



## **A Sociological Exploration of Road Accessibility and its Influence on People's Livelihood**

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**Type of Research:** Original Research

Received: November 11, 2024

Revised & Accepted: January 21, 2025

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### **Abstract**

This paper tries to exploration of the road accessibility and its influence on people's livelihood. The primary objective of this study was to assess the impact of road accessibility on the livelihoods of rural residents in Gothikada village, located in Birendranagar Municipality-14, Surkhet. Fieldwork methods, including direct observation, interviews, and case study, were utilized to gather data. The findings reveal that Gothikada lacked essential social services, requiring residents to travel to Birendranagar Bazaar for access. Prior to the enhancement of road infrastructure, villagers faced substantial hardship due to limited access to these services. However, following road improvements, residents gained easier access to services in nearby areas, positively influencing their quality of life. The study further documents both positive and negative effects of improved road accessibility on the villagers, examining shifts in their daily livelihood activities and the broader relationship between infrastructure development and socio-economic conditions. The research highlights the transformative role of road accessibility in shaping rural livelihoods and community dynamics of the study area.

**Keywords:** Livelihood, road accessibility, change, transport, tourism, development.



## **1. Introduction**

The road network is crucial for the comfortable life of human beings. Throughout development, humans have created various transportation facilities, from animals to airways, driven by their inherent nature to invent and explore. Road transport, among these innovations, has proven to be highly useful, accessible, and essential. Many countries, both developed and developing, are actively involved in road construction. Among modern means of transport, motor transport stands out as the most suitable option to meet today's diverse needs. It dominates transportation and profoundly impacts our daily lives. Motor transport has virtually revolutionized production and distribution, with its broad scope affecting almost every aspect of our daily existence. (Taff, 1969, p.1)

Road transport is widely acknowledged as the most crucial factor in driving significant development within a country. It serves as a communication system that enables the smooth movement of people and goods. Facilitating efficient economic transactions of both individuals and commodities contributes to accelerating overall economic growth by effectively exchanging productive resources between different regions. Moreover, the road network plays a vital role in achieving the goal of national integration, along with promoting economic development. (Tiwari, 1983, p.1). Roads are one of the lifelines for people in any region for everyday life (Okamura, 2005:170). The primary goal of constructing roads in developing countries is to ensure basic access rather than merely focusing on additional capacity and increased operational efficiency (Panta, 2005, p.166). Nepal, being a developing country, faces the challenge of isolated and marginalized rural areas due to inadequate development in proper means of transportation, particularly roads and other infrastructures.

Any region cannot be economically developed without road accessibility (Geurs & Wee, 2004; Liu & Zhu, 2004). So, livelihood of the villagers becomes complicated without adequate transport facilities. When road transport touches any areas, it affects every part of the livelihood strategies of people (Shrestha & Praveen, 2024). The exchange of goods is one of the main factors to build the relations between urban and rural areas, as core and periphery relations. On the other hand, after its construction, easy access of everything for livelihood and transport Facilities changed people's livelihood to fulfill their nature of searching for more comfort and newness. When a locally self-sufficient Community no longer remains on, then ups and downs arise and their members are compelled to change their livelihood status (Karki et al. 2024) (Dahal, 2001).

Transport is one of the vibrant parts of a social system. When change occurs in any part, other parts seek to adjust or adopt it. On the other hand, changing parts has also to cope with the existing system. In this process, change occurs smoothly in the whole system. After the road construction, it adjusts or copes with the whole system and vice versa. This process also creates change smoothly or gradually in a social system. Road construction must adjust to the system. It creates differentiation in society. Road transport is an innovative aspect of transport mechanism which creates interaction and integration to the members of society.



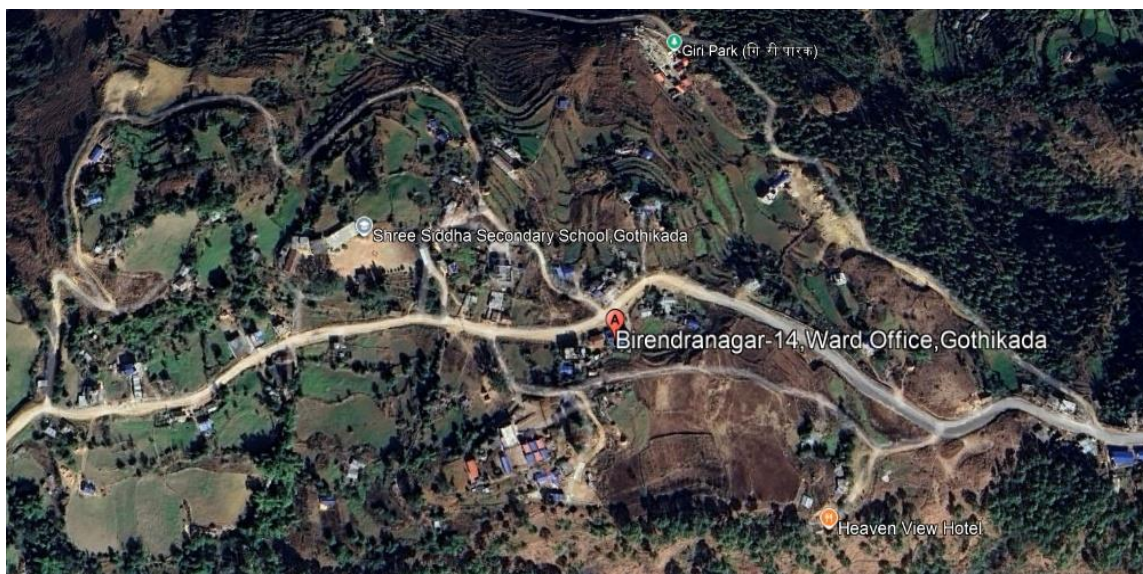
Road accessibility significantly influences society and individuals' lives in various ways. According to respondent, some of the key impacts include:

- **Economic Growth:** Providing more accessible roads facilitates the movement of products and services, which raises economic activity. It promotes local companies, opens up markets, and eases commerce, all of which add to the expansion of the economy as a whole.
- **Employment Opportunities:** Accessible roads connect people to job opportunities, particularly in urban areas. This improved connectivity can lead to higher employment rates as individuals can more easily commute to their workplaces, broadening their job options.
- **Educational Access:** Good road networks improve access to educational institutions. This means students, teachers, and educational resources can be transported more efficiently, leading to better educational outcomes and learning opportunities.
- **Healthcare Access:** Road accessibility is crucial for timely access to healthcare facilities. It ensures that people can reach hospitals and clinics quickly, resulting in better health outcomes and overall community well-being.
- **Social Interactions:** Roads facilitate social interactions by enabling the movement of people. Improved accessibility fosters community engagement, cultural exchange, and social cohesion.
- **Rural Development:** In rural areas, improved road networks can reduce isolation, connect remote communities to urban centers, and enable the efficient transport of agricultural products. This supports rural development and reduces disparities.
- **Emergency Response:** Accessible roads are vital for emergency services to reach affected areas quickly. Prompt response times are essential during natural disasters, accidents, or medical emergencies.
- **Environmental Considerations:** The construction and maintenance of roads can have environmental implications. Proper planning and sustainable practices are necessary to mitigate the sustainable environmental impact of road development. It helps future sustainability for all life.

Birendranagar Municipality, which is the capital of Karnali Province. Located in the municipality, it is a small, bowl-shaped, south-sloping, beautiful valley with neither too much winter nor too much heat, surrounded by the picturesque mountains of Ranimatta, Ratanangla and Chure mountains to the north and Harre, Deurali mountains to the south. It is found that the residence in Birendranagar municipality started from the year 2023. After the elimination of malaria, people started to settle in the valley and all the government offices were transferred and designated as the headquarters. After that there are many people who have migrated from various districts of Dailekh District and Karnali Zone. Brahmins, Chhetri, Magar, Tharu, Kami, Saraki, Damai, Dashanami- Sanyasi etc. are the major castes here. As they have migrated from different places, diversity is also found in their behavior and culture. Birendranagar has been established as the gateway to the districts of the Karnali zone. As all the materials consumed in the Karnali region pass through Birendranagar, it has become a

major commercial and educational tourist center of western Nepal. As the Bheririver flows from the east and the Karnali river from the west, it has become an attractive place for tourists. Gothikada is located in the region of Birendranagar Municipality ward no-14 Surkhet district of Karnali Province. Birendranagar is the capital city of Karnali Province. Gothikada is located in the northern portion of Birendranagar valley. its portion is 28020 N to 28028 N latitude and 8406 E to 84016 E longitudes. The layout is long and it has spread eastern side than western side. The climate of village is neither hot nor cold. The average temperature is between 15 to 30°C. In the west of this ward, Baharatal Rural Municipality is in the east, Birendranagar Ward No. 13 in the south, ward No. 1, 4 and 5 and Guras rural municipality of Dailekh in the north. According to the 2078 census, the population of this ward is 2,576, of which 1,290 are women and 1,286 are men. There are 638 households in this ward. The special identity of this ward is considered to be a suitable location for agriculture and animal husbandry and a healthy climate. There are religious and tourist places like Shiddhapaila, Gadi in this ward. From where you can see the beautiful view of Birendranagar market area. There are mixed castes and ethnic groups in the village. Brahmans, Janajati, Chhetries, Dalit are the major cast of this area most of the people are Hindus in this area and some of Buddhists and Christians. Nepali is the major languages. It is situated from nearly 900 to 2000 m from the sea level. It is the valley view place for tourist. The infrastructure of the village includes roads health and sanitation facilities, electricity transportation and health post. Most wards and villages don't have adequate infrastructures such as pure drinking water, electricity, school, health services communication and transportation network.

**Figure 1.:** Google Earth Map of Birendranagar-14, Gothikada Village.



### **Statement of the Problems**

Road network is the basic infrastructure of development. In the present time most of country is going to development their infrastructure. If there is the problem of transport, any one person,





society, community or Country could not forward their services. Nepal is going fast improving infrastructure country in the Asia on present time. Road access brings people easy for their daily life to move one place to another. It can change directly their daily livelihood strategy of local people. Road access will be reduced poverty because it gives different jobs for the village people and living standard of people increase. Road is the bridge of people it links between rural and urban. After constriction of road villager direct touch to the urban area or infrastructure. So, road accessibility is the major source of livelihoods of total people's day to day life. The villagers are suffering from different problem like poverty, discrimination and unemployment due to political instability and insufficient infrastructure on the study area. What do they do before and after road access? What is the positive impact of road access? What is the negative impact of road access? How is going change their livelihood strategy day by day? What is the main occupation of their after-road access? Are they doing economic growth in present time? In this way, researcher has a lot of questions among them. So, the researcher explores about the impact of road access on people's livelihood strategy in this study area.

### **Objective**

The objective of the research is to explore about that the impact of road accessibility and how the road access brings change rural people's livelihood strategy of Birendranagar Municipality-14, Gothikanda village of Surkhet District.

## **2. Literature Review**

The presence of roads has many benefits for the poor as it reduces the prices of inputs, opens up opportunities in new markets and offers seasonal migration for employment. In addition roads are an essential component for the development of markets, this allows the opportunity for farmers in rural areas to provide produce to high value urban markets increasing profits of the rural poor (Hettige, 2006).

Talcott Parsons had done a great deal of theoretical work in structural functionalism. According to him, in order to survive a system, 'AGIL' scheme must perform. The system of AGIL includes:

- A. Adaptation: A system must cope with external situational exigencies. It must adapt to its environment and adopt the environment to its needs.
- B. Goal attainment: A system must define and achieve its primary goals.
- C. Integration: A system must regulate the interrelationship of its component parts. It also must manage the relationship among the other three function imperatives.
- D. Latency: A system must furnish, maintain and renew both the motivation of individuals and the cultural patterns that great and sustain the motivation. (Ritzer, 200:233)

Road transport must also adapt to its environment and also the environment in accordance with its needs in the social system. To achieve primary goal of road construction, system has to be defined. Road is an important part of transport, where transport is a vibrant part of social system. Thus, the social system has to regulate the motivation of individuals and must be renewed or changed. As so, after the road construction, change occurs gradually for regulating the whole social system.



According to Demrah and Peterson (1967), Change comes from basically three sources: adjustment of the system to exogenous (extra systematic) change, growth through structural and functional differentiation, and inventions and innovations by members or groups within society.

Road infrastructure is important for improving the lives of people in rural areas. It makes transportation better and faster, allowing women and girls to travel safely over longer distances. As a result, they have easier access to healthcare, education, and other services. Girls also have more opportunities to attend high school and college. Building roads creates jobs for local workers, including women, especially when the construction is labor-intensive. In some cases, major highways also provide much-needed income for women and poorer communities. (Government of Lesotho 2005)

Livelihood strategies are continually evolving, shaped by the dynamics of space and time. Social groups within the same area often develop distinct strategies, influenced by their unique socio-cultural values, resulting in varying adaptation patterns among different ethnic groups. Similarly, individuals from the same ethnic group may adapt differently across various locations due to shifts in social and environmental factors. Consequently, both cultural values and changing physical conditions lead to diverse approaches in livelihood strategies, reflecting the complex interplay between people and their environments. (Subedi and Pandey, 2002). Livelihoods of the rural areas in the world are complex and dynamic in the recent days. Furthermore, global change has further accelerated to this situation. Each and every rural society cannot escape from this situation. A large number of rural livelihoods are directly related to the natural resource at least to some extent (Scooner, 1998)

Ellis (1998) describes livelihood strategies as the combined activities that household members engage in to support their daily lives. These strategies are influenced by time and place, meaning that both the context and nature of livelihood activities can change depending on the social and environmental conditions in which households are situated.

In recent years, road access, market expansion, and power availability have driven livelihood diversification in Nepal's rural areas. These developments create new job opportunities and income sources for local residents, helping them find economic stability. By having diverse income sources, people reduce their dependence on a single livelihood, making their financial situations more resilient and secure in changing times. This shift allows rural communities to adapt more easily, balancing traditional practices with new economic activities. (Chambers and Conway, 1992).

Nepal's total road network and density are low and only 43% of the total population in Nepal has access to all-weather roads. More than 60% of the total network is concentrated only in the lowland (Terai) region of the country. As of the record in 2007, the total road network in Nepal consisted of 17,282 km. The road network expanded by 5% PA, over the last decade, with faster growth until 2002. Over the 2003-2005 period and additional 575 km of roads (3.5% of the existing road network) were built, focusing on connecting district headquarters with the national network and improving access between rural areas and market centers for trade. This



poor condition of the road network in Nepal hampers the delivery of social services in the remote hill mountainous districts directly affecting in the tourism industry and affects the country's economic development. High transportation costs and the lack of connectivity are major obstacles to Nepal's development following the rural tourism development. Nepal's road network is growing but there is an enormous need for more investment (World Bank, 2015).

### **3. Methodology**

Research methodology is the structured approach and techniques used to collect, analyze, and interpret data in a study, guiding researchers to answer their questions effectively. In this research, Information such as positive and negative impact of road accessibility data is collected. Descriptive and exploratory design is used in this study (Mahat et al.,2023). The nature of data is quantitative as well as qualitative. The source of data is both primary and secondary. The primary data has been collected from field work, field observation, interview and case study and secondary data has been collected from various types of relevant literatures such as book, journal, articles, and internet and CBS reports. The tools and techniques of research are as follows:

#### **Interview**

Semi-structured interviews have been used for selected respondents in this study area. The researcher has conducted interviews with people from different categories. In addition to the persons, he has interacted with the family members. He has asked with spouses, parents and other family members of impact of road access.

#### **Case Study**

Case study technique has been used in this research. 2 key informants have been selected from the village. Case study has been conducted among the senior member of community, elder person, and educated persons on the basis of their knowledge about livelihood change which helps to fulfill the objective of the research.

#### **Field Observation**

Observation is one of the important techniques to collect various types of data at natural level. The people, languages, behavior, attitudes, change scenario have also been observed during the study period because it is also important part for research. The participant observation is done. During observation the researcher has observed the road construction and development activities and their livelihood strategy. And he has observed about their activities what they do every day to day lifestyle.

### **4. Results**

The introduction of road access in rural areas initiates a gradual transformation in local livelihoods, allowing communities to adapt to emerging opportunities and resources. Livelihood, encompassing economic, social, and cultural activities, reflects people's ways of life, which are continuously shaped by their environments. When change impacts one part of a system, other elements naturally adjust, a process driven by human needs that are varied and evolving. The extension of roads into rural regions encourages shifts in household livelihood



strategies, as communities gain access to market towns that link urban and rural economies. Through these connections, rural households can obtain fertilizers, farming equipment, luxury goods, and manufactured items more readily. Market towns thus serve as hubs that enhance access to essential goods and services, creating an environment ripe for further economic and social adaptation. Road transport links the marginalized area with the urban area and makes an easy interaction with the social and cultural relationship of this area.

More or less after the road construction, people change their livelihood in rural areas. After its construction, the road impacts directly or indirectly in people's social, cultural and economic strategies. On the other hand, there is a compulsion to change and on the other; people seek a convenient way of life. Roads create facilities and opportunities for accessibility of each and every need.

People change their occupations to adopt in newly created environments. After the accessibility of roads, it brings change in the job of porter. Thus, they are compelled to change their occupation. Otherwise, roads create new opportunities of employment. New trade patterns seem and increase automatically because road links particular areas with developed or urban areas. Rural folks get a chance to interact with other people rather than the previous generation. Thus, they bring change into agriculture production as well. People begin to sell their house building structure; among them, some make new cemented house buildings, some change the roofs of their houses and some maintain their houses in different ways. Rural people get a chance of becoming familiar with packing foods and drinks. It is even better those they now use more packaged materials in their food management compared to previous times.

In the present context, people use different facilities in their ways of livelihood by paying expensive costs but their income is not to be increased as compared with cost. People change their occupation to adopt in newly created environments if they continue to follow such a pattern. On the other side, the development of road creates different opportunities and generates income for the people. If people keep their interest in opportunity they can increase their economic level by growing vegetables, fruits, by starting businesses, by conducting different cottage, hotels, bar and restaurant and industries related with local resources, and by increasing internal and external tourism.

Roads access brings easy interactions with outsiders also. Search interactions reflect culture and social relationships in rural areas. The newly created environment by road impacts in each and every life of the people. The form, types, ways of procedures and rules or regulation of family, marriage, religion, kinship and other micro and macro social institutions become transformed gradually. Rural social life moves towards urbanization, modernization and other social processes slowly.

The researcher summarized the respondents' views, concluding that the road has both positive and negative impacts on their livelihoods of the study area.

#### **Positive Impact of Road Accessibility**

- Creation of employment.
- The road has increased trade and business.





- More or less, it has helped in education.
- The road has reduced the vast gap between rural and urban area
- The Road access has heightened the awareness of people.
- It has been an essential factor to develop rural society.
- Productivity on rural agriculture through new technology.
- Increase in income
- Enhancement of infrastructure development. Like electricity, water supply, building view tower, local government office etc.
- Makes an easy environment in travel and transport.
- Mostly it helps in medical emergencies.
- It is helpful for development programs.
- Increase interaction with outsiders which helps to reduce gender discrimination and other social inequalities.
- It links rural and urban areas.
- Going internal and international tourist hubs.
- Bridge between urban and village socio-culture.
- Reduction in seasonal migration to India and other foreign countries.
- Facilitating more sustainable livelihood strategies of people.
- Increase as a tourist destination.

#### **Negative Impact of Road Accessibility**

- The road has impacted agriculture land, destroyed forest and created land degradation.
- Increase social evils and conflicts.
- Cuts out agriculture lands, jungle and creates land degradation.
- Enters undesirable fashion and culture.
- Increases expenses in livelihood.
- Damage to health and detriment to farming productivity from dust.
- Increases air and sound Pollution.
- Decrease use of local organic product.

#### **5. Discussion**

The research article titled 'A Sociological Exploration of Road Accessibility and its Influence on People's Livelihood' was based on participant observation, interview, case study and field research of study area of Gothikada village. Gothikada is situated in Ward No. 14 of Birendranagar Municipality, Surkhet district, within Karnali Province of Nepal, whose capital is Birendranagar. Positioned in the northern part of the valley, Gothikada village extends further east than west. With a moderate climate and average temperatures ranging from 15 to 30°C, According to the 2078 census, the population of the Ward has 2,576. Known for its agricultural potential and pleasant climate, the area includes religious and tourist attractions like Shiddhapaila and Gadi, offering scenic views of Birendranagar. The community is ethnically diverse. Nepali is the main language. Despite basic infrastructure, access to clean water, electricity, healthcare, and transportation is limited.



The article discusses the impact of road accessibility on rural livelihoods, bringing significant changes in economic, social, and cultural life. Roads connect rural areas to urban centers, leading to increased trade, job opportunities, and easier access to markets. This improves income and introduces modern conveniences but also raises costs and environmental concerns. Positive outcomes include better education, healthcare, and reduced isolation. However, roads can harm local agriculture, increase pollution, and encourage urban lifestyles, impacting traditional values. The shift from agriculture to new employment options marks a major change, making rural communities more interconnected yet facing new economic and social challenges.

## **6. Conclusion and Recommendation**

Road networks play an essential role in bridging rural and urban areas, forming a fundamental infrastructure for societal advancement. Researchers have highlighted that road accessibility brings both beneficial and adverse effects to rural communities. Among the positive impacts, roads facilitate employment opportunities, boost income and productivity, and improve access to essential services, including healthcare and education. Enhanced travel options not only support medical emergencies but also foster connections with the outside world, which can help diminish gender discrimination and social inequalities. Additionally, road networks integrate rural areas into broader economic hubs, supporting both local and international tourism, thereby expanding economic prospects.

However, the presence of roads can also introduce significant challenges. Road construction often leads to social tensions and conflicts, disrupts agricultural land, and encroaches on forested areas, posing environmental concerns. The exposure to external cultural influences, though often enriching, can also introduce undesirable cultural shifts. Health issues and diminished agricultural productivity from road dust, along with increased air and noise pollution, further underscore the adverse impacts associated with road networks.

The establishment of roads has reshaped rural livelihoods, bringing about changes in occupational structures, agricultural practices, living standards, and aspects of social life such as marriage, family, and religious practices. Road access has, thus, impacted virtually all facets of rural existence, both directly and indirectly. To foster a sustainable and progressive rural livelihood, it is essential that communities maximize the opportunities presented by road access while consciously addressing the negative consequences. Embracing beneficial aspects, such as improved access to markets and resources, can advance rural development, while strategies to mitigate environmental degradation and preserve cultural heritage are equally crucial. Through this balanced approach, rural communities can achieve comfortable and progressive lifestyles, building resilience against the potential drawbacks of infrastructural development.

In summary, road networks enhance that community can promote local businesses, enhance trade, encourage tourism, improve education access, create employment opportunity, foster cultural exchange and drive sustainable economic growth and development. So, community maximizes the benefits of road networks for people's livelihood.



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