CHAPTER 1

INTRODUCTION

Much is being spoken and written about social transformation in India and elsewhere. This is partly because an unchanging society is a myth and partly because the phenomenon of change is a multi-dimensional subject attracting the attention of almost every branch of knowledge. It is, therefore, that change has become subject matter of most of the social sciences, including sociology. But many studies on social change seem to have focused more on different manifestations of change like modernization, westernization, secularization, etc. or spheres in which changes are occurring. There are also studies either highlighting hurdles of social change or comparing two groups (one traditional and one changing) and capturing the differences among them as changes. Studies selecting development of infrastructure such as starting of a school or a college in a locality, provision of irrigational facility, establishment of a banking institution, etc. are also available, though not on a large scale. In particular, development of road transport, which has far reaching implications, has not been studied much covering different socio-ecological contexts. Therefore, the present study aims at capturing the social implications (positive, negative and neutral) of the infrastructural development in the larger context of social change in India, by making a comparative study of two districts of Karnataka one developed in road transport facility and the other non-developed in this respect.

Meaning of related concepts

Three concepts, namely social change, transport and development are basic in the present study.

The concept of ‘social change’ ‘change’ refers to any alteration or variation in the existing conditions, which has either already occurred or is
occurring. But such alteration and variation does not indicate any goal, value or direction. For instance, when one says that one has changed, he is not sure about whether he has become good or bad, rich or poor, traditional or modern, socially responsible or antisocial. Therefore, the concept of change is goal-free, value-free, and direction-free, just like distilled water, which is tasteless, colourless and odorless. The term ‘social’ refers to the social aspect of man in which his social relations are prominent. Every man, in the course of interacting with his fellow beings, develops complex relations. Therefore, social change refers to alterations or variations that have occurred or are occurring in the social life of man.

The term ‘transport’ has been derived from two Latin terms, namely ‘trans’ and ‘portare’. ‘Trans’ refers to across or the other side and ‘portare’ implies to carry. The combined meaning of these two terms is, therefore, to carry goods and persons from one place to another. There are four types of transport operating in almost every country today. They are railway transport, road transport, air transport and water transport.

The concept of ‘development’ is often confused with the concept of growth, though they have something in common. In both, we find an improvement or an increase. But in the case of ‘development’, there are planning and qualitative aspects. For example, when population of a country increases, we call it population growth. But when quality of life or per capita income increases through intended efforts or plans we call it development. In other words, ‘development’ is a process of change in which deliberate increase in the quantity and improvements in the quality are noticed.

**Importance of infrastructural development:**

Many reports have seen the light of day concerning development of infrastructure in developing countries, so has been the case in our own country as well. The focus of each of them has invariably been on the quantitative
aspects of infrastructural development, i.e. economic dimensions concerning
issues such as the scale of investment, the number of projects in its various
segments, the rate at which improvements are to be effected, the percentage
thereof, the relationship between progress in infrastructure and the impetus it
can have on economic growth, etc. While one must admit that quantitative
considerations are collectively an indicator of economic progress of any
country, it should be realized that qualitative dimensions are equally important,
if not more. That is because while the former tends to overshadow or obscure
the socio-cultural dimension, the latter, when taken into account, levels
infrastructural development and puts its various segments in rightful places.
This would enable it to cope with altering situations that emerge in the course
of development elsewhere in the sectors of economy. If these are ignored, then
the entire development process would be meaningless. Especially the pace, at
which development in it has been taking place, indicates that growth in
infrastructure is general. In road transport in particular there are some
development dilemmas as well, though imperceptible, that need to be reckoned
with, so that the present crisis does not shortly turn out to be critical or reach a
flash point.

Infrastructure is an area, as realized by all writers on development, where
both macro and micro policies and governmental and private finance have an
important role to play because of its spread effect on the entire process of
development and human welfare. This needs no emphasis, what is not generally
appreciated.

It is the contention of the proposed study that there are not only
inadequacies but also causes of much concern as we keep moving through
improvements in infrastructure over time. More specifically economic
considerations have been the more exclusive concern of policy. In the case of
piped water, electric power, sanitation, educational centers or transport, low
operating efficiency, lack of proper maintenance and lack of attention to human problems that have emerged have never been accorded serious attention. Collectively they may account for a large part of success in a country’s development. Modernization and urbanization, diversified production activities, rapid urbanization, enhanced competitive strength and so on, where economic considerations alone become supreme and socio-cultural ones have the least role to play, we find not only persisting traces of a dual economy but increasing human miseries like diseases and deaths.

It is not our intension here to go into the pros and cons of the process of various fields of infrastructural development currently under way, nor is it an attempt to review and document the known economic and non-economic problems of them. Rather our purpose is to focus on one important segment there of, namely development in road transport and make a detailed study of the socio-economic and other implications of steady growth made in it.

**Importance of transport**

Transport development and changes in the social institutions are mutually re-enforcing. Without some degree of changes in the social institutions, one fails to appreciate the need for transport development. Similarly without transport development, social institutions of a locality cannot be exposed to the external influence. Vishnu Sharma’s ‘Panch tantra’ rightly described the importance of transport development thus “We can see or make wonders by visiting different places. It is possible to earn enough wealth through traveling. Thus increasing prosperity is possible through making journeys.”

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The functional approach in sociology rightly highlights that, the continuation of social life or the maintenance of society needs many functions to be performed. For example, educational system is needed both to prepare youngsters to perform adult roles and to allocate them to different occupations or professions. In this sense, the transport system is also needed to cater to changing needs of the society and thereby to keep the society functioning.

The following are identified as some of the important functions of transportation.

1. By enabling people to move from one place to another, transport broadens man’s outlook. It is not too late for a mobile man to realize that people staying in different places have much in common with him.
2. Transport widens the input and output markets.
3. Transport makes the movement of labour and capital from one place to another easier.
4. By transporting goods from places of production to places of consumption, and also from places of surplus to places of scarcity, transport tries to stabilize the prices of goods.
5. Transport helps to solve the unemployment problem.
6. By decentralizing and diversifying industries, transport helps to balance regional development.
7. Transport extends the area of operation of industries and organizations just as it widens horizons of man’s activities.
Types of Transportations

At present four types of transport system are to be found in almost all the countries. They are air transport, water transport, railway transport and road transport.

Railway transport is both a means of inland transport and the biggest public sector undertaking in India. The first railway line was built in 1853 between Bombay and Thana covering the distance of 34 kms. As in 1992-93, route length of 62, 490 kms was built, of which 11,060 kms way was electrified.

Road transport existed even in the pre-historic period. Hindu and Muslim rulers devoted some attention to the construction of roads in India. Roads constructed for transportation is of four types namely, national highways, state highways, district roads and village roads. In India, in 1991, the total road length in the country was 20.37 lakh kms. Yet, 65% of villages do not possess all weathered roads.

Water ways have been used for navigation since the dawn of civilization. There are two types of water transport in the country, inland water transport and sea transport.

Air transport is modern and fastest means of transport. It started during the Second World War (in 1920) in India. Before Independence, there were eleven private companies engaged in air transport. Due to the lack of passengers and competition among the companies, they were incurring losses. In 1950 Air Transport Enquiry Committee was constituted to coordinate the work of these companies. In 1953 Government of India established the Indian Airlines Corporation for inland movements and the Air India International for international transport facility. In 1986 Helicopter Corporation known as Pawan Hans Limited was also constituted. Today the air transport has put India in a better position to deal with international matters, including imports and exports.
Importance of road transportation

Among four systems of transport mentioned above, the road transport has not only developed much but also is provided in every nook and corner of the society. An Indian villager, howsoever interior his village is, depends more often on road transport than on rail, air or water transport. It is because the road transport gives the following advantages:

1. A study made jointly by the Road Wing and the Indian Roads Congress has shown that within just four years of the construction of Ramnad Mandapam Section of Highway No. 4 in Madras, there was a spurt of activity in the vicinity of the full road length.

2. There are about 5.5 lakh of villages in India, all of which cannot be linked by rail, water, or air transport. The only way of linking them is to provide road transport to them, howsoever interior some villages are.

3. It was estimated in 1966, that every transport vehicle on the road provided jobs for eleven persons. Thus the road transport helps to solve the unemployment problem. Surplus labour will be withdrawn from sectors of unemployment and under employment and put in to productive uses.

4. Penetration of motor transport into the interior parts has brought about uncultivated lands under cultivation.

5. Roads facilitate for dispersal of industries.

6. Agriculturists get better prices for their products in places of demand for their products. Road transport helps them to bring their products to such favorable markets.

7. Buses, vans, trucks and tractor-trailers are commonly used to bring the workers from their residences to places of work.
8. Contact with the outer world is in itself an education. Roads have cultural and social aspects.

9. Road transportation has facilitated for quicker postal services and increases in the telephone and telegraph lines, electricity and sewage facilities.

10. Road are the veins and arteries of a country, through which channels every improvement circulates “The economic significance of roads for agricultural and industrial development and for social progress and political unification can be easily understood.

11. Good roads reduce the strain on draught animals. It is also possible to quickly transport perishable goods to places of their demand before they get perished.

12. Good roads help to quickly bring the police and military men to places of disturbance. Similarly fire extinguishing vehicles also can quickly come to the places of their need.

Studies conducted in the area of research

Though the subject of road transport development as an agent of social change is not much researched into, has started attracting attention of social sectors recently.

The available studies for the purpose of analysis may be said that they belong to two categories as studies conducted in other countries and studies conducted in India. An attempt is made to briefly review studies in these categories in the chronological order.

Shimokobe Atsushi, conducted five studies in Japan and he tried to correlate regional development with transport development, In Japan economic growth has led to certain problems like acute concentration of all resources in the metropolitan cities, unexpected demand for urban services such as transport, housing, energy and water supply.
Winston Denis' study of the metropolitan city of Sydney in Australia has tried to examine the relationship between urbanization process and city transport system. He also observed an inter-relationship between transport networks and building developments, which are both public and private endeavors in cities.

Gvishiqui, D.M. has analyzed problems of scientific and technical cooperation in European countries. He observed that cooperation, power, public health and resource management have helped to solve many problems in these countries.

Craft Michael, Lockwood Helen Craft, Michael and Lockwood Helen conducted their studies on hospitalized patients in Australia. They observed that hospitals provide daytime therapy and encourage patients to attend evening events, like dances, cinema shows, etc. Hospital transport to bring patients, who cannot walk in from their beds, to recreation places has worked with medical treatment.

Gromyko, Anatoli Andreevich, Hozin, G.S., Gromyko A.A. and Hozin, G.S. studied in USSR. They observed that the promotion of transport and communication has created new trends of cooperation between the states.

Siddall William, R., looked at transport development in the United Kingdom and America from the point of view of environmental consideration. He observed that the fear regarding the protection of environment is based on these three fears: (1) Transport facility, directly or indirectly, pose a threat to physical well being (in the sense of causing accidents), etc. (2) It makes nervous irritable, neurotic, violent and suicidal, (3) And, transport is a menace to esthetic values in the sense that it generates bad smell and shatter to peace.

Jenness, R.A. studied migration patterns of Canadians and Canadian government policy relating to these movements. He found that the costs of
transport and communication have a direct bearing on geographical mobility of Canadians.

Fedrenko, N.P. has reviewed an economic experiment carried out on the transport system of Masco city. The experiment used econometric models and computer methods to achieve an optional pattern for the transport of goods. His study reports that advanced enterprises have lesser incentive to introduce new technology than backward ones have.

Efimov, V.T. and Mikerin, G.I. tried to analyze positive and negative impacts of increased automobiles used in USSR. They found that car in the socialist system need not be a scapegoat for all evils, but can be fully and harmoniously integrated into the system of social relations.

Meier, Richard L., analyzing the role of multinationals in social development in the United States, Meier Richard L. observed that convenient transport has facilitated for the availability of managers from the “brain drive”.

Olende, S.A. has touched upon energy consumption aspects to transportation in Africa. He observed that African nation faced four problems such as lack of knowledge on the location of deposits, lack of trained personnel, shortage of equipment and high cost of petroleum. He found that Africa’s energy consumption was less than 10 per cent of the energy consumption of developed nations in 1974. He made some recommendations to tide over the energy crisis in Africa.

Frobel Floker, Heineichs, J. and Kreye, O. Found that the underdeveloped countries of Africa, Asia and Latin America have become sites for world market oriented manufacturing industries as well as suppliers of raw materials. The development of transport communication, organization and refined technologies have made it possible to relocate industries according to availability of cheap labour, unskilled or semiskilled labour.
Dunn, James, A. Jr. has analyzed transport policy and highway finance in Great Britain and the United States.

Palvogyi Istvan Pal. studied the social impact of technological development in railway transport in Hungary. The old technology trains used to be operated by two men, namely the railway engineer and the chief guard. But the recent technologically advanced railway needs only the engineer, but not the guard. The effect of these change are examined in this study.

Soref Michael, J. conducted his study on drug markets in the United States. He found that these markets are significantly influenced by the transport factor.

Zhelezko, S.N. and Chirikovo, A.E. have conducted a study on 31 Moscow Transport Enterprises in USSR. They developed a mathematically based system of indices to measure adaptively and efficiency of work in these enterprises.

Dezert, B conducted a study on water transport in France. He found that the size of available containers and the creation of past transit services have led to specialization of ports.

Gottmann Jean also conducted a study on water transport in France. And found that industrial and commercial activities concentrating in coastal region is a historical reality. After 1945, Sea Traffic underwent important growth and diversification of activities. The exploitation of mineral resources and submarine military strategy were added to traditional transport and fishing trades.

Lamglois Simon studied household expenditures of 539 double income families. He found that the expenditure on housing, transport, leisure, food consumption, insurance vary from single income family to double income family.
Nonini Donald M. conducted a study on Chinese entrepreneurship in Pekan Tebu, a west Malaysian market town. In the context of truck transport industry in the town, he tried to analyze the operation of family firms and the relationship between employers and employees.

Heredia Iturbe, Francisco analyzed the effects of expanding Mexican air transportation on social and economical events. Three categories of space, namely trunk national, trunk regional and regional - feed line put specific community requirements.

Kukiainen Yrjo has traced the history of developed Europe and a periphery of Finland from the middle age to the late nineteenth century. He noticed that maritime transport has affected economies of foreign trade. He observed a negative association between the export of forest products and transport costs. It was only during the late nineteenth century that the huge growth in transport potential robbed shipping of its former key position and made the control over natural resources and other factors of production more important.

Lawuyi Otatunde Bayo has conducted his study in a Nigerian community, namely Yoruba. He tried to capture the changes occurred in this community by using driving signs. He also observed that a strong influence of age is found on the use of driving signs.

Based on his field study of six villages in Egypt, Reichert Christopher found that transport has played a significant role in the return migration. The returning migrants were found to be investing in transport services.

Ward. R. Gerard has conducted his study on economic and political changes generated by changes in transport technology in South Specific Islands in the United States. Changes in transport technology have reshaped the agricultural economy.
Thaha, A. and Mamtaz Begum have conducted a study on students’ enrolment of colleges in Cochin City. Centers of population, distance between them and likely interaction among these centers help to special distribution of the students in the Cochin region.

Pravin, Visaria, interviewing a sample of 500 householders in greater Bombay, considered transportation from the point of view of rural-urban and urban-rural migration. Through such migrants certain skills and or capital flow to different areas. Many of the rural-urban migrants are usually landless agricultural labourers and therefore are engaged in unskilled works in urban areas.

**Research gaps**

From the aforesaid studies on transport and society following gaps in knowledge become clear:

1. The available studies have not covered dynamic aspects of transport system in general, road transport in particular and its social implications.
2. The studies have not adapted holistic approach to the research problems, as they are not conducted by professionally trained sociologists.
3. Scientific attempts to capture the social impact of transport development in a comparative perspective is also lacking. The present study, therefore, has proposed to adopt comparative method to its research problem.

**Research Issues**

In view of the above mentioned gaps in knowledge particularly in sociological literature, the present study is proposed to address to the following research issues:

1. How is transport system structured or organized in India?
2. Which place the road transport development has assumed in the transport development in general?
3. What are the social functions of road transport in Karnataka, as road transport is in the state list of the Indian constitution?
4. How far Indian villages are responding to road transport development?
5. What are the areas, in which road transport development is creating desirable positive changes?
6. Has road transport development incurred social, economic psychological and or other costs? If so, which are they?
7. Has road transport development caused changes, which cannot be considered as good or bad, positive or negative, desirable and undesirable?
8. Which problems road transport development is facing in order to cope with the changing needs of the people?
9. What are the implications for policy and further research?

The present study tries to find answers to the above mentioned research issues by doing field work at the gross roots level and analyzing the field data in holistic and comparative perspectives.

**Objectives:**

The present study aims at fulfilling the following objectives:

1) To understand the development of transport system in general and road transport system in India and Karnataka in particular.
2) To trace the history of road transport system in Karnataka.
3) To identify the social functions of road transportation in the context of changing social needs and growing population.
4) To know the socio-economic profiles of the selected districts and talukas and villages.
5) To identify and analyze positive (good or desirable), negative (bad or non-desirable) and neutral social changes solely or partially attributable to road transport development.

6) To diagnose the problems involved in road transport development.

7) And to suggest ways and means of making transport development a planned strategy for economic development.
Hypotheses

The present study proposes to test the following hypotheses in the light of its grass roots research insights.

1) Road transport development has contributed to rural and migration.
2) Road transport development is not evenly distributed among the different districts and talukas.
3) Educated people use road transport more than the uneducated do.
4) Pockets having better access to road transportation facility change faster than pocket not having such access.
5) Upper castes and classes respond to the road transport development better than the lower castes and classes do.
6) Dangers of road transportation like accidents, energy crisis etc, have not minimized physical movements of people and their use of road transportation.

Research Design

Since the main focus of the study is to capture the impact of development in the road transport in a comparative prospective, the field selected should be such that in respect of road transportation two pockets- one the most developed and the other the most backward- are identified in a representative state. Karnataka has proved to be one of the three most representative states in India in respect of the length of national highways (in kms per thousand sq km of the area). The other two are Andra Pradesh and Orissa. The all India average of the length of the national highways is 10.43, which is very close to the Karnataka average of 10.41(Table 1). Besides, Karnataka is also typical of the Indian situation in respects of agro-climatic conditions, percentage of urban population and growth rate of industrial production. It was, therefore, decided to choose the two districts- one the most developed and the other the most backward in
respect of the length of the national highways per thousand sq km within the state of Karnataka. It needs to be pointed out that the available studies on the impact of transport development have not covered Karnataka state and developed and backward districts.

Within the state of Karnataka, Table (2) & (3) show that Shimoga district stands out as one of the three most developed districts in respects of number of motor vehicles per thousand population, road length per thousand sq kms and length of surfaced and pucca roads per thousand sq kms. It is only Shimoga and Bangalore which have figured in all the respects (Table 3), while Dharwad, Mysore, Hassan, Dhakshina Kannada and Shimoga have figured in one of these respects. It is, therefore, decided to select the most developed taluka in respect of the road transportation only from the Shimoga district. In the above said three respects namely, number of motor vehicles per thousand people, road length per thousand sq kms and length of surfaced roads per thousand sq kms, Raichur has figured as the most backward district while, Gulbarga and Bidar have figured as backward in two respects. Chamarajanagar, Gadag, Chitradurga, Kolar, Bijapur and Bagalkot have figured as backward in only one of these respects. Thus it was decided to select the most backward taluka in respect of the road transportation from the Raichur district.

However, the comparative method necessitates that the selected backward and the developed talukas are comparable. In the sense, they are similar at least in respects of population size and composition of population. Therefore, some flexibility is built-in the selection of the backward and developed talukas to overcome methodological bias. One village from each of the selected talukas chosen for doing field work.
Methodology

Field work was be done during 2003-04 according to the usual methods of data collection used in sociological studies. While primary data was collected by doing field work in the selected villages and secondary data was collected from the official documents like census reports, statistical hand-books and records of the government offices at the local and the higher levels.

The selected villages in the first instance were covered through a brief household schedule comprising of only basic questions like religion, caste, occupation, land ownership, education, etc. to understand the broad features of the universe. A purposive sample was then selected for depth probing with the help of detailed questionnaires. A sizable sample of 100 households from each village was selected according to the procedure of proportionally stratified systematic random sampling. The selected households were enquired with the help of an intensive household schedule. Besides these, methods of participant observation and case study were also used. Care was taken to check respondents' bias by indirect questioning and informal intervening.

Scope and Limitation

Since the present study has adopted holistic approach and comparative methods for capturing the social implications of the development of the road transportation, the scope of the present study is vast. It has studied almost all aspects of the social life of the people in the selected villages which have come under the impact of transport development. Household level and village level comparisons are attempted. And implications which are positive, negative and neutral are inferred. Wherever it is possible to isolate the impact of the transport development and wherever the transport development has worked with other factors analysis is made accordingly.

Time and resource constraints of the present study have imposed the following limitations on the present study:
1. Only two districts- one backward and one developed- in respect of the transportation are selected. Moderately developed districts are kept outside the scope of the present study, howsoever typical they be. Because the comparative method necessitates for the construction ideal types, which is possible only when groups under comparison are only two-one reference group and the other control group.

2. Intensive questionnaire was not canvassed to all households in the selected villages and towns, which is very laborious and time consuming. However, broad features of all households were known by canvassing a brief schedule consisting of basic questions.

Differences between the developed village, that is Heddur & the backward village, that is Ramdurg were captured by comparing the profiles of the two. And changes in the lifestyles, food & dress habits, income & expenditure patterns, improvement of their main occupation that is agriculture, extended areas of operation for social, commercial & political interests are studied. The road transport development has also, generated certain undesirable social changes like increase in the road accidents, undue dependence on public vehicles wasting longer hours, etc., have also been noticed. In short, the study suggests that the road transport development is very much functional to transform and develop the backward pockets. Wherever some dysfunctional aspects are noticed, the study comes out with suggestions for improving the transport service and expediting the transport development in practically possible ways.