to welcome tourists from here and attract as many internal and external tourists as possible in the year of visit. The state government celebrated 2075 BS as 'Rara-Karnali Tourism Year'. Rara remained at the center of the year-round tourism activities. Due to this, other destinations connected with Rara were also chosen by the tourists. Karnali is beautiful in all aspects. There are endless features in Nepal that can be found here. There are many tourist attractions in Karnali. Humla, Dolpa, Rara is the main tourist destination and rich in natural beauties.

Transportation mode means the methods used for transporting people or freights. All the transportation modes are essential to the transportation system. Ranges of transportation modes are very wide, but basically they are categorized into three; air transportation, ground transportation, and water transportation. The modes of transportation vary depending upon the geographical structure and sources available at the destination. Each transportation mode has its own infrastructure, vehicles, and operations, and often has unique regulations (Rodrigue, Comtois & Slack 2013).

Tourism Vision 2020 serves to be the latest vision document of the GoN/MoCTCA. Tourism Vision 2020 is a long-term planning vision document set forth for gearing up the development of tourism in the country with the goal to increase annual international tourist arrivals to Nepal to 2 million by 2020, augment economic opportunities, and increase employment in tourism sector to 1 million. The vision for Tourism Vision 2020 has been set as, "Tourism is valued as the major contributor to a sustainable Nepal Economy, having developed as an attractive, safe, exiting and unique destination through conservation and promotion of, leading to equitable distribution of tourism benefits and greater harmony in society." Built on the vision set by Tourism Vision 2020, GoN/MoCTCA is currently implementing the National Tourism Strategic Plan – NTSP (2016-2025) as its national guiding document on tourism. NTSP has identified six (two in the western region) Tourism Development Areas (TDAs) paying high emphasis on relatively undeveloped areas (NTSP, MoCTCA 2016).

### Method

Research methodology refers to the various sequential steps to adopt by a researcher in studying a problem to meet the objective. This section of the thesis deals with the methodologies to be applied to carry out this study which includes design, research area, universe, sample and sampling procedure, method of data collection and data processing and analysis which are presented below.

A descriptive research design is adopted to analyze and interpret the data. Its nature was quantitative collected from the concerned field. Data were collected by using primary as well as secondary data.

### Data and Interpretation

All collected data and information were analyzed and presented in the proper forms of charts, diagram groups and tables wherever necessary. In order to get the correct outcome and making the result useful, such tables and diagrams had was interpreted as far as possible. Finally, the collect data were analyzed as per the need of the study using data, tables, numerical percentage and figure will be used.

#### Tourist Arrival Scenario in Nepal

The tourism sector is recovering at a fast pace with decline of the Covid-19 pandemic worldwide. As a result, the number of tourist's arrivals Nepal in 2022 increased by 37 percent (reaching 614,869) compared to the previous year. Major country of tourist arrivals in 2022 was a bit different compared to previous year. The top five countries from which tourist arrived were India (34.05percent), USA (12.54percent), U.K(7.33percent), Australia (4.37percent), and Bangladesh(4.13percent), respectively. Among the total number of international arrivals, 592,631 (96.4percent) arrived by air, while 22,238 (3.6percent) arrived by land. About 75 percent of international tourist travel to Nepal through air transportation. This high number of traveling tourists suggests that the air transportation is one of the most important parts of Nepalese tourism industry.

#### Tourist Arrival in Nepal

##### *Tourist Arrival in Nepal 2013-2022*

Years	Total	By air	By land
2013	797,616	594,848	202,768
2014	790118	585981	204137
2015	538970	407412	131558
2016	753002	572563	180439
2017	940218	760577	179641
2018	1173072	969287	203785
2019	1197191	995884	201307
2020	230085	183130	46955
2021	150962	150625	337
2022	614869	592631	22238

Source: Nepal Tourism Statistic, 2023

Table1 Above shows number of tourist arrivals by year for the time interval of 10 years, from 2013 to 2022. The table shows that more than 70percent tourist in Nepal came by air

transportation. The above table shows that the number of tourist arrivals has been increasing slowly. The total number of tourists in 2013 is 797616 which is slightly increased but at the period of decreased. In 2021 the no of tourist is low as compared to previous year. In the period of covid-19 in 2021 the number of tourist arrival by air is 150625. Only 337 tourist arrived by land. This shows that most of the tourist prefer air transportation than roads transportation.

#### Statistical information about air transportation

After 65 years of operation, air transportation system of Nepal has been developing, and growing with airlines operating from many countries around the globe. Today Nepal has a bilateral agreement and memorandum of understanding with 40 different countries. But still 22 of them do not have direct flights to or from Nepal. These kinds of provisions of the air service agreements provide over 5.2 million seats on air transportation to or from Nepal, however only 45 percentage of its total capacity is being utilized (CAAN, 2013).

Air transportation is not only vital for international tourists traveling to Nepal, but it is also a major means of transportation for domestic tourists and passengers. Only vital for international tourists traveling to Nepal.

#### Tourist arrivals by nationality and means of transportation

Countries	Means of air transportation	
	Air	Land
Australia	18250	2219
Bangladesh	2136	1047
Canada	11084	1048
China	62616	50557
Denmark	4783	537
France	19455	2387
Germany	19132	3131
Indian	167282	13697
Italy	8774	1200
Japan	24172	2522
Others	8013	2522
Total	3456697	80867

Source: Adapted from Nepal Tourism Statistic, 2023

About 75 percent of international tourist travel to Nepal through air transportation. This high number of traveling tourists suggests that the air transportation is one of the most important parts of Nepalese tourism industry. According to Ministry of Tourism and Civil Aviation (MOTCA) in 2013, 3456697 tourists arrived in Nepal by air transportation and only 80867 tourist arrived by road transportation Asia to travel to Nepal. It shows United Kingdom and Germany were top countries from Europe to travel to Nepal.

**Tourist arrival by months in different years**

Years	2018	2019	2020	2021	2022
Months					
January	73187	81273	79702	8874	16975
Feb	89507	102423	98190	9266	19856
March	124686	127351	42776	15254	42152
April	98650	109399	14	22732	61589
May	68825	78329	31	1531	54093
June	65159	74883	102	1187	46957
July	73281	70916	196	3093	44462
Aug	87679	94749	267	6093	41304
Sept	91874	92604	584	9907	58314
Oct	130745	134096	2025	23338	88582
Nov	147859	130302	1956	26135	72653
Dec	121620	100866	4242	23552	67932
Total	1173072	1197191	230085	150962	614869

Source: Department of migration, Nepal

The above data shows that there are some pick months in which number of tourist arrival is higher and in some month is lower. October is the month in which no of tourist arrival is higher in 2022 is 88582. In the months of February 2022 the number of tourist arrival 19856. It shows that the tourist arrival is various according to months. In the period of covid-19 the number of tourist arrival is low which is slightly increased in 2021, and at present number of tourist arriving increased day by day.

**Distribution of visitors by district in Karnali Province**

S.N	District name	domestic (1 Baishakh 2078 to 1 Baishakh 2079))	International FY 2078/079)
1	Surkhet	1,62,861	654
2	Dailekh	38,668	14
3	kalikot	31,357	21
4	Jumla	77,614	62
5	Humla	20,545	17489
6	mugu	13,795	334
7	dolpa	8,354	2688
8	jajarkot	58,865	7
9	Salyan	36,150	9
10	Rukum west	6,658	13
11	Total	454,864	21,291

Source: MoITFE, Karnali Pradesh, Tourist Arrival Survey, 2023

From above table shows that number of domestic and international visitor in different district of Karnali. This shows that higher number of domestic tourist visited in Surkhet in this periods.

**Domestic flight and passenger movement in different airport of karnali 2022**

Destination /place	Arrival of international visitor in various Destination of karnali (in 5 years)					Total
	2075	2076	2077	2078	2079	
	Rara national park	181	143	132	201	
Shey phokusandonp	417	383	431	535	469	<b>2235</b>
Lower dopla	585	1117	788	924	1222	<b>4636</b>
Upper dopla	338	469	328	425	525	<b>2085</b>
Humla	492	1346	10105	13398	10814	<b>36155</b>
Mugu	-	-	-	-	63	<b>63</b>

Source: Civil Aviation Office Surkhet, 2023

The findings of this study highlight a significant positive relationship between air transportation and tourism in Karnali Province, Nepal. Air transport plays a crucial role in connecting remote, mountainous areas to both domestic and international tourists, making it the primary mode of transportation due to the region's rugged topography and poor road connectivity. Key factors influencing air transport for tourism include political instability, economic conditions, environmental seasonality, and non-economic elements like destination choices and word-of-mouth recommendations. The study reinforces the importance of air transport in driving tourism development and economic growth in this region, especially given its limited infrastructure and geographical challenges.

This chapter aims to analyze the results of the study with its interpretation. The chapter contains two sections. The first section will discuss about the results of first research question and the second section will elaborate the results of second research question.

**Conclusion**

In conclusion, the development of air transport plays a crucial role in Nepal's tourism sector, particularly given the country's landlocked geography and limited road connectivity. Air transport has a significant positive impact on tourism, with over 80% of tourists traveling by air. However, factors such as political instability, economic fluctuations, environmental seasonality, and non-economic influences affect the flow of tourists. Despite challenges like inadequate infrastructure and limited transportation options, air travel remains the key to connecting Nepal to the global tourism market. With proper development, air transport can drive the country's tourism growth, which remains an essential source of income and employment.

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