THE STATUS OF ROADS IN RAJASTHAN

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ABSTRACT

Roads occupy an important place in transport development which is an essential part of infrastructural development of a region. Agriculture, Industry, Trade and movement of people depend upon the existence of good roads in a country. Development of roads is employment- intensive, therefore, it is resorted to under relief-works during droughts and famines.

KEYWORDS: Transport Development, Infrastructural Development, Agriculture, Industry, Trade.

Introduction

It is essential for mineral development and provides sound base for social infrastructural development such as education, health, etc. for the welfare of the masses. It can also be adopted as anti-poverty measures to provide jobs and income to weak sections of the community.

Objectives

The paper seeks to provide more information about:

- Status of roads in Rajasthan
- Classification of roads in Rajasthan
- District wise variations in road lengths in Rajasthan

Research Methodology

The present paper is based on secondary data. The results have been derived from average, percentage, time series and correlation methods. The condition of roads was unsatisfactory at the time of the formation of Rajasthan. On March 31, 1951, the length of roads in the state was 17339 KM, which has increased to a level of 2.08 lakh KM in end of the March, 2015. Roads have been developed under the following programmes:

- Development of irrigated regions (Under Command Area Development Programme)
- Minimum Needs Programme (MNP)
- Development of Milk-Route
- Mining Roads
- National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) which now merged with Jawahar Rojgar Yojana (JRY)
- Famine Relief works
- Roads constructed in agriculture-produce-mandies by agriculture marketing board.
- Roads built by local bodies such as Jaipur Development Authority (JDA), city corporations, municipalities, etc. in their respective areas.

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Although the length of roads in 2014-15 has become more than 12 times their length in 1950-51, yet the state is regarded as backward from the point of view of road-development as compared to the country as a whole. The following Table 1 shows the development of roads from 1980-81 to 2014-15. There has been quantitative as well as qualitative improvement in this sector.

| Table 1: Road Length in the State of Rajasthan | (in km |) |
|--|--------|---|
| | | |

| Year | National Highways | State Highways | Major District Roads | Other District Roads | Village Roads | Border Roads | Other Deptt. Roads | Total |
|---------|----------------------|-------------------|----------------------------|----------------------------|------------------|-----------------|--------------------------|--------|
| 1980-81 | 2533 | 7274 | 3754 | 15294 | 10100 | 2239 | | 41194 |
| 1990-91 | 2840 | 7247 | 3604 | 14987 | 27433 | 2239 | | 58350 |
| 1991-92 | 2846 | 7136 | 3636 | 15054 | 29002 | 2239 | | 59913 |
| 1992-93 | 2846 | 7151 | 3638 | 15067 | 30579 | 2239 | | 61520 |
| 1993-94 | 2846 | 8720 | 3212 | 14394 | 31667 | 2239 | | 63078 |
| 1994-95 | 2846 | 9810 | 5549 | 12143 | 33100 | 2239 | 46438 | 112125 |
| 1995-96 | 2846 | 10006 | 5707 | 12615 | 36816 | 2239 | 64220 | 134449 |
| 1996-97 | 2846 | 10047 | 5820 | 12684 | 41322 | 2239 | 64398 | 139345 |
| 1997-98 | 2964 | 9990 | 5789 | 60576 | | 2239 | 64403 | 145961 |
| 1998-99 | 2964 | 9990 | 5789 | 63976 | | 2239 | 64403 | 149361 |
| 1999-00 | 4453 | 8898 | 5741 | 65142 | | 2239 | 64403 | 150876 |
| 2000-01 | 4547 | 8714 | 5739 | 68462 | | | 62012 | 149474 |
| 2001-02 | 4665 | 8601 | 6053 | 17934 | 113561 | | | 150814 |
| 2002-03 | 4665 | 8585 | 6232 | 18785 | 114613 | | | 152880 |
| 2003-04 | 5655 | 8627 | 6117 | 18653 | 118188 | | | 158240 |
| 2004-05 | 5655 | 10139 | 6735 | 22615 | 117976 | | | 163120 |
| 2005-06 | 5655 | 11594 | 7328 | 21412 | 121139 | | | 167128 |
| 2006-07 | 5655 | 11668 | 7447 | 23681 | 125063 | | | 173514 |
| 2007-08 | 5714 | 11750 | 7658 | 24424 | 132914 | | | 182460 |
| 2008-09 | 5722 | 11758 | 7673 | 24418 | 137235 | | | 186806 |
| 2009-10 | 5724 | 11866 | 7829 | 24480 | 128635 | | | 188534 |
| 2010-11 | 5724 | 11873 | 10137 | 24062 | 137606 | | | 189402 |
| 2011-12 | 7260 | 10953 | 9900 | 25033 | 136854 | | | 190000 |
| 2012-13 | 7310 | 10937 | 10168 | 25761 | 137518 | | | 191694 |
| 2013-14 | 7310 | 11971 | 9509 | 25626 | 141434 | | | 195850 |
| 2014-15 | 8016 | 11421 | 9815 | 29603 | 149487 | | | 208342 |

Source: Economic Review 2015-16, Pg. A29, Directorate of Economics and Statistics, Department of Planning, Rajasthan, Jaipur

As we can see from this table, the road length in Rajasthan has grown from 41194 km in 1980-81 to 208342 km in 2014-15. Following a similar trend, the road length of National Highways has grown from 2533 km to 8016 km, State Highways from 7274 km to 11421 km; Major District Roads from 3754 km to 9815 km and Village Roads from 10100 km to 149487 km. But if we compare this data to the national averages, they are far too less, and thus there is a need to improve on these statistics.

Rajasthan is located between Northern States and Western port States, which requires good network of road including national and state highways for smooth interstate movement of people and goods. Twelve National highways pass through the state. These highways connect the state to major cities, ports and industrial centres such as Delhi, Indore, Ahmedabad, Kandla etc. The road corridors currently being used are National Highways, NH-8, NH-11, NH-12, NH-14 and NH-15 Highways are quite old and require the vehicles to travel substantially long distances to reach their destination.

Rajasthan State Road Development and Construction Ltd is the nodal agency responsible for construction of bridges and roads in the state. New roads are being constructed, to link villages across the state under various schemes, such as the Missing Link project, Pradhan Mantri Gram Sadak Yojana (PMGSY) and Central Road Fund. Rajasthan's total road length was just 13553 km in 1949 and has reached to 208341.81 km as on 31 March 2015. Out of these 8016.18 km are National Highways, 11421.52 km are State Highways, 9814.77 km are major district roads, 29602.63 km are Other District Roads and 149486.71 km are Village roads. As on 31 March 2015, the road density was 60.88 km per 100 sq.km, which is much below the national average of 148 km per 100 sq.km. This description may be seen through the following table 2.

Table 2: Classification of the Road Length in Rajasthan (in km)

| Classification | Black Top | Metal Road | Graveled Road | Fair Weather | Total |
|----------------------|-----------|------------|---------------|--------------|-----------|
| National Highways | 7987.18 | 0.00 | 0.00 | 29.00 | 8016.18 |
| State Highways | 11366.62 | 4.20 | 5.00 | 45.70 | 11421.52 |
| Major District roads | 9698.07 | 1.00 | 53.00 | 62.70 | 9814.77 |
| Other District roads | 27628.10 | 922.76 | 958.81 | 92.96 | 29602.63 |
| Village roads | 109515.11 | 1022.22 | 35986.21 | 2963.17 | 149486.71 |
| Total | 166195.08 | 1950 18 | 37003 02 | 3193 53 | 208341 81 |

As we can see from the above table, the maximum road length belongs to the category of Village Roads and also the percentage share of National and State Highways is very low and it should be improved considerably. Govt. of Rajasthan has also emphasized to connect villages. As on 31 March 2016, 35423 villages were connected with roads, out of 39753 villages of the state. That was 89.10% of the total villages. The number of villages populated 1000 and above was 14198. Out of these 14180 villages were connected with roads, which was 99.87% of the total such villages. Thus, most of the villages of the state were well connected with roads. The detailed description may be seen through the following table 3.

Table 3: Road Connectivity of Villages

| Population Group | Total no. of villages | Villages connected as on March 2015 | Villages connected as (Likely) March 2016 | Percent of Villages connected |
|---------------------|-----------------------|--|---|-------------------------------|
| 1000 & Above | 14198 | 14180 | 14180 | 99.87 |
| 500-1000 | 11058 | 10963 | 10963 | 99.14 |
| 250-500 | 7713 | 7192 | 7569 | 98.13 |
| 100-250 | 3852 | 1806 | 1806 | 46.88 |
| Below 100 | 2932 | 905 | 905 | 30.87 |
| Total | 39753 | 35046 | 35423 | 89.10 |

Source: Economic Review 2015-16, Directorate of Economics & Statistics, Rajasthan, Jaipur

The above table shows that only 2711 out of 6784 villages which lie in the population group of 0-250 are connected with roads and hence a huge 60% of villages are still to achieve connectivity via roads and thus this is one aspect which should be definitely looked upon. To give a boost to road construction, the state government has formulated Road Construction policy. Institutional finance and private investment on a Build, Operate and Transfer (BOT) basis is being done on a larger scale for the construction of bridges and bypasses in the state. For development of the state infrastructure, Govt. of Rajasthan has earmarked four road corridors aggregating a length of more than 1000 km under the project 'Mega Highways Project'. This project would reduce the distances for inter – state traffic along with development of roads and would lead to large scale economic and social development. Construction of good quality roads along these corridors would boost the tourism industry in the state.

Road Length in Rajasthan: Roads in Rajasthan have been categorized into 4 parts: Painted Roads (BT), Metalled Roads (WBM), Gravelled Roads (GR) and Seasonal Roads (FW). The following table illustrates district wise distribution pattern of roads in Rajasthan.

Table 3A: Road Length in Rajasthan

(in km)

| Districts | Painted Roads (BT) | Metalled Roads (WBM) | Grave-Iled Roads (GR) | Seasonal Roads (FW) | Total | Length of roads as a % of district area |
|-------------|-----------------------|-------------------------|--------------------------|------------------------|-------|---|
| Ajmer | 4115 | 11 | 45 | 0 | 4171 | 49.18052 |
| Alwar | 5156 | 1 | 24 | 0 | 5181 | 61.82578 |
| Banswara | 3064 | 0 | 25 | 4 | 3093 | 68.39894 |
| Baran | 2350 | 0 | 79 | 36 | 2465 | 35.25458 |
| Barmer | 8996 | 21 | 330 | 10 | 9357 | 32.96227 |
| Bharatpur | 3012 | 13 | 1 | 4 | 3030 | 59.8105 |
| Bhilwara | 4592 | 1 | 458 | 5 | 5056 | 48.35964 |
| Bikaner | 5642 | 0 | 167 | 2 | 5811 | 19.21691 |
| Bundi | 2178 | 10 | 20 | 3 | 2211 | 38.27909 |
| Chittorgarh | 3042 | 16 | 40 | 0 | 3098 | 39.60624 |
| Churu | 4153 | 0 | 4 | 0 | 4157 | 30.04698 |
| Dausa | 2304 | 7 | 138 | 26 | 2475 | 72.11538 |
| Dholpur | 1795 | 0 | 0 | 0 | 1795 | 59.18233 |
| Dungarpur | 2374 | 0 | 17 | 0 | 2391 | 63.42175 |

| Ganganagar | 3763 | 0 | 51 | 0 | 3814 | 34.74221 |
|-------------|--------|-----|------|-----|--------|----------|
| Hanumangarh | 3010 | 0 | 10 | 0 | 3020 | 31.27589 |
| Jaipur | 5588 | 10 | 8 | 1 | 5607 | 50.31859 |
| Jaisalmer | 4301 | 6 | 368 | 0 | 4675 | 12.17416 |
| Jalore | 3357 | 0 | 152 | 11 | 3520 | 33.08271 |
| Jhalawar | 2777 | 0 | 32 | 0 | 2809 | 45.16803 |
| Jhunjhunu | 3594 | 2 | 126 | 4 | 3726 | 62.85425 |
| Jodhpur | 7612 | 0 | 374 | 3 | 7989 | 34.9628 |
| Karauli | 2102 | 26 | 31 | 3 | 2162 | 39.13831 |
| Kota | 2078 | 0 | 64 | 6 | 2148 | 41.17309 |
| Nagaur | 7388 | 0 | 295 | 22 | 7705 | 43.48685 |
| Pali | 4628 | 3 | 687 | 0 | 5318 | 42.93211 |
| Pratapgarh | 1921 | 0 | 10 | 0 | 1931 | 43.40301 |
| Rajsamand | 2606 | 0 | 101 | 0 | 2707 | 58.15252 |
| S.Madhopur | 2124 | 5 | 62 | 10 | 2201 | 48.93286 |
| Sikar | 3930 | 1 | 145 | 38 | 4114 | 53.20745 |
| Sirohi | 1780 | 0 | 41 | 0 | 1821 | 35.45561 |
| Tonk | 2618 | 1 | 13 | 0 | 2632 | 36.58604 |
| Udaipur | 6140 | 0 | 20 | 0 | 6160 | 52.54179 |
| Total | 124090 | 134 | 3938 | 188 | 128350 | 37.50303 |

Source: Statistical Abstract, 2015, Directorate of Economics & Statistics, Rajasthan, Jaipur

(Here, colour cells indicate values above State Average and colour cells indicate values below it)

As seen from the table, Barmer has the highest share of road length amongst all districts, and is closely followed by Jodhpur and Nagaur. The major reasons behind this happen to be the large areas of these districts due to their presence in arid areas in the west of Rajasthan. Also there is a huge disparity amongst districts when it comes to connectivity via roads as some districts are far below state average when carefully looked upon. Also, Rajasthan has a lesser road density as compared to the national average. It speaks of the need to further enhance the road network in the state.

According to Twelfth Five Year Plan (2012-17)

- All villages with a population of 250 persons or more would be connected through roads
- By preparing time bound programme all the damaged roads would be repaired on priority basis
- Works on Missing Link roads would be undertaken on priority basis
- Highways, district roads would be strengthened and renovated to improve the mobility
- Inter-state connectivity would be developed and improved
- To construct roads, flyovers and underpasses on a BOT (Build, Operate and Transfer) basis across the highways and district roads.

But it is clearly evident that these directions have not been implemented yet in full discourse and hence, there is an urgent need to improve on these parameters and improve the road connectivity in Rajasthan.

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