

Connectivity and Detachment through Road Networks

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Abstract

Since independence all of us have seen development in the country. Connectivity alone does not step up or accelerate towards development unless availability of resources at each location is faster. Over the decades expansion of road networks has connected almost each of the rural unit with urban unit to certain extent.

Data of five regions has been referred in explaining the acquisition of land over the decades in thirteen States across the country. This paper explores amount of different compensation paid and rehabilitation provided against the land acquired in different parts of the country.

This paper also expounds the initiatives taken up by Ministry of Road Transport & Highways in development of road network along with unveiling the details wherever no resettlement and rehabilitation has been provided to the affected population.

INTRODUCTION

Since childhood, road from home to school and in the youth from home to work place is necessity and basic amenity for every citizen. Every type of road network development takes place at two main places; either it is the inhabited area (say like housing area or shopping area) or uninhabited area (open areas that includes agricultural as well non-agricultural lands). In most of the cases, road network expansion covers both types of areas. This coverage includes both public and private properties.

There are various categories of roads in India like National Highways, State Highways, Other PWD Roads, Panchayat Raj Roads, Jawahar Rozgar Yojana (JRY) & Pradhan Mantri Gram Sadak Yojana (PMGSY) Roads, Urban Roads and Project Roads. But mainly it can be divided in the following three categories:-

- National Highways
- State Highways and Other Public Works Department Roads

- Rural Roads

Land is acquired for various road expansion and development programmes by different agencies at State and National level. However, process for all types of land acquisition is governed within control of the State authorities with co-ordination of the Centre and State Government.

National Highways (NHs): Development of NHs; land acquisition, commissioning/completion of the project and compensation is taken up by National Highways Authority of India (NHAI) across the country. All finances for these projects are materialized by Centre Government to the State Government. NHs projects started at faster pace after 1988 upon set up by an Act of the Parliament. However, acceleration to the same took place during the past decades and present Government as data and reports reveals so.

State Highways (SHs): Development of SHs; land acquisition, commissioning /completion of the project is taken up by the State authorities followed by District authorities. Finances for these projects are materialized by State Government. However in Union Territories all funds are totally allocated by the Centre Government. States have been developing all types of roads as per requirements of the states depending upon population growth, transportation requirements and needs necessary to keep close connectivity between rural and urban areas for ease of access to available amenities. State highways are usually roads that link important cities, towns and district headquarters within the state and connect them with National Highways or highways of neighbouring states.

Rural Roads (RRs): In this category, Pradhan Mantri Gram Sadak Yojana (PMGSY) road network was started with the vision to develop road network of the rural areas. In the past decades road network of rural areas has developed. PMGSY was launched in the year 2000. Speedy progressive is observed as per day construction in rural areas has reached to 130 km during the year 2016-17 in comparison to 100 km per day during 2014-15.

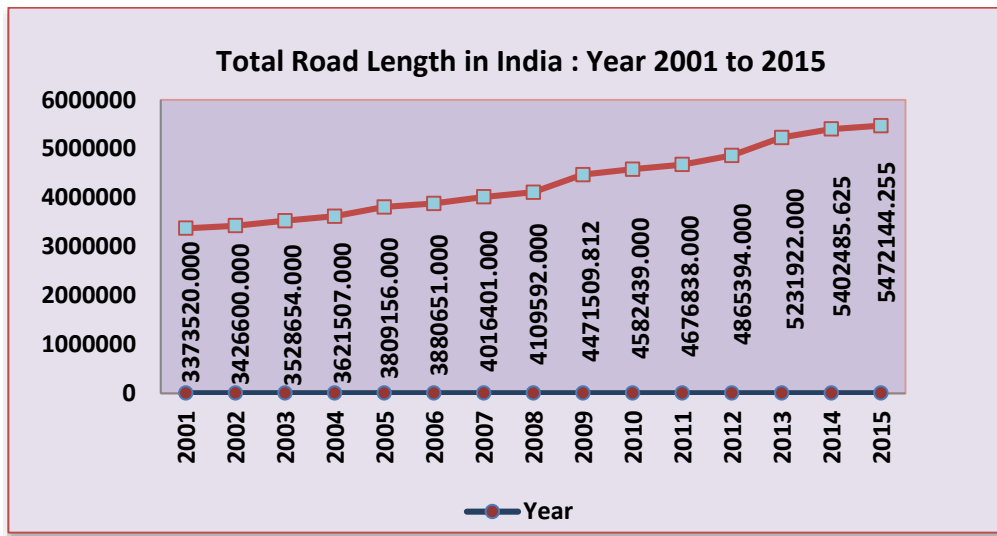
Besides above, in the year 2018; the Government of India and the World Bank signed a \$500 million loan agreement to provide additional financing for the PMGSY Rural Roads Project. One way the Government is committed to empower rural India through connectivity whereas the development projects

are uprooting the rural population in two ways; either the physical displacement or the economic effect over the affected households.

REVIEW OF LITERATURE

Connectivity here is referred to the time that has been reduced to reach from one place to other either from rural to urban or urban to urban or vice versa. The word detachment is quoted to indicate the unseen losses occurring within the families and the social groups. This appears whenever a single or multiple families are uprooted due to various development projects. It is not necessary that all road projects displace population but some of these affect occupations of the households. Affected occupations includes; agriculture, shop, workshop etc. A small study of land acquisition in Punjab revealed that a smaller change in cultivation and agricultural labourers has necessitated the families to look forward for alternate income to meet their financial needs (Shorey and Farooque, 2014).

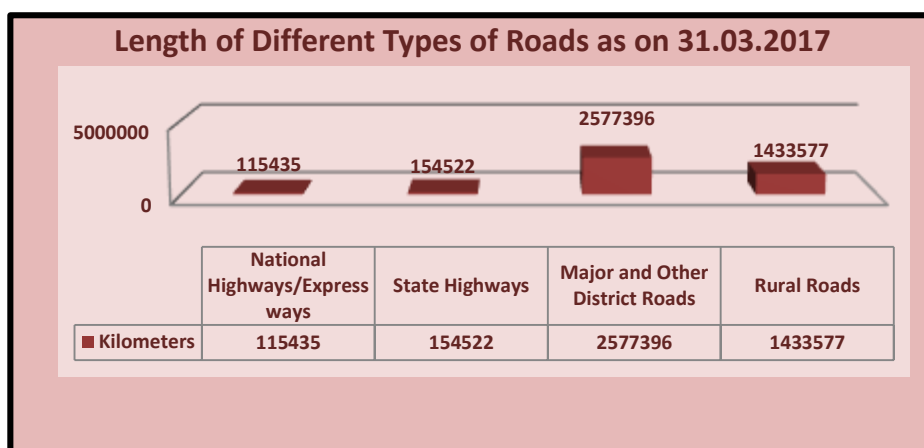
Before making any of the analysis, it is being referred to make a discussion for the future that gold is considered as security against the cash flow whereas no secure step ever have been taken up against land utilized for public or commercial purposes. Often the highlighted matter seen in the past is about protest for compensation. That's why general public usually think about this big question that sources to meet these funds are either arranged by the Centre/State authorities or these are managed out of the big loan amounts taken from The World Bank, Asian Development Bank or Japan Bank of International Corporation. If, there is no answer to this, then it means Centre as well State funding is crushed under with the liabilities of loans at the international level and by compensation at the national level. That's why affected population demands for higher compensation and population not affected demands for toll exemptions. If feasible, at least, in this case head of the household whose land was acquired for the project may be exempted from toll tax payment.



Source: Total Road Length in India from 2001 to 2015 as on 22nd August 2017 available at <https://community.data.gov.in/total-road-length-in-india-from-2001-to-2015> accessed on 15.07.2018.

Figure 1

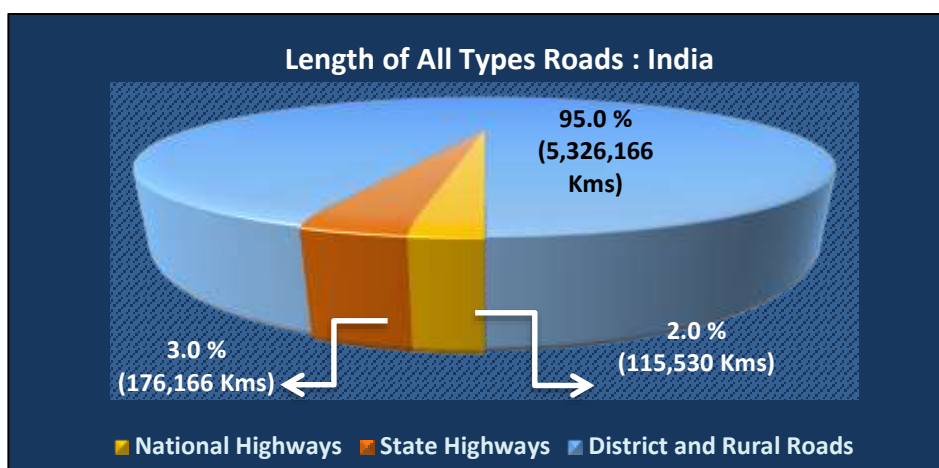
It is noticeable from the figure 1 that since 2001 after a period of more than 15 years Compound Annual Growth Rate (CAGR) of total road length in India 3.52 per cent. This period has seen addition of 2098624.255 Kms in total road network of the country. In general, repayment of these loans is met through toll collection payable to Government of India. But to make available the finances for the affected population of every project is a direct burden over the Centre and State budgets. Non-welfare deals after acquisition of land for public purpose are things of past now-a-days. New land acquisition Act followed by set of amendments and rules designed thereafter are favourable to the public in large except the count that always will remain for those whoever loses lifetime assets in one go and remains unsettled for a longer period. NHAI receives its funding through; Government support in the form of capital base, cess fund, additional budgetary support, capital grant, maintenance grant, ploughing back of toll revenue; Loan from multilateral agencies, and market borrowings (NHAI, Annual Report 2015-16, Pp-8).



Source: NHAI, Annual Report 2016-17

Figure 2

Figure 2 shows that length of different roads in kilometers of National Highways, Expressways, State Highways, Major and Other District Roads and Rural. However, in total India has the 2nd largest road network in the world with over 5.5 million kms at present (IBEF, 2019).



Source: Economic Survey 2017-18

Figure 3

Development along with land acquisition is at faster pace as the data tabulated presents (refer figure 3) and the details from the Economic Survey 2017-18 also reveals so.

RESEARCH METHODOLOGY

Purpose of every research is to explore the issues those so far has remained unfolded and are essential for development in the field of the study taken up and for the agencies involved in it. It is a planned study on selected zones of the country; these are North, West, East, North-East and South. States of these zones have been selected whosever data reveals a meaningful presentation. Data on various parameters as far as collected and received from departments and agencies across the country has been compiled. In many cases information has been sought from the departments as per provisions available under the Right to Information, Act 2005.

Paper has been designed in a way that shows blue print status of the social and economic impact occurred on the lives of the households whose land had been acquired in the past decades. This will help the readers to analyze the factual state of the affected households as they have been paid different amounts during different period of time as per value and location of their land. It is also understood that disruption in source of livelihood creates anxiety to the Project Affected Families. However, any land acquired by NHAI for development or maintenance of national highways is deemed to be for public purpose (Shorey, 2018). This

study is an outcome of various road projects across the country using available data as have been referred from various reports. Further, details collected and captured from the sources have been tabulated and presented to meet the present needs especially to clarify that prices at every location are not similar so the award of compensation cannot be same.

DATA ANALYSIS AND ITS INTERPRETATION

Data of various departments from the States located in the North, viz; Rajasthan and Uttar Pradesh; in the West, viz; Goa and Gujarat; in the North-East from Assam, Maghalaya and Mizoram; of the East about Bihar and Odisha and from the South for the States viz; Andhra Pradesh, Karnataka, Kerala and Telangana have been compiled and presented in the tables and discussed for certain cases ahead.

Total length of NHs of these States as on 31st March of 2017 (as per NHA data) has been tabulated ahead along with population, area, density of population and also the households in possession of two wheelers and four wheelers (as per Census 2011, for household size in turn to analyze population refer notes).

Table 1 provides the information about total length of the National Highways, area, population and density. Households in possession of two/four wheelers of the thirteen States have been shown in column 6 and 7. It is observed that in Rajasthan while road length and population is less than Uttar Pradesh but household's per cent having two wheeler and four wheelers is higher. Moreover, among above States road length and area of Goa is less than all but per cent of households having two wheeler and four wheelers is highest.

Table 1: Road Length, Area, Population, Density and Households (HHs) in Possession of Vehicles in Different Zones of India

States/UTs	Total Length of the NH (as on 31.03.2017) [#]	Total Area of the State (in, Sq. Km.)	Total Population	Density	Number of HHs in possession of Vehicles	
					Two Wheelers	Four Wheelers
1	2	3	4	5	6	7
Andhra Pradesh	6286	160205.00*	4,96,70,000*	310.0	18.6 [§]	2.7 [§]
Assam	3845	78438.00	3,12,05,576	397.8	10.2	3.8
Bihar	4839	94163.00	10,40,99,452	1105.5	8.1	1.7
Goa	262	3702.00	14,58,545	394.0	56.9	24.6
Gujarat	5017	196244.00	6,04,39,692	308.0	34.1	6.1
Karnataka	6791	191791.00	6,10,95,297	318.6	25.6	6.3

Kerala	1782	38852.00	3,34,06,061	859.8	24.1	10.2
Meghalaya	1204	22429.00	29,66,889	132.3	5.4	5.4
Mizoram	1422	21081.00	10,97,206	52.0	13.8	7.3
Odisha	4838	155707.00	4,19,74,218	269.6	14.5	1.8
Rajasthan	7906	342239.00	6,85,48,437	200.3	24.1	4.7
Telangana	3786	112077.00**	3,50,04,000**	312.3	NA	NA
Uttar Pradesh	8711	240928.00	19,98,12,341	829.3	19.6	3.8

Source: Handbook on Census 2011 Results, INDIA Volume 1, Tables 3 and 79. [#]<http://mangalgiri.in/Newmangalgiri/admin/assets/pdf/NationalHighwaySummary.pdf> ^{www.Ap.gov.in/?Page_id=30,} ^{**www.telangana.gov.in/About/State-Profileand} Census of India 2011, HH Series Tables.⁵Includes Telangana State figures as it has come as new State after Census 2011. NA = Not Available

Table 2: Location of the State, Increase in Number of Registered/Motor Vehicles, Length of and State Highways during 2011 - 2015

States/UTs	Total Length of the NH (as on 31 st March 2017)	Location of the State	Number of Registered/Motor Vehicles of the State during the Years (in thousand)		Length of State Highways during the Years (in Kilometers)	
			2011	2015	2011	2015
1	2	3	4	5	6	7
Andhra Pradesh	6286	Southern India	10189	7882	10491	6485
Karnataka	6791	Southern India	9930	14785	20770	19721
Kerala	1782	Southern India	6072	9648	4341	4341
Telangana	3786	Southern India	N/A	7845	N/A	2744
Assam	3845	North-Eastern India	1582	2510	3134 [^]	2530
Meghalaya	1204	North-Eastern India	176	267	1134	751
Mizoram	1422	North-Eastern India	93	151	700	214
Bihar	4839	Eastern India	2673	4778	3989	4426
Odisha	4838	Eastern India	3338	5219	3576	4109
Goa	262	Western India	790	1084	279*	279
Gujarat	5017	Western India	12993	18721	18421**	18017
Rajasthan	7906	Northern India	7986	12379	11300	10941
Uttar Pradesh	8711	Northern India	13287	21636	7941	7543

Source: MOTOR VEHICLES - Statistical Year Book India 2017, Table 20.4 available at <http://mospi.nic.in/statistical-year-book-india/2017/189> accessed on 15.12.2018

[^] as on 31st March 2008 ^{*} as on 31st March 2009 ^{**} as on 31st March 2010

Table 2 presents that more than 50 per cent increase is noticeable in number of registered motor vehicles (in thousands) across the states of all zones and length of the State Highways (in Kilometers) during 2011 to 2015.

Table presents zonal wise location of the thirteen States selected for the study. These are as four states of Southern India, three states of North-Eastern India, two of Eastern India, two of Western India and remaining two of Northern India. Besides, length of the national highways has also been tabulated as on 31st March of 2017.

Thereafter, Zone wise and case wise details of certain departments of the State acquired land for national highways across the country of selected States have been tabulated in accordance with data received from the departments and accordingly on the basis of available different cases of land acquisition details have been discussed followed by analytical notes. In effect, all cases differ from each other, depending upon the period of acquisition, land laws followed and compensation awarded as per type and location of the land.

Southern India

Andhra Pradesh :-

Case I : Agricultural and Non-Agricultural land has been acquired by Roads and Building Department, National Highways, Chittoor vide Notification No. 2772 dated 24th November 2016 during the period from 2011 to 2016 for upgradation of NH-42 (old NH-219) in the areas of Palamaner to Krishnagiri border section (covering District Chittoor and 21 revenue villages) and Madanapalli to Palamaneru road section (covering District Chittoor and 22 revenue villages), while the details were collected project was in progress and notification was yet to be published.

Table 3: Land Acquisition for National Highways in Andhra Pradesh, 2011 to 2016

Sl. No.	Notification(s) [Gazette No. followed by S.O. No. & Date	Location	Total Area Acquired (in Acre)	Amount of Compensation (in Rs. per Acre)
1	2	3	4	5
1.	No. 1440 in S.O. No. 1825 (E) Dt. 06.07.2015, No. 349 in S.O. No. 498 (E) Dt. 12.02.2015, No. 1945 in S.O. No. 2482 (E) Dt. 14.08.2015, No. 2487 in S.O. No. 3139 (E) Dt 23.11.2015, No. 1695 in S.O. No. 2160 (E) Dt. 11.08.2015, No. 2929 (E) in S.O. No. 2930 (E) Dt. 27.10.2015 and No. in S.O. No. 2160 (E) Dt. 11.08.2015.	Villages of East Godavari District in A.P.	77.3597	51,00,000/-
2.	No. 1381 in S.O. No. 1752 (E) Dt. 30.06.2015 & S.O. No. 1057 (E) Dt. 10.03.2016	Villages of West Godavari District in A.P.	9.6130	
3.	No. 2111 in S.O. No. 2794 (E) Dt. 26.08.2016	Villages of Krishna District in A.P.	13.9300	
4.	No. 1386 & 1624 in S.O. No. 1386 (E) & 2108 (E) Dt. 22.05.2015 & 31.07.2015	Villages of Krishna District in A.P.	15.3686	

Source: Project Implementation Unit, Machilipatnam, Krishana District (Andhra Pradesh)

Case II: Agricultural and non-Agricultural land acquisition for NH 216 and 221 by Project Implementation Unit, Machilipatnam in the Districts East Godavari and District Krishna of the State Andhra Pradesh during the period 2011 to 2016. As shown in table 3 that 116.2713 acres of agricultural and non-agricultural land has been acquired for Land for aforementioned projects as per NH Act, 1956 and Compensation was fixed as per RFCTLARR Act, 2013 (30/2013).

In another case also by the same department 39.70 acres of agricultural as well as non-agricultural land had been acquired vide agreement No. 02/2015-16 dated 10th April 2015 for rehabilitation and upgradation of NH-167. Areas of villages Adoni, S. Kondapuram, Bychegeeri, Arekal, H. Muravani, Yemmiganur, Halaharvi, Manchala and Chetnihalli villages of Kurnool District have been affected.

Karnataka:-

Case I: In Karnataka also land has been acquired for different projects during 2011-2016. Of these cases details have been presented ahead.

Table 4: Land Acquisition for National Highways in Karnataka, 2011 to 2016

Sl. No.	Notification(s) No. & Date	Name of the Project	Location	Total Area Acquired (in Acre)	Amount of Compensation (in Rs. per Acre)
1	2	3	4	5	6
1.	Gol Ext Ord Notification No. SO/1076 (E) Dt 24/04/2015	Construction of Bridge across river Kumduvathi (NH-206)	Shimoga District, Choradi Village	2.03 1/2	79,38,457.00/-
2.		4 lane, Karkala-Mangalore (NH-169)	Udupi & Dakshina Kannada	NA	NA
3.		Rehabilitation/up-gradation of 4 lane, Tumkur-Shivamogga (NH-216)	Gubbi, KB Cross, Tiptur; Arsikere, Banavara, Kadur & Birur, Tarikere	NA	NA

Source: National Highway Sub-Division, Govt. of Karnataka, Shimoga and NHAI, Chitradurga, Karnataka

Case II: As per information received from Office of the Special LAO, NHAI, Kunigal, Bangalore, and Karnataka during the above referred period agricultural dry and wet land 23,33,126 Sq. meter and 3,10,639 Sq. meter non-agricultural land was acquired for NH-207 (Hosakote to Sompura Section). Details of compensation awarded have not been provided by the department.

Amount awarded is lesser in comparison to other cases of land acquisition reflected in this paper and the prevailing average rates across the country.

Kerala :-

Case I: In Kerala as per details received from Office of the Executive Engineer, PWD, Muvattupuzha compensation during the past decade has been suitably awarded as per details tabulated ahead. In this case allowances have also been paid additionally with the compensation awarded to the affected households for publication, survey investigation, shifting of electric post etc.

Table 5: Land Acquisition for National Highways in Kerala, 2001 to 2010

Sl. No.	Notification(s) No. & Date	Name of the Project	Total Area Acquired (in Acre)	Amount of Compensation (in Rs. per Acre)	Any Other Allowances Paid (in Rs.)
1	2	3	4	5	6
1.	17006/D3/06/PWD Dt 30/08/2006 G.O. (Rt) No. 1265/ 2004/PWD Dt 22/12/2004	Tripunith -ura Bye pass	12.55048	90,93,955/- (Approx.)	19,91,924/- for publication, survey investigation, shifting of electric post etc.

Source: Office of the Executive Engineer, PWD, Muvattupuzha

Case II : During the past decade, 37.49701 acres of both types (agricultural and non-agricultural) land was acquired for Kodungallur Bye pass project in District Thrissur and 413.8071 of non-agricultural land for widening of NH-47 in the Districts Thrissur and Ernakulam various times between the period 2001 to 2016.

Telangana :-

Since State Telangana is a new State separate details of the district are not available. However, details provided about land acquisition on the basis of various notifications by Office of Revenue Divisional Officer, NHAI, Sangareddy, Government of Telangana regarding four laning of MH/KNT Border to Sangareddy Section of NH-9 (New NH-65) and details of compensation awarded for agricultural, residential and commercial land acquired at different locations have been presented in table 6. Purpose of this tabulated data is that compensation at different rates have been given depending upon the period (during which value sustained in the market) and location of the project from the rural urban fringe.

Table 6 : Land Acquisition for National Highways in Telangana, 2001 to 2016

Location	Total Area Acquired (in Acre)	Amount of Compensation (in Rs. per Acre)
1	2	3
Madgi	11.92456	Agri - 4,00,000/-, Comm - 7,97,000/-
Chiragpally	24.57068	Agri - 4,00,000/-, Comm - 7,97,000/-
Sathwar	40.37504	Agri - 5,00,000/-
Buchanelli	24.5472	Agri - 5,00,000/-
Tumkunta	3.650241	Agri - 5,00,000/-, Comm - 8,00,000/-
Zaheerbad	73.78962	Agri - 18,00,000/-, Resi & Comm - 72,62,000/-
Tammadpally	8.275065	Agri - 10,00,000/-
Pastapur	30.85037	Agri - 18,00,000/-, Resi - 42,10,000/-
Ranjole	29.42951	Agri - 6,00,000/-
Huggelli	23.54988	Agri - 10,52,000/-
Madri	1.600007	Agri - 6,03,000/-
Digwal	14.3756	Agri - 6,03,000/-, Resi - 9,00,000/-, Comm - 12,00,000/-
Kavelli	11.58208	Agri - 6,03,000/-, Resi - 9,00,000/-, Comm - 12,00,000/-
Venkatapur	4.625071	Agri - 6,03,000/-
Kothur 'D'	11.47483	Agri - 6,03,000/-, Resi - 9,00,000/-
Lingampally	12.77461	Agri - 7,48,000/-
Maqdoompally	0.049915	Agri - 7,48,000/-
Kamkole	43.36329	Agri - 9,60,000/-, Resi - 13,55,000/-, Comm - 19,22,000/-
Budhera	23.37493	Agri - 8,98,000/-, Resi - 16,91,000/-
Arur	36.33808	Agri - 9,00,000/-, Resi - 13,55,000/-, Comm - 18,00,000/-
Suraram	9.599797	Agri - 9,00,000/-, Resi - 13,55,000/-, Comm - 18,00,000/-
Maddikunta	9.470561	Agri - 10,50,000/-, Resi - 15,78,000/-, Comm - 21,04,600/-
Sadashivapet	67.69872	Agri & Resi - 43,54,000/-

....Cont'd

Location	Total Area Acquired (in Acre)	Amount of Compensation (in Rs. per Acre)
Ishratabled	16.64947	Agri - 7,50,000/-, Comm - 19,14,000/-
Nandikandi	30.05098	Agri - 12,60,000/-, Comm - 25,49,000/-
Peddapur	22.70034	Agri - 12,74,000/-
Malkapur	22.66895	Resi - 12,74,000/-
Girmapur	5.350079	Resi - 12,74,000/-
Sangareddy	3.224725	Agri, Resi & Comm - 67,78,000/-
Pothireddypally	4.174845	Agri - 55,44,000/-, Resi & Comm - 58,07,000/-

Source: Office of Rev. Div Officer, NHAI, Sangareddy, Govt. of Telangana

Note: Agri refers to Agriculture, Resi refers to Residential and Comm refers to Commercial.

It is observed that in order to speed development of the new State more than 620 acres of land has been acquired for the said project. Period of land acquisition is during the period from 2011 to 2016 vide various Notification(s) as SO 2124 (E) dated 08/09/2012, SO 18 (E) dated 02/01/2013, SO 794(E) dated 30/03/2013, 805 (E) dated 15/03/2014 and SO 2933 (E) dated 14/09/2016.

North-Eastern India**Assam:-**

Case I : Table 7 provides the information about land acquisition in villages of District Kamrup during the period 2001 to 2010. It is observed that within the same district different rates of compensation has been awarded for agricultural as well non-agricultural land. In the village Gagigaon lowest among all he rates have been paid against acquisition of agricultural land for construction of four lanning Gauhati University Bye pass to NH-37.

Case II: In another case as per information provided by Office of the EE, PWD, Abhayapuri, Assam land has been acquired vide No. RLA.205/2008/2, LA Case No. 2/2008-09 dated 17th June 2008 for Installation of Weigh in Motion-cum-Automatic Traffic Counter-cum-Classifer in the villages Koimari, Lohorapara, Thakurani & Khorapara of the district Bongaigaon. In this case more than 15 Bigha of agricultural land has been acquired and compensation has been awarded at the rate of Rs. 90,000/- per Bigha.

Table 7: Land Acquisition in District Kamrup Villages of Assam, 2001 to 2010

Sl. No	Name of the Project	Location	Type of Land Acquired	Total Area Acquired (in Acre)	Amount of Compensation (in Rs. per Acre)
1	2	3	4	5	6
1.	Strengthening/ improvement of NH-37	Uparhali	Non-Agricultural	1.471	1,24,68,862.67/-
2.	Four laning of NH-37 & Fly over	Borjhar	Non-Agricultural	1.1339	37,45,431.70/-
3.	Construction of four lanning Gauhati University Bye pass to NH-37	Dehan Gagigaon, Kachari Garigaon, Dehan Pachim Jalukbari & Dehan Sadillapur	Agricultural	5.788	88,12,026.60/-
				1.1719	1,87,46,538.10/-
				19.0744	20,21,787.37/-
				13.1074	12,84,537.28/-

Source: Office of the EE, Guwahati, Assam

Meghalaya:-

Case I: In Meghalaya, 10.97148 acres of land has been acquired during the last decade for construction of Jowai Bye pass of NH-44 in the West Jaintia Hills District and compensation amount of Rs. 77,10,064.00 /- has been awarded. In this case land was acquired under the Land Acquisition Act, 1894.

Case II : During the present decade, between the period 2011 to 2016 land has been acquired at different rates and then prevailing Acts as per details given below:-

Table 8 : Land Acquisition in West Jaintia Hills District, 2011 to 2016

Sl. No.	Name of the Project	Total Area Acquired (in Acre)	Amount of Compensation (in Rs. per Acre)	Section / Act Details
1	2	3	4	5
1.	Jowai Bye pass from 314 km of NH-40E	36.00325	5,52,90,383.16/-	Under Section 4 of the Act 1 of 1894
2.	Construction of 2 Lane Bye Pass NH-44	49.64347	16,02,18,273.40/-	Decalaration under LA Act, 2013
3.	DAJ NH 40 widening & single to Double lane	22.95609	4,18,15,962.00/-	Decalaration under LA Act, 2013

Source: Office of the EE, PWD (Roads), Jowai Central Division, Jowai, Meghalaya

Case I as discussed above and details presented in the table 8 provides the information that with the passage of time and implementation of new land law, compensation amount has consecutively increased against each case of land acquisition.

Mizoram:-

As per details received from Office of the EE, PWD, Aizawal, Mizoram about the land acquisition during the period 2001 to 2010 for improvement of NH-54 and compensation for buildings and crops/plantation and shifting of utility services have been paid as Rs. 2.836/-lacs against 8.38 acres of land in Kawnpui to Buichali of district Kolasib.

Eastern India

Bihar:-

In Bihar information about land acquisition has been received from three different departments and the same has been shown in table 9 ahead.

Table 9: Land Acquisition in Bihar, 2001 to 2010 and 2011 to 2016

Sl. No.	Period of Acquisition	Name of the Project	Location	Total Area Acquired (in Acre)	Total amount of Compensation paid (in Rupees)	Number of Cases/ Families where R & R provided
1	2	3	4	5	6	7
1.	2001-2010	Construction of Rail Road Bridge across river Ganga at Munger	Districts Begusarai and Munger Villages	In Begusarai 653.108 (During different periods) and in Munger 32.461	In Begusarai during 2001-2010 Average rate per acre and in 2011-2016 12.21 Lacs. In Munger 48.37 Lacs	16 No. of cases settled in Begusarai
2.	2011-2016	Dehri-on-Sone Banjari New B.G. Line	District Rohtas Village	9.915	0.5184 Crore	--
3.		Rehabilitation and Upgradation	District Patna and Nalanda Villages	80.12	22.87 Crore	--

Source: Office of the Dy. Chief Engg, East Central Railway, Mahendraghatu, Patna, Bihar, Office of the Dy. Chief Engg, East Central Railway, Mughalsarai, Bihar and Office of the EE, NHAI, Biharsharif, Bihar

In the cases shown land acquisition cases has been processed under different land laws. First case has been dealt under Bihar State LA Act 1968 (Rev. 1981), second under Land Acquisition Act, 1894 and last one under the National Highways Act. In the first case maximum of the agricultural land has been acquired including non-agricultural land and in the second only agricultural land is acquired.

Odisha:-

Case I : In this case agricultural land has been acquired in two cases during different decades as per details given in table 10. In all cases agricultural land has been acquired for construction of HL bridge over River Hati and its approaches on NH-201 and widening & strengthening of NH-26. It is evident from the above table that even after compensation has been paid, resettlement and rehabilitation facilities to the affected households have been extended.

It is observed that total 209 families have been rehabilitated; 36 in the first case and 173 in the second case. Depending on the circumstances and criteria as per the regulations in force from time to time; resettlement and rehabilitation process and procedures have been followed by the agencies involved in land acquisition from time to time.

Table 10 : Land Acquisition in District Kalahandi, 2001 to 2010 and 2011 to 2016

Sl. No	Period of Acquisition	Notification No. Date	Location	Total Area Acquired (in Acre)	Total amount of Compensation paid (in Rupees)	Number of Cases/ Families where R & R provided
1	2	3	4	5	6	7
1.	2001-2010	46355/RDM Dated 3 rd January, 2008	Junagarh, District Kalahandi	4.6984	2,33,25,428/-	36 Families
2.	2011-2016	NA	Kurlupada to Nunmath, District Kalahandi	12.8002	Not Available	173 Families

Source: NHAI, Kesinga, District Kalahandi, Odisha.

Case II : In this case in the present decade land has been acquired by National Highway Division, Berhampur, Odishavide Ministry of Road Transport & Highways, New Delhi Notification No. 1677 (E) dated 5th May, 2016 for Construction of Bye-Pass Road on NH-59 (Old NH-217) near Berhampur in the District of Ganjam, Odisha. In this project, eleven villages viz; Ratanpur, Jagadalpur, Krupasindhupur, Nimakhandi, Borigam, Jhadankuli, Badagumla, Badakusastali, Narendrapur, Laxmipur and Raghunathpur have been affected.

Western India

Goa:-

Case I: As per information tabulated ahead presents that more than 182 acres of agricultural land has been acquired for national highways projects since 1981 at different locations.

It is observed that different rates have been paid against the land acquired during phases I and II of the project. Also during the period 1991 to 2000 land acquired for the same project rates are quite different in comparison to the earlier decade.

It is evident from the tabulated data ahead that value of land is different at all the locations and thus accordingly different rates of compensation have been awarded against all the land acquisition cases during the four decades from 1981 to 1990, 1991 to 2000, 2001 to 2010 and 2011 to 2016. It is noticeable that maximum of the land has been acquired during the period 2001 to 2010.

Case II: As per details compiled on the basis of information received from Office of the EE, PWD, Fatroda, Goa it is revealed that land types paddy field, coconut garden and bharat land has been acquired during the decade 1981 to 1990 in district South Goa. Land had been acquired for widening and improvement of NH-17 and NH-17A at five different locations of the district. In first case, 5.44144 acres of land has been acquired and Rs. 4,06,094.84/- has been paid as award of compensation; in second case, Rs. 1,89,749.40/- against 3.007025 acres of land; in third case, Rs. 26,97,797/- against 25.73232 acres of land; in fourth Rs. 1,00,871 for 0.244634 acres of land and in the fifth case Rs. 23,49,800.66/- for the 15.1871 acres of land.

Table 11: Land Acquisition in District Goa, 1981 to 2016

Sl. No	Period of Acquisition	Purpose of Acquisition	Location	Total Area Acquired (in Acre)	Compensation paid (Per Acre in Rupees)
1	2	3	4	5	6
1.	1981-1990	Realignment of road of NH-17 Ph I	Panaji City and Morombio Pequeno	8.3104	20,23,452.82/-
		Realignment of road of NH-17 Ph II	Murda	8.4033	9,79,307.64/-
2.	1991-2000	Realignment of road of NH-17	Goa Velha, Mercurim	38.9003	78,77,699/-
3.	2001-2010	Realignment of NH 17	Goa Velha	1.0786	3,47,751/-
		Ribandar bye pass on NH 4A	Morombio - O Pequeno, Renavadi, Panaji	67.9665	5,60,92,291/-
4.	2011-2016	Ribandar bye pass on NH 4A Additional area.	Baigiuinim, Chimbél, Ella, Morombio-O-Grande	22.4081	2,21,15,747/-
		Ribandar bye pass on NH 4A and Rehabilitation of Affected Families	Chimbél, Ella	1.2585	4,06,43,744.7/-

Source: W.D. VII (NH) PWD Panaji, Goa

It is evident that with the passage of time value of land has gone up and accordingly compensation has been awarded. The department has also provided the specific information for the period from 1984 to 1992 about the land acquisition and details of the same have been presented in table 12.

Information shown in the table depicts that within a period of less than 10 years land has been acquired in different Talukas at different rates, this again clarifies that value of land is different in different regions at a different point of time; comparison by affected population with compensation of other regions does not have any concern to the protests took place in the past.

Table 12: Land Acquisition in District South Goa, 1984 to 1992

Period of Acquisition	Purpose of Acquisition	Location	Total Area Acquired (in Acre)	Compensation paid (Per Acre in Rupees)
1	2	3	4	5
1984-1992	Widening and Improvement of Road NH-17	Taluka Mormugao & Salcete	17.18247	8,31,025.68/-
	Realignment of road of NH-17	Taluka Salcete	11.87218	64,99,425/-
	Improvement and Black Topping of NH-17	Taluka Salcete	13.38199	28,43,151/-
	Widening of road to Ambaji Road Junction	Taluka Salcete	3.752789	7,00,491/-

Source: Office of the EE, PWD, Fatroda, Goa

Gujrat:-

Case I : As per information provided by NHAI, Bharuch, Gujrat against land acquisition for the project six laning between Vadodara-Surat Section of NH-8 including construction of a new four lane Extra Dosed bridge across river Narmada during the period 2011 to 2016 reveals that Rs. 11.27 Crore for total land has been paid for 16.43325 acres of land. Nearly same rates have been in many of the states across the country during that period.

Case II : This section of Gujrat provides information about the land acquired by NHAI for Rehabilitation of 2 Lane into 4 Lane from Deesa - Radhanpur, Radhanpur - Gagodhar, Gagodhar - Garamore, Palanpur-Swaproopganj; 4 lane to 6 lane from Samakhiyali-Gandhidham and Kandla-Mundra Toll Road Project NH-8A (Extn.). All this development has taken place during the period 2001 to 2010 and details of the same have been shown in the table ahead.

Details show that different rates have been paid in different districts at different point of time for various projects. However, rates are in tune to acceleration of the urbanization experienced during the decade across the country. In addition to this, it is pertinent to mention here that price awarded for NH-7

project in villages of District Sangrur during phase I were calculated as price for sq. yard i.r.o. all classes (agricultural, residential and commercial) of the land acquired. Price Awarded during phase II were calculated in acre for agricultural land and in sq. yard for rest of the classes of the land acquired. Different rates awarded for all the villages as per the price fixed by District Price Fixing Committee during the phase I. However, in case of phase II, rates have been awarded according to the market rates of land received from the Tehsildar of Sangrur and Bhawanigarh (Shorey, 2018).

Table 13: Land Acquisition in Gujrat, 2001 to 2010

Sl. No	Period of Acquisition	Location	Total Area Acquired (in Acre)	Compensation Awarded
1	2	3	4	5
1.	2001-2010	District Banaskantha	99.01513	44,05,867 Crore
		District Patan	130.0664	6,12,412.53 Crore
		District Kachch	140.1557	1,36,24,204 Crore
		District Banaskantha (Gujarat) & District Sirohi (Rajasthan)	151.4756	3,44,03,442 Crore
		District Kachch	98.84265	19,49,19,295 Crore
		District Kachch	468.9072	61,77,00,000 Crore

Source: NHAI, Gandhigram, Palanpur, Gandhinagar, Gujarat

Northern India

Rajasthan:-

As per details received from Office of the EE, NHAI, Kota, Rajasthan 281.23582 acres of land has been acquired in various villages of district Kota for Kota-Darah 4 lane NH-12 project during the period 2011 to 2016 and compensation has been paid at the rate of 46.30 Lakh per acre.

Uttar Pradesh:-

Case I : In the second case of as per information provided by Office of the Executive Engineer, National Highway, PWD, Sultanpur, Uttar Pradesh non-agricultural land has been acquired during the decade and compensation has been awarded at the rate of 17000/- sq. meter for the project C/O ROB at Chilbila, Railway Crossing (Pratapgarh). Besides the award of compensation, in this case 47.928 lacs (other allowances) were paid to the affected parties.

Case II: As per information provided by NH Division, PWD, Kanpur, Uttar Pradesh, in this case agricultural land has been acquired in two cases during different decades as per details tabulated ahead.

During 1971-1980 land was acquired for three different projects viz; Bye pass Umraj, Raipur Kukhar and again for Raipur Kukhar. Notable is that even publication of notification for the subsequent projects same rates were determined and awarded after two years.

Table 14: Land Acquisition in District Kalahandi, 2001 to 2010 and 2011 to 2016

Sl. No.	Period of Acquisition	Notification No. Date	Location	Total Area Acquired (in Acre)	Total amount of Compensation paid (in Rupees)
1	2	3	4	5	6
1.	1971-1980	U/s 35 (i) Dt 25/09/1975 U/s 4 (i) Dt 14/06/1977 U/s 35 (i) Dt 05/07/1977	Raipur Kukhar, Kanpur Dehat. Umraj, Kanpur	5.55 5.62 3.45	1 Lakh (in all cases)
2.	1981-1990	Dt 23/06/1987	Bara	4.14	1 Lakh

Source : NH Division, PWD, Kanpur, Uttar Pradesh

Second issue here observed is that same price of land was awarded even after a decade.

Case III : Land acquisition is at faster pace in comparison to earlier decades to meet the present needs for the development needs and growing population of the country. The same will continue as needs for all gets fulfilled and virtually for this many gets affected. As for example in district Basti of Uttar Pradesh land acquisition for rehabilitation and upgradation of Rudhauri to Basti side approach of Ghaghra Bridge section under NHDP Phase-IV has affected more than 20 villages of Districts Basti and Siddharth Nagar. Beside above referred cases there are certain more projects, out of these mainly are such as Raibareli Ring Road, Pratapgarh Bye pass, Aam Ghath Bridge and Amethi Bye pass where agricultural and non-agricultural both have been acquired.

SUMMARY OF FINDINGS

Over the years as population of India has grown, necessity for infrastructure on the basis of various factors likewise migration, urbanization, search for better employment, settlement, growth of slums etc. PMGSY was launched in order to connect all habitations wherever in plain there is population of 500 and above and in the hill States habitations (including tribal and desert areas) having population of 250 and above were considered.

Dream seen for the citizens of the country by the then Prime Minister of India Late Atal Bihari Vajpayee of quadrilateral formation that connects Chennai, Kolkata, Delhi and Mumbai is one of the biggest achievements of the country. This was one of the largest highway project in India, started in 2001 gets completed in 2012. Besides that more than over a decade, since 2003-04 during every budget special attention has always been paid towards infrastructure and development of national highways.

There is no doubt that the Government is committed to empower rural India through connectivity in many ways roads, electricity; whereas the development projects are uprooting and displacing the rural population. Being on the subject of this paper, as per details available (MoRTH, Aranca Research as in turn quoted by IBEF, 2018) that development of road infrastructure is in its peak process. Out of the 1,529 total Public Private Partnerships (PPP) projects, 740 projects (48.40 per cent) were related to roads. This places on record that connectivity to all habitations is in progress and detachment is due to the fact that many of the households are keen to settle themselves in urban parts of the country. It is pertinent to mention here that Government isn't responsible for all types of movements taking place in rural areas. Such a situation has occurred due to handsome award of compensation in many parts of the country, this has placed a situation of greed which thus cannot be fulfilled for better settlement of their future either in rural or urban.

CONCLUSION

Besides all the work out discussed above the factual figures as being given below indicates that development of all types of road networks is necessarily required to be pushed up for strong connectivity and availability of amenities facilitation for every citizen of the country. There is no doubt that development keeps deprived from many of the sources for a small group (of project affected population) but facilitate millions of people at present and in the years to come. Development also promises sustainable availability of resources for the generations.

Total passenger traffic is expected to grow at about 15 per cent per annum to reach 168,875 billion passenger kilometer (bpkm) in 2031-32 from 10,375 bpkm in 2011-12 (India Transport Report - Moving India to 2032). It cannot be claimed in any sense that all the affected households have been suffered in the same magnitude. Degree of the same depends on the basis of their liabilities and influence on their

professionalism. Sooner the new land law came into force, financial burden over the MoRTH has increased as Committee on Public Undertakings in 2017 (Union Budget, 2018-19, Pp 58) has revealed the increase in expenditure on land acquisition increased to Rs 21,933 crore in 2015-16 in comparison (to 2014-15). Further, land owners those were paid lesser as per old land law are now approaching the courts for increase in their compensation award. This way cost of projects has increased.

It has been observed in the past that since beginning of the decade many of the projects delayed due land related issues. Implementations of new land law followed by amendments and thereafter rules have given a way ahead towards progressive stage of the country. Above all, it is revealed that length of national highways has increased over the decades and also length of all other types of roads has also increased in the past. This has connected the nation internally to most of the habitant and un-inhabitant places. Detachment as discussed isn't only due to the development projects, it's also due to the willingness of the individual households who wish to move from rural to urban; but they are very less in number.

Notes:

1. NHs referred in the paper is the same for which information has been received from the respective departments. Name of NHs have not been changed in the paper after these have been renamed.
2. Zone has been referred here as geographical location of the State.
3. NA means Not Available.
4. Mean Household (HH) size of the total population for the States Andhra Pradesh is 4.0, Assam is 4.9, Bihar 5.5, Goa 4.2, Gujarat 4.9, Karnataka 4.5, Kerala 4.2, Meghalaya 5.4, Mizoram 4.9, Odisha 4.3, Rajasthan 5.4, Telangana N/A and of Uttar Pradesh is 6.0 as per Census of India 2011 available at <http://www.censusindia.gov.in/2011census/hh-series/hh01.html> accessed on 16.03.2019.

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