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The Importance of Road Transportation in Regional Development –A Case study of Kannauj District

Abstract

Kannauj is one of the socio-economic and agriculturally developing districts of India. Eventhough, the rate of over all agricultural and regional development of the region is not as much, as it should be. The district has great historical importance and immense agricultural possibilities. Despite the region has good fertile soil, nearness to Kanpur and Lucknowand huge industrialization potential the region is still not developing fast. The only solution to this problem lies in better road connectivity between small villages, towns and cities and good maintenance of existing road network. Through this article, author will provide a proposed road network plan which will help in better connectivity and fast regional development of cities villages and towns in Kannauj district..The author will also proposed some new industrial regions which helps in overall regional development of the region.

Keywords: Metalled Roads, Unmetalled Road, Road Density, National Highway State Highway.

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Introduction

Road transport means transport of goods and personnel from one place to the other through roads.There are many advantages of road transports in comparison to other means of transport. The investment required in road transport is very less compared to other modes of transport such as railways and air transport. The major advantage of road transport is that it can enable door-to-door delivery of goods and materials and can provide very cost-effective means of cartage loading and unloading. The importance of road transport increase many folds when it comes to provide services in small and remote villages and towns because that is the only means of transportation availablethere. In Kannauj district where most of the population lives in village than is cities the road transportation is the only major source of transportation and can be use for regional development. Thus more and more road connectivity is the only way to connect far– off villages in to main stream development process.

Objectives of the Study

The present study has the following objectives as to present the current road transport network plan of Kannauj district along with proposed road network plan for Kannauj, besides it also focus on how better road connectivity helps in agricultural and industrial development of Kannauj District.This article also emphasized how road connectivity also helps in providing better educational and medical facilities and eradicating unemployment from the region.

Data Collection and Methodology

In order to achieve the required objectives the present study need both primary and secondary data. Accordingly, a field survey is conducted to obtain primary data adopting a sampling design and purposive random sampling. The primary data are collected mainly from extensive field survey of the sample unit. To obtain primary information, personal quarries are conducted through well design questionnaires especially prepared in view of the objectives of the study. On the other hand secondary data is mainly obtained from published and unpublished works on the related topics. Census reports,Economic Survey , Journals, Newspapers, Government and non-government organization reports and survey done by PWD, district and Village Panchayatsetc helps to get the desired result. Besides this, information has also been collected with the help of books, magazines research articles and reports.

The study Area

The district Kannauj is situated between latitude $26^0$40' N - $27^0$5' N and Longitude $77^0$25' East - $80^0$1' East on the right bank of the river Ganga and at a distance of 53 Km. south-east of Fatehgarh with which it is connected by road. The district was carved out of the erstwhile Farrukhbad district on September 18, 1997. The district is situated in Kanpur division and its north borders touches farrukhbad district.On its east lies Hardoi district , Kanpur dehaton its south east border while western and southern borders touches district Mainpuri and Etawah respectively the entire district is divided in to three tehsil and eight development blocks they are Kannuj ,Chhibramou and Tirwa, while development blocks are Hasren, Talgram, Saurikh, Umerda, Gugrapur, Kannauj, Jalalabad and Chhibramou. It is almost rectangular shaped district. Rivers like Kali, Isan and Ganga are the important ones. The Kali river forms the northern border of the district while Ishan flows from middle of the district.Average rainfall of the district is approximately 80 cm, with the climaticcondition is hot dry summer and pleasant cold season.

Map 01

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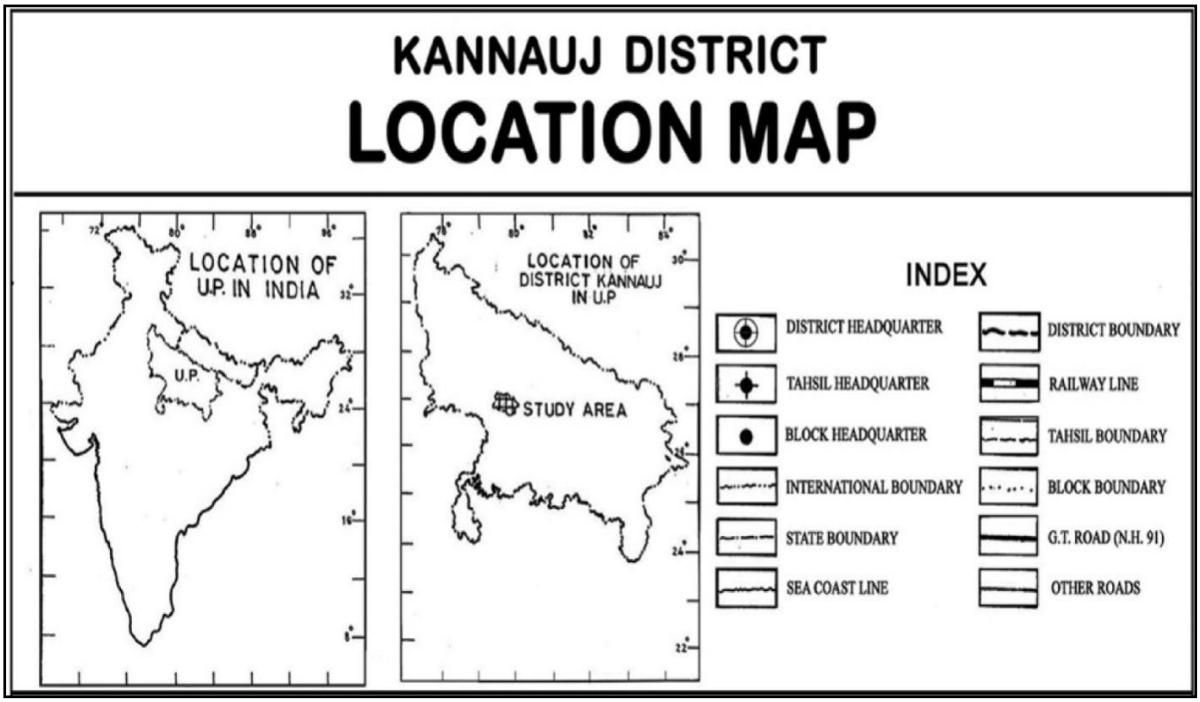


Road Transportation in Kannauj

The development of road transportation in Kannauj district can be traced way back to the Mughal period when Sher Shah Suri construct/renovated one of the Asia's oldest and longest road Sher Shah Suri Marg from Chattagaon in Bengal to Kabul in Afghanistan in 1542 AD.Even before Sher Shah Suri this road existed during the region of Chandragupta Maurya extending from the eastern mouth of river Ganga to the North western frontier of his Empire , i.e. from Takshashila to Patliputra or Present Patna with the approximate length of 2600 KM. After independence there has been a marked increase in road length as a result within 60 years (1951-2013) the length of roads has increased 6 times from 250 km in 1950 to 1553 km in 2012-13. Due the special emphasize on village, town and city connectivity more and more villages will be connected with the cities in due course of time.The proposed plan given by author helps in this field.

Classification of Road Transport

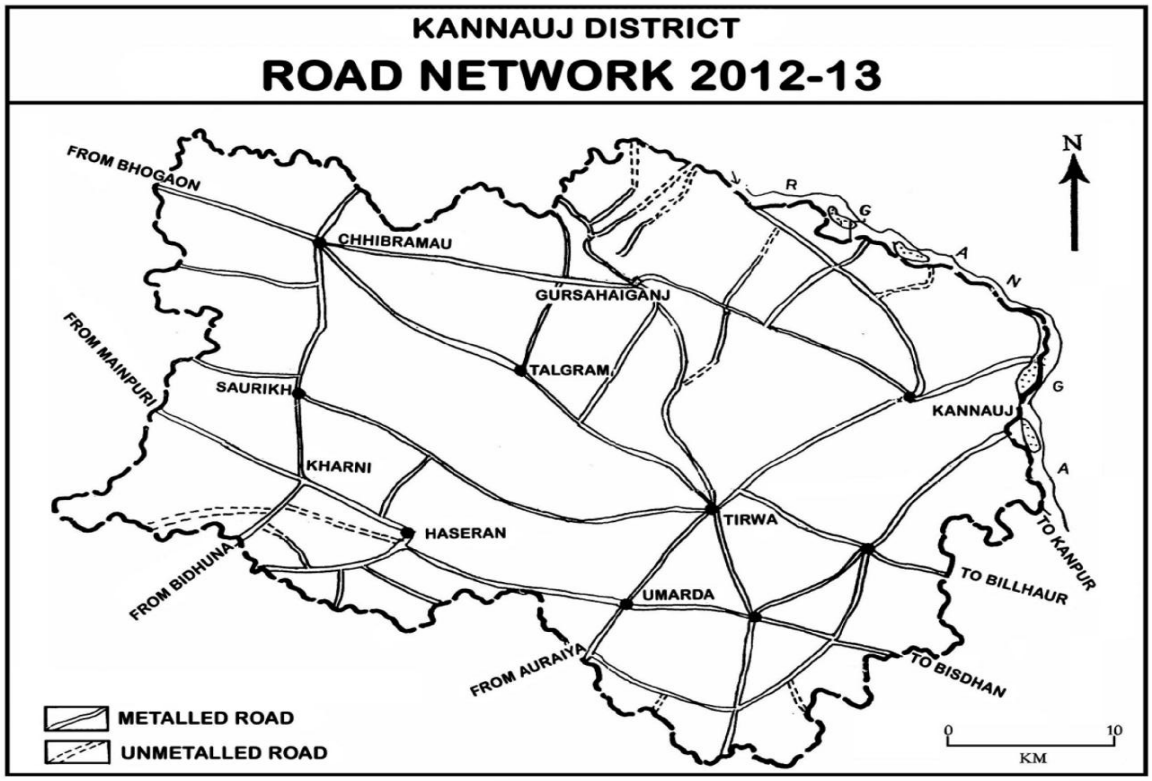
According to a report published in 2015-16 by Lok Nirman Vibhag (or PWD), the total National Highway length in Kannauj is 67 Km which is 4.31% of total road while State Highways length 51Km (3.28%).

Table 01
Total Length of Roads in Kannauj District

Sr. No.	Road classification	Total Length	Percentage
1.	National Highway	67 Km	4.31%
2.	State Highway	51 Km	3.28%
3.	Main District Roads	80 Km	5.15%
4.	Other District & Village Road	983 Km	63.29%
5.	District Panchayat Road	170 Km	10.95%
6.	Nagar Nigam, Nagar Panchayat, Cantt Road	202 Km	13.02%
	Total	**1553 km**	**100%**

Similarly 80 km is main district roads (5.15%) and other district and village roads are 983 km i.e. 63.29% of total. Roads constructed by district Panchayat is 170Km (10.95%) and those constructed by Nagar Nigam/Nagar Palika/Nagar Panchayat/Cantt is 202 Km (13.02 %)table 01.

Map 02



Distributional Pattern of Roads Transport

The distributional pattern of road transport in Kannauj district can be broadly classified into three types.

1. Roads per 100square km of area.
2. Metalled roads per Lakh population.
3. Traffic flow at peak hours.

In Kannauj district the total length of metalled road per 100square km of roads is 66.67^{2}km.

Table 02

Distribution Pattern of Road Transport in Kannauj District

Sr. No.	Block Development Region	Total Area of Development Blocks in sq. Km.	Total Road Length in Km	Roads per 100Square Km	Total Population	Roads per Lakh population	Traffic Flow of Peak hours in persons per day
1.	Chhibramau	299.97	223.98	74.67	2,30064	97.35 km	5550
2.	Sarurikh	295.35	182.94	61.94	1,64971	110.89 km	2260
3.	Talgram	288.67	193.03	66.87	1,94284	99.35 km	1150
4.	Haseran	261.04	136.13	52.15	1,19018	114.37 km	800
5.	Jalalabad	195.33	166.22	85.10	1,02516	162.14 km	850
6.	Kannauj	293.72	242.87	82.69	2,05380	118.25km	8160
7.	Umarda	533.84	303.91	56.93	2,90305	104.68km	2710
8.	Gugrapur	195.55	103.73	53.05	6,9237	149.81 km	650
	Total /Average		**1552.81**	**66.67^{2}km**	**1375775**	**119.60 km**	**22130**

Road per 100 square km of area

In total eightdevelopment blocks, every 100 square km , there exists 74.67^2 Km in Chhibramau, 61.94^2 Km in Saurikh, 66.87^2 Km in Talgram, 52.15^2 Km in Haseran, 85.10^2 Km in Jalalabad, 82.69 in Kannauj 56.93^2 Km Umarda and 53.05 km square in Gugrapur(Table 02).

2 **– Metalled Roads per lakh population**

Similarly on the base of every one Lakh population, the average road length is 97.35 km in Chhibramau , 110.89 km in Saurikh, 99.35 km in Talgram , 114.37

km in Haseran , 162,14 km in Jalalabad, 118.25 km in Kannauj, 104.68 km in Umarda and149.81km in Gugrapur with thetotal district average of 119.60 Km ,Table 02.

Trafficflow in Peak Hours

Likewise on the basis of Traffic flow average 22130 people travel per day in all eight blocks. On this basis there are 5550peopletravel per day inChibramau, 2260 people in Saurikh, 1150 people in Talgram, 800 people in Hasran, 850 people in Jalalabad. 8160 people in Kannauj and 2710 people in Umarda and 6509 in GugrapurTable 02.On the basis of field survey conducted on 8th, 12th and 17th October 2013 the overall traffic flow in KannaujDistrict is quite uneven. Between 9 am to 11 am the total Number of Busses pass from Kannauj city is 115, Trucks 260, Tractor 60, Can-Jeep 245 and Bikes 470 while between 3pm to 5 pm total Busses 95, Truck 190, Tractor 45, Car – jeep 210 & Bikes 390. InTirwa.Between 9-11am totalbusses pass by 35, Track 60, Tractor 35, Car-jeep 110 and Bikes 250 while between 3 - 5 pm it is 30 Busses, 65 Truck, 65 Tractor, Car-85 and Bikes 210.Similarly in Chhibramau between 9-11 am the total number of Busses pass by are 85, Truck 120, Tractor 85, Car 150, and Bikes 200 but in 3-5 pm It is 70 busses, 110 Truck, Tractor 65, Car 120 and Bikes 180.It indicate that in morning traffic flow is more thanin evening.

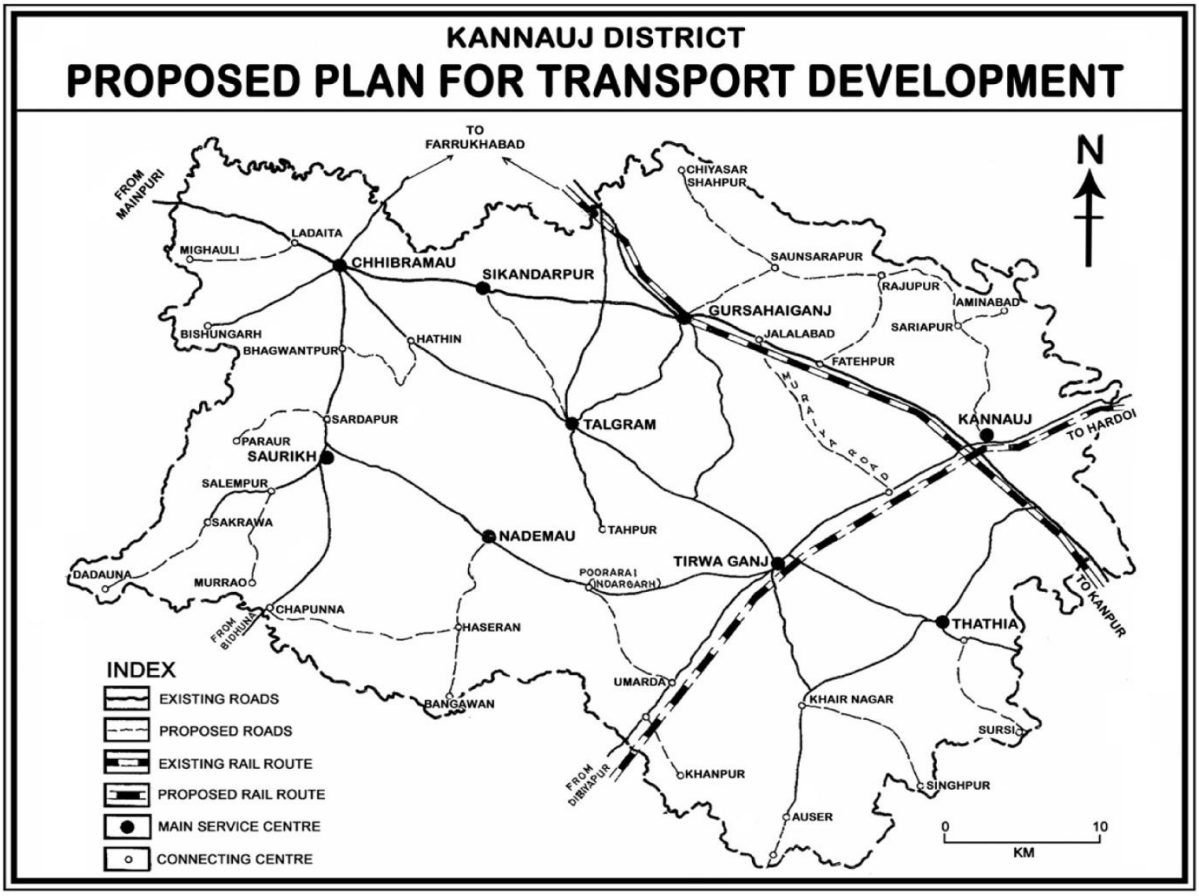
Transportation Development and Proposed Plan for Road Development

For over all regional development better integrated road transportation plan is the most important. The following proposed road transportation plan not only develop the region but also help in fast industrial, agricultural and socio-cultural development.

Table 03

Proposed Road Network Plan For Kannauj District				
Sr. No.	Origin to Destination Point	Distance In Km	Total Benefited Population	Area in Sq. KM
1.	From Midhauli to Ladaita	7.44	12,017	16.56
2.	From Hathin to Bhagwanpur	8.30	10,008	13.00
3.	From Sikandarpur to Talgram	11.15	20,040	27.80
4.	From Parur to Sardarpur	7.15	22,044	30.47
5.	From Salempur to Dadauna	8.10	14,028	19.14
6.	From Sakarava to Dadauna	8.6	18,036	25.02
7.	From Haseran to Chapunna	13.16	30,060	41.70
8.	From Nademau to Haseran	6.86	10,020	13.90
9.	From Haseran to Bangavan	4.82	6,002	8.27
10.	From Gursaiganj to Saunsrapur	6.63	10,023	13.38
11.	From ChiyasarShahpur to Saunsrapur	9.44	16,131	22.02
12.	From Saunsrapur to Rajupur	7.72	14,006	19.46
13.	From Fatehpur to Rajupur	8.00	14,028	19.35
14	From Rajupur to Sadiyapur	8.15	16,032	22.16
15.	From Sadiyapur to Aminabad	3.15	10,003	13.06
16.	From Sadiyapur to Kannauj	9.34	22,044	30.58
17.	From Jalalabad to Tirva-Kannauj Route	14.01	32,064	44.48
18.	From Thathiya to Sursi	8.87	20,029	27.23
19.	From Khairnagar to Sinhpur	10.87	16,003	22.24
20.	From Auser To Hamirpur	3.72	6,012	8.24
21.	From Khanpur to UmardaAuraiya Route	4.86	6,113	8.34
22.	FromPuraray (Indergarh) to Umarda	9.37	12,024	16.68
	Total	**179.71**	**3,36,767**	**463.08**

MAP 03



On the basis of detail survey of the region it is evident that if we convert 22 unmatelledroad in to matelledroadthanwe have to construct 179.71 Km good quality road. From this 179.71 Km of metaled road we can make 95% of land area of Kannauj accessible to everyone which helps in rapid regional development Map 03 Table 03. Proposed Hasran to Bangava road of 4.82 Km, benefit 6002 people and cover 8.27^2Kmarea.If we analyze the benefits that people will get from the construction of these proposed roads than Jalalabad is in number one when 32,064 people will be benefitedfrom JalalabadTirwa – Kannauj 14.01 km road where as minimum benefit in Hasran to Bangava where 6,002 people benefited by construction of 4.82 km road , obviously small road benefits less number of people ina region. With the help of this article we also proposed a road plan for future development of Kannauj Region which helps a lot in regional developmentThe longest proposed road is from Tirwa to Kannauj having length of 14.01 Km which benefits 32064 people and 44.48^2 Km area, As far as regional development area, As far as regional development is concerned this road is very important. Second important road connect Hasran to Chapunna 13.16 Km, benefits 30060 people and serve 41.70^2 Km area. Another important proposed road connect Sikandara to Talgram cover 11.15 Km, benefits 20040 people and cover 27.80^2 Km area. Similarly the shortest road proposed from Sadiapur to Aminabad 3.15 Km which benefits 10003 people lives in 13.06^2 Km area proposed road from Ausar to Hamirpur 3.72 Km also benefits 6012 people lives in 8.24^2Km, Table 03.

Agricultural and Industrial development

As the region is predominantly an agricultural one the development of road transportation helps in easy and fast movements of raw material and finished products from one place to other. As potato is the major crop of this region and almost all the eight development blocks produces9566013 quintal /year, which is highest among all food crops, the preservation and storage is extremely important. Potato is a perishable cropso movement of potato crop for processing and making potato chips and other such processed food items, better and fast transportation helps a lot. Development of road transportation helps in more job opportunities as new food processing industries and other ancillary industries develop near agricultural raw material source. So problems like unemployment, mass migration, low working population, less developed educational facilities lack of medical facilities can easily be controlled through better road connectivity.

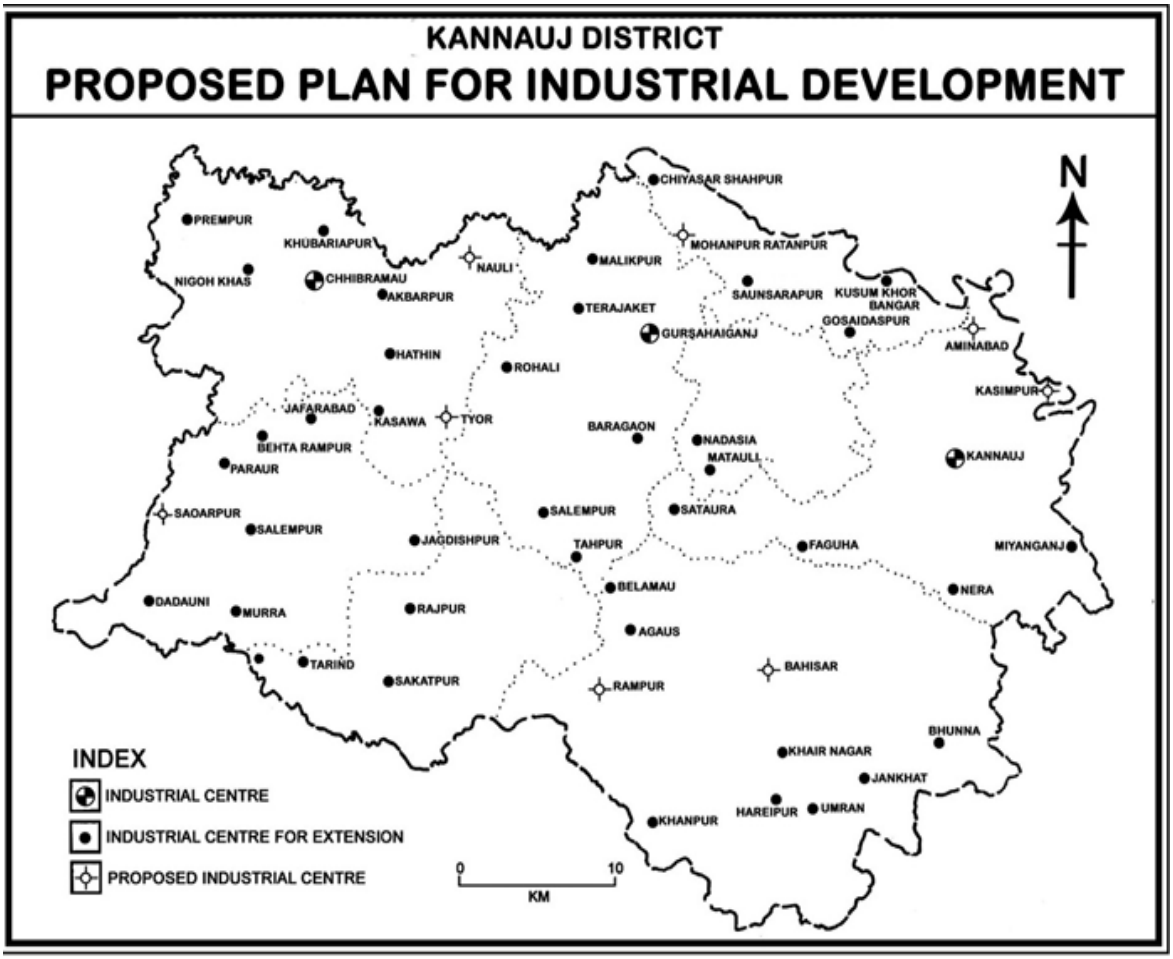

KANNAUJ DISTRICT
PROPOSED PLAN FOR INDUSTRIAL DEVELOPMENT
N
CHIYASAR SHAHPUR
PREMPUR
KHUBARIAPUR
MOHANPUR RATANPUR
NAULI
MALIKPUR
NIGOH KHAS
CHHIBRAMAU
AKBARPUR
SAUNSARAPUR
KUSUM KHOR
BANGAR
TERAJAKET
GOSAIDASPUR
GURSAHAIGANJ
AMINABAD
HATHIN
ROHALI
KASIMPUR
JAFARABAD
KASAWA
TYOR
BARAGAON
NADASIA
BEHTA RAMPUR
MATAULI
KANNAUJ
PARAUR
SAOARPUR
SALEMPUR
SALEMPUR
SATAURA
JAGDISHPUR
TAHPUR
FAGUHA
MIYANGANJ
BELAMAU
NERA
DADAUNI
MURRA
RAJPUR
AGAUS
TARIND
SAKATPUR
RAMPUR
BAHISAR
BHUNNA
KHAIR NAGAR
JANKHAT
HAREIPUR
UMRAN
KHANPUR
INDEX
INDUSTRIAL CENTRE
INDUSTRIAL CENTRE FOR EXTENSION
PROPOSED INDUSTRIAL CENTRE
0
10
KM

FIG. 4.7

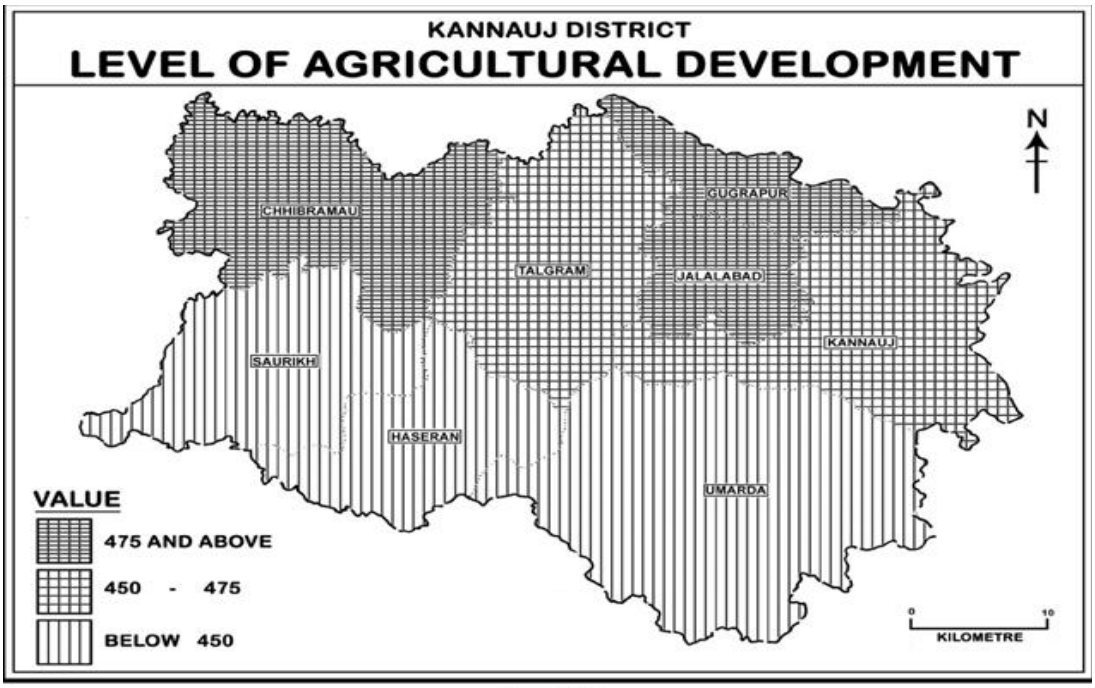

KANNAUJ DISTRICT
LEVEL OF AGRICULTURAL DEVELOPMENT
N
CHHIBRAMAU
GUGRAPUR
TALGRAM
JALALABAD
KANNAUJ
SAURIKH
HASERAN
UMARDA
VALUE
475 AND ABOVE
450 - 475
BELOW 450
0
10
KILOMETRE

FIG. 4.1

In the southern most development blocks of Hasren, Saurikh and Umerda where, even high net sown area shows low agricultural development index as in fig 4.1. With the proposed road network plan we not only increases the rate of agricultural development but could start some new industrial centers like Bahisar ,Rampur , Aminabad and Kasipur in the backward southern and north eastern part of kannauj district which will work as a new growth centers from where growth trickles down to other regions as in fig 4.7.

Conclusion

The first step towards the overall development of region comes from good quality road development. Without better road connectivity we cannot have a good accessibility to any region especially remote villages in our country. So road transport is the vein and arteries of our country in which blood of development will flow. Roads transportation not only helps to move the raw material tothe processing unit but also moves processed material towards market area so better road facilities means fast and uninterrupted development.

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