

Impact of Fast Track Project Envisaged from Kathmandu to Nijgadh on Socio-Cultural and Economic Aspects of Khokana Settlement

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Abstract

Transportation and development comes together. In course of development, the settlements and land areas along the alignment of road has to face both positive and negative impacts. These both impacts are dependent on type of roads (highway, rural or access roads), location (developed area or undeveloped area), and socio-cultural values. The link between transportation and development needs to be carefully studied and analyzed if transportation projects actually are bringing positive or negative impacts.

My research work is about studying and exploring the impacts of envisaged Fast Track road on traditional community, Khokana and analyze whether the impacts are beneficial or adverse. The part of my thesis also deals with flourishing positive impacts and overcoming negative impacts. With problem identification, objectives are defined. To achieve the objectives, methodology is prepared. The ontological claim that is perception of inhabitant of Khokana on impacts of fast track are identified based on interview with structured questionnaires. Other than to explore the impacts, observations, literature study and case studies are done. Most of the impacts are found to be adverse. To overcome adverse impacts, government can work on the economic prospects for Khokana settlement. Government need to strictly prepare plans and policies and use it strictly to minimize the negative impacts.

Keywords

Transportation, Highway, Sustainable Development, Impacts, Traditional Settlement

1. Introduction

1.1 Background

Kathmandu Terai Fast Track is proposed as a new 4 lane highway over 72.5 km alignment between Kathmandu and the existing East West Highway near Nijgadh. The new width of the carriageway will be 25 m in hilly area and 27 m in plain area. The proposed project also intends to widen the 18 km stretch of Mahendra highway between Nijghad to Pathalaiya Section. It will decrease the traveling distance by 159 km and save traveling time by more than four hours [1].

Nijgadh International Airport has also been proposed at Nijgadh and it is said that this fast track has been proposed to cater the tourist coming from this International airport. Not only has this being reasoned, another reason is also to push the urbanization growing in Kathmandu to Birgunj, Nijgadh and

Hetauda. This road will bring all people from the Eastern Development Region closer to Kathmandu by about 4 hours.

1.2 Rationale

Impacts of transportation development varies as per location. It may have both adverse and beneficiary impacts on four pillars of sustainable development. On the basis of one particular case area, we cannot assume that it will have similar impacts on other places. Environment impacts are more over similar in most of the cases. Road development always brings disruption in environmental condition harming air quality, noise, water quality, natural resources, etc.

But socio-economic pattern varies as per location (under developed places or developed places) and as per type of road also (whether it is highway or rural road). Achievement of sustainable transportation system will be possible if we can integrate social,

environmental, and economic dimension is considered.

1.3 Problem Statement

The Environment Impact Assessment (EIA) report of Fast Track project mainly focuses on environment impacts. General description of encroaching agricultural land can be found but not cultural values of Sikali temple. The general were mostly concerned that they had not been consulted on the alignment during the feasibility stage. Although the Kathmandu Terai Fast Track Project (KTFTP) was proposed as early as 1996, neither an alternative economic activity nor a suitable resettlement plan for the residents have been proposed even in 2018. This project lacks using tools of public participation as it is a national pride project.

The main problem found to be the loss of huge chunks of agricultural land and also about their loss of identity which are directly and indirectly related to their impending economic displacement. Public interaction is also found to be less as per interaction with community. There has been no any plans for their future livelihoods. They has been no any plans on protection of cultural heritages.

1.4 Objectives

Main Objective: To explore the impacts of Fast Track project envisaged from Kathmandu to Nijgadh on Sustainable socio-economy of traditional settlement, Khokana.

Specific Objectives:

- To perceive socio-cultural impacts of fast track on traditional settlement.
- To study cultural heritage and analyze the impacts on cultural values.
- To know and understand about existing economic activities and how fast track road can have impact on economic pattern of people of Khokana.

2. Literature Review

2.1 Transportation

Transportation, the movement of goods and persons from place to place and the various means by which

such movement is accomplished. The growth of the ability and the need to transport large quantities of goods or numbers of people over long distances at high speeds in comfort and safety has been an index of civilization and in particular of technological progress. [2]

2.2 Sustainable Transportation

Although there is still no single definition for sustainable transportation, but what is clear is that to achieve sustainable transportation require knowledge of the effects of transportation on economy, environment, and society [3].

A sustainable transportation system cannot be exactly defined but can be related with livable and economically strong communities where land are used efficiently with very less commercialization. The benefits and burdens from transportation projects are equitably distributed among societies.

2.3 Social Impacts of Highway Development

Social impacts are the future social and economic effects of proposed policy, program and project decisions and actions on the well-being of people, and their businesses, institutions and communities. These are effects that a transportation project has on adjacent neighborhoods and communities, beyond those intentionally affecting travelers and direct users of the transportation facilities. [4]

Social Effects are organized into following categories that is rose by road widening [5].

- Land Use
- Residential Impact
- Relocation of residences and public facilities/services
- Public and Community Services
- Community Cohesion
- Pedestrians and Cyclists
- Equity and environmental justice
- Changes and site accessibility
- Safety and repercussion
- Aesthetics

Highway projects cause socio-economic impacts viz., displacement of residents, displacement of business and community services, impacts on the residents like, disrupted and inconvenient detours, local road closures, and impact on the travel time, negative health effects, and impact on business and community services. Improvement of roadways also leads to improvement in travel times and emergency response time; however, at a cost of displacement of people, alteration of landscape and encroachment of personal property and recreational facilities. [6]

Impacts on Land Use

Transportation and land use are inextricably linked. Modifications to the transportation system can affect the accessibility of land, and significant changes in accessibility may result in changes in land use over time. Two-way interactions between transportation and land use make it difficult to determine whether transportation is influenced by land use or vice versa.

Transportation planning decisions influence land use directly, by affecting the amount of land used for transport facilities, and indirectly, by affecting the location and design of development. [7]

2.4 Cultural Impacts of Highway Development

Cultural heritages are also termed as cultural resources and can be defined as the values or properties that is inherited from our ancestors. These are the activities or properties that need to be preserved and carefully given to our future generations.

Resources are tangible, such as buildings and archaeological artifacts, or intangible, such as traditions, values, and spirits. It has its value based on history, architecture, social, technological values etc.

Road project may have the following impacts on cultural heritage [8] :

- Damage caused by road construction, related works such as quarries and borrow sites, and unregulated access to cultural heritage sites. Such damage could affect the historic, scientific, social, and amenity values;
- Aesthetic impacts on cultural monuments and archaeological sites; and
- Positive impacts on the amenity value arising from improved access to sites recognized for

their cultural value; and on the scientific, historic, and social values arising from the addition of interesting sites previously unknown or overlooked; and the updating of region's heritage.

2.5 Economic Impacts of Highway Development

Generally, road infrastructure plays a crucial role by providing mobility for the efficient movements of people, goods and services as well as providing accessibility to land and a wide variety of commercial and social activities.

There is no such evidence that there is role of road development on economic growth of place or a country. In developed countries, such as New Zealand, where there is already a well-connected transport infrastructure network of a high quality, further investment in that infrastructure will not on its own result in economic growth. Transport investment is a necessary, but on its own not sufficient requirement to generate significant economic growth at either a national or regional level. [9]

In particular, increased access and connectivity create increased opportunities for trade, competition and specialization, which can lead to longer-term productivity gains. These changes are analogous to the gains from lowering barriers to trade and the expansion of opportunities that come from this. Therefore, knowing the circumstances in which these impacts occur is an important part of understanding the economic benefits that may arise from transport investments. [9]

The links between transport and the economy also tend to become more complex, with transport investment having to meet multiple objectives: these may include improvements in safety, travel conditions, accessibility, environment, integration and social inclusion. There is 'two way road' issue – improved transport links may result in additional private investments and employment opportunities flowing into the region, but may equally result in population and employment opportunities flowing out of it. [9]

2.6 Inferences from Case Studies

- Land conversion seen more in highways and entry point. All commercial activities are vibrant at these areas.

- Logistics and E-commerce may arise.
- Access roads get connected with time.
- Small scale private industries try to locate away from urban areas and near to highways.
- The expansion depend on distance, route and time.
- Protection policies play vital role to control land conversion.

3. Research Methodology

A methodology was prepared to claim the ontological position of my research topic which is exploring the impacts of fast track road project on people of Khokana. My subject is the interest how inhabitants of Khokana experience the impacts of fast track road project and will be exploring their perception and views. My research falls under post-positivism and constructivism paradigm which involves understanding of social and cultural life, economic prosperity which has to be approached from qualitative and quantitative strategies. The correlational research strategy is used as it includes social survey and observation. For qualitative methodology, methods like literature study, case study, interviews, in depth interview, key informant interviews, focus group discussion, phenomenological narratives, and stakeholder participation are proposed.

The nature of my research is exploratory and descriptive and is approached through induction approach. This approach involves the search of pattern from collected data and develop a theory that could explain those pattern. The indicators are identified to analyze through literature study and case studies.

The study is done in traditional settlement, Khokana. As per CBS 2011, the total population of Khokana is 4,927 living in 1,027 individual households. The inhabitants are mostly Newars (98.99) which includes maximum Dangol and Maharjan. The farming community of Newar who live here are mostly dependent on agriculture and much of their daily activities take place outside of their dwellings.

4. Findings and Analysis

A research framework was developed under social, cultural and economic parameters to develop the

understanding the current situation of settlement. Under these three parameters, indicators were developed and areas that is to be discussed according to indicators. To discuss the findings, respondents were approached, national and international case studies are done. To understand the current situation, data was collected from ward chairperson, local stakeholders and responsible authorities. The analysis are done on following parameters:

4.1 Social Impact

The social impacts are analyzed based on four categories which are as follows:

- Agricultural land use
- Community cohesion
- Safety and security
- Aesthetics

The direct impact can be seen on land use. Inhabitants of Khokana are highly dependent on their agricultural land and access roads give rise to land developments. This tends to stop the use of indigenous lands by locals. Ribbon development along the highway can be seen. Transportation infrastructure, commercial buildings, gas stations, institutional buildings, and residential area are developed as land developments. With these commercial activities, ancient traditional activities will lose its essence.

Migration in Khokana tends to affect community cohesion. The bonding, here people shared, will be affected by new people when in-migration happens. One of the positive impact will be that physical infrastructures of this place will be improved as it is in worse condition.

As this place is starting and ending point, bus stop has also been proposed. This highway is high speed road. This might question the safety and security of this place especially to vulnerable groups that are women and children.

The natural settings like terraced farming, relief, settlements on hill and agricultural land will be lost. Disruption of views of natural landscape, greenery are negative impacts that will be rise due to emissions and pollution.

4.2 Cultural Impact

This place has rich cultural heritages and this highway has direct and negative impacts on both tangible and intangible heritages. The vibrations that is created from heavy vehicle running on the road will have impacts on their main deity temple that is standing on the hill. From case studies, I found that there will be ribbon development along the highway corridor and this development will surely have negative impact on their jatra road to deity temple and their cremations site. Cremation site will be completely inaccessible if this highway is to be built. The other small temples along the jatra road that holds value while their jatra will also be affected.

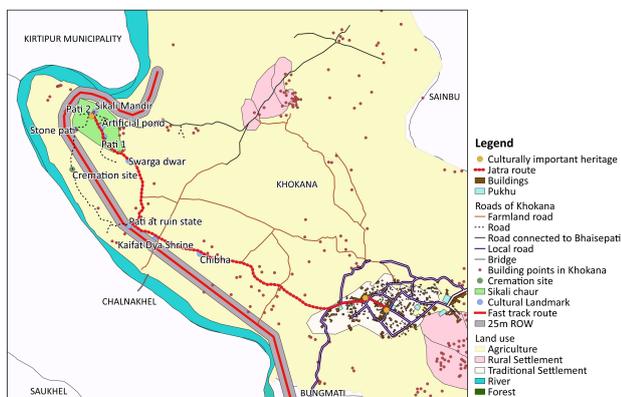


Figure 1: Map showing important cultural points on way to Sikali Chaur

Khokana, though a municipality, is still a rural area with ancient tradition, cultural values. This fast track will surely give rise to urbanization. People have own social and cultural sentiment attached with festivals. With this urbanization, these things get lost if proper planning are not done. The cultural practices here are quite different from other festival that normal people celebrate. When other new people are migrated, their cultural practices might get mixed up which will not be accepted by local people.

4.3 Economic Impact

One of the economic impact will be seen in land values. The land value around buspark and along the highway will significantly rises. The residential area will be developed as far from these two areas. It will be developed near the Khokana settlement. The affected are the ones who get low prices of their land and as well as they have to suffer from fragmentation of land. Agricultural land is a source of livelihood of the people of Khokana. With land acquisition and

selling of land, their farming activities get stopped which might have effect on their way of living.

Mustard Oil Mill

There, people are trying hard to maintain their traditional techniques of producing mustard oil. Increasing demand of oil and lack of manpower, these traditional oil mills are becoming vulnerable. There are already new oil mills emerging as per sources which are producing oil from modern technology. Youths will be the one who give continuation to this oil mill but with their education level, they might not show interest in this. Increasing demand of oil might give rise to change in technology of producing oil. This affect in identity of Khokana.

Small scale business

Highway development might attract new business. New business can be developed in form of hand made products which are much appreciated by tourists. Here people will have access to new markets. Especially women will be more benefited as they are already involved in small scale handmade business. This might be opportunity for women to be developed as entrepreneur. Here women in Khokana are introvert. When these women get exposure, they will be more confident and can deal anyone and might be able to keep their ideas in front of them.

5. Conclusion

As this fast track has not yet constructed, the impacts are unpredictable. So the study of impacts are based on perception of people of Khokana and case studies. All the three objectives were identified. To study the first objective, indicators like agricultural land use, community cohesion, safety and security; and aesthetics and landscape were studied. To explore the impacts on cultural heritages, the value of both tangible and intangible cultural heritages were studied. The information was collected from member of guthi and youth club. To study the impacts on economic aspect, economic pattern was studied. The main economic activities was found to be agriculture, oil mill (traditional identity) and small scale handmade business. If there will be no agricultural land, their primary economic activity, as agriculture, might lost. The oil mill, as traditional identity, might get affected. People want more traditional and authentic oil. With the increase in demand, owners might opted for use of modern technology. The small scale handmade

business might get platform and might be developed as independent entrepreneur. Government should come with proper planning to flourish the beneficial impacts and overcome the adverse impacts.

6. Recommendation

It is highly recommended that government needs to take consideration of suggestions of locals. Locals are suggesting to change the alignment at the west of Bagmati River. Government should have second thoughts on keeping the alignment as planned, as development will not be sustainable if pillars of sustainability are not maintained.

After the study of impacts of fast track project, the major impacts are found to be on ancient agricultural land and socio-cultural values. Government should consider all these impacts and come up with strong policies to overcome all the identified impacts. They should be doing public consultations not only with locals but also with other expertise like culture, environment, agriculture, etc.

To minimize the adverse impacts, this project needs to be worked out on national and regional level. Local stakeholders also need to be cooperative with government.

At **National level**, policies could be developed.

- Khokana should be considered as agricultural zone and hence no any buildings should be allowed to construct unless it comes under transportation infrastructure.
- Land Use plan
- Bye laws
- Sikali chaur considered as Monument Preservation Zone so that no development activities can be carried out.
- Enhancement of traditional economic activities like expansion of oil mill.
- Highway safety standards so that free pedestrian movement can be maintained.
- Law of compensation for farmers
- Political sustainability

Regional level

Strictly unnecessary land developments not allowed on agricultural land.

Prioritization of locals for non-farm employment. Economic policies regarding small scale industry can be focused only on local products (carpet, wood, etc.) produced by Khokana settlement.

Khokana community could be developed as knowledge city that promotes progressive and integrated knowledge culture.

The local government establishes the interaction between national government and local people. The local governments establish local development plans for the conservation of heritage at a local level; they develop management tools, set up and manage the local conservation projects, and work with the local community, the local government organize promotion of cultural sites marking its importance.

Local Stakeholders

Local stakeholders are the direct bearers of this project. They are at huge loss as most of their lands will either be acquired and negative impacts on cultural heritages. Instead of being worried on loss, they need to focus on preserving of what they have remaining. They also should contribute as opinions while making plans and policies and should be able to live up to it.

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