



# Planning Implications of Highway Corridors on the Levels of development and settlement pattern.(Case study of Haryana state)

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**Abstract:** Huge investments are being made by the Government of India for development of highway projects and improve settlement development with the assumption that creation of transport infrastructure will bring about economic and social development along their corridors. However, several studies show that transportation is not the only driver of development. Also invest in urbanization or rural area of Indian states. This will help to improve faster urban growth or living environment.

In this study we compare the levels of development and settlement pattern of districts that lie both on and away from the Highway corridor to assess the importance of transport infrastructure in urban and regional development.

The National Highway 5 which cuts across 13 of the 22 districts of Haryana with varying levels of development within a single governance structure is taken as the case study. The major areas are Delhi NCR or other neighborhood cities of Haryana.

Levels of development are assessed by using a composite index and z-scores for development indicators. Settlement pattern analyses include rank size, nearest neighborhood, kernel density and directional distribution of settlements.

**Keywords:** *To assess the levels of economic, social, demographic and infrastructural development along the Highway corridor in Haryana.*

**Abbreviations:** *To identify the planning implications of the levels of development and settlement pattern along the corridor. (Haryana state.)*

## I. INTRODUCTION

In India There has been a continuous debate among scholars, especially since the 1961s, on the importance of transportation network and infrastructure in the development of a region and country. While some urban planner and scholars believe that just building transport networks would assure development or particular region, others argue that a development strategy needs more. Several case studies provide evidence for both these arguments and for specific contexts. All of them invariably explicitly point out that transportation network is essential if not the only driver of development. Government of India (GOI) has also prioritized the transportation sector in various Five Year Plans (FYPs), more so in the post-liberalization era. Most impact among the initiatives taken is the Golden Quadrilateral Highways (GQH) project which envisages connecting Delhi, Mumbai, Chennai and Kolkata with high speed transport infrastructure an attempt to not just boost economic activity in these four cities but also faster development along these sides or roads. The route spans 13 states and also connects major cities of Delhi, Amritsar, Jaipur, Kanpur, Jammu, Haridwar and Lucknow among others. The presence of a transport network is expected to influence its immediate the middle of nowhere and the adjoining corridor is expected to have higher development chances to scores. Other factors, namely industrialization, structural budget in economy etc. may also influence the corridor development and may be influenced by it. In the thesis we only consider development of cities and settlement pattern of urban and rural area, among those factors.

## II. IMPLICATION OF LEVEL ON DEVOPMENT AND SATTELMENT PATTERNS.

Designing an impact study for a road-related project is immensely facilitated if an economic model providing an explanation of the economic effects of a road is available. Such a model would provide an analytical framework for the study and hence help justify the choice of the specific outcome variables considered. As far as the economic analysis of the effects of the road is concerned, Walters (1968) and Jacoby (2000) developed a simple model that explains how road development (i.e. construction of a new road or expansion/improvement of an existing one) might lead to the economic betterment of the population concerned.

In the first step, using the pre-project baseline survey data, examine the relationship of individual well-being attributes (i.e. outcome variables) with  $d$  (i.e. distance from NH2) and estimate (or confirm the hypothesized value) of  $d$  and thus delineate the influence zone. Next, identify control sample households corresponding to sample households falling in the influence zone. Then compare levels of well-being attributes of influence zone households and of their similar controls and obtain an estimate of the benefits of living in the accessibility of NH2.



Figure 1 .Road network of Haryana.

## III. THE TIME FACTOER

In the case of a new road planning or an upgraded one, the full impact of the road interruption may take a long time to be realized. Therefore, the pre- and post- interruption observations (which may be collected time to time at the gap of a few years, say) with respect to the outcome variables relating to capability or allocation factors of well- being are to be compared. A method of double difference as clarify in a later part of this chapter is available for comparisons and estimating the impact of highway network up gradation.

A comprehensive impact assessment may not be easy because of the extremely high information requirement involved. As indicated later, a feasible alternative to the above approach may be to identify a set of household-level of development outcome variables surround aspects of transportation and mobility, poverty and other dimensions of well-being and estimate the partial effect of NH-2 and NH-44 on these variables for the relevant population and development groups.

The on-site power can be saved during non-peak hours and used during the peak hours. This would reduce the load on the energy generated infrastructure or electricity generating power plants. There will be financial gains from this at the building and urban level (due to reduced energy consumption and by exporting the extra power to the grid for community use.) at the community level (due to reduced energy generation load and requirement).

## IV.ECONOMIC & DEVELOPMENT USED IN THE STUDY

Economic indicators are cardinal, essential, and fundamental. Statistics used by economists and policy makers to understand the direction of growth of economy of the country or the region. Further, what are nee development and turning points, new requirements and actions to be taken for improvement or urban and regional settlement. In this study we have used key indicators like **GDP, PCI, WPR, industrial development** etc. sub region wise and district wise to understand and compare the present economic conditions of the regions and districts of Haryana state.

## V.RESULTS AND DISCUSSION

Development should be in clusters of mini cities focused on a major city which has a high growth rate and a vibrant economy.

These mini cities should be planned at appropriate distances to create aseml-contiguous chain of settlements.

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## VII. CONCLUSION

Urban and Village-level variables relating to land use, education, health, infrastructure, transport system, etc. and household-level variables like education, health, use/ownership of means of transport, mobility etc. may be considered for the measurement of direct effects. Corresponding outcome variables which may be considered for measuring indirect effects could be a range of economic activities affecting markets, land prices of that area, migration etc. at the village level and income, consumption, farming and non-farming employment, ownership of assets, non-farming activities, migration, etc. at the household level.

## VII. FUTURE SCOPE

This research will change the perspective of the future architects and urban planners of the world. India is a progressing country and has large scope of adapting new technologies, methods of design, planning and development of human settlements.

**CONFLICT OF INTEREST:** This research paper explores the futuristic trend change development of road network in the planning of urban infrastructure and rural infrastructure for upcoming generations, which may disprove to not so curious migration to urban area or other countries migration. But this paper will draw appreciation from energy to future transport, environmental, urban, and regional, town city planners, or future planners and intellectual thinkers of the contemporary world.

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