

## Pattern of Road Transport Development in U.P.

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### Abstract

The road transport is regarded as one of the most important infra-structures for the over- all growth and development of our economy. This sector has great importance in affecting a socio-economic change in the country because roads are the veins without which no development can take place. The same holds good for the state of U.P., where road transport has assumed a pivot position in the over-all economic development of U.P. That is why the central government passed the Road Transport Corporation Act, 1950 to establish state road transport corporations in various states to provide cheap and adequate transport services in different states.

Over the years, Road transport has become vital to the economic development and social integration of the country. Road transport has attained a dominant position within the transport sector and accounted for a share of 4.7% in India's G.D.P. in 2010-11 while it was only 3.9% during the year 2001-02. In a globalized world, road transportation system is vital for increasing productivity and enabling the country to compete effectively in the world market. A world class road transport system is essential for lending competitive edge to the economy.

The present study is an attempt to examine the pattern of road transport development in different periods and its impact on the development of the economy.

**Key words:** Road Transport, Road Development Plans, Rural Development Schemes, Socio – Economic Development, Infra-Structure Facilities

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## **1. INTRODUCTION**

History of road development in India is very old. It is full of references to the road policy and road construction in Mauryan and Muslim period. But the true pace of development of roads was accelerated after the appointment of Jayakar committee in 1927 and the starting of Nagpur plan in 1943. After independence in 1951, five year planning was introduced to develop the economic resources of the country.

## **2. OBJECTIVES OF THE STUDY**

1. To discuss in brief the history of road development in India,
2. To compare the growth of motor vehicles with the development of roads,
3. To highlight the role of road transport in the development of the state economy.
4. To make suggestions for removing the deficiencies of road transport sector in the state.

## **3. PRE-INDEPENDENCE PERIOD**

In olden times, the roads were mainly constructed by the kings only to satisfy their political and commercial needs. The great Mauryan Ashoka built the convenient roads well provided with avenues of trees and rest houses to strengthen and prosper his kingdom. He also recognized the importance of highways. Al-Brunei when visited India, found two roads for the conduct of region wide trade in Northern India –taking Qannauj as the starting point. One road went to Kashmir and another to Ghazni. A third road ran from Qannauj to Somnath. During Muslim period, the roads constructed were, well defined and these adequately served the country's administrative, political and commercial needs. The emperor Babur (1525-1530) who was well aware of political importance of communication measured his conquered territory from Kabul to Agra. The far-sighted ruler Sher Shah Suri (1540-1545) constructed Grand Trunk Road from Attock to Delhi, later extending it to Sonar Gaon which became its eastern terminus<sup>1</sup>. The emperor Akbar (1556-1605) also constructed new roads, bridges and military posts.

Under Mughal period, the provincial governors and district officers were responsible for safety and maintenance of roads. Zamindars<sup>2</sup> were ordered by Jahangir (1605-1627) to plant trees on the routes between Agra & Attock and between Agra and Bengal. The mile stones, wells, reservoirs and saraies were provided along the roads while attendants were employed to keep the saraies clean and habitable. These measures improved the conditions of roads and made travelling easier and safer. Under British period, the roads were constructed to connect commercial and military centers under the supervision of military engineers. In 1927, jayakar committee was appointed to study the financial and management aspects of road development.

**4. NAGPUR PLAN:** In 1943, a 20 year road development plan (Nagpur plan) was drawn up to connect the rural and agricultural areas with the main roads. This plan for the first time classified the roads as National Highways, State Highways, Main District Roads, Other district Roads and Village Roads. This plan could not succeed due to the partition of the country in 1947.

## **5. POST-INDEPENDENCE PERIOD**

After independence, five year planning system was introduced in 1951 to develop the economic resources of the country. In every five year planning, the central govt. provides funds to the states to develop the position of roads in their respective regions.

**6. BOMBAY PLAN:** In 1961 , another 20 years, road development programme (Bombay Plan) was introduced for the development of roads. In U.P., the development of roads got great incentive after the appointment of a committee in 1967. The committee submitted its report in 1968.As a result during fourth five year plan, special provisions were made for the development of rural roads and other district roads. Road development also received encouragement during 5<sup>th</sup> plan period as a part of Minimum Needs Programme.

**Different Road Development Plans:**

Nagpur Plan(1941-1961)		Bombay Plan(1961-1981)			Lucknow Plan(1981-2001)		Vision-2025(Under P.M.G.S.Y.)	
Description of area	Maximum distance from main roads in kms.	Description of area	Maximum distance in kms. From		Villages with population	Policy	Villages with population	policy
			Metalled Roads	Any Roads				
Developed agricultural area	08	(1)Developed and agricultural land	6.4	2.4	(1)500 persons or more	Should be connected by all weather roads by 2001	(1)1000 persons in plain areas & 500 persons in hilly areas	Should be connected by all weather roads by the year 2009-10
(2) Non-agricultural area	32	(11)semi-developed area	12.8	4.8	Less than 500 persons	Max. distance from all weather roads in kms.	(11)500 persons in plain areas & 250 persons in hilly areas	Would be connected by all weather roads till the end of the year 2014-15
					In plain areas	03	(11) 250 persons	Would be connected by all weather roads by the year 2021-22
					In hilly areas	05		

**7. LUCKNOW PLAN:** After the completion of Bombay plan, the third road development plan (Lucknow Plan) was formulated by Indian National Congress for the period 1981-2001. Several rural development schemes such as Jawahar Rozgar yojna, Pradhan Mantri Gram Sadak Yojna, Ambedkar Gram Vikas Yojna etc., were introduced to develop the road network in the rural

areas. A time bound programme was also drawn up in the state to connect 19,814 villages having a population of more than 1000 with the links roads by the year 2005 and 34,414 villages having a population of less than 1000 by the year 2010<sup>3</sup>.

### 8. PMGSY:

Under PMGSY, a Rural Road Development Scheme :VISION-2025<sup>4</sup> was drafted for rural road development , according to which all the villages of the country would be connected by roads till the end of 2025. This document was drafted by the Ministry of Rural development. Under this scheme, the Central Govt. provides full assistance for the construction of rural roads while the repairing work is done by the State Govt. For this purpose the State Governments were recommended to create a separate fund in their budgets for repairing of rural roads<sup>5</sup>.

In India, there has been a gradual increase in the road construction since the starting of five year plan in 1951. But this pace of development was accelerated with the announcement of liberalization and globalization policy of the Central Govt. when foreign investors visited India from all over the world. Thus, the role of road transport in opening up the country side is significant in providing an essential communication link. It provides a mobility on which a number of development programmes depend. There can practically be no revolution in other sectors without a revolution in road transport<sup>6</sup>.

#### No. of Motor Vehicles Registered In U.P.

Year	Two wheelers	Auto rickshaws	Jeeps	Cars	Taxis	Buses	Other Public service Vehicles	Goods Vehicles	Misc.Vehicles.	Total
1947-48	1353	.....	.....	10,536	.....	.....	3245	4866	941	21,380
1956-57	4,371	02	2,174	12,579	.....	.....	5,446	10,649	1439	37,199
1964-65	15,497	14	4,825	15,615	.....	.....	6,982	18,525	2603	64,511
1972-73	75,629	871	6,039	41,257	.....	7,210	.....	51,416	5,449	1,87,871
1982-83	3,23,800	7000	.....	63,800	.....	15,100	.....	41,400	1,45,700	5,96,800
1990-91	9,75,000	13,400	.....	1,51,000	.....	32,000	.....	75,000	3,21,000	16,88,000
1997-98	27,33,211	57,443	75,426	1,82,982	19,476	38,301	.....	1,27,059	5,49,294	37,83,192
2005-06	33,51,113	66,695	84,651	2,58,902	31,192	35,655	.....	1,42,774	6,55,470	46,26,452
2011-12	1,05,63,850	.....	1,76,398	9,84,937	47,364	.....	.....	.....	.....	1,32,87,232

Sources:(!) Basic Road Statistics & Statistical Abstract Of India (Various issues) G.O.I., N.Delhi; (!! )Land & People,U.P.-2005, Kalpaz Publication ,Satyati Nagar ,N. Delhi , (!!!)morth.nic.in/./file838.pdf

**9. COMPARISON OF GROWTH RATE OF ROADS WITH ROAD TRANSPORT:** By the end of 2011- 2012, the total road length in U.P. was about 4,13,182 kms while the road length in 1947 was only 11489 kms. The share of U.P. in total road length of India was about 8.4% while the share in total no. of motor vehicles was about 11.69%.The registered no. of motor vehicles in U.P. increased from 21380 in 1947 to 1,32,87,232 in 2011-12 (622 fold increase) while the road length had only 35.97 fold increase during the same period. It is interesting to note that average no. of 3000 new vehicles are coming on roads daily.

### 10. ROADS AND POPULATION

The position of roads in terms of area and population cannot be said satisfactory too because the population is increasing at a higher rate. "The average density of population was 689 persons per sq. km. in U.P. as compared to 324 persons in India as per census 2001. In terms of area, the availability of roads in India is better than many other countries like Algeria, Kenya, Morocco, Brazil, Venezuela and Australia but in relation to population, India is at the lowest end. India is not only inadequate in route length but also deficient in width, crust, thickness and quality of roads<sup>7</sup>.

A survey conducted by National Quality monitor in district Moradabad under the supervision of Ex-add. Chief Engineer (Rajasthan), Mr. S.K. Sharma revealed that out of 08 roads , the quality and condition of 05 roads was very bad .This report indicated clearly the defects and deficiencies in details. The report found guilty to Superintending Engineer, Mr. Vijendra Kumar in constructing second class rural roads. State Quality Monitor was also responsible for not making proper quality control on the qualities of these roads. The Rural Development Ministry, under the right of information, accepted that there had been taken no action by the govt. against the responsible persons<sup>8</sup>.

#### Development of Different Types of Roads

Category	Year 1947	U.P.						INDIA		
		1961	1981	1991	1997	2005-06	2011-12	2005-06	2008-09	2011-12
National Highways	N.A.	Total & Surfaced =2,343	T & S =2474	T & S=2754	T & S=2883	T =4,307	T=3,820	T=65,600	66754	70934
State Highways	N.A.	N.A.	T & S =7967	T & S=10,494	T & S =9,647	9,444	T=8,391	T=1,29,400	1,28,000	1,54,522
P.W.D. Roads	Total=11,489 Surfaced roads=7,857	T=19,838 S=15,294	T=58,597 S=45,463	T =70,272 S=49,802	T =1,10,000 S =78,170	T=1,10,206 S =91,404	T=1,46,728	N.A.	N.A.	N.A.
District Roads	N.A.	T=24,370 S=3,198	T=24,659 S=3205	T =10,721 S =3561	T =10,721 S =3561	N.A.	N.A.	N.A.	4,70,000	N.A.
Village Panchayat Roads/ Rural Roads	N.A.	T=33,850 S=1675	N.A.	T =31,993 S =5853	T =31,993 S =5853	T =72,931	T=1,34,517	N.A.	26,50,000	T=38,84,136
Urban Roads/ Other District Roads	N.A.	T=20,694 S=16,266	T=20,930 S=16541	T=50,989 S =41,237	T =50,793 S =41,122	T =1,05,980	T=1,19,726	N.A.	N.A.	N.a.
Total Roads	Total=11,489 S=7857	T=62,642 S=35,712	T=1,47,952 S =77,043	T=1,88,076 S =87,123	T=2,55,467 S =1,48,303	T=2,84,765 S=1,63,908	T=4,13,182	T=33,81,887 S=15,77,263	T=35,00,000 S=16,45,000	41,09,59

Sources: (i) Basic Road Statistics & Statistical Abstract of India (Various issues), C.S.O.,G.O.I.,New Delhi ; (ii) India-2007, 2008, 2009, 2011 & 2013; (iii) www.uptransport.org

#### **11. ROAD ACCIDENTS & THEIR CAUSES**

It has been seen that in our country roads are constructed only for motor vehicles and there is no place for pedestrians, bicycles, rickshaws and bullock carts etc. to ply on the roads. There is also a lack of sub-ways and over bridges on the highways or express ways. As a result, non motorized vehicles have to pass the highways with or between the motor vehicles which often becomes the cause of accident. As per the latest study, India has the highest no. of road accidents in the world /Asia, with over 1,35,000 deaths annually. Our country has over taken China and now has the worst road traffic accident rate worldwide. The position of U.P. in the no. of deaths occurring due to road accidents is the highest in the country. The no. of accidents in India during the year 2011-12 was 4.97 lakh, in which 5.11 lakh persons were injured<sup>9</sup>. The main reasons for these accidents are the non-controllable and unsystematic traffic, drunk driving, low use of helmets, lack of seat belts, child restraints in vehicles and over loaded and old aged vehicles etc. The deficient investment , lack of comprehensive planning , haphazard growth of rural roads , roads without cross-drainage works, lack of proper maintenance ,poor quality, low standard and antiquated designs etc. have been resulted into several crises before the road transport sector. The total economic loss due to the road accidents in India is estimated at Rs. 6000 crore per year<sup>10</sup>.

#### **12. POOR ROAD CONNECTIVITY**

As rural road connectivity is desirable objective, not only from an economic perspective but also from a social stand point. However, the development of rural road network has suffered on account of lack of vision, shortage of funds, weak implementation mechanism and absence of initiatives. In spite of the efforts made at the state and central levels, only 40% of the rural habitations in the country are connected by roads and most of which are not categorized as all weather roads on account of poor serviceability conditions.

#### **13. IMPACT OF ROAD TRANSPORT ON SOCIO-ECONOMIC DEVELOPMENT**

The studies have indicated positive benefits of rural roads as these provide vital linkages between production and marketing centers. The lack of accessibility entrenches poverty. By reducing transport cost, rural roads will open new markets and expand existing ones, subsequently higher agricultural production ensuring large rural income streams and reducing consumer prices. In addition, reduced transport cost will improve the mobility of rural poor and their access to basic social services, economic opportunities and remunerative employment<sup>11</sup>. Road transport thus, plays an important role in conveyance of goods and passengers. It is also a key factor for promoting socio- economic development in terms of social, regional, and national integration of the country.

#### **14. SUGGESTIONS**

1. The existing design standards for road lay-out need to be reviewed and revised;
2. There should be provisions for missing cross drainage works, improving drainage system and raising of the road formation in poorly drained areas to longer the life of roads ;

3. To improve the road conditions, the major bottlenecks to the traffic should be identified through road condition surveys. Timely upkeep & maintenance of road assets will prolong its life, reduce operating cost of the vehicles and prevent road accidents;
4. Though considerable amount of funds is sanctioned annually by the govt. for developing rural roads, yet their condition is beyond the description. So the agency or organization involved in construction of roads should be responsible for any defect in construction or maintenance of roads and for misuse of funds;
5. There are no. of private vehicles which are operating their services on unauthorized routes. Such types of vehicles should be seized or imposed a high amount of penalty because such practice is becoming the reason of financial loss to the State Road Transport Corporation;
6. The damaged vehicles should not be allowed to park on the highways. There should be separate marked places for those vehicles which need repairing. The operations of the damaged or over-loaded vehicles on the highways should be completely banned;
7. According to NHAI, there can be no temporary or permanent shop or illegal construction at a distance of 220 foot on both the sides of national highways. But it has been seen that there are various repairing shops and dhabas near the road which become the causes of accidents many times. So the illegal constructions near the roads should be strictly removed to reduce the rate of accidents;
8. To reduce the rate of accidents , special mission should be carried out to check the over loading , drunk driving, head light, break light, back light, indicator, reflector, dipper, speed limit of the vehicles, helmets, seat belts and periodical fitness of commercial vehicles. The over-taking of vehicles and carelessness of traffic rules often become the causes of accidents. Such Practice should be punishable. The side mirror of the four wheeler's vehicle should be kept at 90 degree to see the back side of the vehicle.
9. Road side plantation of fruit trees & medicinal plants would also be an added source of revenue generation to the govt., besides providing nutrition to the local community and reducing the environmental pollution.

## 15. CONCLUSION

It may be observed that for developing the economy of the state, it is necessary to have a well developed road transport system. There is a need of good network of roads connecting the remotest area of the state to the city centers. There are a number of villages which have no link with the urban areas and hence these villages remain cut-off from the main areas. To cope with this network of roads, there is also a need of well organized fleet of buses and trucks etc. to be derived on these roads. It will go in a long way for bringing the state in line with other developed states.

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