

## Development of Banks (ATM) and Communication Facilities along Selected National Highways in Haryana: A Geographical Analysis

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### ABSTRACT

The present paper shows the growth process and spatial pattern of banks (ATM) and communication facilities i.e. banks (ATM) and communication facilities along national highways-1, 2, 8 and 10 falling in Haryana. The present study is based on both qualitative and quantitative data. The data has been analyzed with the help of simple statistical techniques. The study reveals tremendous growth of banks (ATM) and communication facilities after 1991. The highest concentration of banks (ATM) and communication facilities is on NH-10 due to the presence of a large number of big cities and towns on the other hand NH-8 have the lowest concentration of these services. If the facilities in cities and towns are not taken into consideration then these facilities are the highest on NH-1. Before, 1991 these facilities were available mainly in towns and cities, but after, 1991 there was a wide distribution of these facilities all along the highways (mainly in case of communication facilities). It seems that the volume of traffic directly affected the concentration of these services. It is found that banks (ATM) and communication facilities are mainly concentrated in cities and towns.

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### 1. Introduction

Road and road transport have come to occupy a dominant position in the transport system of our country. Roads are now recognized as an infrastructure critical to economic and industrial growth. Roads are increasing with passage of time but number of vehicles also growing at very fast rate. There is a lack of organized wayside amenities for long haul operators of our road network. Highway users have often to

drive long hours and consequently needs rest, toilet, petrol pump, eatables and communication facilities etc. therefore, the attention also need to be focus on the provision of wayside facilities along national highways. These facilities should become integral part of road modernization. Such facilities should be provided and run by the private sector that may be encouraged and supported by the government (MORTH, 2001). The national highways are the backbone of the road infrastructure and the major

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roads in India. These are main highways running through the length and breadth of the country connecting major ports, state capitals, large industrial and tourist centers, etc. (Ministry of Road Transport and Highways, 1984). Total length of national highways in India was 19,800kms at the time of independence (Economic Survey, 2002-03). It has increased to 70, 934kms in August 2011. These constituted about 2 per cent of all the roads in India, but carried about 40 per cent of the total road traffic (NHAI 2012). Provision of passenger oriented wayside amenities along national highways is essential since the passengers need certain minimum wayside facilities to make their travel safe, comfortable and convenient in order to reduce fatigue in a long distance journey. The Ministry of Road Transport and Highways had launched schemes for provision of basic wayside facilities and decided to provide the following facilities along national highways: petrol pump with minor repair shops, telephone booths, first aid and rest room for short stay, toilets, restaurants, parking lots, kiosks or sale miscellaneous or sundry items All the state PWDs have already been requested vide Ministry's letter no. R.W./NH-11052/3/97-DOI dated December 31, 1997 that henceforth in all national highway Projects being funded through the aid from the multilateral agencies or being developed through the private sector, provision must be made for passenger oriented wayside amenities at every 50 kilometer of national highways (GOI, 1998 and 2003). Road Development Plan: Vision 2021 recommended that, provision of wayside amenities with facilities like parking lots, drinking water, toilet, snack bars, *dhabas*, restaurants, rest rooms, petrol pumps with service and repair and communication facilities should become integral part of roads modernization. Steps shall also be taken for providing highway police petrol, medical aid posts and arrangements for tow truck service to remove accidental vehicle from the site and provide immediate medical attention to victims (IRC, 2001).

## 2. Banks and Communications

Whenever a new road is constructed, the first ever thing comes up in populated area and on crossing is a food-joints. Banks and communication facilities are also necessary because one cannot fulfill his need without money and communication. This is the second most requirements of passengers after food.

## 3. Study Area

Railways and roadways are the major means of

transport in Haryana. On November 1, 1966 when the new state of Haryana came into being the total length of national highways was 767 km in 1966-67 (GOI, 2009). Presently, 15 national highways namely 1, 2, 8, 10, 21A, 22, 64, 65, 71, 71A, 71B, 72, 73, 73A, NE2 with a length of 1512 km passes through different parts of the State (NHAI, 2012). However, the present study is aimed at analyzing the characteristics of the selected national highways in Haryana. Study area consist of national highway 1, 2, 8 and 10 falling in Haryana state located between 27°39'0" to 30°55'5" north latitudes and 74°27'8" and 77°36'5" east longitude (Singh, 1997). These are;

- i) NH-1 from Singhu border (Delhi) to Sambhu border (Punjab) covering a distance of 180 km.
- ii) NH-2 the stretch of 74 km from Badarpur border (Delhi) to Karwan border (U.P.).
- iii) NH-8 a stretch of 101 km, from Kapushera (Gurgaon) to Jai Singh PurKhera (Rajasthan)
- iv) NH-10 from Tikri border (Delhi) to Mandi Dabwali border (Punjab) covering a stretch of 313 km long (NHAI, 2007).

## 4. Objective

The present study aims at analyzing the growth process and spatial pattern of banks (ATM) and communication facilities located along selected national highways in Haryana.

Data Base: Present study relied on both secondary and primary data. The relevant secondary data have been collected from Ministry of Road Transport and Highways, New Delhi, National Highway Authority of India, New Delhi, Central Road Research Institute, New Delhi, and Indian Road Congress, New Delhi. However, the present study is largely based upon primary data of all the observation units. Field survey of the observational units was conducted in 2007-2008. All the banks (ATM) and communication facilities were plotted on the map by physically visiting them across all the highways.

## 5. Methods of Study

The information relating to growth and spatial spread of banks (ATM) and communication facilities was collected through personal interviews and field survey along all the selected national highways. Both qualitative and quantitative data have been tabulated, processed, analyses and interpreted using the field observation. Simple percentage technique has been employed to examine the desired information and maps have been prepared in ARC GIS 9.1.

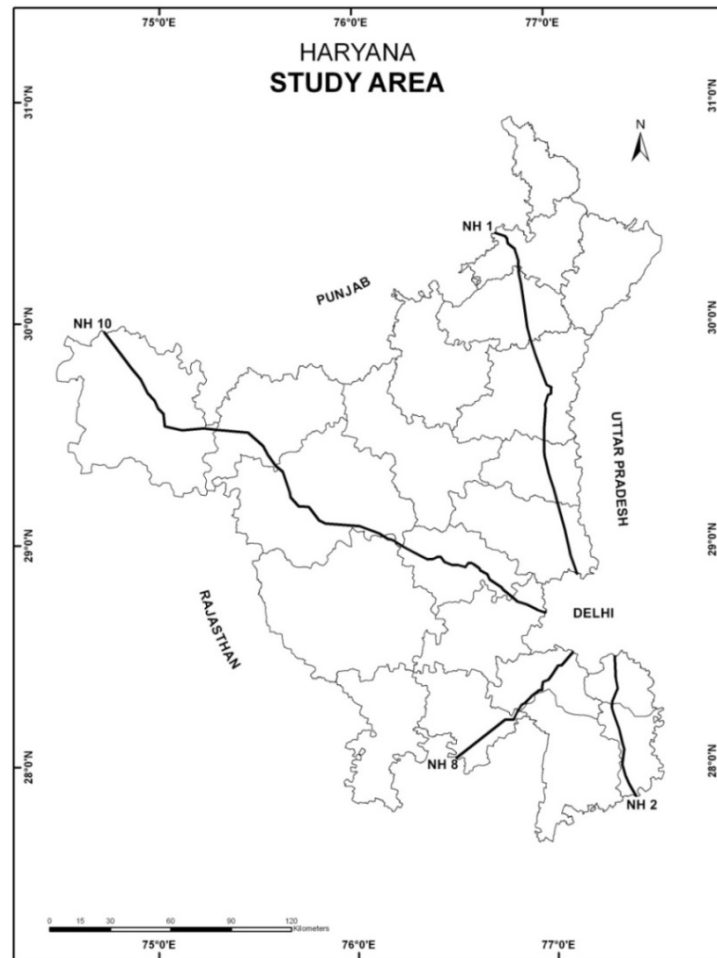


Fig. 1 Study area

(Source: State Natural Resources Data Management System (NRDMS) Centre, HSCST, Chandigarh, 2010)

## 6. Results and Discussion

Many types of facilities are available on both sides of national highways for both the highways users and surrounding communities. The wayside facilities are enough on national highways which are usually used by passengers and the crew of the transport vehicles destined to travel long distances. The vehicles usually ply on these roads day and night. Therefore, national highways need more provisions to fulfill their required needs. The basic necessities required for vehicles are fuel, mechanics, spare parts, air, water and parking etc. People traveling in such vehicles also need various amenities like restrooms, washroom, food, entertainment, refreshment, beverages of various kinds, banks (ATM) and communication facilities. In

some special circumstances like accident, bad weather and illness the provision of doctors, medicine, police and crane etc. is also required. These are available at a regular distance along the roads under study (Field Survey, 2007-2008). The present paper deals with the growth process and spatial pattern of banks (ATM) and communication facilities along selected national highways in study area till 2008. For the sake of study banks (ATM) and communication facilities have been divided into two classes' viz. I. Banks (ATM). II. Communication Facilities (STD, PCO, ISD and mobile phone shops).

Table 1 and fig. 2 reveal the temporal growth and spatial pattern of banks (ATM) and communication facilities along national highways (1, 2, 8 and 10) in study area. The temporal growth of banks (ATM) and

communication facilities has been studied with reference to following three time periods for convenient and comparative study:

- First Phase - Up to 1966
- Second Phase -1967-1991
- Third Phase –After 1991

First phase cover the time till the formation of Haryana state. Second phase include the period from formation of Haryana to beginning of new economic reforms in India. Third phase include the period of new economic reforms till the field survey conducted in 2007-2008. It is pertinent note that all the temporary building structure communication facilities have placed in third phase.

The concentration of banks (ATM) and communication facilities was very low in first phase when the state of Haryana came into being. Out of 914 banks (ATM) and communication facilities only 5.47 per cent banks (ATM) and communication facilities were available prior to 1966 (Table-1). Second phase constitute 27.02 per cent of all banks (ATM) and communication facilities with a genuine improvement in conditions. The third phase experienced remarkable development in the expansion of banks (ATM) and communication facilities which together account for 67.51 per cent of total. Similar, trends have shown in temporal growth of the sub-groups of all banks (ATM) and communication facilities: - banks (ATM) and communication facilities (STD, PCO, ISD and Mobile phone shops). In fact, Haryana has been achieving an all round development since its existence. In the sixties, Haryana progressed rapidly with a growth rate of 5.5 per annum against the all India's growth rate of 3.0 per cent (GOI, 2002-07). Notably, during the overall period from 1980-81 to 1990-2000, Haryana recorded the highest growth rate of 7.80 per cent per annum in the country as against all India's growth rate of 5.66 per cent per annum. In the years 2004-05 and 2005-06 the rate of growth in the state has been 8.4 and 8.5 per cent, respectively (GOI, 2007-08). The economy of the state has undergone major structural changes witnessed in terms of occupational shift from primary sector to tertiary sector, agricultural development due to green revolution, rise and expansion of industries, educational institutions, medical and credit services, trade and transport network etc (GOI, 2009).

All these factors together have also exercised a vital role in the expansion of wayside facilities along the highways in the state. Among banks (ATM) and communication facilities, the largest share is that of communication facilities mainly due to their temporary building structure (41.46 per cent), and maximum

concentration of these facilities on all selected national highways is around *chowks*, villages, towns and cities and also widespread along all national highways while banks (ATM) are mainly located in and around cities and towns (Fig. 2). The highway passengers only use the ATM facility. It is also evident from figure 2 that before, 1991 these facilities were mainly concentrated in towns and cities, but after, 1991 there was a wide distribution of these facilities (mainly communication facilities) all along the highways. Near about sixty seven per cent communication facilities grew up after, 1991 (table 1) but with the arrival of mobile phone the STD, PCO, ISD facilities are shrinking day by day (Field Survey, 2007-2008).

### 6.1 Status of the Facilities

Table-1 also portrays the status of the banks (ATM) and communication facilities divided into temporary and permanent. The facilities which have permanent buildings (immovable structure made of bricks and RCC is considered as permanent and those which are movable and wooden such as on *rehari*, *tent* or *khokha* have been considered as temporary). The table reveals that out of total facilities 35.67 per cent are temporary and 64.33 per cent are permanent. The study brings out that communication facilities have whole the percentage of temporary facilities i.e. 41.16 per cent whereas; all the banks (ATM) are permanent building structure.

### 6.2 Banks (ATM) and Communication Facilities on National Highways

The table shows that there are as many as 281 banks (ATM) and communication facilities available at NH-I. The concentration of these facilities on this NH before 1966 were 3.20 per cent, increased to 23.13 per cent during 1967-1991 and third phase constitute 73.67 per cent of the total. There was sudden increase in economic growth of the country due to new economic reforms introduced by the government. Govt. of India adopted open door policy in 1991. Under this policy the economy was liberalized. More emphasis was given on privatization. Indian market was opened for multinational companies and Indian economy was made a part of international economy as a result of which Indian market has been significantly transformed. There was a great impact of liberalization on industries and trade. There was a spectacular growth of Indian economy under this new liberal system. There was a direct effect of this economic growth on transport system there was a tremendous increase in the means of transportation which created

**Table 1** : Temporal Change and Status of Banks (ATM) and Communication Facilities along Selected National Highways in Haryana

Establishment year	Banks (ATM)		Communication		Grand Total	
	No.	%	No.	%	No.	%
			National Highway - 1			
Up to 1966	3	4.62	6	2.78	9	3.20
1967-1991	9	13.85	56	25.93	65	23.13
After 1991	53	81.54	154	71.30	207	73.67
Total	65	100	216	100	281	100
			Building Structure			
Permanent	65	100	96	44.44	161	57.30
Temporary	0	0.00	120	55.56	120	42.70
Total	65	100	216	100	281	100
			National Highway – 2			
Up to 1966	0	0.00	14	8.33	14	7.78
1967-1991	5	41.67	59	35.14	64	35.56
After 1991	7	58.33	95	56.54	102	56.67
Total	12	100	168	100	180	100
			Building Structure			
Permanent	12	100	107	63.69	119	66.11
Temporary	0	0.00	61	36.31	61	33.89
Total	12	100	168	100	180	100
			National Highway – 8			
Up to 1966	0	0.00	0	0.00	0	0
1967-1991	1	14.29	30	29.41	31	28.44
After 1991	6	85.71	72	70.59	78	71.56
Total	7	100	102	100	109	100
			Building Structure			
Permanent	7	100	44	43.14	51	46.79
Temporary	0	0.00	58	56.86	58	53.21
Total	7	100	102	100	109	100
			National Highway – 10			
Up to 1966	4	10.53	23	7.52	27	7.85
1967-1991	10	26.32	77	25.16	87	25.29
After 1991	24	63.16	206	67.32	230	66.86
Total	38	100	306	100	344	100
			Building Structure			
Permanent	38	100	219	71.69	257	74.71
Temporary	0	0.00	87	28.43	87	25.29
Total	38	100	306	100	344	100
			Study Area			
Up to 1966	7	5.74	43	5.43	50	5.47
1967-1991	25	20.49	222	28.03	247	27.02
After 1991	90	72.77	527	66.54	617	67.51
Total	122	100	792	100	914	100
			Building Structure			
Permanent	122	100	466	58.84	588	64.33
Temporary	0	0.00	326	41.16	326	35.67
Total	122	100	792	100	914	100

(Source: Field Survey, 2007-2008.)

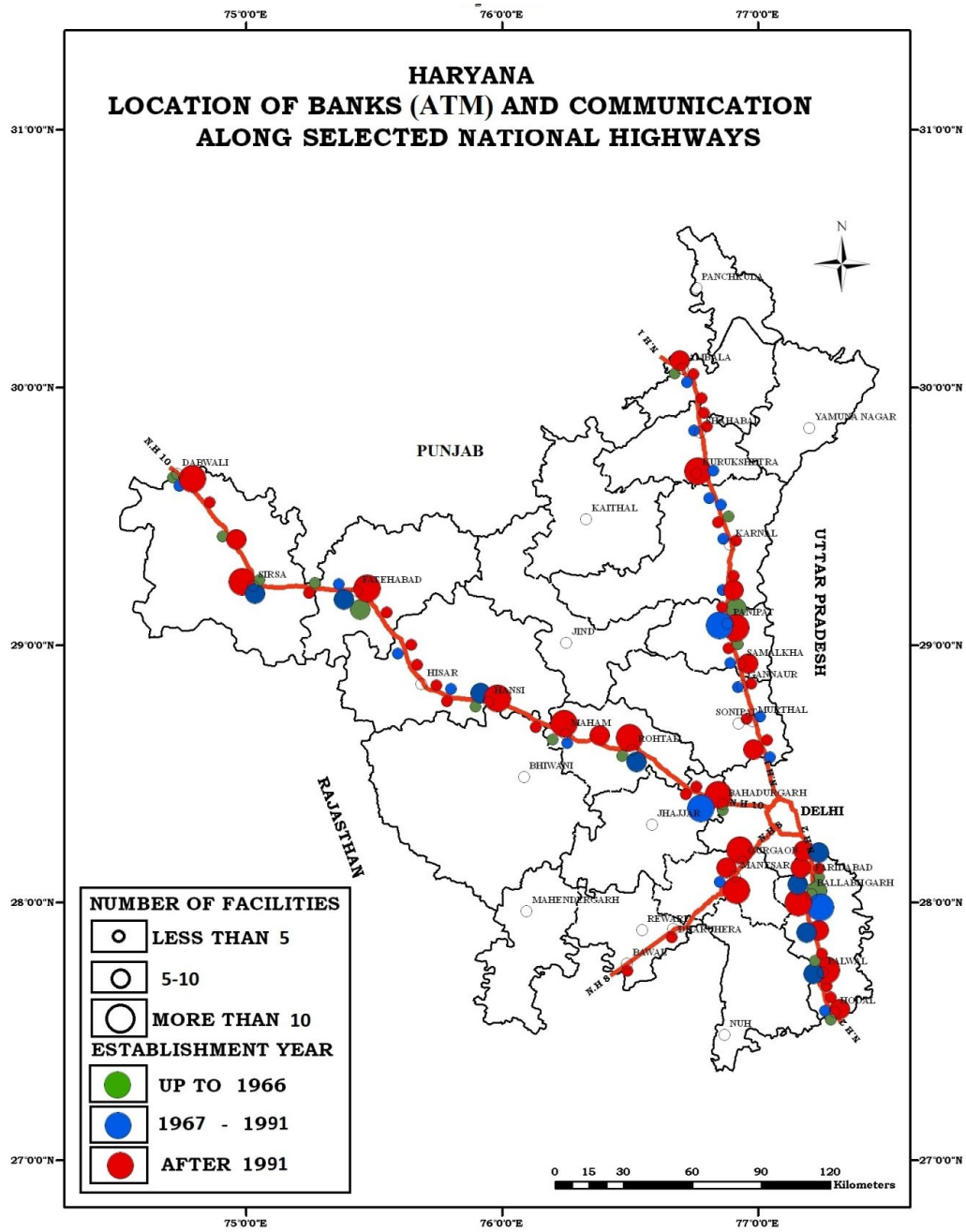
gigantic demands of roadside facilities (Gupta and Gupta, 2008). Almost little more than half of the facilities are provided through permanent building structures and remaining little less than half from temporary or mobile (Table 1). The table also depicts the temporal growth of passenger facilities on NH-2. The total numbers of these facilities are 180 on this highway. Before 1966, there were only 7.78 per cent facilities which increased to 35.56 per cent during 1967-1991. Thereafter, there was a spurt in these facilities and thus third phase consist of 56.67 per cent of the total banks (ATM) and communication facilities developed along this highway. This tremendous increase may be attributed to the development of agriculture, trade and industry which is resulted from the development of science and technology. It influences all the sectors including the growth of roads and transport. Similarly, there was a boom in roadside facilities. The reason of this heavy growth appears to be the decentralization of these facilities on the highway as earlier these were limited to the vicinity of the town (Field Survey, 2007-2008). The table 1 indicates that there are 109 banks (ATM) and communication facilities on NH-8. Before 1966 these facilities were absent, which increased to 28.44 per cent during 1967-1991, but after 1991 these swelled to near about 71.56 per cent of the total facilities developed along this highway till 2008. The main cause of sudden increase in roadside facilities after 1991 is that Manesar and Dharuhera industrial complexes came into existence and Gurgaon city also received attention after 1990 and converted into a metropolitan city. These facilities were absent on this highway during the first phase. Moreover whichever were developed were demolished when the road was widened by National Highway Authority of India or closed by the owners themselves when vehicle started going through the flyovers mainly built after 1991 (Field Survey, 2007-2008).

It is also evident from table 1 and fig. 2 the concentration of banks (ATM) and communication facilities is 344 on NH-10. Before 1966, the numbers of these facilities were 7.85 per cent which was rather high because a large number of big cities and towns including Bahadurgarh, Rohtak, Maham, Mundhal, Hansi, Hissar, Agroha, Fatehabad, Sirsa and Mandi Dabwali are situated along side of this highway, so these facilities were present since a long time ago. During 1967-1991 these banks (ATM) and communication facilities were spread to developing village like Garhi, Sampla, Asthal Abohar, Madina, Mundhal, Agroha, Badopal, Ding, Moriwala, Oudhan,

Chormar Khera, Sanwat Khera etc. and rose to 25.29 per cent. After 1991, there was a boom of development in all sectors including agriculture, trade and industries, transport and service, consequent upon; there was a spurt in the number of highway users. With this economic development there was an increase in the wayside facilities spreading more or less uniform along the entire highway. So during this period their number went up to 66.86 per cent.

Table 1 and fig. 2 also provides an overview of the entire study area which is a comparative study of all the four national highways. The maximum number of banks (ATM) and communication facilities is on NH-10 whereas the minimum on NH-8. There are many reasons behind highest number of these facilities on NH-10. (a) This highway has the maximum length of 313kms. (b) This highway passes through several big cities as mentioned earlier. The reason of being minimum number of these facilities on NH-8 is due to the abundance of over bridge on the highways spreading from Delhi border to Manesar. In addition, there are high grills on both side of the road from Delhi border to Manesar. So, no space is left for erecting any structure and for parking a vehicle. The study also points out that if we consider the concentration of highway facilities barring big cities, we find these in maximum number on NH-1, whereas NH-10 has the maximum number of facilities mainly in big cities.

The study reveals that the length of NH-10 is 313kms and that of NH-1 is 180kms yet the difference between these facilities number is only that of only 63 in number. It seems that the volume of traffic on NH-1 is more than NH-10, because the volume of traffic is directly affected the concentration of wayside facilities. NH-10 links Delhi to Haryana; Punjab and Rajasthan, while NH-1 links Delhi to Haryana, Punjab, Himachal Pradesh, Jammu and Kashmir, Chandigarh etc. The complete truck load of fruits and vegetables from Jammu and Kashmir and Himachal Pradesh pass via NH-1 to Delhi. Secondly, NH-1 links several hill stations which are important from tourist point of view. So, the religious and holiday tourism also increase the volume of traffic and food-joins on NH-1. Besides, it passes through the highly prosperous area and many people from this area have gone to the foreign countries. So, more people can afford the private vehicles. Many people aspire to immigrate to foreign countries and have lust to go abroad. A large chunk of people residing alongside NH-1 has gone to settle down in foreign countries. Thus, *Punjabi* culture and *Punjabi* people dominate this region. But the



(Source: Field Survey, 2007-2008.)

situation in the region of NH-10 is just opposite. In this region *Haryanvi* Culture dominants and people are lethargic and have no craze for the foreign countries. Economically and educationally they are

very advanced. They like to join government jobs. Their land is not so fertile and there is shortage of water in some areas. Many sand dunes can be seen along the roadside in some areas i.e. between Sirsa and Dabwali

area. So, all these reasons indicates that the volume of traffic on NH-1 is very high and road is quite busy throughout day and night. So, the high volume of traffic provides a better opportunity for the more concentration of banks (ATM) and communication facilities (Field Survey, 2007-2008).

## 7. Conclusion

It is evident from foregoing discussion that the concentration of banks (ATM) and communication facilities was very few during mid 1960s when the state of Haryana came into being. Only 5.47 per cent banks (ATM) and communication facilities were available on roads during this time period. However, during next two decades, the proportion of facilities increased to little more than one-fourth of all banks (ATM) and communication facilities. It was a significant improvement. The third phase experienced remarkable development in the expansion of these facilities which together account for more than three-third of banks (ATM) and communication facilities. The overall development of the state has played a pivotal role in the growth of banks (ATM) and communication facilities along the selected highways in the state. The study reveals highest concentration of banks (ATM) and communication facilities on NH-1; because there is high volume of traffic remains round the clock and round the year. The study also reveals that out of total facilities 35.67 per cent are temporary and 64.33 per cent are permanent in nature. The study brings out that among banks (ATM) and communication facilities, the largest share is that of communication facilities mainly due to their temporary building structure (41.16 per cent), and maximum concentration of these facilities on all selected national highways is around *chowks*, villages, towns and cities. On the other hand, all the banks (ATM) are permanent building structure. Communication facilities are widespread along all national highways while banks (ATM) are located in and around cities and towns, but with the arrival of mobile phone STD, PCO, ISD facilities are shrinking day by day.

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