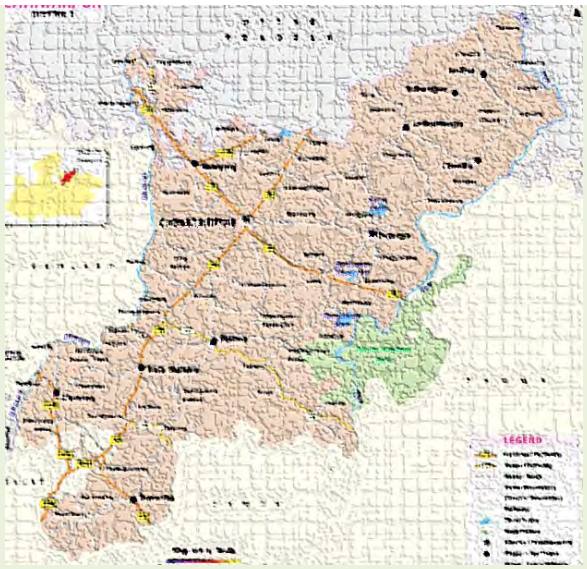
# A WORKBOOK ON DISTRICT CHHATTARPUR 2019



PHC CHC sub centre dEVELOPMENT MDG SDG mALNUTRITION sChemes dISABILITY sTUNTED wASTED PDS pOVERTY dRINKING wATER tAP hANDPUMP wELL cONTAMINATION dROUGHT tEMPERATURE rAINFALL

# Workbook CHHATTARPUR

dOCTORS mEDICAL fACILITIES qUALITY OF lIFE bLOCK BPL Anganwadi Mid Day Meal sCHOOL eDUCATION Tiger Reserve Displacement cLIMATE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*FINAL VERSION*

*Suggestions are welcome.*

*Environics Team acknowledge the valued support provided by McArthur Foundation towards creating tools for local governance and enabling information exploration in a form that benefits larger community development in the common interest of all.*

*Thanks are also due to CSOs, NGOs, Organisations, Individuals and Government functionaries who spared their valuable time and showed keen interest in the work.*



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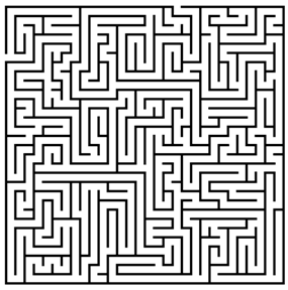
# Contents



## Introduction and Background

Information and communication technology has become vital for the effective delivery of core social functions by the governance models available in a particular country. The IT boom by the turn of this century changed the way information flows, is used and applied. User behaviour is also remotely assessed by the apps installed in the smartphones now a days to send target adverts and assist marketing. Development assistance apps are still few and whatever exist currently are first generation apps. App as an information and communication intervention for development has to still find feet as the development portfolio is widespread and diverse. Still a majority of population around the world depends on basic phones which are their only means of creating a link with the outside world. The time bound delivery of services has become yet another step towards promoting efficiency but it is still not universal and uniform. Global institutions like World Resources Institute (WRI) advocated assessment of local situations by assessing Access to information, Access to Justice and Public Participation in different case contexts. The Government of India passed the Right to Information Act in 2005 which had a public advocacy background to its enactment. Government's 20 point programme is still relevant as poverty eradication and improvement in quality of life of common man is still a long way to cover. The delivery mechanism of schemes and programmes is riddled by several geographical, financial, beneficiary socio-economic factors and leakages in the system.

### 1. The Workbook in Context – A Broad Spectrum

Information flows are not clearly available to the common man to understand and learn what lacks the delivery of services. The movement of information from Village-Gram Panchayat-Block-District and journey of programmes from top to down is often mismatched and many do not reach the targeted beneficiary. Some programmes are such that will require a dynamic geographic indicators of communities or families which have a migratory nature of work and a relaxed approach towards them i.e. if the family is not home or the house was found locked when the updation is in progress, how such a situation can be addressed that family is not struck off the rolls of scheme. The social structures in certain rural settings is still such that the downtrodden, poor and those dependent on others for livelihood avoid raising their voice for their rights and think that they will loose entitlement or benefits schemes & programmes – information can infuse confidence and enable a larger interface.

Alongwith RTI Act, the use of social media has created a virtual sharing space where one can write about issue being faced and gain solidarity from many others much

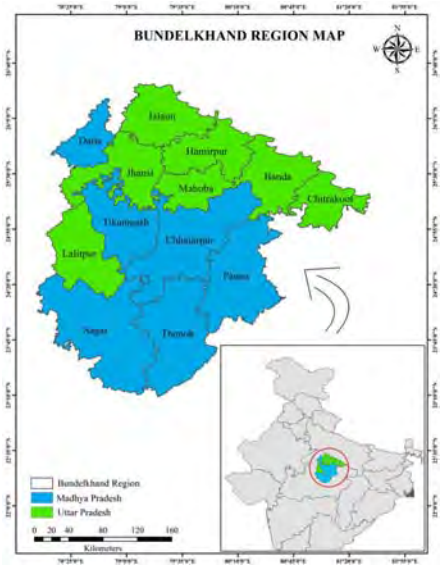
faster than before. But these again remain out of bounds for millions of people and such people have to follow a conventional approach of visiting a facility physically to testify for entitlement eligibility.

Another importance of information is its presentation so that it is understood easily. If we put certain information in its geographical and time context it presents direct relationship with the reader which can be a beneficiary, a government official, a student, a medical representative or a ANM. Preparing a base for the same is important. Another crucial aspect is time and data source – largely we depend on Census of India information which is available at the village level also but the time gap for a census information generation is decadal which is a long horizon (time period equivalent to 2 parliamentary elections), NSSO data fills in certain gap between this period. But the role of citizens, users, beneficiaries is also vital in the information flow between two administrative tiers. The workbook is one such form where secondary data is converted to information and is spatially presented over maps so that a birds eye view is available across the region. This allows a better understanding. To make information dynamic evolves if people find the information useful which may have helped in improving delivery of services in their area. The confidence also stems from the 73rd Constitutional Amendment of 1992 where in 29 subjects within the function of Panchayats were listed. That information will be relevant to the respective Panchayats at their revenue boundaries level as well of all villages at the block level.

## 2. The Region in Context


**B**undelkhand region lies between the Indo-Gangetic plain in the north and the Vindhya Range to the south. The region is spread over 70,500 $Km^2$ and comprise of 13 districts, 7 of Uttar Pradesh and 6 of Madhya Pradesh. The Uttar Pradesh portion of Bundelkhand region has a density of 328 persons/Sq. Kms whereas the density is 210 persons/Sq.Km. in Madhya Pradesh portion. The relative development index of this region is low[1] than the rest of the state units. The inter-regional connectivity between the bordering districts of Chhatarpur-Mahoba-Banda-Jhansi, Tikamgarh-Lalitput-Jhansi and Panna-Banda-Chitrakooot makes it a contiguous region. Those districts bordering divisional headquarters stand a better chance to avail services of a higher order, say the districts surrounding divisional headquarters of Jhansi-Chitrakoot-Sagar.

[1] The state of Madhya Pradesh is one of the Empowered Action Group states of the National Health Mission. These states have struggled to contain population growth at manageable levels and have poorer quality of life indicators than other states [*Madhya Pradesh Health Systems Assessment Report, March 2016]*


BUNDELKHAND REGION MAP
Jalaun
Hamirpur
Banda
Jhansi
Mahoba
Chitrakoot
Tikamgarh
Chhatarpur
Lalitpur
Panna
Sagar
Damoh
Bundelkhand Region
Madhya Pradesh
Uttar Pradesh
0 20 40 80 120 160
Kilometers


MADHYA PRADESH
RAJASTHAN
UTTAR PRADESH
GUJARAT
CHHATTISGARH
MAHARASHTRA
Map not to Scale
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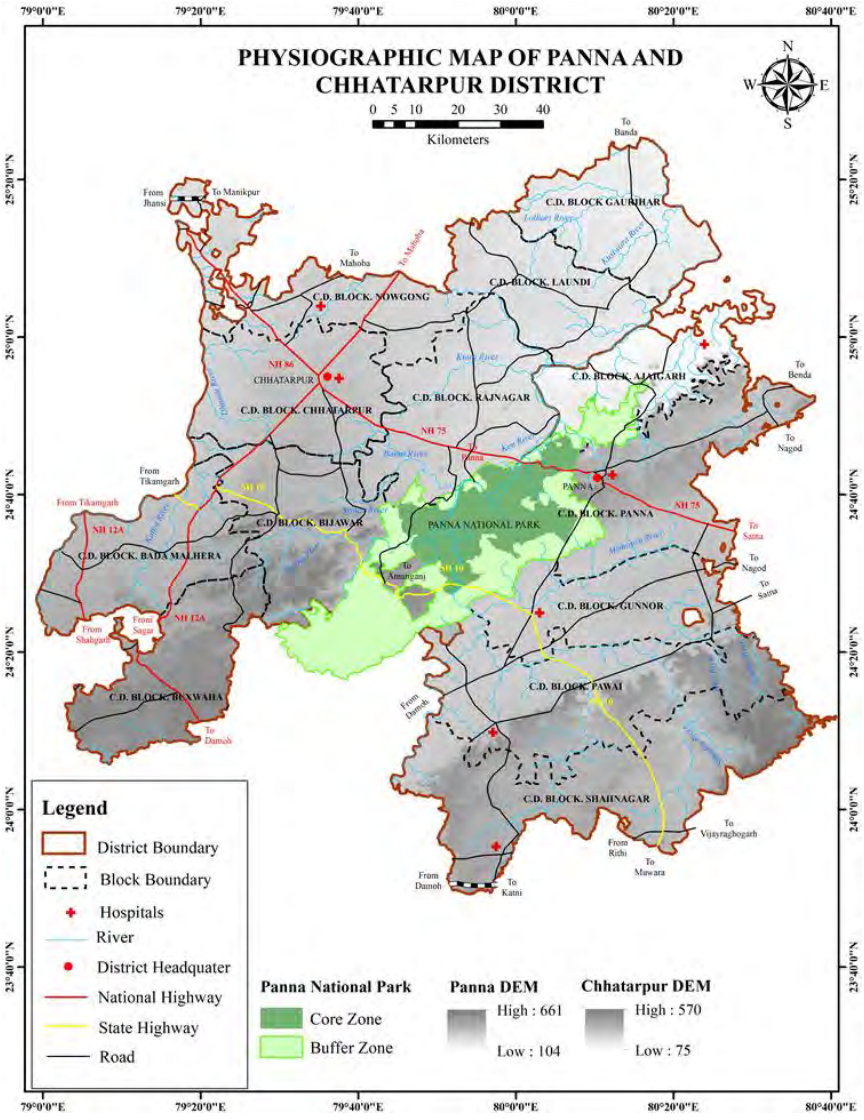

PHYSIOGRAPHIC MAP OF PANNA AND CHHATARPUR DISTRICT
0 5 10 20 30 40
Kilometers
C.D. BLOCK GAURIHAR
C.D. BLOCK LAUNDI
C.D. BLOCK NOWGONG
C.D. BLOCK AJAIGARH
C.D. BLOCK RAJNAGAR
C.D. BLOCK CHHATARPUR
C.D. BLOCK BIJAWAR
C.D. BLOCK BADA MALHERA
C.D. BLOCK BIXWAHA
C.D. BLOCK PANNA
C.D. BLOCK GUNNOR
C.D. BLOCK PAWAI
C.D. BLOCK SHAHNAGAR
PANNA NATIONAL PARK
CHHATARPUR
PANNA
NH 86
NH 75
NH 10
NH 12A
Legend
District Boundary
Block Boundary
Hospitals
River
District Headquater
National Highway
State Highway
Road
Panna National Park
Core Zone
Buffer Zone
Panna DEM
High : 661
Low : 104
Chhatarpur DEM
High : 570
Low : 75

**P**anna attains its importance due to its diamonds and the only large scale protected area i.e. the Panna Tiger Reserve spread over 1600 $km^2$ in this region and the well-known UNESCO world heritage site of Khajuraho Temple (Group of Monuments) in the **C**hhattarpur District which is visited by national and international tourists and travellers. Despite being on the international map, these two contiguous districts like the other districts in the Bundelkhand region are marred in poverty, low level of facilities and malnutrition[2]. This demands more insights for improving policy formulation and planning interventions at the district level. Contextualising village and block level information in the thematic frame viz. facilities, amenities and other development indices may render logical interpretation of situation which can present spatial planning interventions for betterment.

While each department focuses on their respective domains, inter-departmental information availability is thus also distributed and not collated in a form which can be easily understood in totality by communities, officials, researchers interested in the region. The other issue is scale of information availability. Assessing parameters across the Panchayat and villages presents a micro picture and most of the government portals too are promoting digital information. Whilst the purpose is to increase access to information, transparency and accountability, outreach of information is still restricted and requires a medium for enabling information-cum-services. But accessibility to the available information is still a hurdle, atleast in these regions where poverty disengages much of the population from thinking beyond two square meals.

The need thus also is to spatially present the information at a scale which people can relate to and make a sense of information which is the most closely available in their space i.e. the closest is the Panchayats and block headquarters. The workbook is thus an idea which Environics Trust has been advocating as a tool for better synchronisation of spatial information that can become available to the people to use and plan effectively. As this region has pockets where even basic needs seem to be far-fetched, providing thematic information at micro as well as macro level may increase the aspiration among the citizens, officials and alike to work towards making human development a cause rather than a routine physical development exercise.

Even after the advent of Right to Information, information gap remains. The RTI users may have information which represents the operational aspects of a scheme or a facility which can be loaded as and when the information is updated - it will be useful if these are from ground up. This will not be contrary but complementary to the

[2] Madhya Pradesh struggles with health problems that contribute to high maternal and child mortality rates. These problems include anemia, malnutrition among adults and children, early childhood illnesses, and several infectious diseases (NFHS-3, 2006) [*Madhya Pradesh Health Systems Assessment Report, March 2016]*

government's effort to improve the development situation on ground. Another aspect is to make the workbook dynamic so that it doesn't remain a one-time document.

## 3. What is a Workbook?

The workbook is a repository of existing information at different levels represented through a series of maps and descriptions provided. The workbook will have a series of maps at varying scales i.e. few representing Village & Panchayat level information and few at the block level depending upon the relevance of themes. Like, health indices are mostly available at the block level whereas certain basic 'social & physical infrastructure' information is available at village level. More inter and intra theme maps will also be available.

The workbook is a collection of illustrative maps at levels best representing the information i.e. certain maps whose purpose is to provide macro-geographical indicators to get insight at first look, for example representing block level information only. The context will be explained for each such theme. The other level of map would be representing village level information which will be shown within a district map as well as within a block map separately. These will be the featured maps where people will correlate to most of the information and could play a upfront role in enhancing and improving the information.

## 4. Workbook for Whom?

The workbook can be useful for citizens, academicians, departments, organisations for understanding the vital characteristics of the region. The core departments are anyways the prime holders of information and enable the information flow – this assimilation of information in the form of workbook is another aspect, say block planning and alike. The departments can make some utility by glancing through varying themes. The Panchayat in the same manner can take it as a guiding tool for improving the situations and also contribute in updating of this workbook from time to time or adding a new theme to it. Panchayat will be nearest for the people to visit and thus most appropriate level for information dissemination. Students can take a look at their respective block and Panchayat and discuss various facets of information and what they seek from the schemes/programmes.

# THEMES

- Demography
- Work Participation Rate
- Availability of Agricultural Workers to Cultivators
- Land Holdings
- Households Worked in MNREGA
- Health
- Disability
- Housing
- Poverty

## DEMOGRAPHY

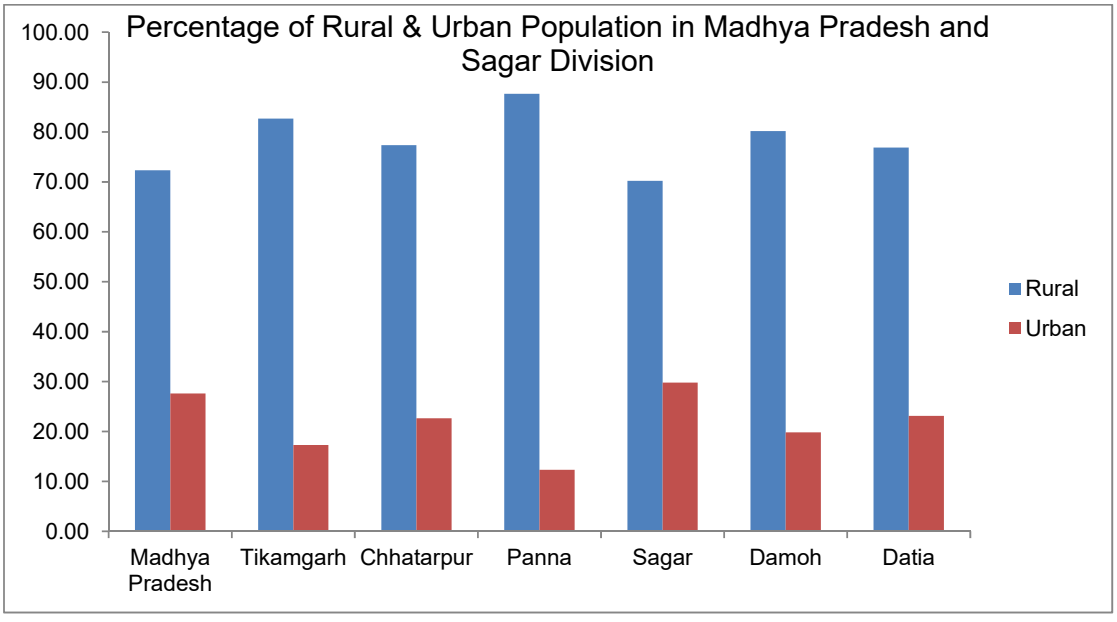
India is called a country with a demographic dividend i.e. a nation of young population but alongwith comes a challenge of providing education and absorbing them into the economy as an active workforce. Their health and well-being is another concern.

Total rural population of Chhatarpur district is 13,63,359 persons. Scheduled tribe population makes 5.05% of total population where the Scheduled caste population makes 24.51% of total population.

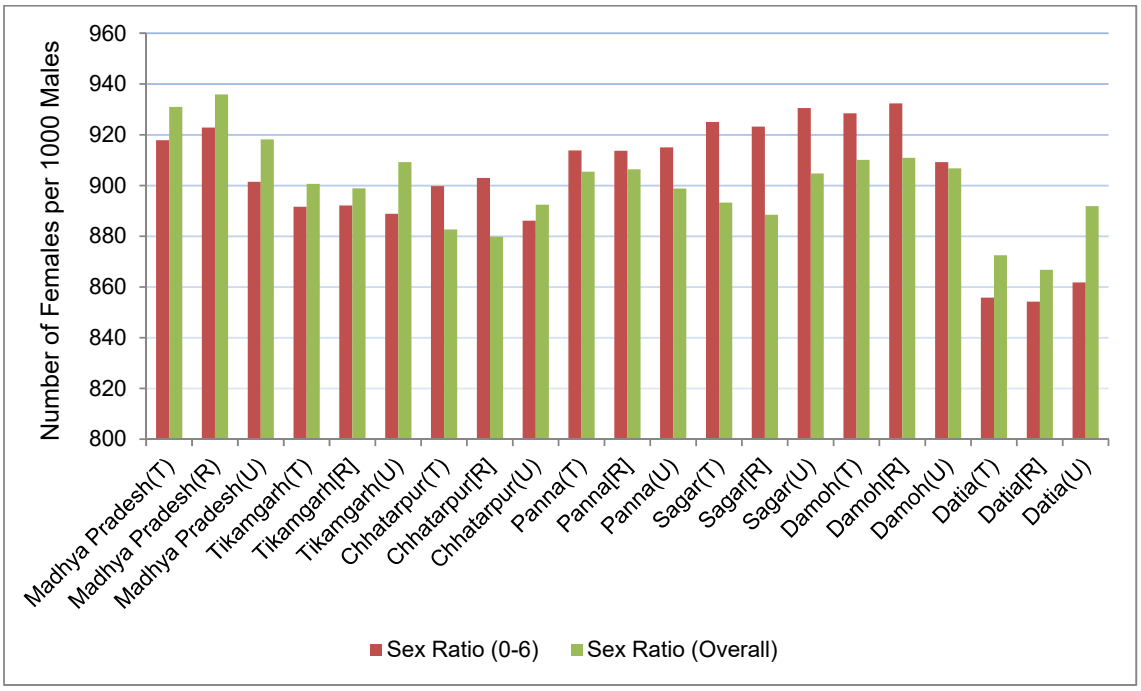
The census of India enumerates total population and classify it into Schedule Caste and Schedule Tribe and the remaining is considered as general population. Chhattarpur has less ST population (5%) whereas the SC population's proportion is 24.51%. Panna has almost similar proportion of SC and ST population.

*One commonality between the two districts is that the proportion of 0-6 years population to the total population is 17%.*

*Chhatarpur's population is 77% rural and remains a predominantly rural character*




The urban population in Madhya Pradesh is 27.63%. The low urban population in the Sagar division is in Panna (12.33%) and the highest in Sagar (29.80%). Chhatarpur betters Panna with 23%




The proportion of 0-6 years population in both rural Panna and Chhatarpur is around 17%, it is the lowest in Datia (14%) and mostly hovers around 16% in other districts of the Sagar division.

Sex ratio is number of females per 1000 males. The sex ratio is lowest in Datia but other districts also fall under 900 or marginally above 900 which shows requirement of more advocacy and proactive measures to bridge the gap. It is found that sex ratio (0-6 years) is relatively higher than overall sex ratio of population in many districts which may also indicate life expectancy issues.

Although low sex ratio is reported across different districts. An overview of sex ratio of overall population, child population and sex ratio at live birth will give an insight into different age groups indicating relative situations.

Sex ratio is an important indicator in any developing society's growth as well as gender sensitive planning and delivery of services which are critical to the overall health of the community. Declining sex ratio will thus have to create awareness and bringing social change to overcome the stigma and if the reasons are access to services, a systems approach is required to make available services to the population.

The overall sex ratio remained between 858 to 906 (7 blocks below 900) with marked difference in inter-block child sex ratio in Bijawar, Buxwaha, Gaurihar, Badamalehra. Chhattarpur, Laundi and Nowgaon did not showed any increase or decrease. Sex ratio at birth is higher than the overall sex ratio as well as child sex

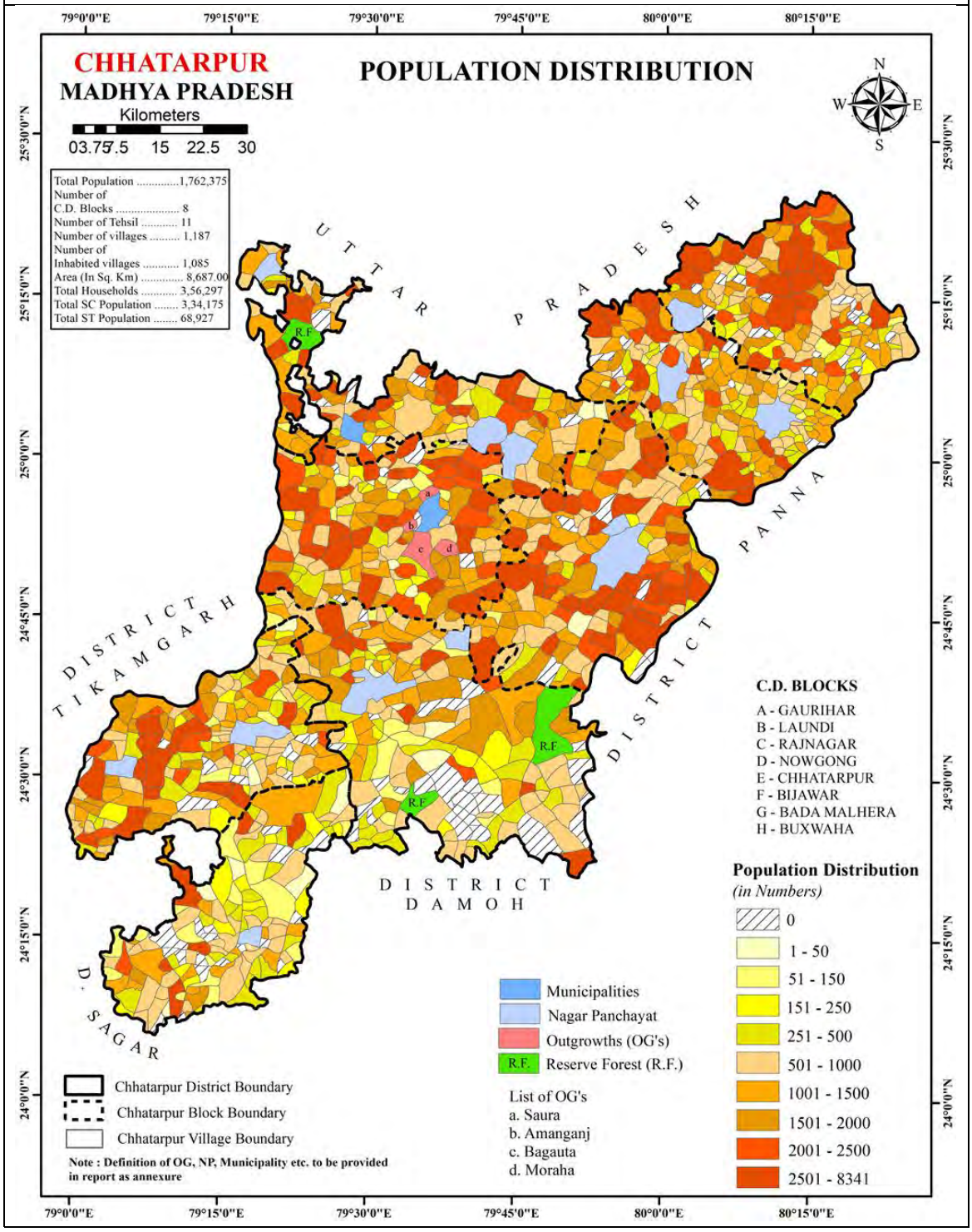
ratio except Nowgaon. This difference (sex ratio at birth and child sex ratio) may also be attributed to the issues of migration and/or mortality with the advancement of age.

| Blocks | | Sex Ratio at birth (Female Live Births/ Male Births *1000) | | Sex Ratio Overall | Child Sex ratio (0-6 Years) |
|---|---|---|---|---|---|
| | | 2016-17 | 2015-16 | Census 2011 | |
| | District Chhatarpur | 921 | 904 | 883 | 900 |
| 1 | Badamalehra | 1,011 | 920 | 878 | 903 |
| 2 | Barigarh (Gaurihar) | 901 | 966 | 858 | 896 |
| 3 | Bijawar (satai) | 1,000 | 961 | 883 | 934 |
| 4 | Buxwaha | 964 | 985 | 866 | 908 |
| 5 | Chhatarpur | 889 | 896 | 890 | 891 |
| 6 | Lavkush Nagar (Laundi) | 894 | 903 | 862 | 862 |
| 7 | Nowgaon | 890 | 831 | 906 | 906 |
| 8 | Rajnagar | 919 | 890 | 891 | 905 |

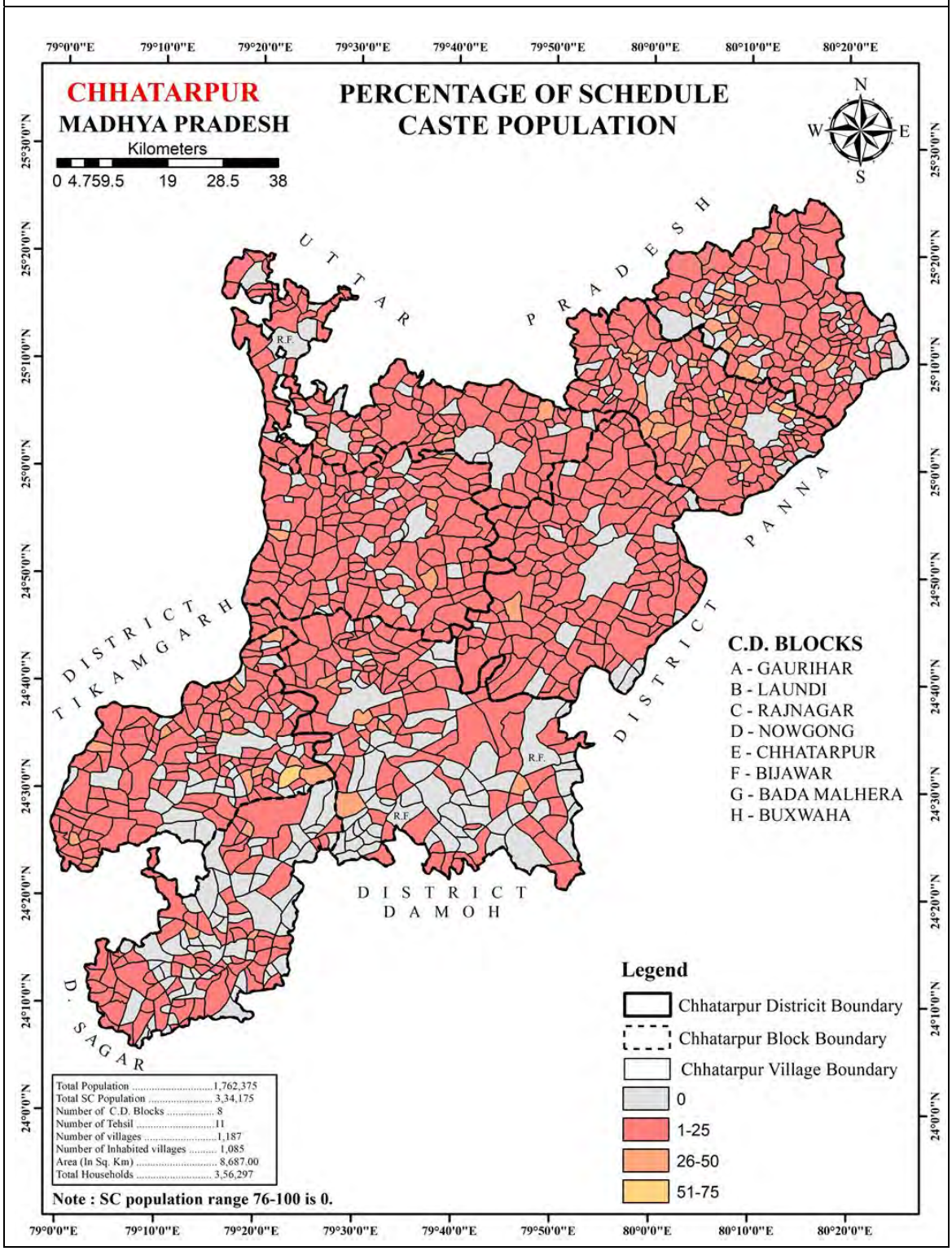
Source: HMIS portal

Among the rural population, literacy is 49.25% in Chhatarpur.

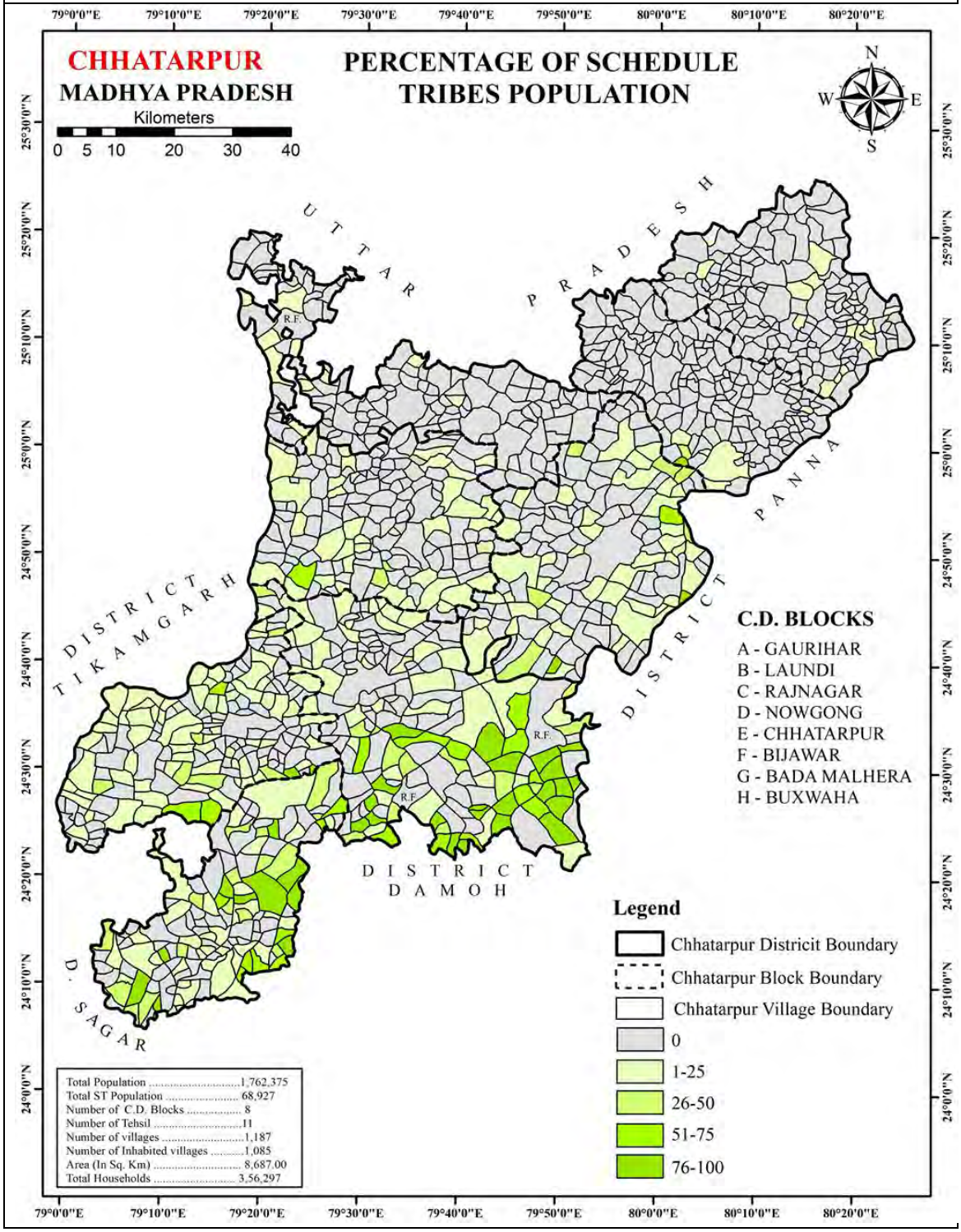
## MAP 1 – POPULATION DISTRIBUTION



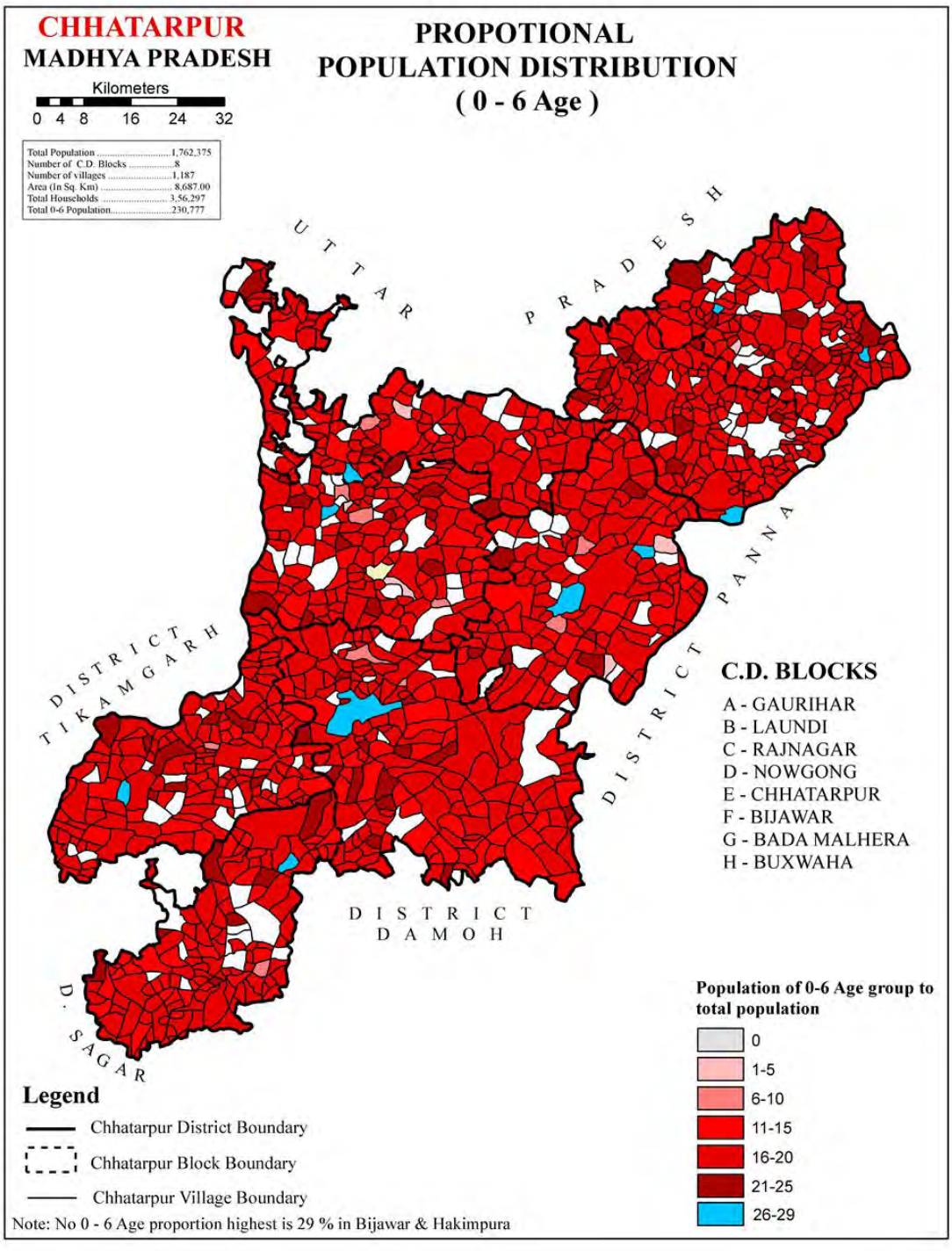
## MAP 2 – PROPORTION OF SCHEDULE CASTE POPULATION



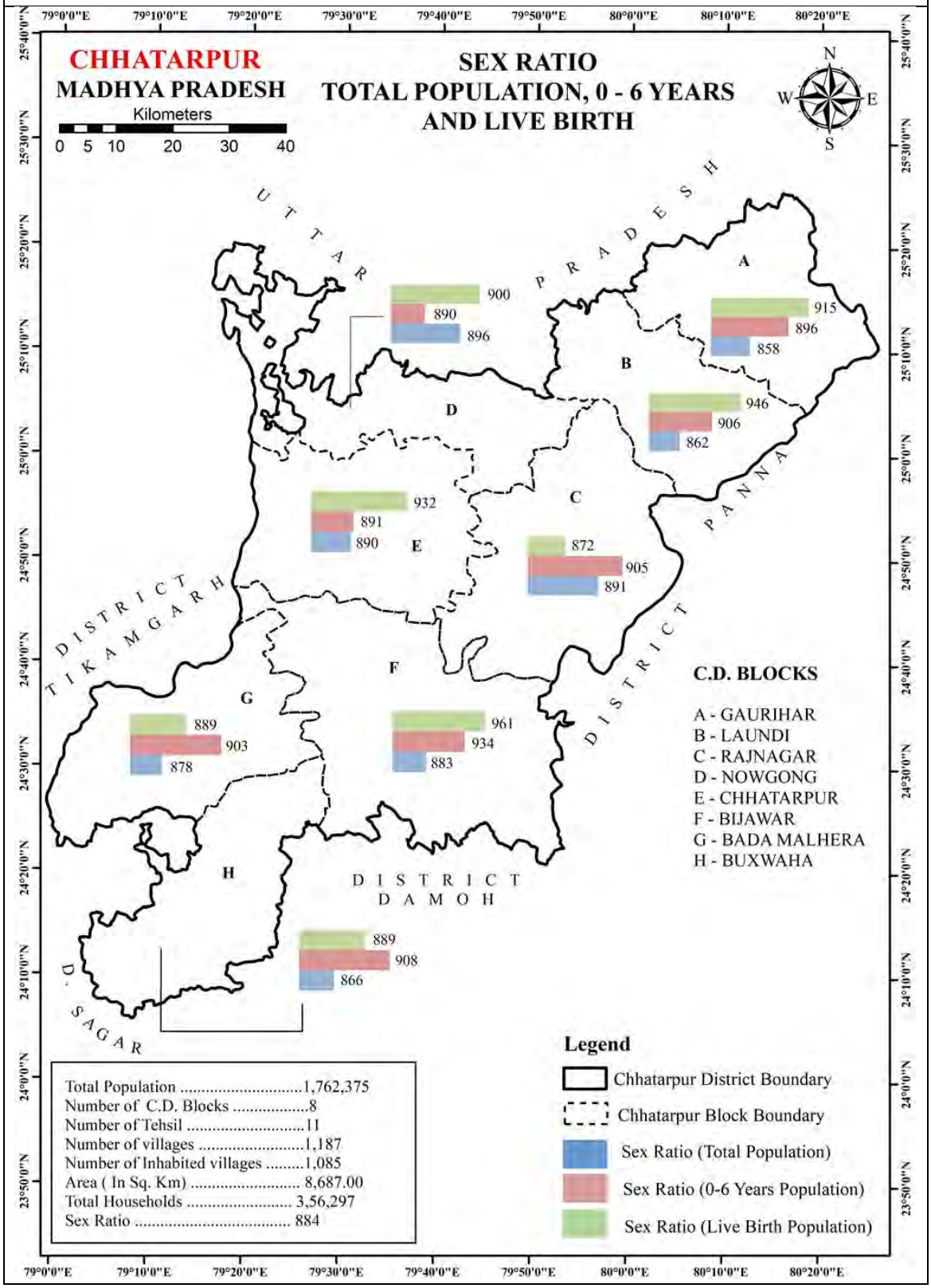
MAP 3 – PROPORTION OF SCHEDULED TRIBE POPULATION



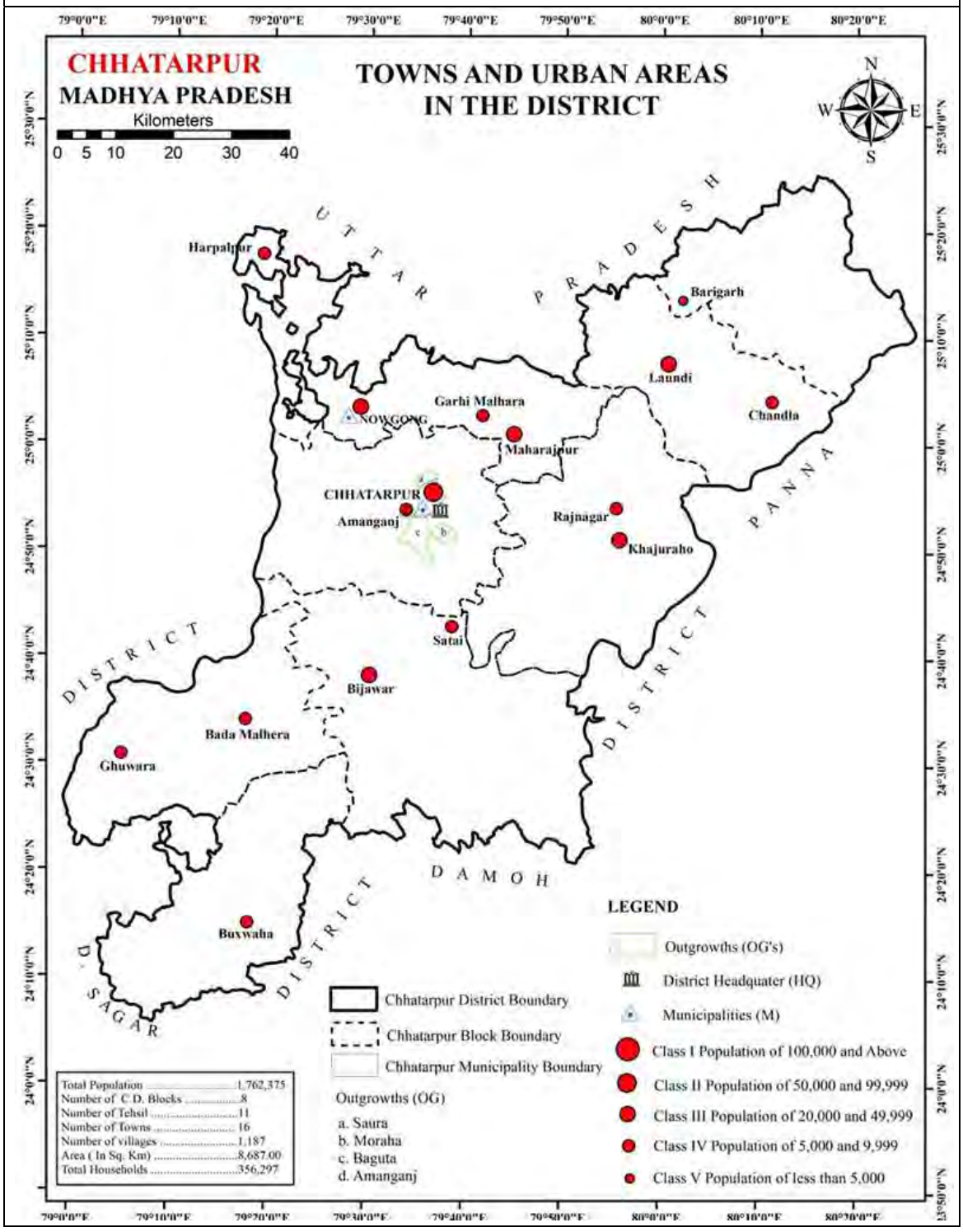
## MAP 4 – POPULATION DISTRIBUTION (0-6 YRS)



## MAP 5 – SEX RATIO – TOTAL POPULATION, 0-6 YEARS AND LIVE BIRTHS

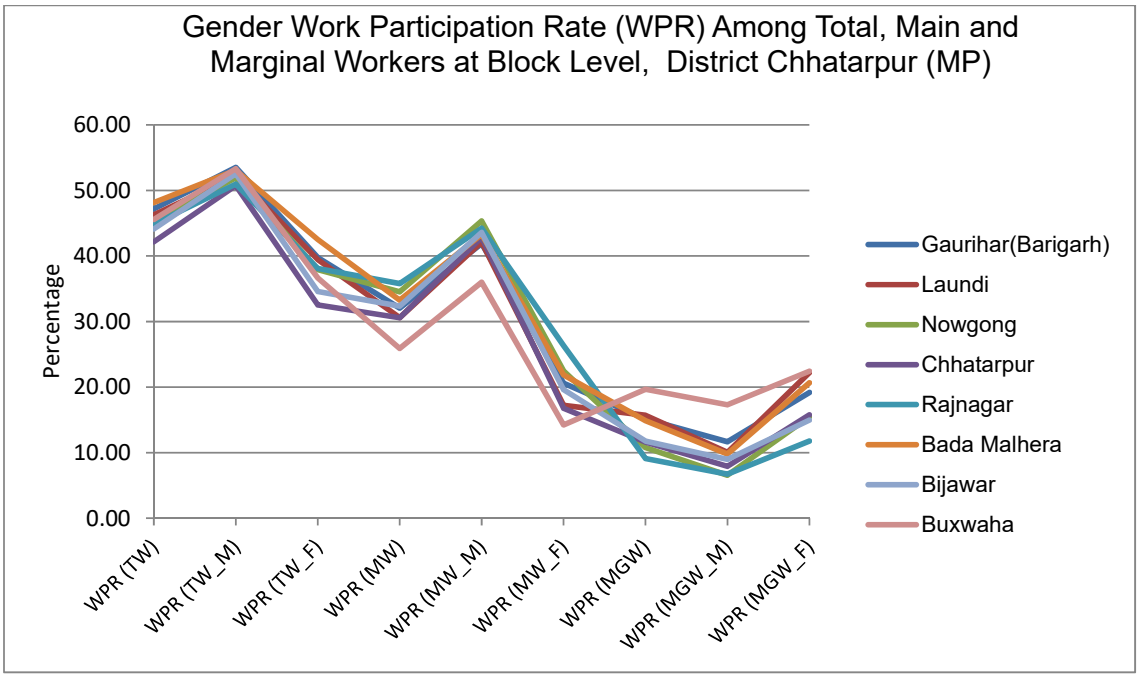


## MAP 6 – URBAN AREAS POPULATION



## WORK PARTICIPATION RATE

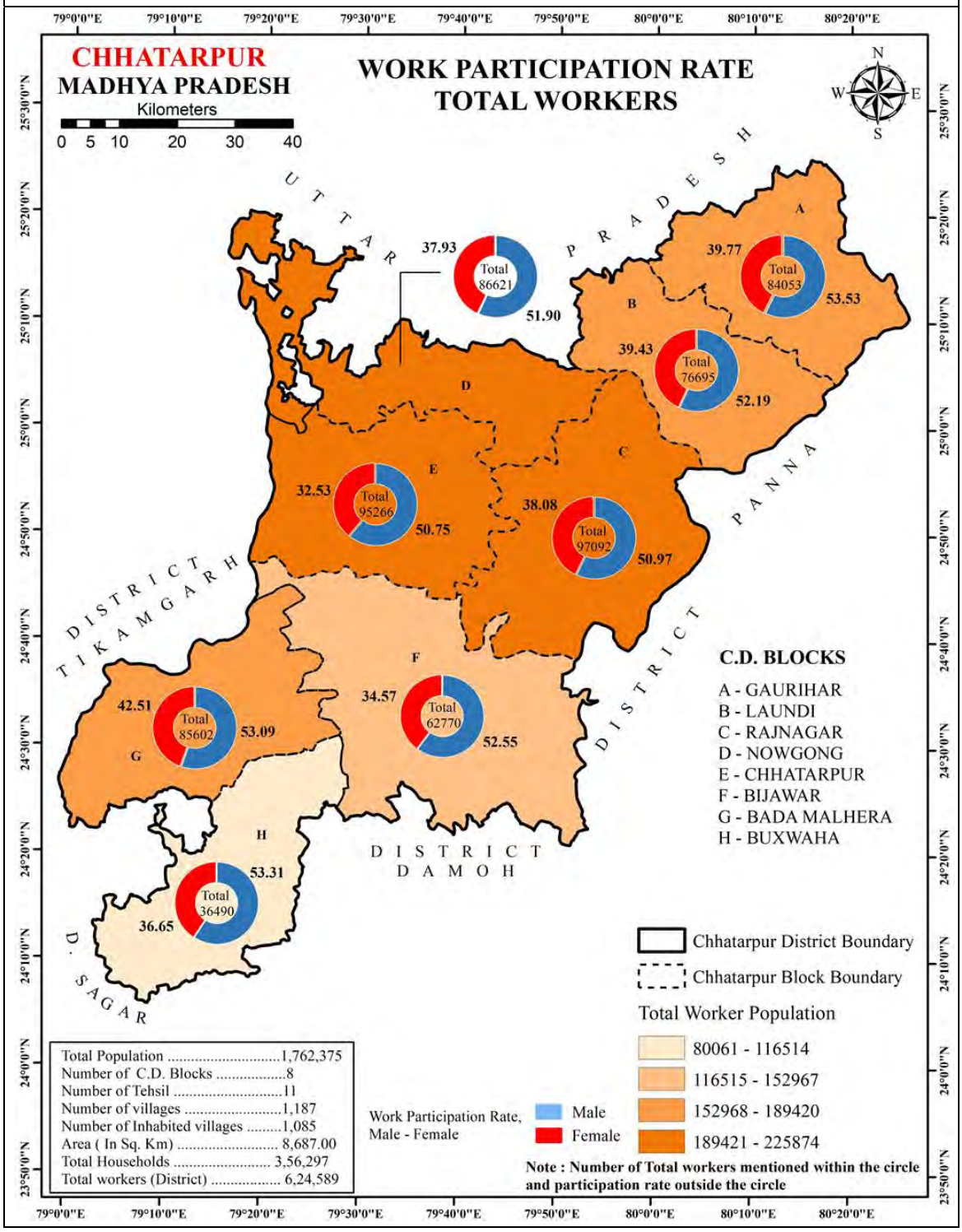
Work participation rate is an important indicator of active working population and also hints upon dependency or non-workers. Panna-Gunnor-Pawai share a similar trend as far as work participation rate is concerned in almost all the categories. Chhatarpur has 46% working population.



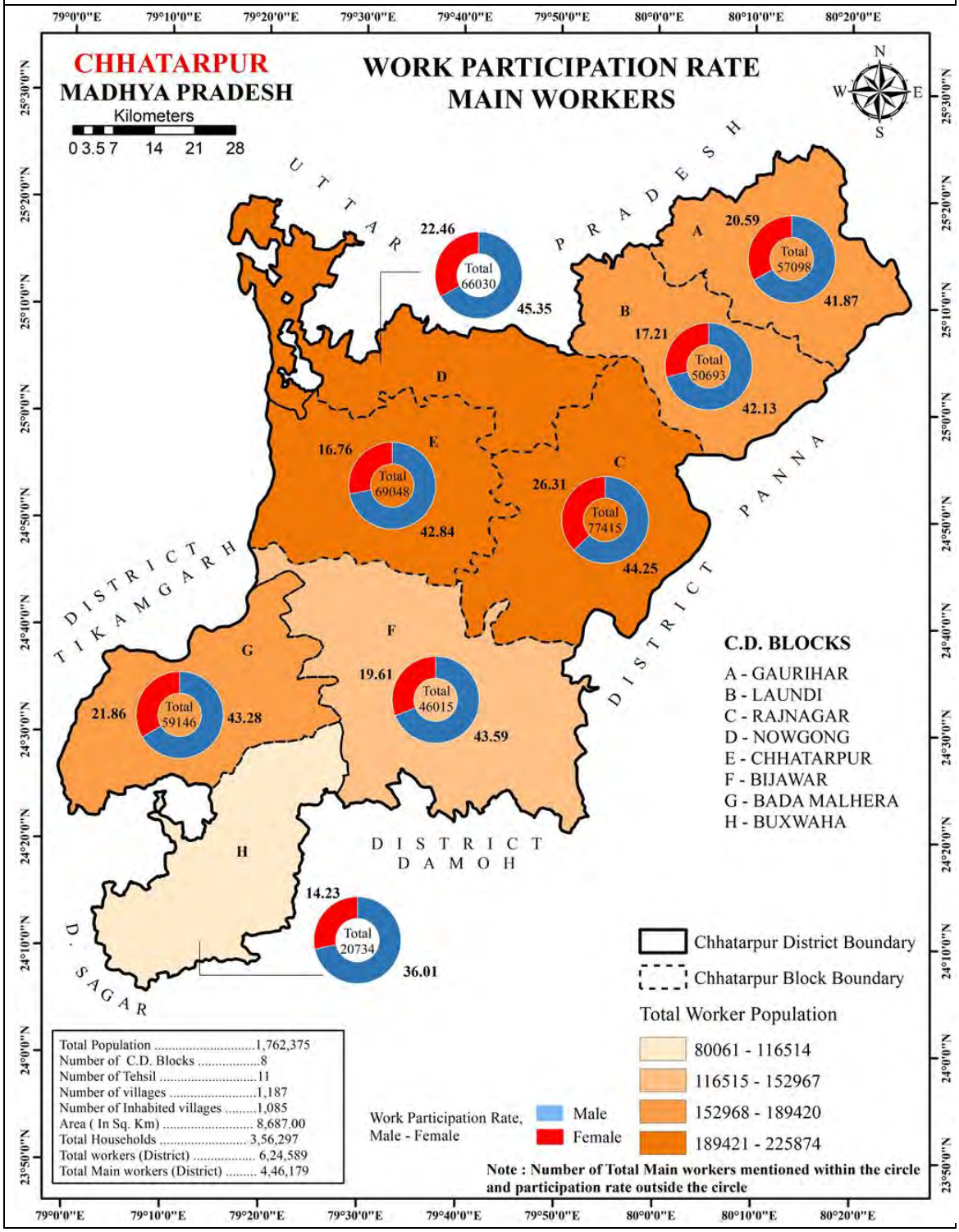

Barring Buxwaha block, Chhatarpur's workforce has a very close and consistent work participation rate among rest of the blocks. The close lines indicate similar trends and proportions. Like Shahnagar in Panna, Buxwaha too shows a comparative high marginal workers participation rate in comparison to other blocks in the district. Here too, work participation rate of women is more than the men in the marginal workers category.

Now, let us look at the dependency amongst the workforce too. Here we try and see how many agricultural labourers are available per cultivator at the block level. But this has to be seen in conjunction with the land holding pattern also which is at the Tehsil level. The purpose of showing this is that in this region migration is high which may reflect certain relationships, especially where per capita agriculture labour is more per cultivator but if the demand for work is not met, people or such labour may migrate. Let us look what comes out of the data and analysed information.

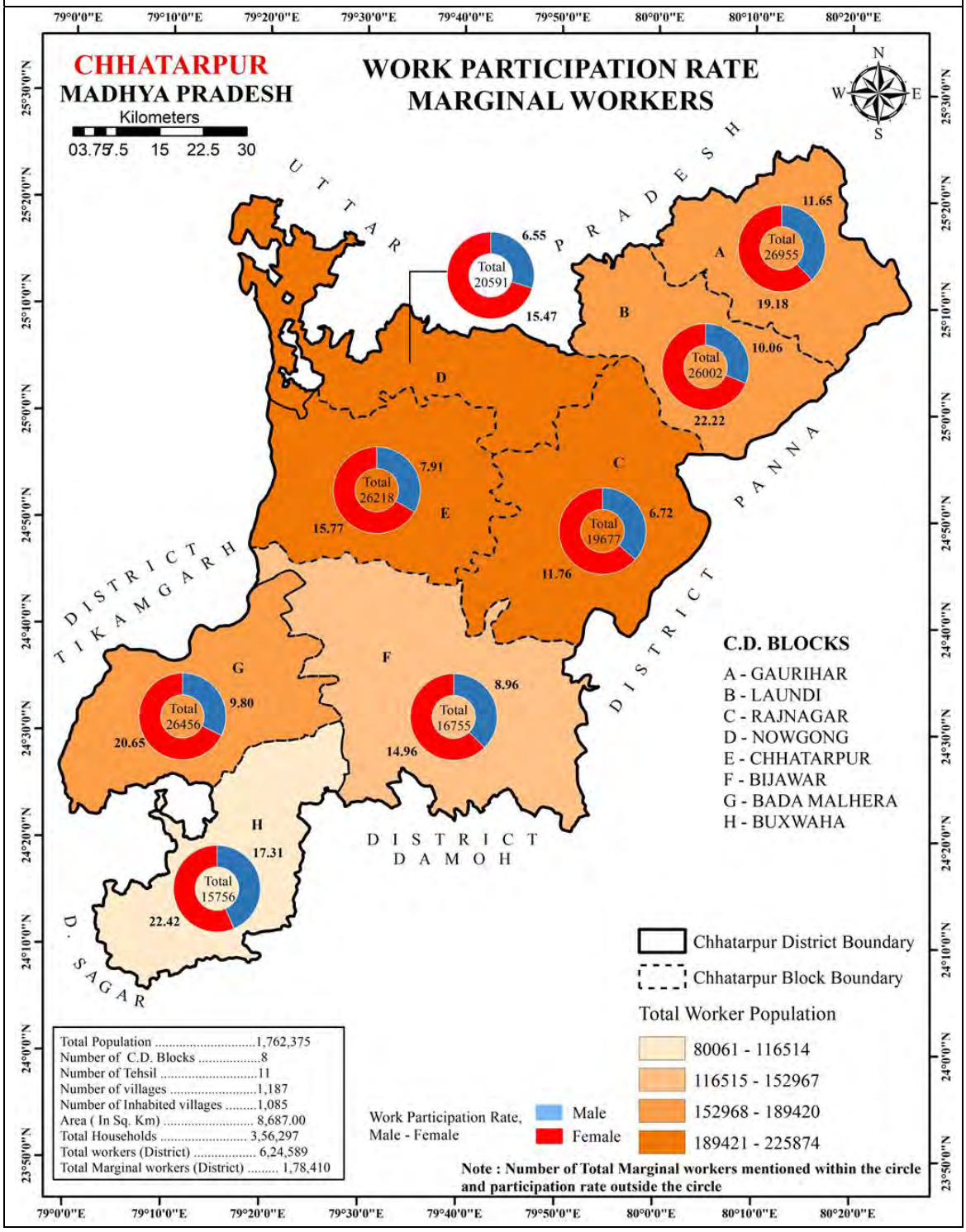
## MAP 7 – WORK PARTICIPATION RATE, TOTAL WORKERS



## MAP 8 – WORK PARTICIPATION RATE, MAIN WORKERS



## MAP 9 – WORK PARTICIPATION RATE, MARGINAL WORKERS



## AVAILABILITY OF AGRICULTURAL LABOUR TO CULTIVATORS

*It indicates the level of availability or excess supply of labour per cultivator. But if the cultivator is unable to support the agricultural labourer due to circumstances beyond his control (climate change, unirrigated land etc.), the labour shift from agriculture to other casual labour or shift in geographical location (migration) might be the result. This becomes an important indicator.*

Looking Level by Level

The Census of India classifies workers broadly into two categories as 'main workers', and 'marginal workers'. In the main workers category it is seen that except Panna, all the four blocks share a similar trend i.e. almost one labour per cultivator. As per census definition, main workers are those which get work for equal to or more than six months. When we look at marginal workers, there are two sub-categories viz. marginal workers which get work between three to six months and those which get work under three months.

| Blocks | Agriculture labour per Cultivator (Main Workers) | Agriculture labour per Cultivator (Marginal 3-6 month Workers) | Agriculture labour per Cultivator (Marginal 0-3 month Workers) |
|---|---|---|---|
| Gaurihar (Barigarh) | 0.92 | 3.96 | 3.19 |
| Buxwaha | 0.78 | 3.55 | 4.49 |
| Bijawar | 0.52 | 3.95 | 2.46 |
| Laundi | 0.61 | 2.24 | 1.32 |
| Bada Malhera | 0.43 | 2.37 | 1.87 |
| Nowgong | 0.42 | 2.35 | 1.29 |
| Chhatarpur | 0.37 | 2.04 | 0.96 |
| Rajnagar | 0.35 | 2.19 | 1.34 |

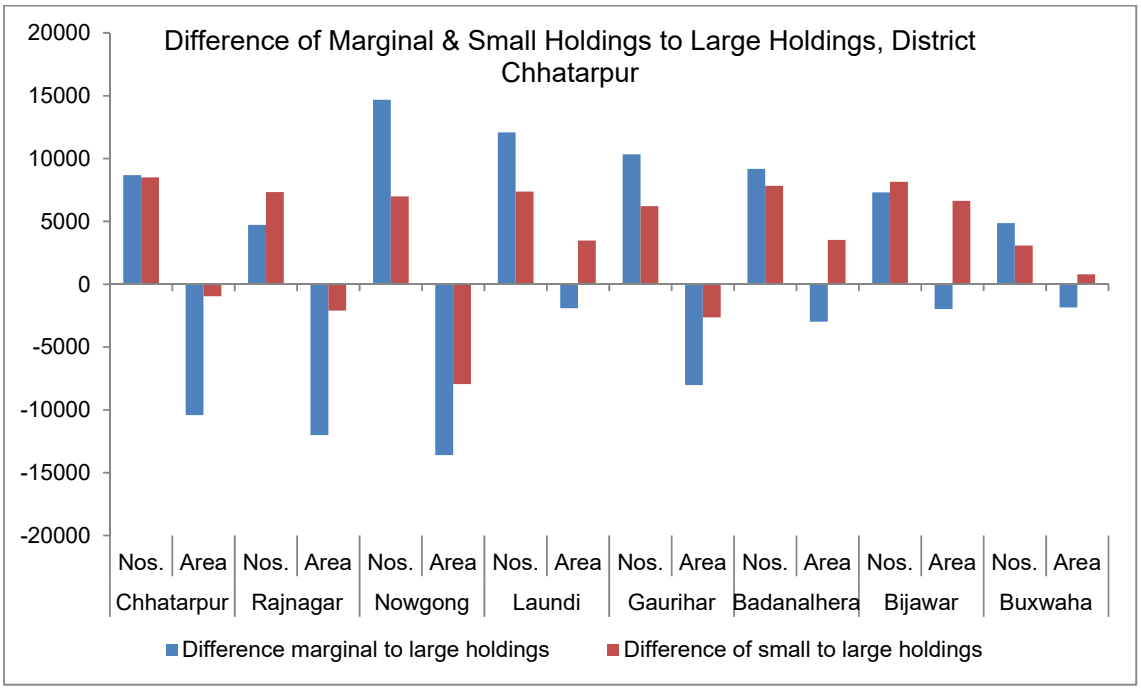
Chhatarpur fairs better than Panna in terms of lesser agricultural labourers per cultivator. Similarly as see in Shahnagar (District Panna), the ratio of agricultural labourers per cultivator increase in the marginal (<3 months) category for Buxwaha. Chhatarpur shows the lowest ratio which is largely due to the a bit better labour market due to few urbanised belts here.

## LAND HOLDINGS

*Provides an overview of marginal, small, large holdings across the revenue tehsils and can be compared to availability of agricultural workers*

The Ministry of Agriculture and Farmers Welfare through its Agriculture Census division conducts agriculture census in India on the operational land holdings in the country. It classifies land holdings into area slabs into marginal, small, medium and large holdings. In a way it can also be viewed as a method to understand land distribution. This also provides some preliminary information on inequity among different classes of land holdings. A simple method to highlight the difference is adopted. The difference between lowest class i.e. the marginal land holding numbers and area (<1 hectare) and the highest class i.e. large land holdings (>4 hectare) is seen. Similarly the difference between small land holding numbers and area (1-2 hectare) and large holdings is seen.

Negative figures (as the difference has been taken from the low class among the two pairs) reflect area under large land holdings which is in excess to marginal holdings. Positive figures in number of holdings and area indicate excess number and area of marginal land holdings than large holdings after the difference.




In order to understand inequity in terms of land holdings a simple difference measure was done between marginal and large land holdings; small and large land holdings. Number of land holdings are quite high in the marginal holding category whereas massive area differences get reflected in these two situations.

In terms of marginal to large land holding differences, it is seen that the gap widens in Chhatarpur, Rajnagar, Nowgong and Gaurihar. The gap between the number of holdings and area remain wide in Nowgong if differences are seen in small to large land holdings.

Out of 8 blocks, seven of them have more than 1/3rd of the land holdings (average 41%) as marginal holdings but the average percentage of area under these holding is less than 15% (ranges from 8.84 % to 17.07 %)

Similarly Chhatarpur, Rajnagar and Nowgong show low agricultural labour to cultivator ratio and thus the high range blocks like Buxwaha, Gaurihar, Bijawar, Badamalahera have lesser large holdings area in comparison and probably are dependent on other blocks. Here, Buxwaha, Bijawar, Badamalahera and Laundi may see more inter-block migration as the marginal holdings outnumber large holdings but the area available for absorbing large labourforce is less in comparison to other blocks.

**Tehsil Wise Snippets**

35.23% of marginal land holdings constitute merely 10.93% of the total area. Similarly 35.04% of small holdings have a total area of 26.95%.

In Nowgaon, more than half of the land holdings just constitute 18.53% of the total land holding area whereas small holdings comprise 27.78% with 27.76% area under them. Largely, medium size holdings prevail in this tehsil.

Maharajpur, Laundi, Gaurihar, Dhuwari are predominantly marginal land holdings (Ranging from 40-50%) Average 73% of the land holdings are marginal and small holdings.

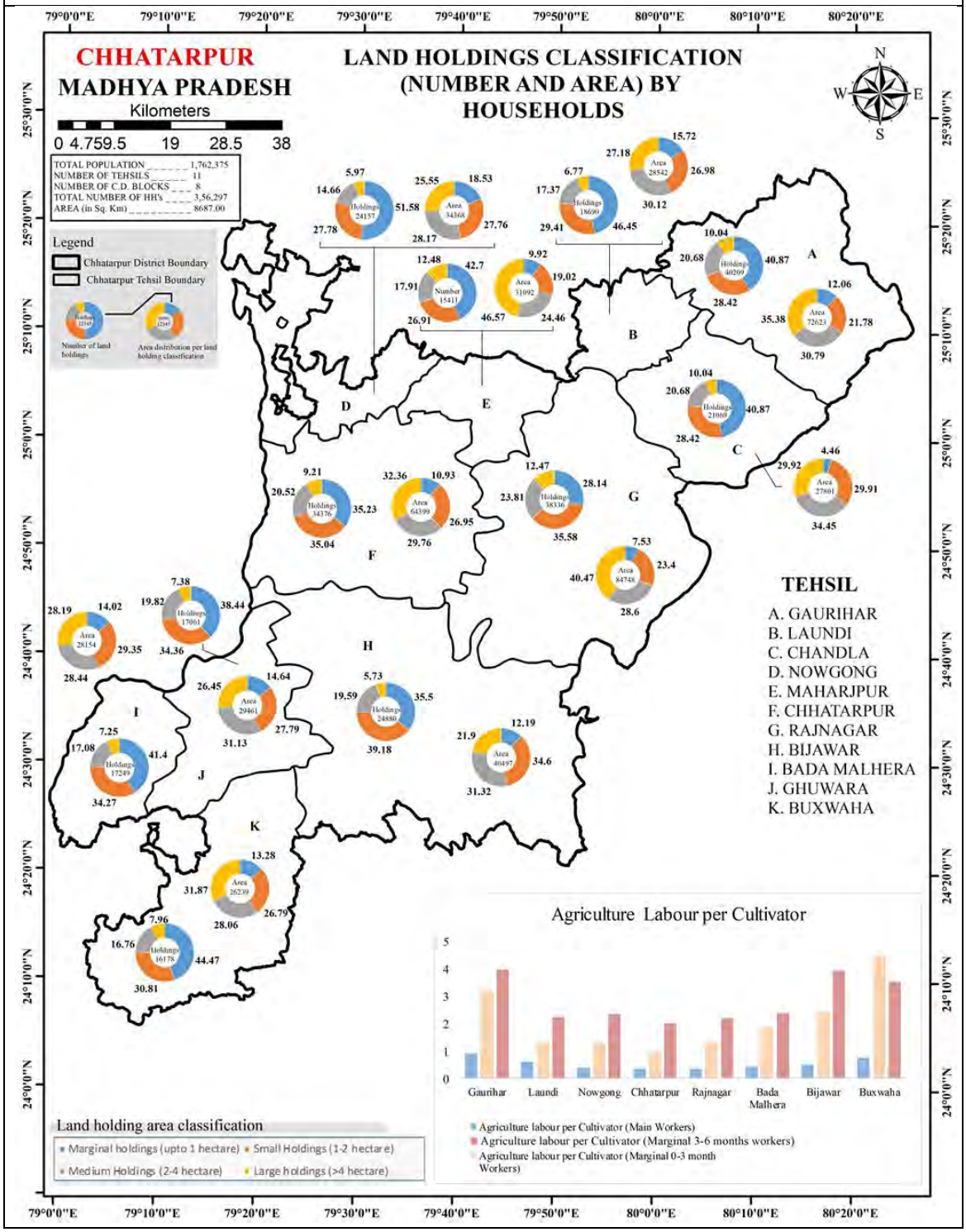
**Proportion of Marginal and Small land holdings at Tehsil**

| Chatarpur | Nowgaon | Chandala | Laundi | Bakswaha | Maharajpur | Dhuwari | Gaurihar | Badamalhar | Bijawar | Chatarpur | Rajnagar |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Marginal | 51.58 | 47.13 | 46.45 | 44.47 | 42.70 | 41.40 | 40.87 | 38.44 | 35.5 | 35.2 | 28.14 |
| Small | 27.78 | 29.34 | 29.41 | 30.81 | 26.91 | 34.27 | 28.42 | 34.36 | 39.18 | 35.04 | 35.58 |
| | **79.36** | **76.47** | **75.86** | **75.28** | **69.61** | **75.67** | **69.29** | **72.80** | **74.68** | **70.24** | **63.72** |

Nowgaon in District Chattarpur has the highest number of marginal land holdings. When seen together with small land holdings, these together represent 79.36% of total land holdings and 46.28% of total area. Bijawar, one of the largest tehsils has more percentage [39.18%] of small land holdings (1-2 hectare) and the same is also true for Chhatarpur as well as Rajnagar and these tehsils form a homogenous parcel

of large landmass as a central part of the district. The percentage of land holding area combined for marginal and small holdings is 46.78%. On an average, 41.08% of the marginal holdings are there where as almost 1/3rd of the land holdings constitute small land holdings.

## MAP 10 NUMBER AND AREA OF LAND HOLDINGS



## HOUSEHOLDS ENGAGED IN MGNREGA[3] WORK

*Reflects proportion (minimum and maximum) of households engaged in relative duration of work and workdays generated.*

### MNREGA Background in Madhya Pradesh

18 districts of Madhya Pradesh were brought under The National Rural Employment Guarantee Act w.e.f 2 February 2006 which forms the first phase. In the second phase, 13 more districts of the State were included form 1 April 2007 and the remaining 19 districts were included from 1 April 2008 in the third phase. NREGA guarantees at least 100 days of work in a financial year to those adult rural households who volunteer to do unskilled manual work. It is the right of a household to get registered with the Gram Panchayat and seek employment.

NREGA becomes an important component of wage employment as substantial wage expenditures are reported under it. For the current financial year (2018-19) a total of Rs. 9048.38 Lakh has been incurred till January 2019 in District Chhatarpur which created 3.2 million workdays involving 1.09 lakh persons. This provides a macro picture. To take a look at district level, let us look at the forthcoming sections.

### NREGA in Chhatarpur

In terms of maximum percentage of workdays (34.44%) fall in the 81-90 days work category, consequently the number of households involved were 17.61%, the second highest percentage of households among all the categories.

Maximum percentage of households (21.07%=13258 HHs) got 15-30 days of work, thereby contributing only 10.69% of workdays (308790)

| NREGA Across Development Blocks | | | | |
|---|---|---|---|---|
| **Blocks** | **% Households got work for 30 days** | **% workdays generated (30 days)** | **% Households got work for 81-90 days** | **% Workdays generated (81-90) days** |
| Bijawar | 41.74 | 16.19 | 14.39 | 29.47 |
| Laundi | 40.68 | 14.79 | 17.89 | 35.57 |
| Rajnagar | 40.53 | 15.55 | 15.90 | 31.68 |
| Buxwaha | 40.12 | 14.75 | 15.90 | 32.06 |
| Naugaon | 39.73 | 14.07 | 18.59 | 36.73 |
| Bada Malehara | 38 | 13.37 | 19.04 | 36.53 |
| Gaurihar | 37.19 | 11.69 | 21.85 | 40.24 |
| Chhatarpur | 35.14 | 12.81 | 19.00 | 35.42 |

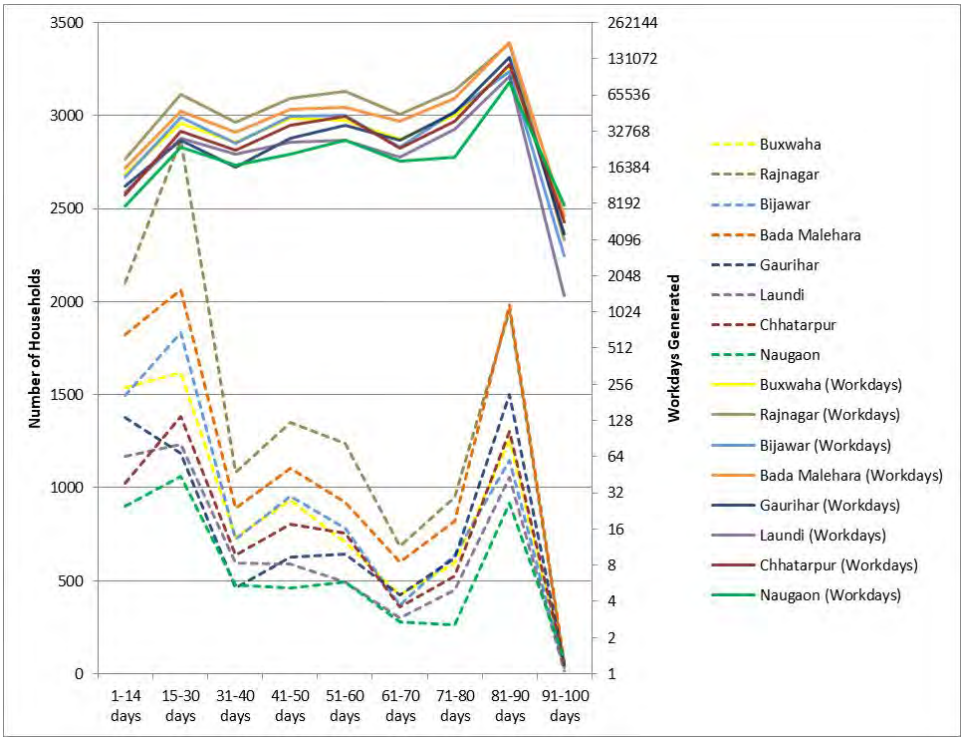
[3] MGNREGA data accessed in January 2019 from the NREGA portal

If we look at block level, the average percentage of households involved (who get upto 30 days of work) is 39.14% (more than 1/3rd) whereas the average workdays generated under the same category is 14.15%. It means the maximum number of households are engaged for shorter duration of work i.e. upto one month. Consequently, 17.82% of the households on an average contributed to more than 1/3rd of the total workdays generated.

| Proportion of households engaged in MGNREGA to total households in a block | | | |
|---|---|---|---|
| **Chhatarpur District** | **Total Households** | **Households Worked in MGNREGA** | **Percentage of Households Worked** |
| Buxwaha | 18701 | 7872 | 42.09 |
| Rajnagar | 44365 | 12263 | 27.64 |
| Bijawar | 29786 | 7976 | 26.78 |
| Bada Malehara | 40517 | 10278 | 25.37 |
| Gaurihar | 36714 | 6879 | 18.74 |
| Laundi | 34756 | 5892 | 16.95 |
| Chhatarpur | 41217 | 6846 | 16.61 |
| Naugaon | 35814 | 4933 | 13.77 |
| **Total** | **281870** | **62939** | |

Shahnagar block in Panna district and Buxwaha block in Chhattarpur District had the maximum proportion of households getting some form of work under MGNREGA irrespective of the duration of work (table above). The overall average number of households engaged in MGNREGA work in Chhattarpur District is 25%.

***Graphical Representation of Households worked in MGNREGA and workdays generated (in days)***



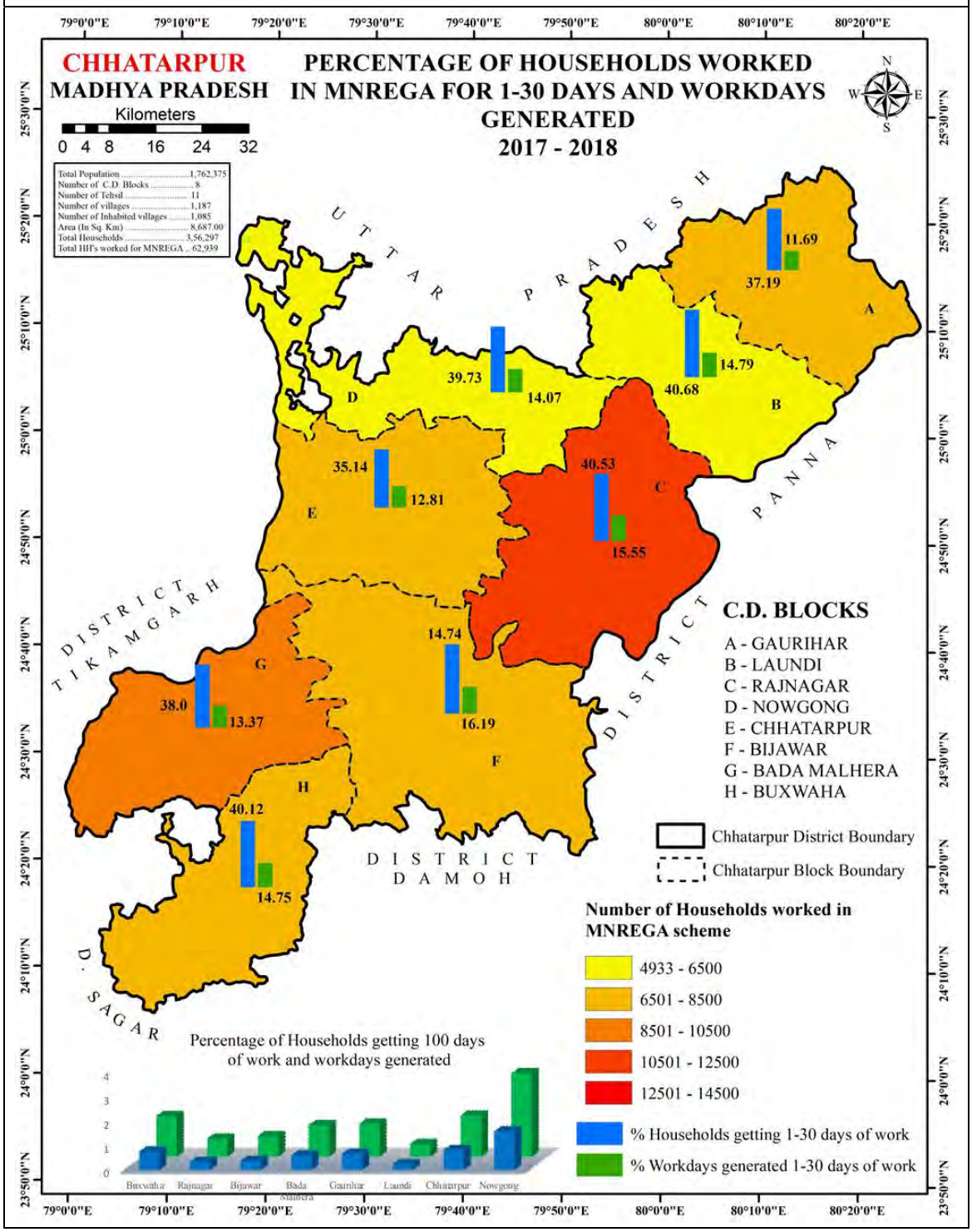

*Note: Workdays secondary vertical axis is shown with log scale due to large values in comparison to relatively low values on the primary vertical axis (households engaged). Number of households represented by solid lines and workdays generated by dashed lines*

NREGA was conceptualised to provide local employment to households and arrest migration trend from the villages by providing 100 days of work. But 100 days work is almost negligible in Chhatarpur,

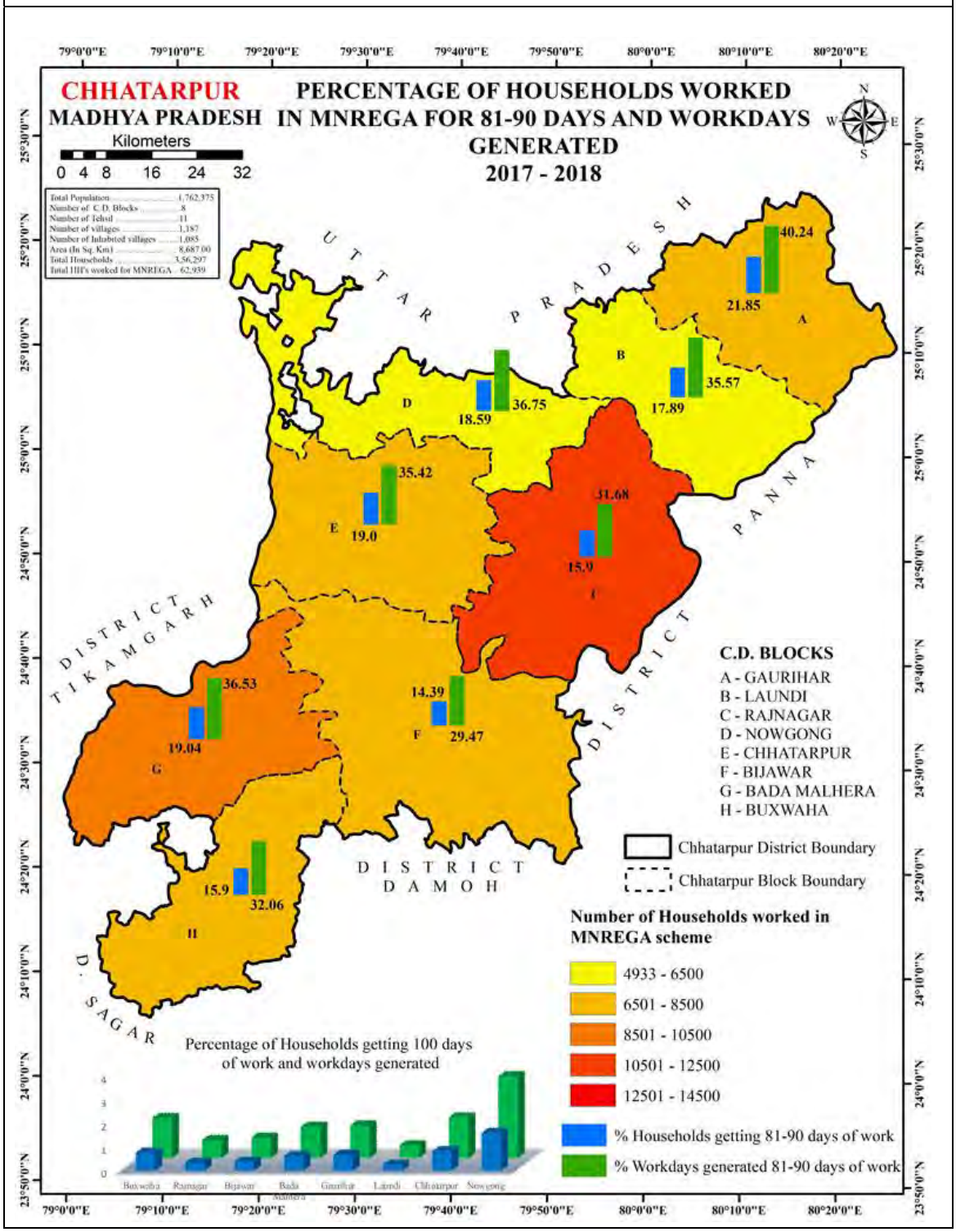
One can notice relatively less number of households involved in workdays range of 81-90 days in comparison to those involved for work between 1-30 days but the relative increase in workdays generated for 81-90 days range is almost 1/3$^{rd}$ of the total workdays generated. The only comparable categories in terms of almost similar number of households engaged in work is 1-14 days and 81-90 days category where 11,419 and 11,108 households got work but the turnaround in terms of workdays generated for 81-90 days category is 9.78 times. Only 391 households got 100 days work out of the total 62939 households who worked in NREGA in the financial year 2018-19 till January 2019.

This goes on to show that the scheme is not meeting its desired objective and thus requires comprehensive assessment and auditing to understand the various trends and bottlenecks. It would also be pertinent to understand the strong link between migration due to employment and poor implementation of NREGA.

## MAP 11 – PERCENTAGE OF HOUSEHOLDS WORKED IN MNREGA FOR 1-30 DAYS AND WORKDAYS GENERATED

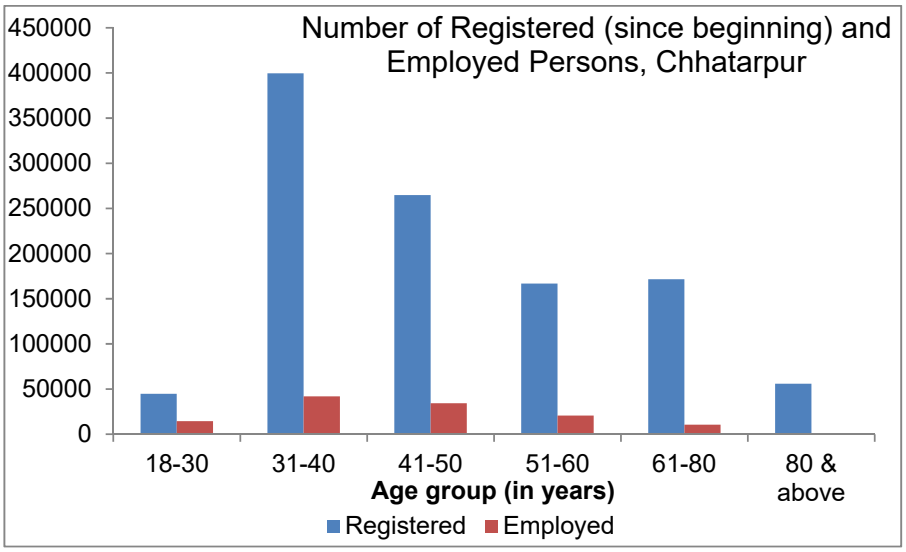


## MAP 12 – PERCENTAGE OF HOUSEHOLDS WORKED BETWEEN 81-90 DAYS AND WORKDAYS GENERATED

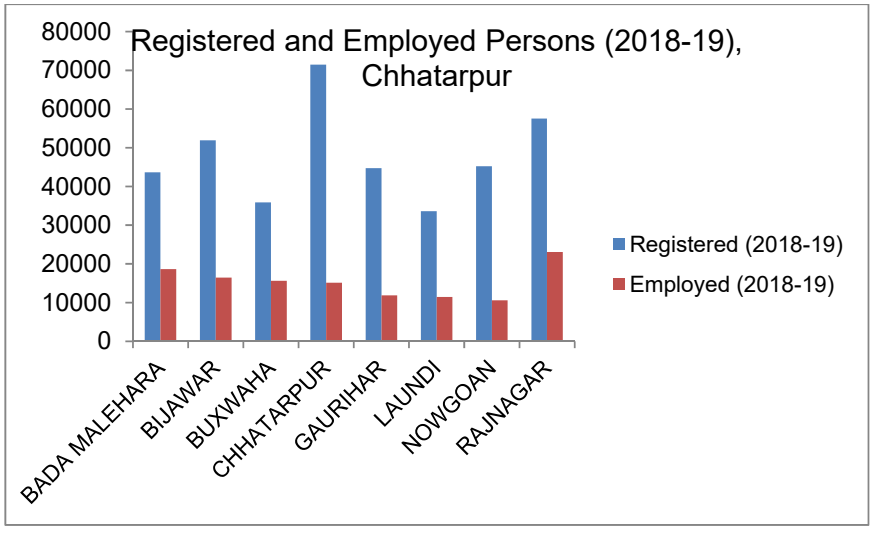


As per NREGA guidelines, 60:40 labour material ratio has to be maintained and thus the works so designed have to be meticulously planned so that quality do not suffer and on the same hand more people are also employed. In Chhatarpur violations are noted in 214 Panchayats, 23% violations were those where material ratio exceeded 61% and rest where material ratio exceeded by 20% and remained between 41-60%.

As far as diversification of works under NREGA is concerned, there have been interventions at the policy levels, like work on individual lands, primacy to work related to water conservation over other line infrastructure.




Its seen clearly in the Chart above that those cumulatively registered (since the beginning) in the age group from 18-50 years form 64% registrations. Among the employed, 74% were those who belonged to the same age grouping.



Looking at the current financial year (2018-19), a total of 3.84 lakh people (1.57 lakh households) got registered, eventually job cards to 1.48 lakh households were issued. As per figures available on the portal, employment was demanded by 1.64 lakh persons but actually 1.22 lakh were provided employment. Only 1.11% of the households got 100 days of work.

*But one lesson that has to be taken is whether large number of registrations are due to lack of advocacy and communication issues due to which people even not eligible are applying or whether high registration indicates a real demand for work but not adequate work is provided? These are questions to be understood so that a right perspective can be drawn and changes made.*

*Another aspect is of qualitative assessment of NREGA assets created under the scheme. A regular social audit will go a long way in strengthening the sustainability issues involved in social and physical aspects of the scheme.*

Health is wealth is an old saying but the diversity of occupations and lessening quality of environment has created challenges towards community health. Community health management is a challenging and responsible task. The structured framework of rural health care was meant to deliver for communities but with multiplicity of issues ranging from low budgeting, low wages, availability of skilled staff etc. has only hurt the community health.

In one of the recent articles in EPW, this structure is defined with threshold values and thus provides a close understanding.

Primary healthcare services, which are provided at the base of the pyramid, have lower operational costs and can act as screening centres for referring patients to higher-level facilities, where operational costs are higher. The pyramidal structure also ensures to a larger section of the population of the country, as adequate healthcare services at lower levels reduce the requirement of patients to travel long distances to access higher-level health facilities. Broadly there is a consensus on the effectiveness of a larger volume of health services provided at the lower levels of health services (World Bank 1994; WHO 2008; Doherty and Govender 2004).

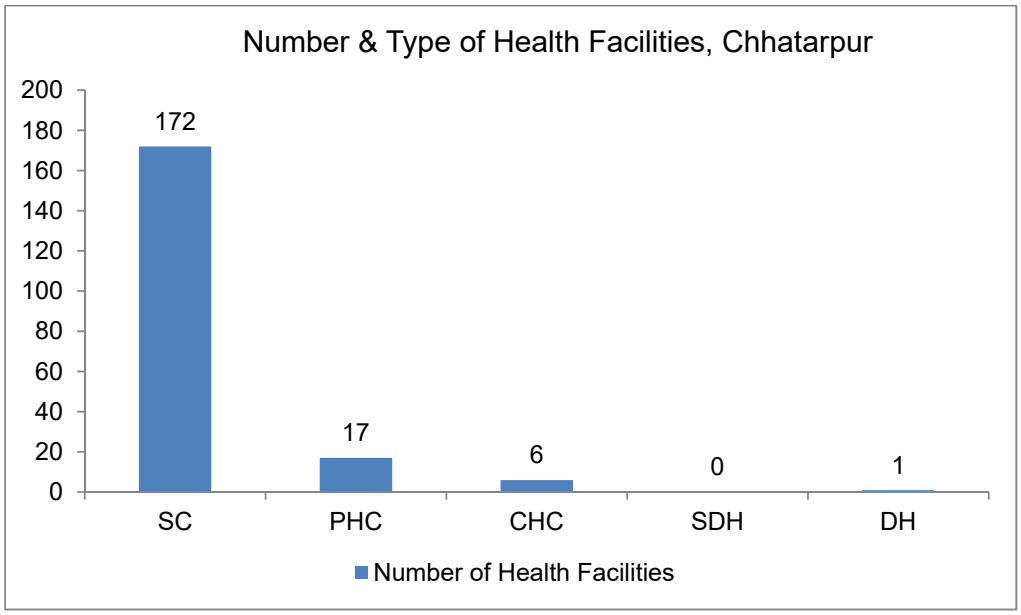
Five broad tiers constitute the pyramid of the public health system in any state in India. The first tier at the bottom of the pyramid is the ‘sub-centre’, which is the first point of contact between the community and public health system. A sub-centre has two or three paramedical personnel, who deal with primary health-care, and it normally services a population of 3,000-5,000. The second tier of the public health system is the PHC, which is the first point of contact of the community with a doctor. A PHC acts as a referral unit for six sub-centres and is required to have among others, one or two doctors, one to three staff nurses, a laboratory technician and a pharmacist, as per the Indian Public Health Standards.

The PHC service a population of about 20,000-30,000 on average, and usaually have four to six beds. The sub centres and the PHCs together form the core of the primary healthcare system. The third tier of the public health system is the CHC, which acts as a referral unit for four PHCs and is the first tier of the secondary healthcare system.

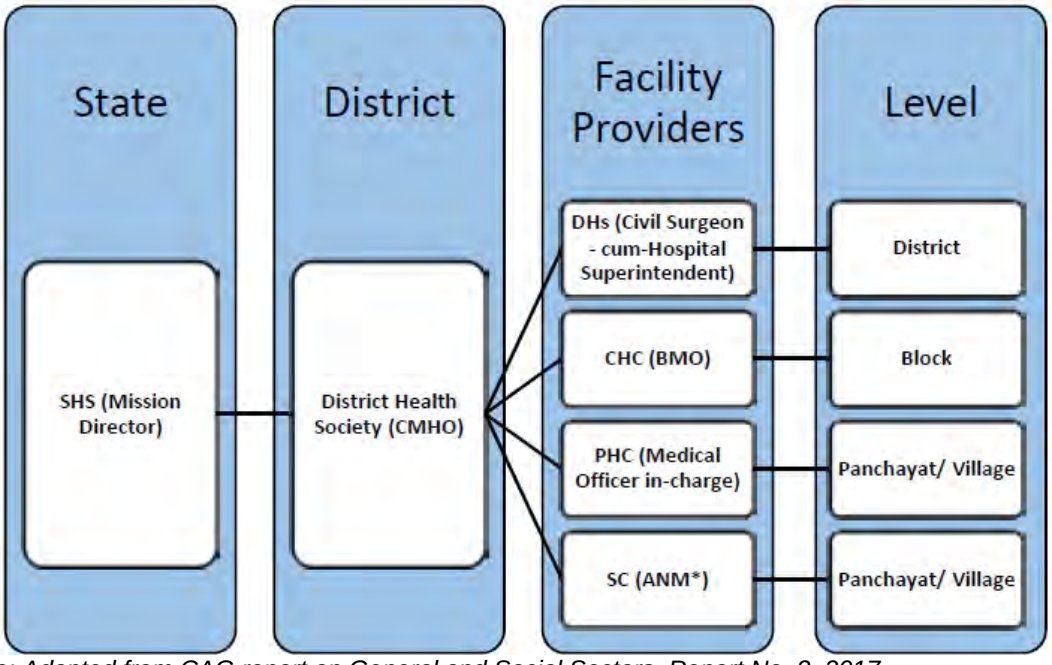
A CHC is required to have specialists, including a surgeon, a gynaecologist and a paediatrician. It has around 30 beds and is provided at the rate of one per 80,000-1,20,000 population. The fourth tier of the health system is the sub-district hospital. These hospitals are usually larger than CHCs and consist of upto 100 beds. The next tier is the district hospitals, which form the highest tier of the health system in any district. The district hospital, the sub-district hospital and the CHCs together form the secondary healthcare system in any state. The tertiary healthcare system lies

above the district and includes medical colleges, tertiary level hospitals and hospitals for specialised care, like tuberculosis and cancer hospitals.

***Health Structure and Associated Facilities***




Indicators best describe the situation, especially in terms of health because already the international bodies like UN/WHO have outlined the threshold values, say MDGs. In case of health the following structure prevails more or less at the State level with some variations across states.




*Source: Adapted from CAG report on General and Social Sectors, Report No. 3, 2017*

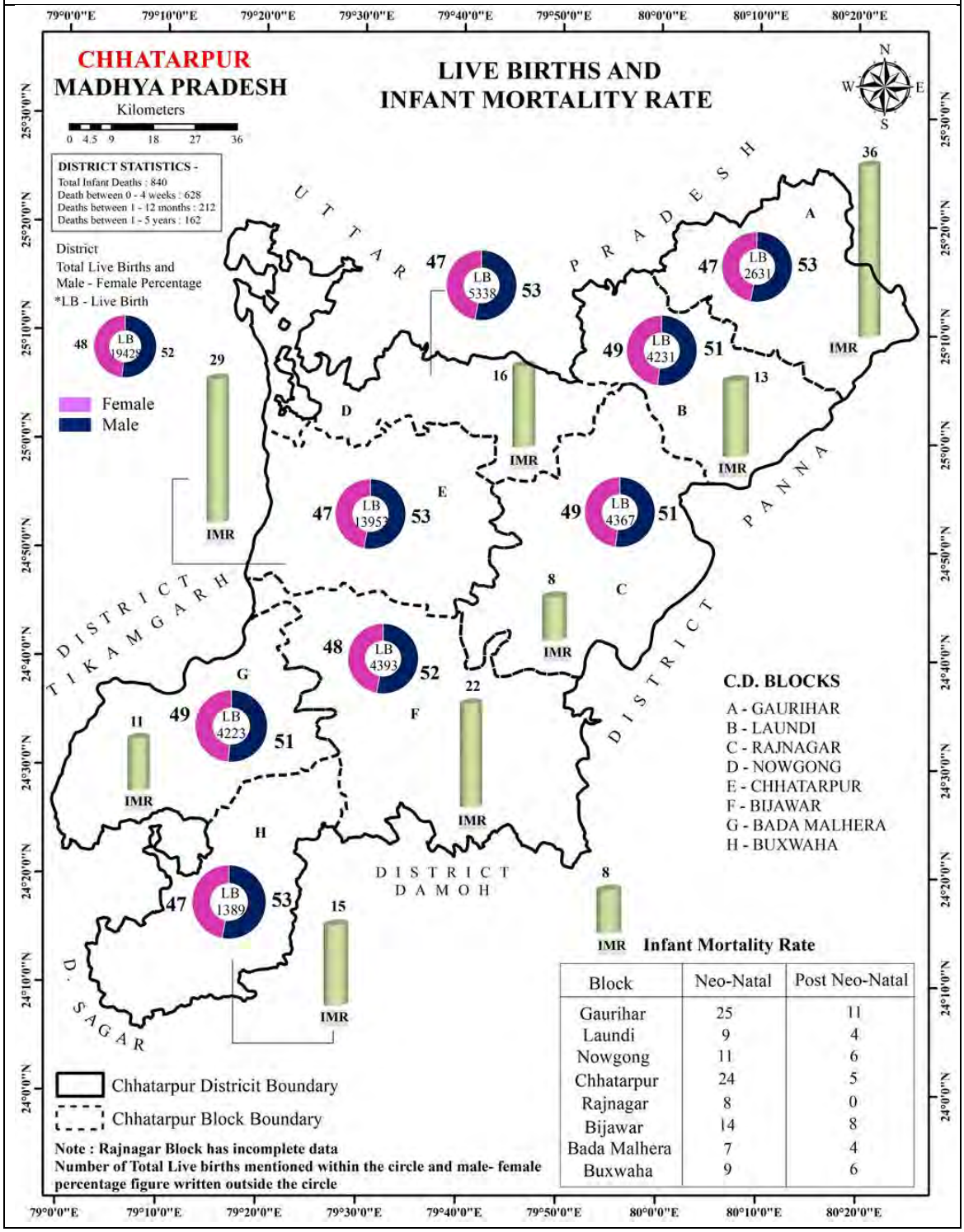
Health is a specialised field and due to its hierarchical nature of service, its registry and data availability is pooled at block level, essentially the data pertaining to child and mother health. As most of the indices are calculated per thousand or per lakh of population, it is best represented at block level which is a conglomerate of many Panchayats. Data from the village level is not accessible over the web and to best describe a district in terms of its health, is the Health Management Information System (HMIS) which is a central repository of information collating information every month.

Averaging of health indicators at the district level distorts the outlook whereas looking at the health indicators atleast at the block level provides a micro picture. On an average each block has villages in the range of 125-150 which is still a large geography in itself. The data in the subsequent tables will be useful to understand health indices across blocks. The average at district level doesn't tell about inter-block variations and thus provides a cumulative figure whereas intervention requirements may be spatially varying. The reasons could be many viz. level of health service, recruitment of staff, spatial distribution of health facilities and relative transportation infrastructure to reach them.

| **Number of Panchayats and Villages in Blocks** | | |
|---|---|---|
| Blocks | Panchayats | Villages |
| **District Chhatarpur** | **558** | **1081** |
| Bada Malhara | 79 | 152 |
| Bijawar | 60 | 145 |
| Buxwaha | 39 | 115 |
| Chhatarpur | 81 | 143 |
| Gaurihar | 73 | 131 |
| Laundi | 65 | 147 |
| Nowgaon | 75 | 118 |
| Rajnagar | 86 | 130 |

The analysis is based on the District's block level health statistics from the HMIS. Infant mortality rate is defined as the number of infant deaths occurring within a specified year per 1000 live births. These statistics are estimates as these are based on 'reported' live births and similarly infant deaths. Due to several cultural and misbeliefs, some of the birth and death statistics might be underreported and hence present some deviation from the available/reported numbers. The indices tend to be on a higher side from what is reported.

## MAP 13 – INFANT MORTALITY RATE AND LIVE BIRTHS




| Block | Neo-Natal | Post Neo-Natal |
|---|---|---|
| Gaurihar | 25 | 11 |
| Laundi | 9 | 4 |
| Nowgong | 11 | 6 |
| Chhatarpur | 24 | 5 |
| Rajnagar | 8 | 0 |
| Bijawar | 14 | 8 |
| Bada Malhera | 7 | 4 |
| Buxwaha | 9 | 6 |

As per Madhya Pradesh state MDG report (2014-15), IMR based on 2012-13 data at district level was 63. No inter-block variations were available which could have provided a comparative picture. The data utilised from HMIS and analysed for IMR, NNM[4], PNNM[5] is presented below.

The Goal 4 of the Millennium Development Goals (2015) 'Reducing Child Mortality' is to reduce under 5 child mortality by 2/3rd from the level of 1990 through 2015. In 1998, the U5M was 138 in Madhya Pradesh which showed a decline of 55 in 2012 (U5M of 83) and it was estimated that the state will end up the MDG target at 49.

Bundelkhand has been notoriously been in the news due to its recurring malnutrition deaths and Panna stands out as one of the potential case. Earlier, low birth weight (2016-17) was considered as an indicator of 'cause of death' among many other reasons but it is no more reported as such. Maximum number of deaths occur in infants upto 1 week. In Chhatarpur, the leading cause of death was low birth weight and accounted for >31% of infant deaths. It must also be noted that Chhattarpur being a district headquarter, many inter-block movement of people might be taking place to avail health services thereby indicating increased number of such deaths in block.

**Table H – Live Birth and Death Statistics**

| Chhatarpur | Infant Deaths | Infant Death 0-4 weeks | Infant deaths 1-12mth | Deaths 1-5 yrs | Maternal | Live Birth Male | Live Birth Female | Total live births | Number of newborns weighed at birth | Number of newborns having weight less than 2.5 kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **District** | **840** | **628** | **212** | **162** | **27** | **21160** | **19365** | **40525** | **40125** | **5087** |
| Gaurihar | 94 | 65 | 29 | 11 | 0 | 1385 | 1246 | 2631 | 2599 | 431 |
| Chhatarpur | 406 | 337 | 69 | 46 | 15 | 7388 | 6565 | 13953 | 13919 | 2416 |
| Bijawar | 95 | 62 | 33 | 27 | 3 | 2274 | 2119 | 4393 | 4390 | 417 |
| Nowgaon | 87 | 57 | 30 | 19 | 1 | 2826 | 2512 | 5338 | 5229 | 692 |
| Buxwaha | 21 | 13 | 8 | 12 | 0 | 742 | 647 | 1389 | 1364 | 159 |
| Laundi | 56 | 38 | 18 | 19 | 3 | 2158 | 2073 | 4231 | 4167 | 385 |
| Badamalhara | 46 | 30 | 16 | 24 | 1 | 2170 | 2053 | 4223 | 4178 | 396 |
| Rajnagar* | 35 | 35 | 0 | 4 | 4 | 2217 | 2150 | 4367 | 4279 | 191 |

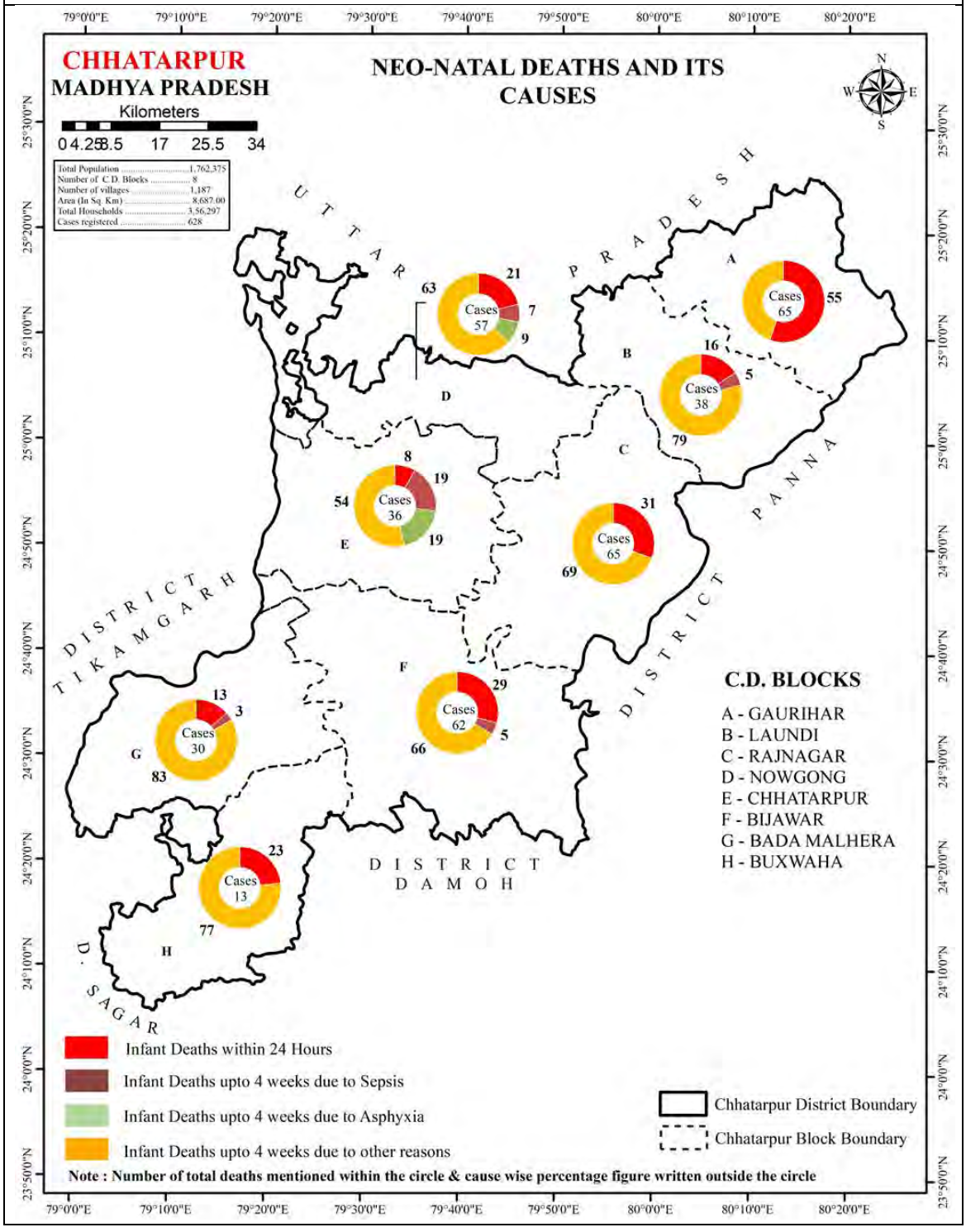
[4] Neo Natal Mortality (0-4)
[5] Post Neo Natal Mortality (1-12 months)

| Table – H Health Indices, All Blocks, District Chhatarpur | | | | | |
|---|---|---|---|---|---|
| **Chhatarpur** | IMR | Neo-natal mortality | Post Neo-natal mortality | Underweight at birth | Under 5 Mortality |
| **District** | **21** | **15** | **5** | **13** | **25** |
| Gaurihar | 36 | 25 | 11 | 17 | 40 |
| Chhatarpur | 29 | 24 | 5 | 17 | 32 |
| Bijawar | 22 | 14 | 8 | 9 | 28 |
| Nowgaon | 16 | 11 | 6 | 13 | 20 |
| Buxwaha | 15 | 9 | 6 | 12 | 24 |
| Laundi | 13 | 9 | 4 | 9 | 18 |
| Badamalhara | 11 | 7 | 4 | 9 | 17 |
| Rajnagar* | 8 | 8 | 0 | 4 | 9 |

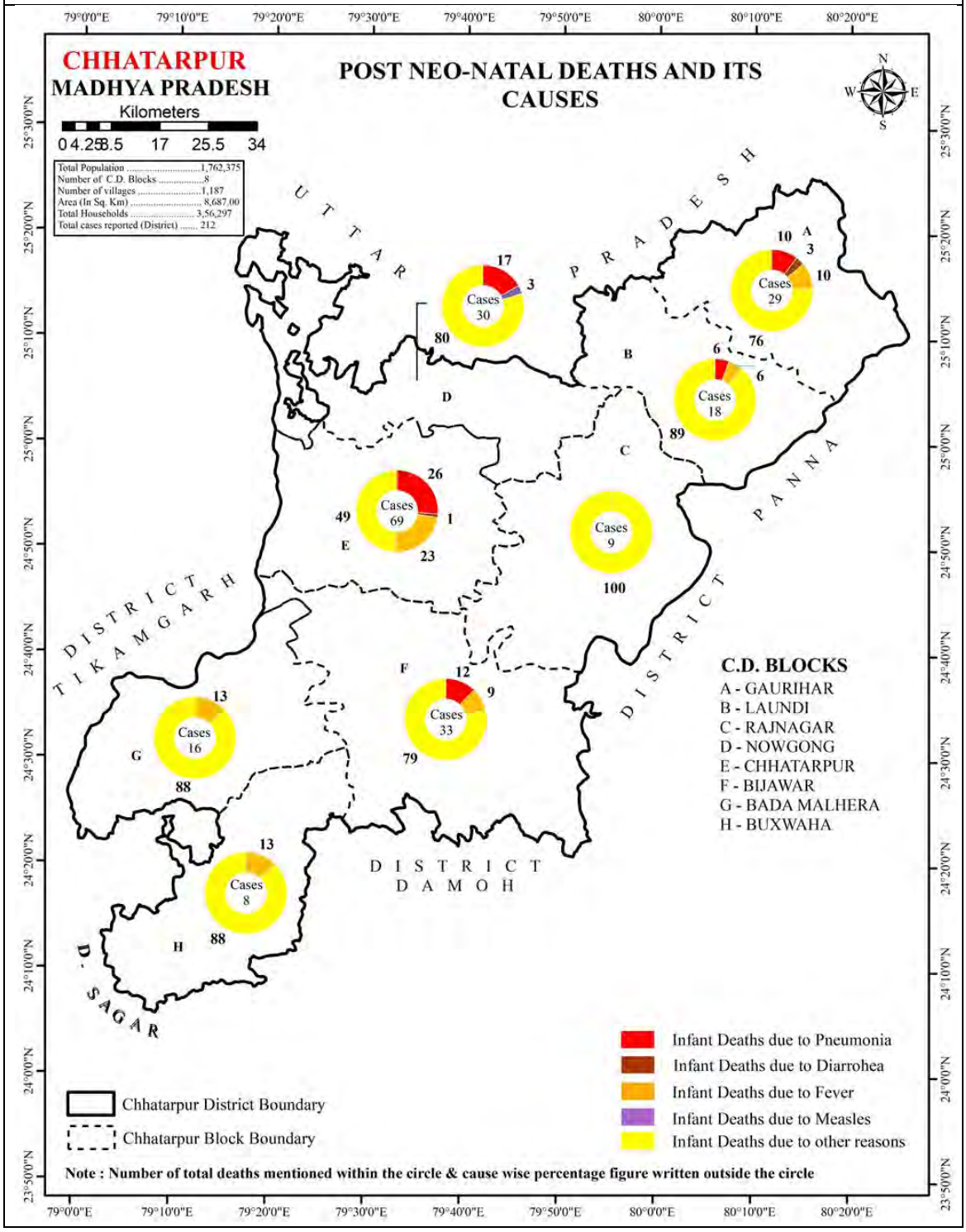
*figures rounded off*

The key features of Chhatarpur are also similar but the value of indicators is low thus indicating a better state of health in comparison to Panna. Here the IMR at district level is 21 whereas it is 36 in Gaurihar block and 11 at Badamalhara. Most proportion of underweight newborn is similar in Gaurihar and Chhatarpur block (17%). IMR for the year 2012-13 in Chhattarpur was 63 (State MDG Report, 2014-15).

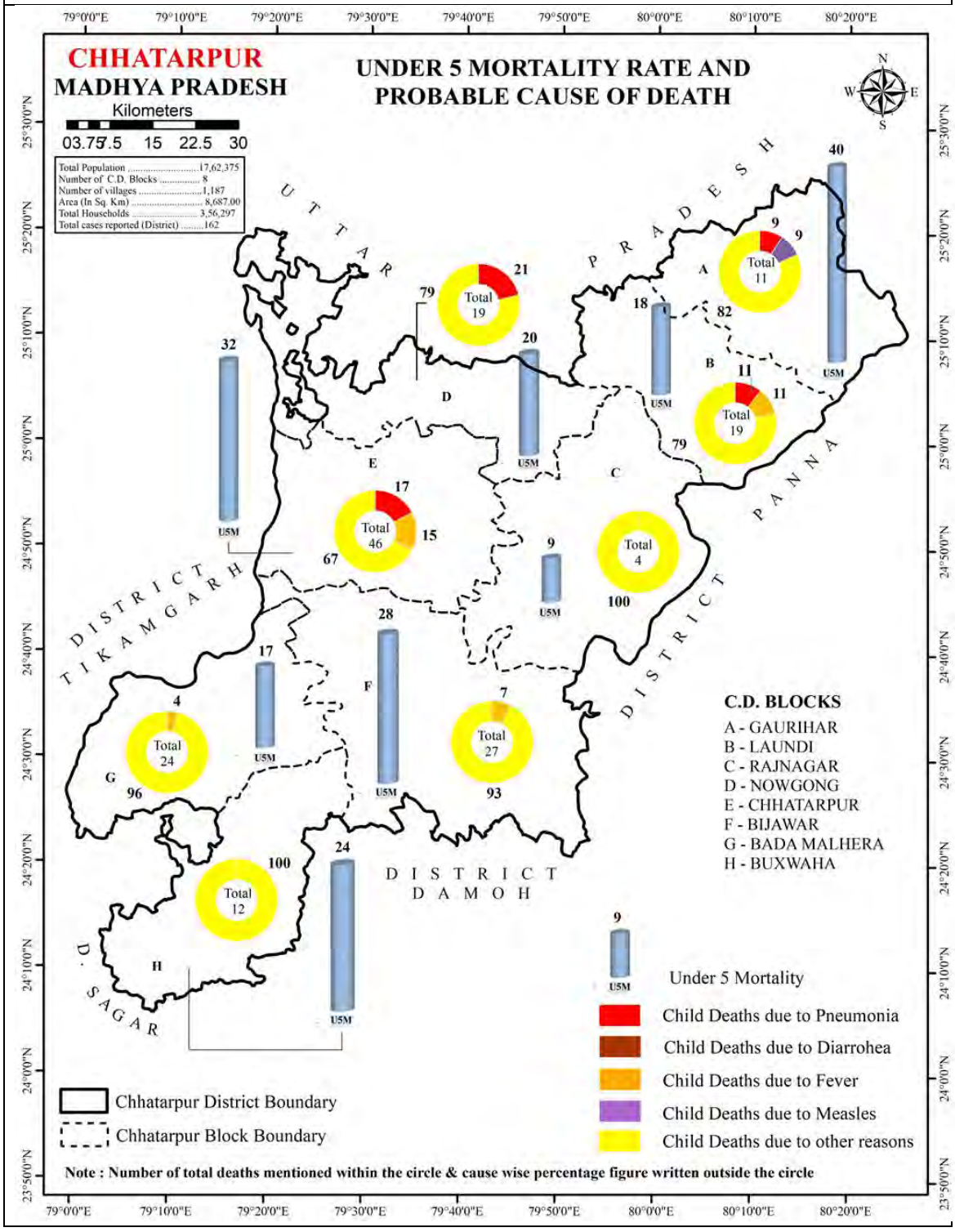
## MAP 14 – NEO NATALDEATHS REPORTED WITH CAUSES



## MAP 15 – POST NEO NATAL DEATHS REPORTED WITH CAUSES

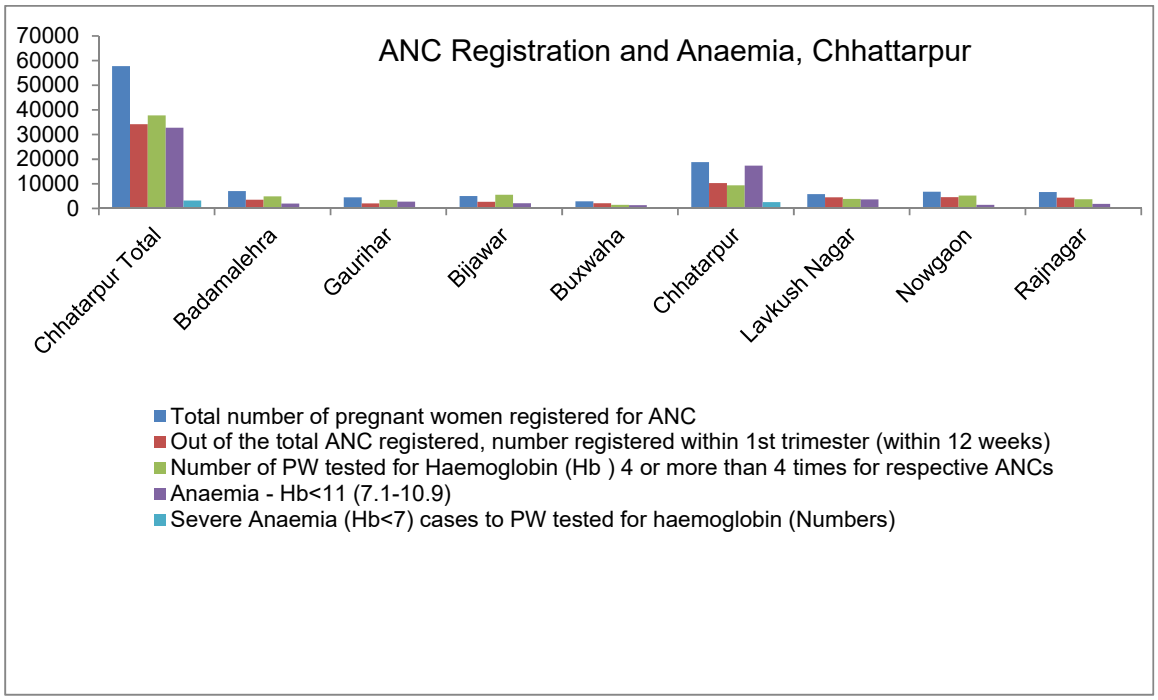


## MAP 16 – UNDER FIVE MORTALITY AND CAUSES




Ante natal care (ANC) links woman with formal health system, to monitor the progress of foetal growth and to ascertain the well-being of the mother. More

percentage of pregnant women getting registered in the first trimester of their pregnancy is considered better for the mother and the child.




Of those registered with ANC, average 59% pregnant women were registered in the first trimester of their pregnancy. Luvkush nagar had the highest ANC registrations (in percentage terms to total registrations) in the first trimester. Lowest was Badamalehra (49.6%) and Gaurihar (46.28%).

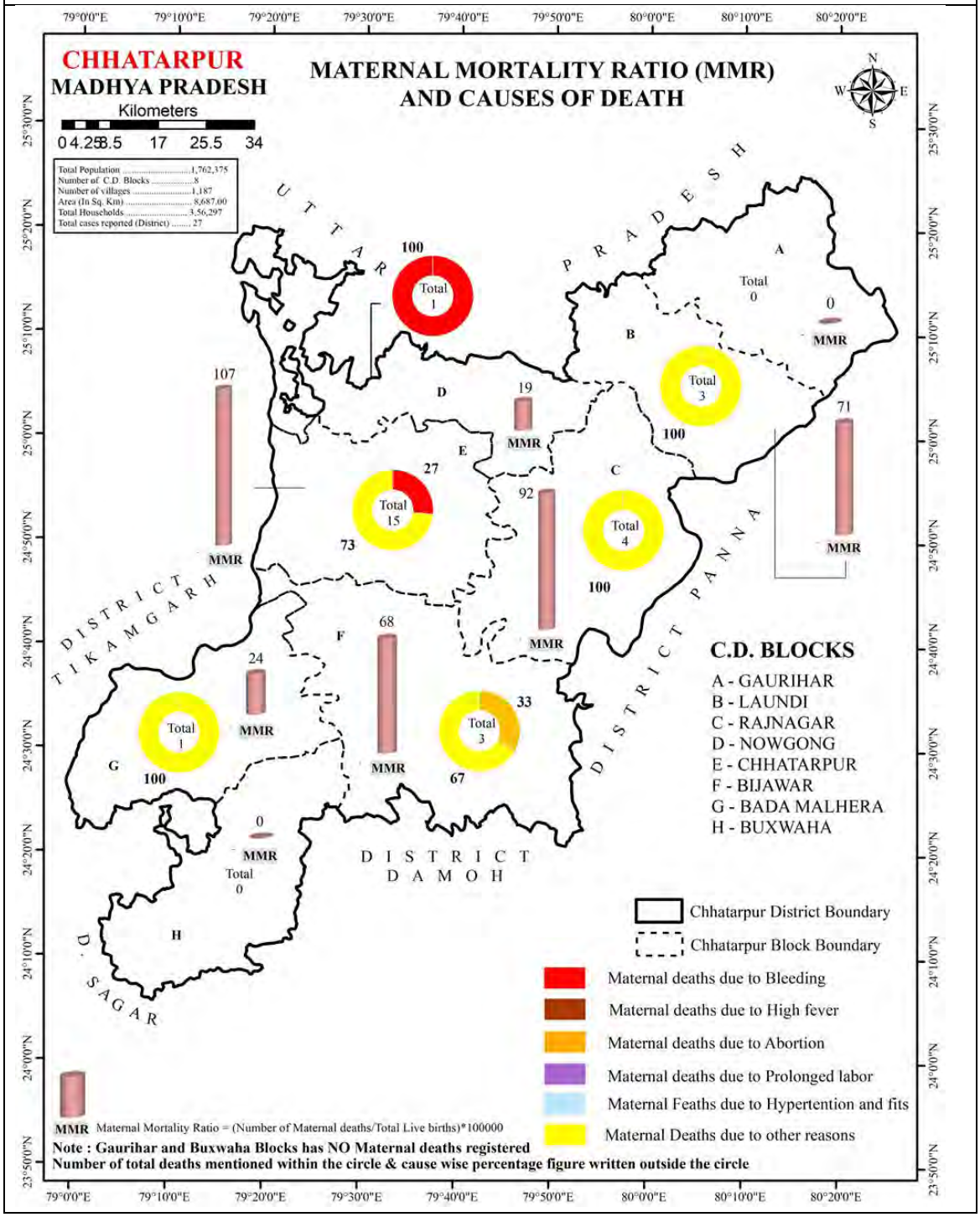
***More pregnant women registering for ANC in their first trimester are supposed to stand a better chance of lesser complications than those who don't.***

Haemoglobin less than 11 is considered low – the average percentage of women who had low haemoglobin (Hb<11) to those pregnant women registered for ANC is 57% at the district level. The figures are high for Chhatarpur, Lavkush nagar, Barigarh i.e. >60% to 90% respectively.

MMR is also found to be high in Chhatarpur, Lavkush Nagar and Bijawar. The severe anaemic cases (Hb<7) range between 1.2 to 4.74% for all blocks barring Chhatarpur which has 27% such cases of severe anaemia. Merely 6.66% anaemic cases in Rajnagar and 17.2% cases in Badamalahara were reported to be treated. Rest of the blocks reported more than 50% and some equal to 100% treatment.

Anaemic cases range from as high as 92.54% (of those tested for <11 Hb) to the total ANC registrations, the lowest is in Nowgong; Rajnagar and Badamalehra (under 25 and 30 respectively)

## MAP 17 – MATERNAL MORTALITY REPORTED WITH CAUSES



**Institutional deliveries**

Total 40,999 deliveries were reported from Chhattarpur in 2017-18. High percentage of institutional deliveries were reported in the district, >80%

**Childhood Diseases**

In HMIS, a total of 13 diseases are reported, diarrhoea is the commonest of the diseases followed by pneumonia and upper respiratory infections. Severe acute malnutrition (SAM) is another reported parameter which presents a broad reported malnutrition cases.

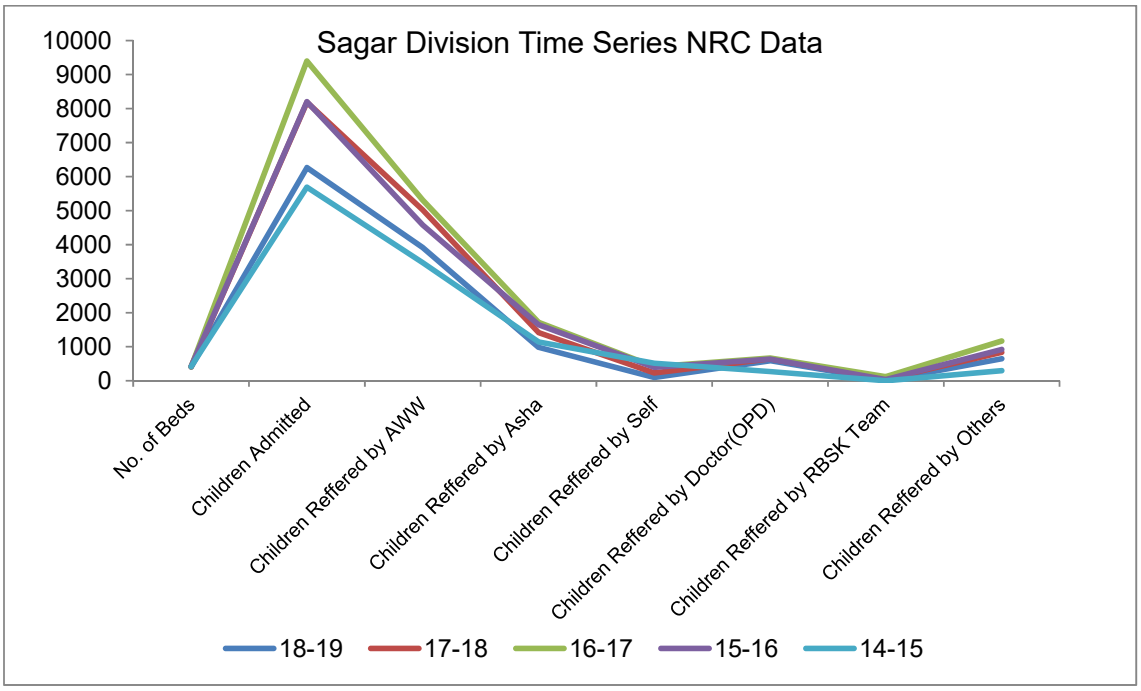
In Chhatarpur SAM[6] cases are reportedly low (133) in comparison to the adjoining Panna District. In Panna reported SAM cases are 651.

Malnutrition encompasses stunting and wasting and multi vitamin and nutrients deficiency. It significantly contributes to under five mortality as malnourished children are more prone to infections and hence frequent episodes of diarrhoea, acute respiratory infections etc. Till the age of two to three years if the child is undernourished, many effects of chronic malnutrition are irreversible. This is highly linked to the income level of households who can afford to provide good food and nutrition to the child. High levels of poverty directly connote malnutrition death cases.

Nutrition rehabilitation centres are a critical link for an ailing and malnourished child but eventual geographical difficulties and cut off zones result in accessibility to these facilities available as a ward in CHCs or sub district hospitals. The severely malnourished children data, number of severely underweight children provided health check-up and number of pre-term new-borns are potential victims of malnutrition and the data for the same is maintained by the HMIS repository at block level. The state also maintains data.

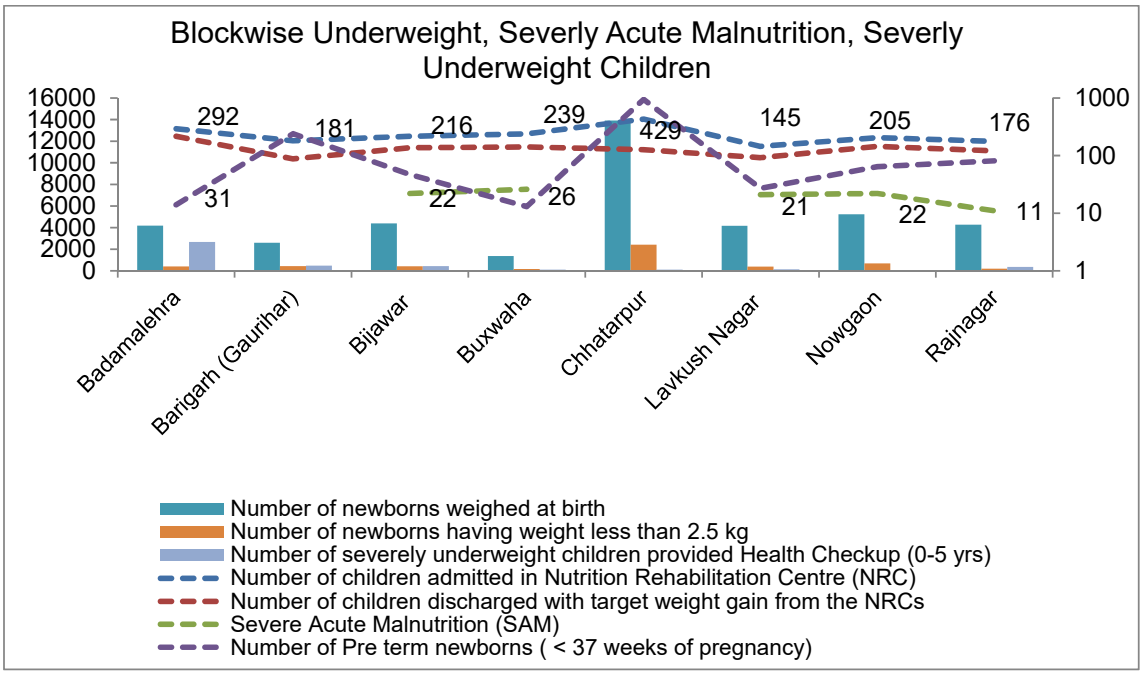
In Sagar division, over the five year period, 37,741 children were admitted in the NRCs, highest being in 2016-17 financial year numbering 9397 and lowest in 2014-15 (5690). Most of the referrals were by the Anganwadi workers and Asha workers which are the nearest to the community.

[6] http://pib.nic.in/newsite/PrintRelease.aspx?relid=186712




Looking closely at the two districts of Panna and Chhattarpur, the data reveals that spike in children admitted in NRC occurred in 2016-17 in both the districts and most of the referrals were by the community health workers.

| **Table H – Nutrition Rehabilitation Centres** | | | | | |
|---|---|---|---|---|---|
| **Parameters** | Chhattarpur | | | | |
| | **2018-19*** | **2017-18** | **2016-17** | **2015-16** | **2015-14** |
| No. of Beds | 90 | 90 | 90 | 90 | 90 |
| Children Admitted | 1264 | 1768 | 2021 | 1818 | 1276 |
| Children Referred by AWW | 919 | 1178 | 1271 | 1070 | 902 |
| Children Referred by Asha | 143 | 321 | 329 | 334 | 216 |
| Children Referred by Self | 7 | 22 | 11 | 14 | 30 |
| Children Referred by Doctor(OPD) | 84 | 100 | 95 | 116 | 65 |
| Children Referred by RBSK Team | 3 | 3 | 16 | 3 | 0 |
| Children Referred by Others | 108 | 144 | 299 | 281 | 63 |

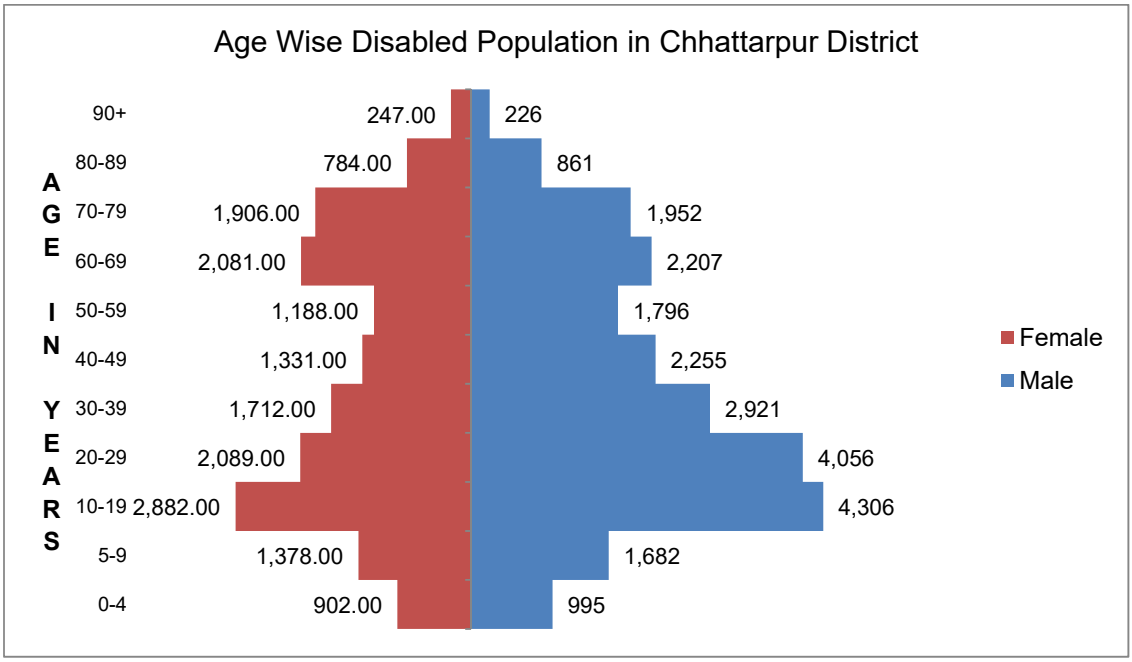



*Note: Dashed lines are on the secondary vertical axis (right hand side numbers on a log scale). NRC admissions (top) and SAM data labels are shown along the dashed lines.*

If we look at SAM, pre term new-borns, severely underweight children provided treatment, these form a vulnerable group of population which is at risk. Of those weighed at birth, 12% on an average were underweight. Of the 1883 children admitted in the NRC, 1067 were discharged with target weight gain. There is no data on post discharge monitoring of child's vital information on nutrition. The total population which is under stress due to severe malnutrition, underweight or premature birth is 10,946 children. Unless a close watch is held for their psychological, physical and mental growth, number of children with one or the other functional problems will rise and probably may reflect in the drop out or out of school children statistics. Badamalehra and Buxwaha has the highest number of severely malnourished children.

## DISABILITY

The Census of India maintains gender and age-wise disabled population data at the district level across eight categories. In Chhatarpur, 2.89% of the total population is in disabled category. In absolute terms, 39,853 persons are disabled in both these districts (Men – 23,303, Female – 16,550)




Proportion of disabled population to total population = 39,853[7] (2.89% )

Disability in movement is the largerst contributor to the disability. Among men, it has a substantial percentage of 30.61 and for women it is 24.42%. In terms of other forms of disability, the trend is similar for both men and women irrespective of their relative variation in percentages – disability in seeing followed by disability in hearing. Together these three disabilities form 60% of disability type in men and 59% in women which is almost similar. Those having multiple disabilities among overall disabled form 8.34% and 9.76% among men and women respectively.

Another information available on disability is from the education department portal which maintains disability among children at the school level and has categorised this disability in five classes viz. Mental retardness, orthopaedic, visually handicapped, hearing impaired and learning disability. In Chattarpur, the total disabled population of children is 2235 and Badamalahara block leads with 472 disabled children. This data is of 2009-10 period. Orthopaedic disability (or movement) is the major disability among children followed by visual and hearing impairment (each 22%), learning disability is low at 1%.

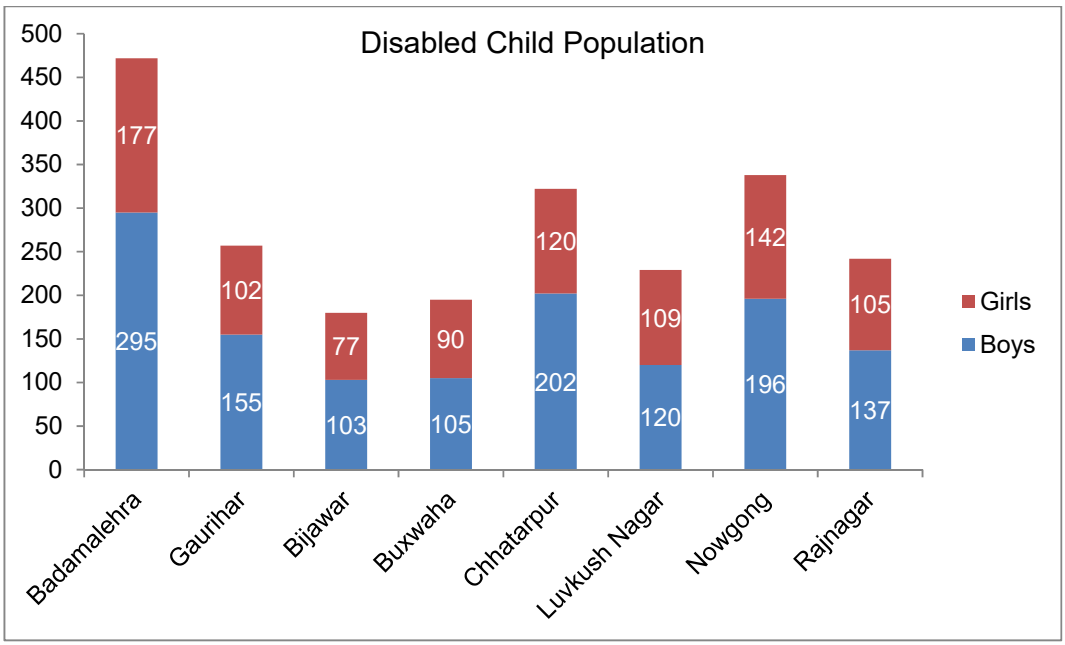
[7] In terms of families (considering average household size 5) 7970 families are disabled

| Table H - Disability Status 2009-10 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mental retarded | | | Orthopaedic | | | Visually Handicapped | | | Hearing Impaired | | | Learning Disability | | |
| | Boy | Girl | Total | Boy | Girl | Total | Boy | Girl | Total | Boy | Girl | Total | Boy | Girl | Total |
| Badamalehra | 25 | 17 | 42 | 128 | 74 | 202 | 80 | 55 | 135 | 61 | 31 | 92 | 1 | 0 | 1 |
| Gaurihar | 20 | 16 | 36 | 75 | 37 | 112 | 18 | 10 | 28 | 39 | 37 | 76 | 3 | 2 | 5 |
| Bijawar | 11 | 10 | 21 | 55 | 32 | 87 | 22 | 30 | 52 | 15 | 5 | 20 | 0 | 0 | 0 |
| Buxwaha | 11 | 11 | 22 | 42 | 31 | 73 | 33 | 27 | 60 | 19 | 20 | 39 | 0 | 1 | 1 |
| Chhatarpur | 14 | 13 | 27 | 84 | 43 | 127 | 37 | 31 | 68 | 62 | 32 | 94 | 5 | 1 | 6 |
| Luvkush Nagar | 19 | 18 | 37 | 55 | 50 | 105 | 21 | 22 | 43 | 23 | 19 | 42 | 2 | 0 | 2 |
| Nowgong | 37 | 15 | **52** | 97 | 50 | 147 | 22 | 34 | 56 | 40 | 43 | 83 | 0 | 0 | 0 |
| Rajnagar | 10 | 13 | 23 | 65 | 40 | 105 | 29 | 28 | 57 | 31 | 21 | 52 | 2 | 3 | 5 |
| **District Total** | **147** | **113** | **260** | **601** | **357** | **958** | **262** | **237** | **499** | **290** | **208** | **498** | **13** | **7** | 20 |
| **Percentage** | | | ***12*** | | | ***43*** | | | ***22*** | | | ***22*** | | | ***1*** |

Source: Education Department Portal

Disabled population as per Education Department (Summary table of above)

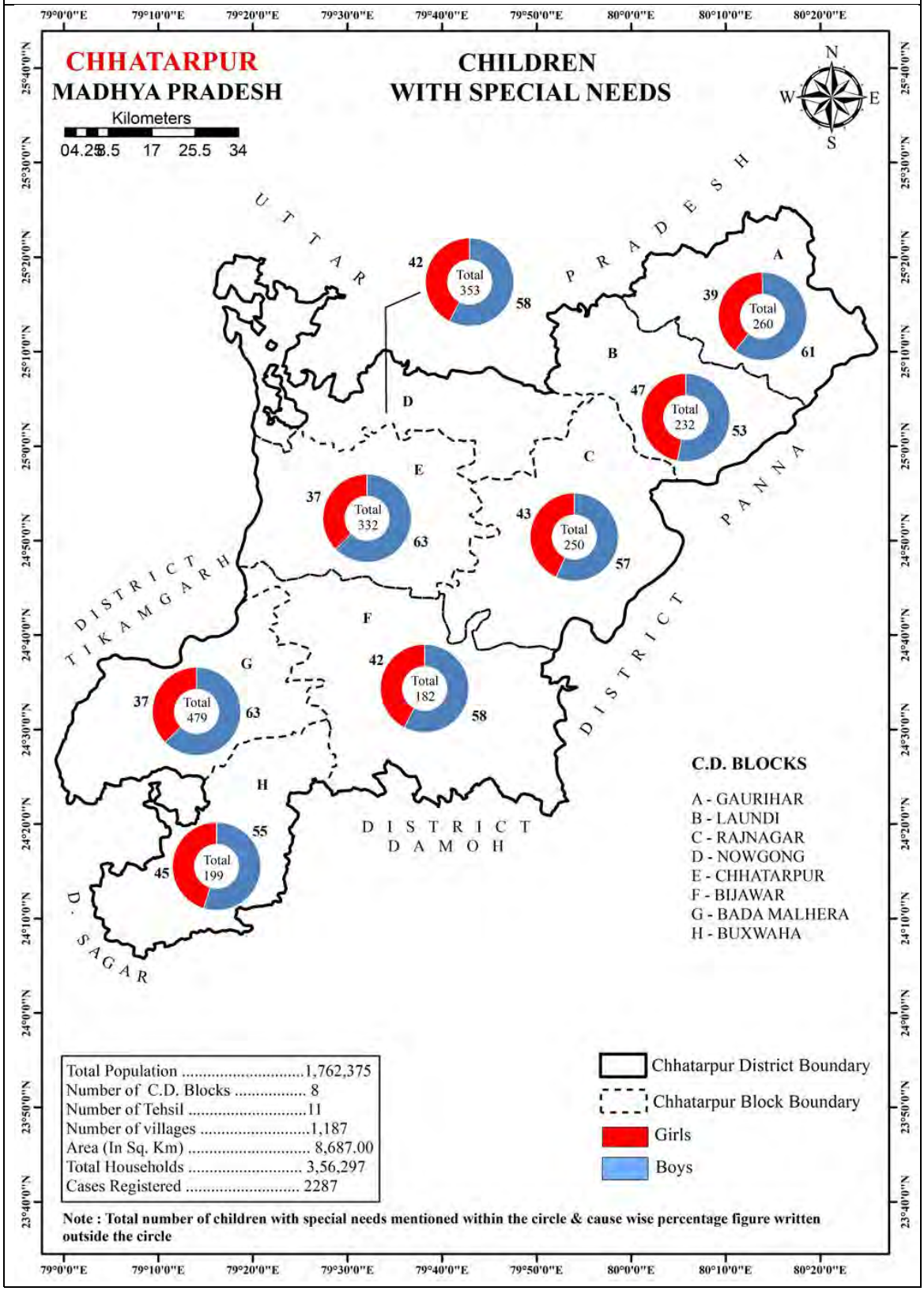
Proportion of Boys and girls irrespective of type of disability is shown in the graph below. Disability among boys is more than girls as is clearly visible. Of the total disabled children captured by the system, 43% in Chhattarpur suffer from orthopaedic disability or are restricted in some of the other manner in terms of mobility. Visual and hearing impairment combined is 44% (22% each).

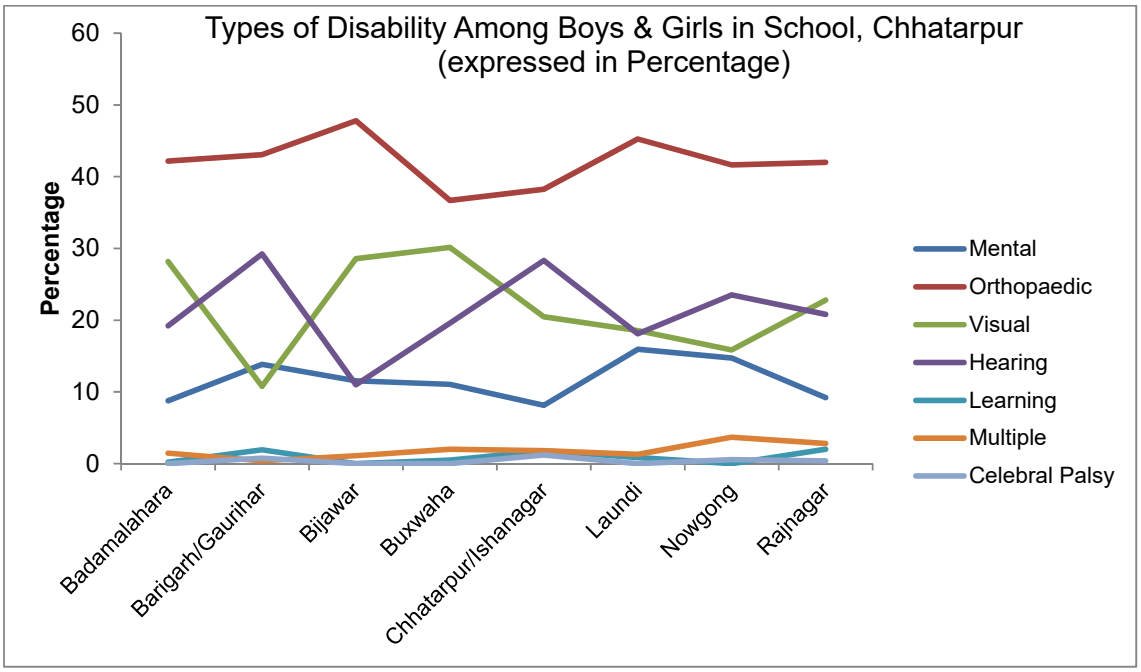



As per census 2011 data, the disabled in 5-9 years and in 10-19 years form a larger sub set of disabled population[8]. The count by the education department is in the year 2009-10 which is 2235 disabled children registered by the system for Chhattarpur. Most of the data captured by the education department is for students upto the age of 14 years.

[8] The total disabled population in 5-19 years in Chhattarpur is 10,248 and in Panna it is 5,334.

## MAP 18 – CHILDREN WITH SPECIAL NEEDS



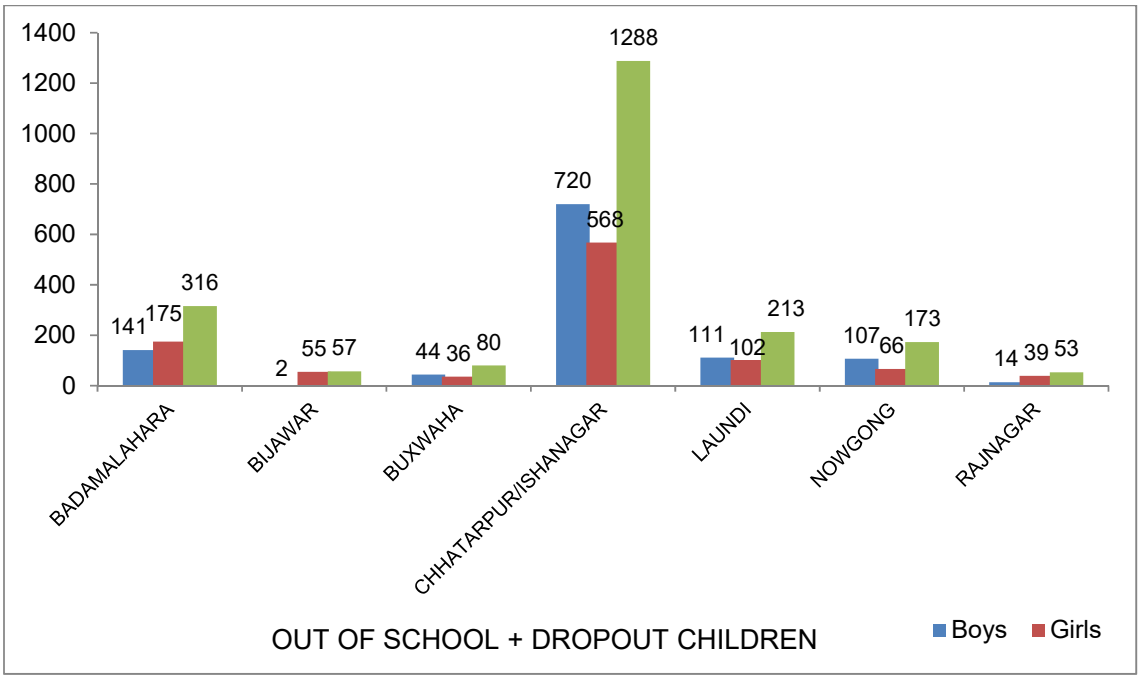



This data is from the education portal of Madhya Pradesh, it provides block wise disabled child population. Whereas the Census compiles age wise and gender wise disabled data at the state level.

At district level, major disability at 42% of orthopaedic leads all the disability forms followed by 22% each in visually and hearing impaired. In almost all blocks orthopaedic disability ranges from 37-48%, visual impairment from 11-30% and hearing impairment from 11-29%. Visual impairment is high in Badamalahara, Bijawar, Buxwaha and Rajnagar whereas hearing impairment is high in Barigarh/Gaurihar, Chhatarpur, Nowgong. As per census data, the total disabled population in the age range of 5-19 years is 10,248 whereas the smagra portal shows a population of 2287 boys and girls which is probably those which are in the age range of 5-14 years. Similarly in case of Panna, the cumulative disabled population in the age range of 5-19 years is 5334 whereas the Smagra portal returns a data of 2038 boys and girls.

## EDUCATION

*Education portal of MP provides variety of information on education and this being a dynamic portal, the information thus changes as and when the survey or updation is done. The department collects reason wise out of school and drop out* children and may provide a trend of why drop our rate is high




Unlike Panna, in Chhattisgarh the ratio of boys drop outs to girls is 1.09 and in three blocks viz. Rajnagar, Bijawar and Badamalahara more girls are out of school than boys and the ratio is 0.36, 0.04 and 0.81 – Most of the out of school are girls in Bijawar (55 girls and 2 boys)

Block wise key information is provided below;

Badamalahara - The main reason of not attending the school is migration (34%) and school too far (23%).

Bijawar – The main reason for not attending school is primarily due to poor financial condition of family (reported by 42%) followed by 14% giving migration as a reason

Buxwaha – Here, like Badamalahara, 34% said school is too far but 'migration for too long' remained the primary reason at 41%

Chhatarpur/Ishanagar – Again 'migration for too long' remained the primary reason at 64% followed by older siblings taking care of the young (9%)

Laundi – Migration remained the most prominent reason for not attending school (69%) followed by 13% stating schools are too far

Nowgong – The only major reason stated is migration for too long at 57%

Rajnagar – Here, surprisingly migration does not figure as a reason but it is ‘older siblings taking care of the young ones leading with 49% followed by ‘schools too far’ stated by 45%. Thus these two reasons remained the two major reasons.

## HOUSING CONDITIONS AND ASSETS

*This section provides an overview of housing condition and availability of assets in terms of percentage of households. Later on the same data is clubbed together to arrive at scoring and ranking to see variations among block and among different parameters.*

Food, clothing and shelter are the three basic needs and each one's fulfilment is necessitated by well-being of a society, a community in the larger set up of economic structure. Housing is a fundamental requirement to build other basic needs and utilities around it and enables a sense of security and recognition in a society. Census of India provides tehsil wise village data on the quality of housing and its associated components, assets, utilities and basic services for which access is important. One of the important programmes in a run up to Housing for all by 2022 is the PMAY *(Pradhan Mantri Awas Yojna or Prime Minister Housing Scheme)* – the data already existing and available from the Census portal is presented selectively in terms of different components of housing and assets available with households. At the end, a broad ranking criteria is taken into account to rank blocks in terms of these different housing and asset components.

In the following tables, four levels of comparison is done for different housing components, utilities and basic services viz. at the state level, division level[9] (Sagar division), district level and block//tehsil where high and lows are shown. This will provide a broad overview of housing in these two districts.

Specific tehsil wise data and maps with charts are discussed later in this chapter.

**Table H - Proportion of Households using the following cooking fuel**

| **Parameter** | Firewood | Crop Residue | Cowdung | LPG | Total HHs |
|---|---|---|---|---|---|
| **Level** | | | | | |
| State | 78.6 | 7.1 | 9.9 | 3.5 | 11,122,365 |
| Division | 87.1 | 2.3 | 8.5 | 1.8 | 1389545 |
| District Panna | 82.2 | 2.6 | 13 | 1.9 | |
| Raipura-Shahnagar | 94.4,92.4 | 1.6,1 | 2.3, 4.3 | 1.5,2 | |
| Gunnor-Amanganj | 62.2,67.9 | 2.3,3.3 | 31.6,27.1 | 3.6,1.4 | |
| District Chhatarpur | 88.7 | 2.2 | 7.4 | 1.5 | |

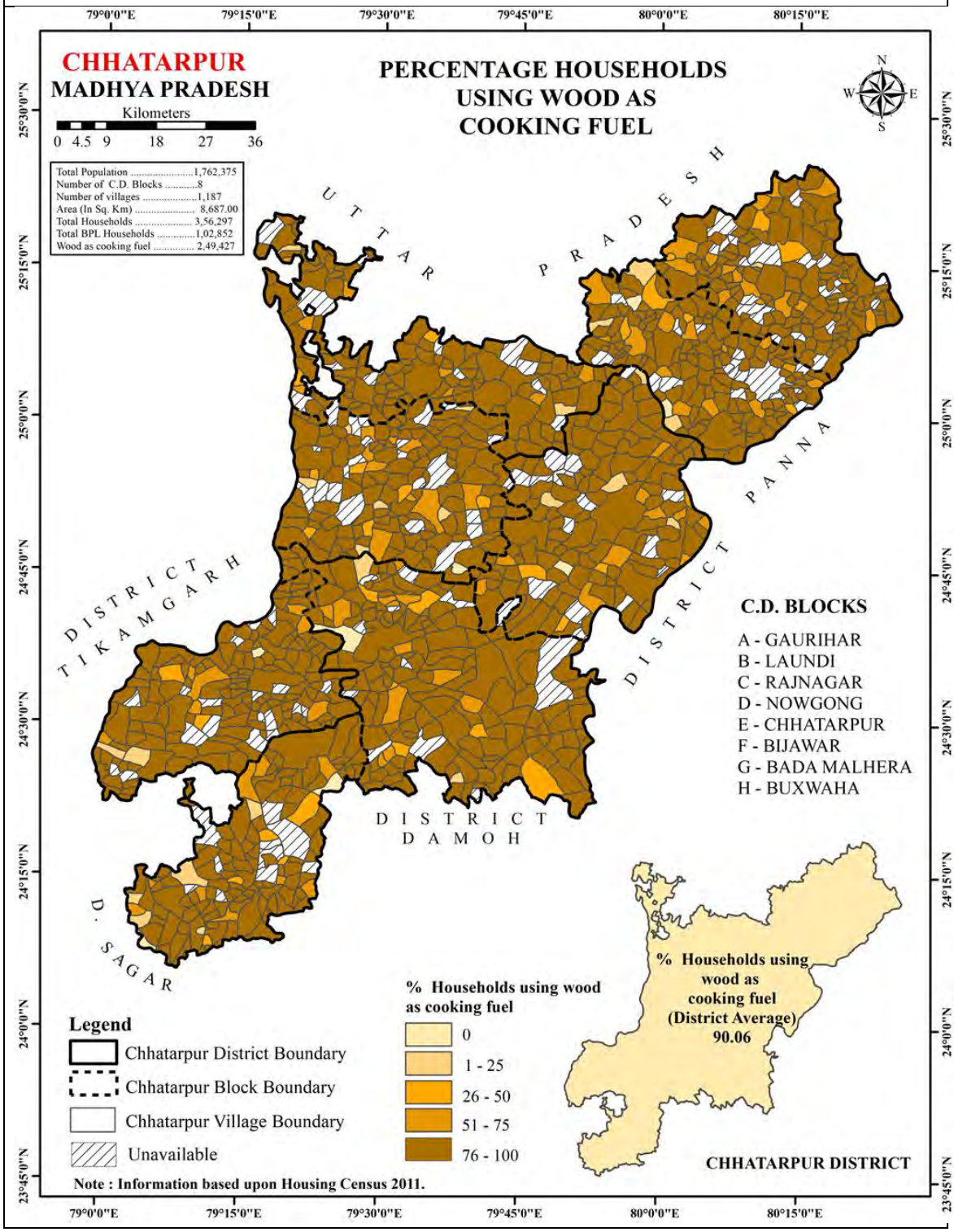
*Shahdol division has high users of firewood at 95.7%*

As per the ranking provided based on 2001 and 2011 census data, Panna and Chhatarpur ranked 20 and 13 for percentage share of households by use of firewood for cooking; 46 & 35 remained their rank for use of LPG; Panna leads with 16 rank in comparison to Chhatarpur with 31 rank for cooking fuel used as cowdung and crop residue.

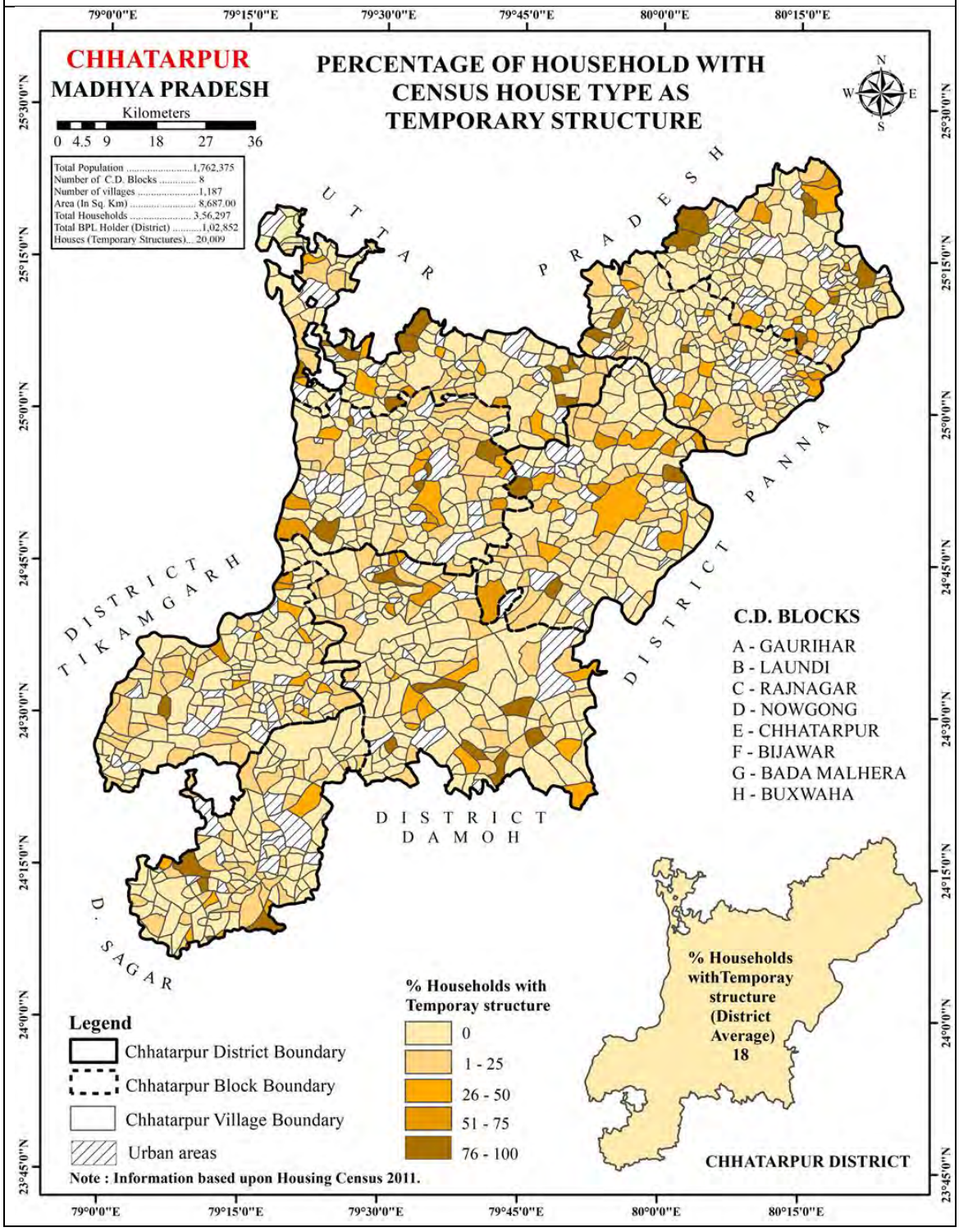
[9] Housing Atlas, Madhya Pradesh Census

In rural Madhya Pradesh, percentage of households using electricity were 58.3 and those using kerosene were 40.9 whereas the same proportion at division level is 47.7 and 51.7 respectively which suggests that lesser proportion of households are connected to electricity. At District level the proportion for Panna is at 27.2 and 72.2 respectively. Panna is ranked 49 and Chhatarpur 42 in terms of electricity used by households as main source of lighting whereas the rank is 2 and 9 for kerosene as source of lighting.

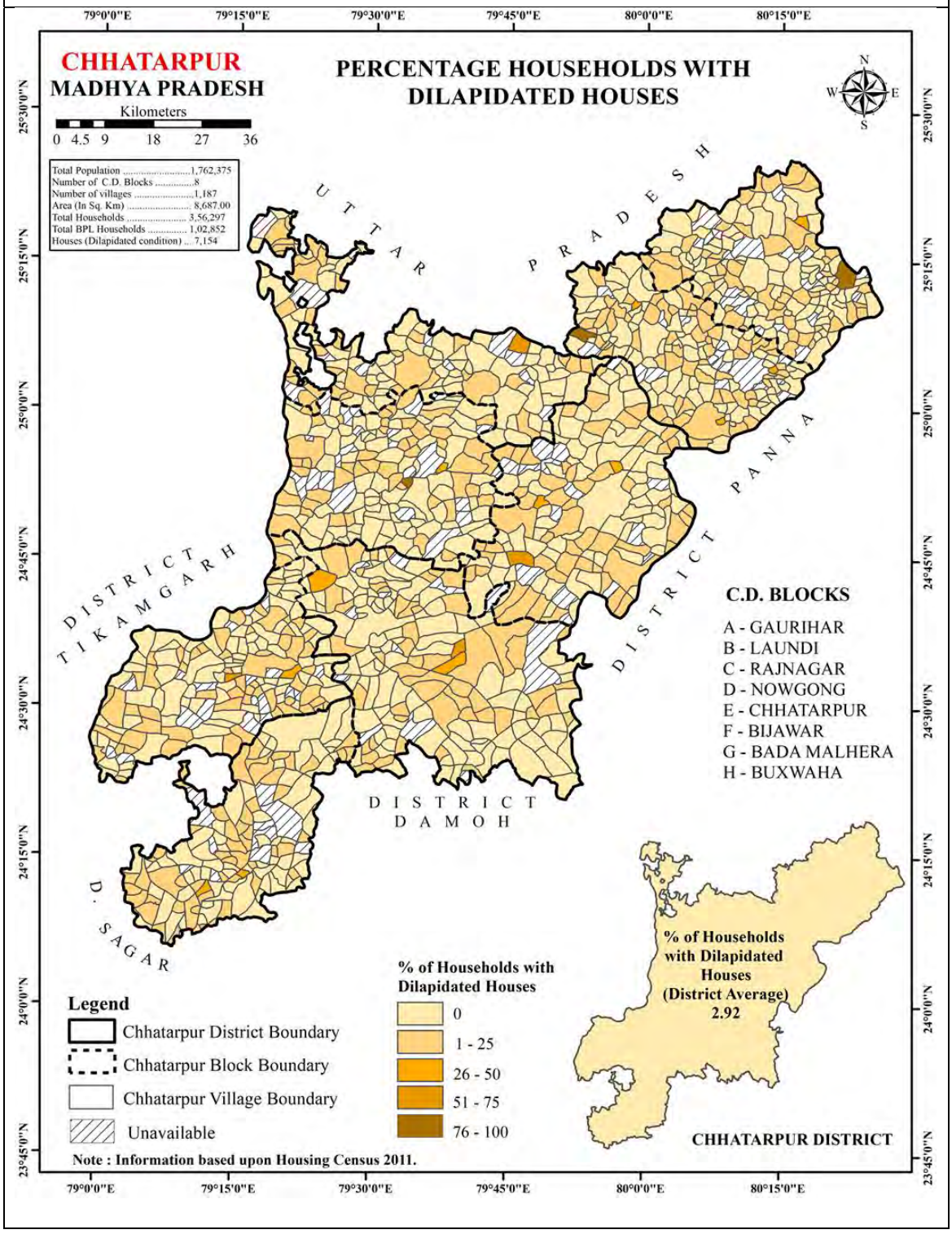
## MAP 19 – HOUSEHOLDS USING WOOD AS FUEL FOR COOKING



## MAP 20 – HOUSEHOLDS LIVING IN TEMPORARY STRUCTURE

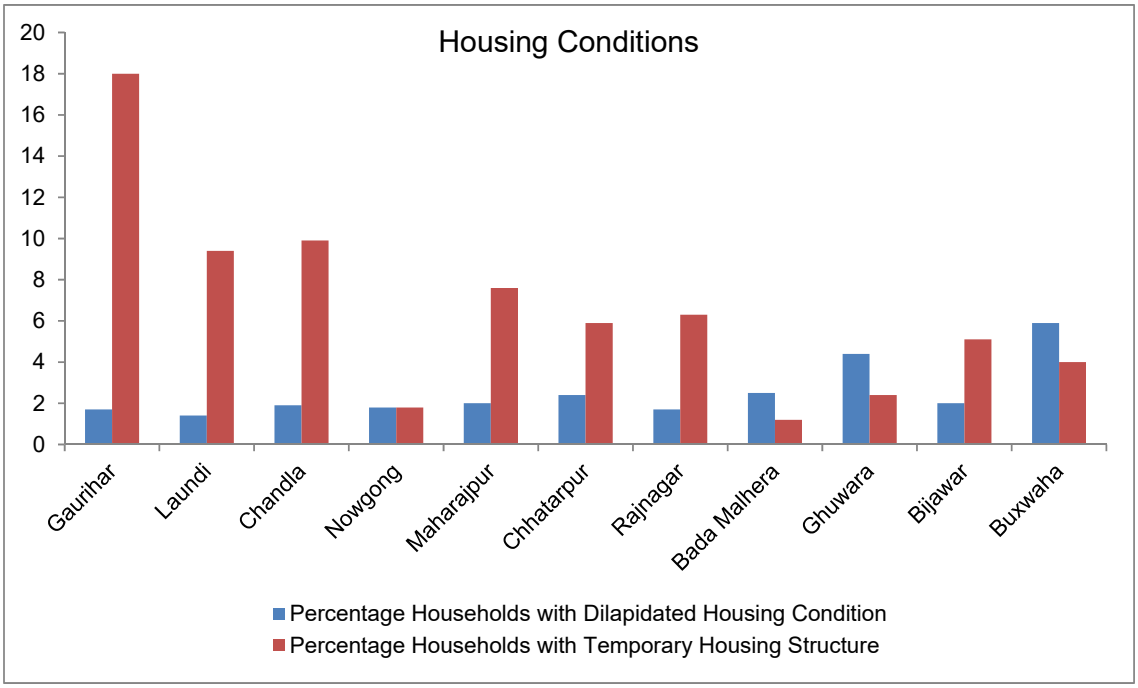


## MAP 21 – HOUSEHOLDS LIVING IN HOUSES WITH DILAPIDATED CONDITION



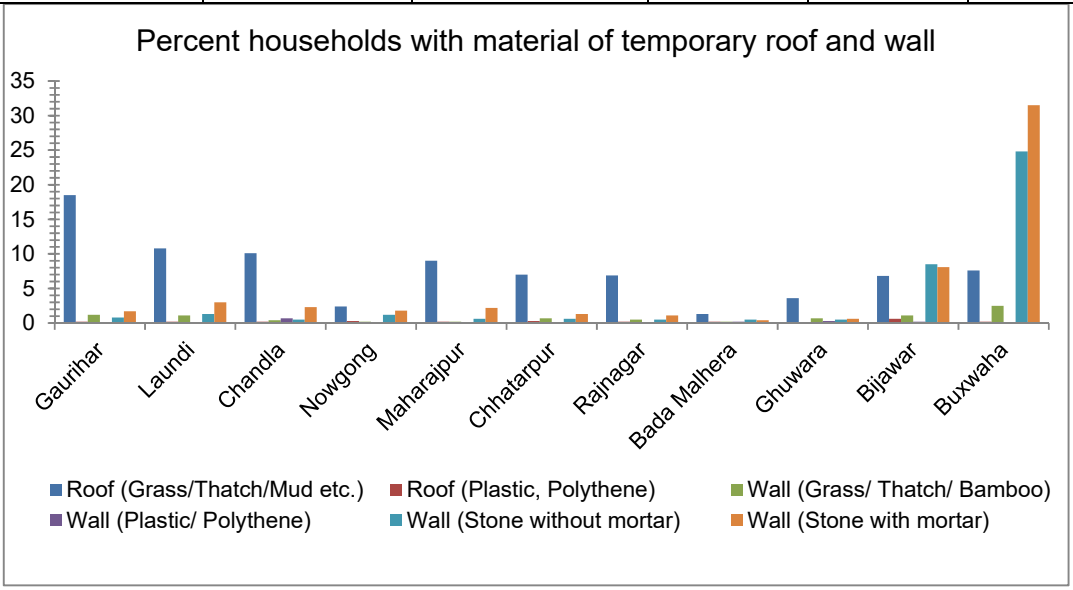
| Proportion of Census Houses as Dilapidated | | |
|---|---|---|
| **Parameter** | Dilapidated | Census Houses |
| **Level** | | |
| State | 4.5 | 11030974 |
| Division | 3.7 | 1381428 |
| District Panna | 2.9 | |
| Panna Tehsil | 5.4 | |
| Gunnor | 1.3 | |
| District Chhatarpur | 2.5 | |

Panna ranks 39 and Chhatarpur ranks 40 for percentage share of census houses in dilapidated condition




There is set trend in these two parameters. Households with temporary structure are likely to have frequent repairs every season but even with more proportion of households having temporary structure, those reported dilapidated conditions remain under 2% and only in two instances the percentage is >4% but <6% - Ghuwara and Buxwaha Tehsil.

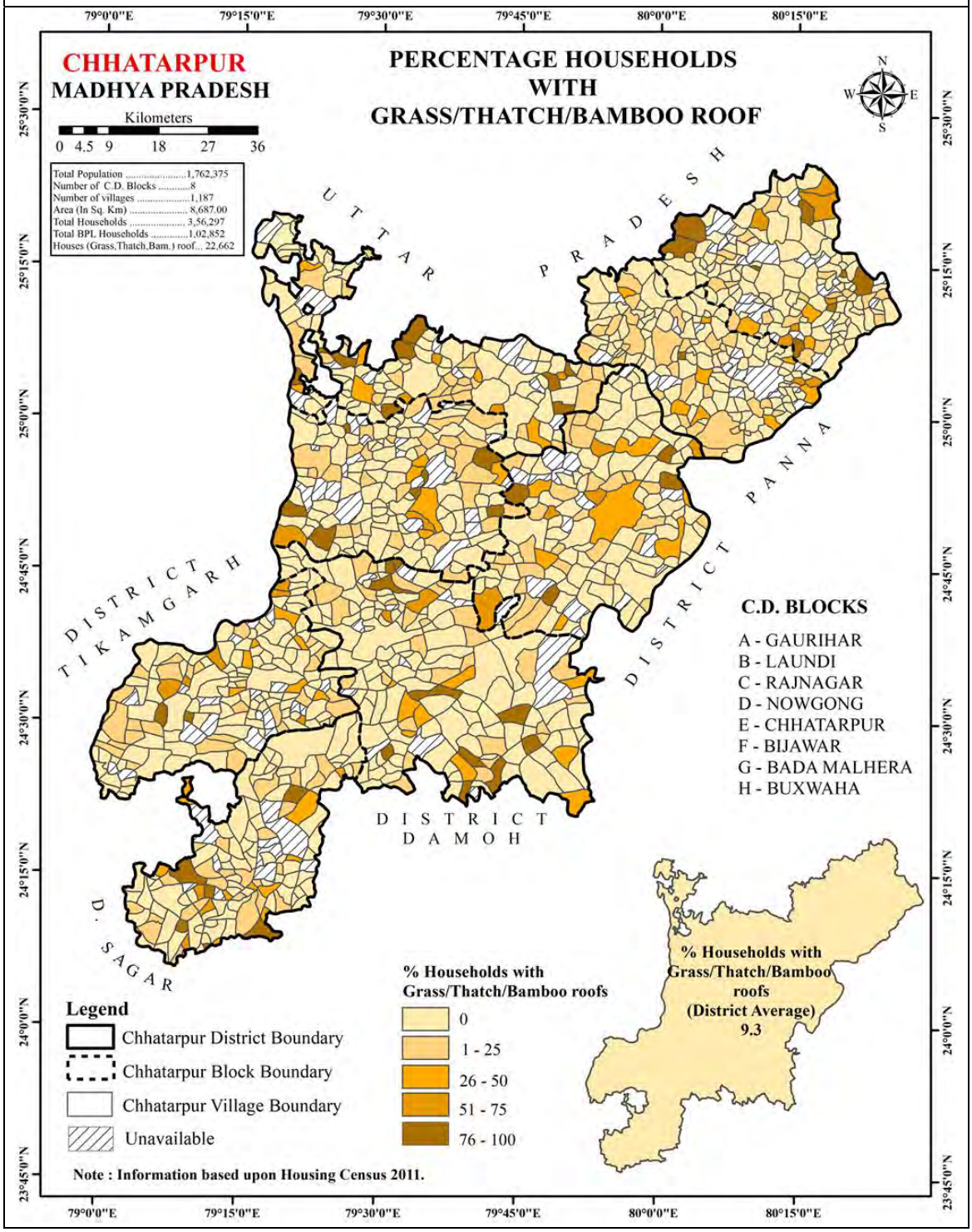
| Proportion of census houses with predominant roof material | | | | | |
|---|---|---|---|---|---|
| **Parameter** | Grass/Thatch/ Bamboo/ Wood/Mud | Plastic/polythene | Tiles | Stone/slate | Census houses |
| **Level** | | | | | |
| State | 10.7 | 1 | 58 | 11.5 | 12865680 |
| Division | 8.4 | 0.4 | 69.1 | 9.7 | 1624076 |
| District Panna | 13.8 (40) | 0.2 | 72 (9) | 7.4 (20) | |
| Pawai | | 0.3,0.2 | 81.6 | 12.6 | |
| | | | | | |
| District Chhatarpur | 8 (48) | 0.2 | 68.5 (20) | 3.6 (22) | |



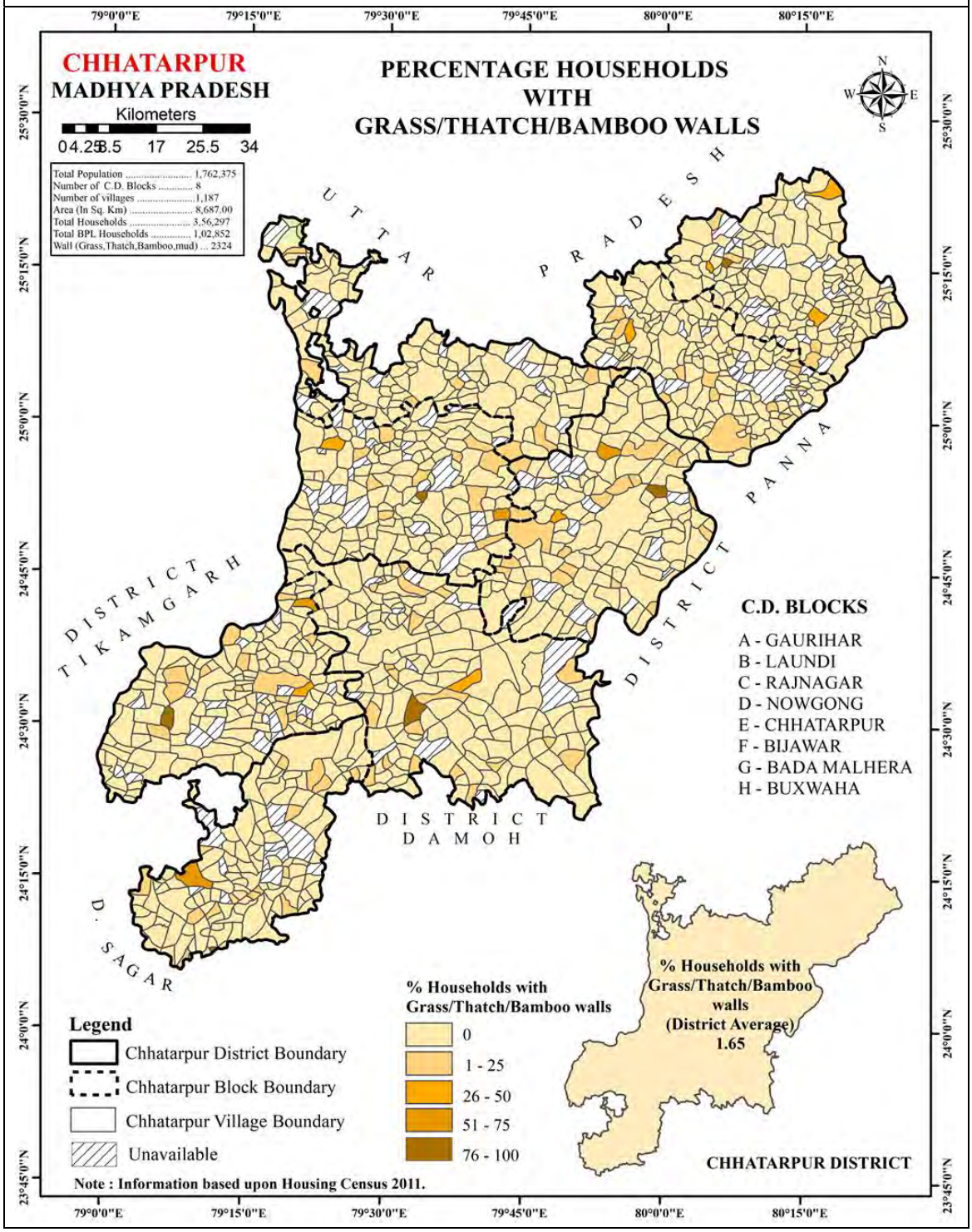

Overall, average 8% of the households have roof material constituting available naturally alongwith very small proportion (<0.25%) of plastic/polythene. The lowest percentage is in Nowgong, Bada Malhera and the highest percentage of households with such roof materials is in Gaurihar, Chandla, Maharajpur Tehsils. The contribution of plastic/polythene which is too temporary a roof material constitute <0.25% of total households. Among wall material, average 5% households have to depend on temporary to semi temporary materials like grass, plastic or stone. The highest percentage of households using stone are found in Buxwaha tehsil followed by Bijawar. In six tehsils 5-10% households use thatch or other temporary type roof, in only 2 tehsils this percentage is between 10-20%

| Proportion of census houses with predominant wall material | | | | | |
|---|---|---|---|---|---|
| **Parameter** | Grass/Thatch/ Bamboo/ | Plastic/ polythene | Mud/Unburnt brick | Stone | Census houses |
| **Level** | | | | | |
| State | 4.5 | 0.3 | 52.3 | 14.8 | 12865680 |
| Division | 1.3 | 0.3 | 52.3 | 14.8 | 1624076 |
| District Panna | 1 | 0.2 | 76.8 (4) | 8.6 | |
| District Chhatarpur | 0.8 | 0.2 | 59.2 (18) | 7.4 | |

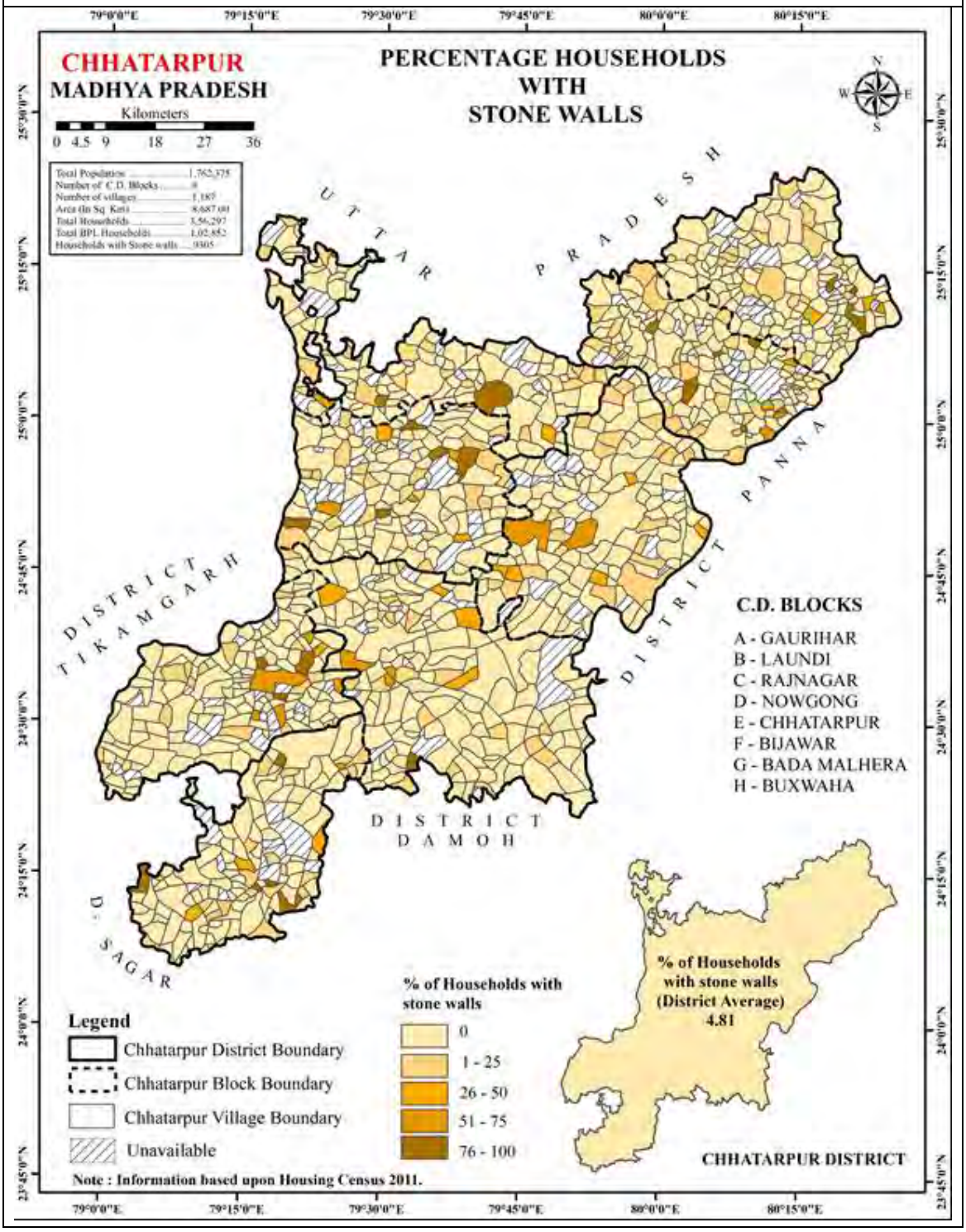
## MAP 22 – HOUSEHOLDS LIVING IN HOUSES WITH GRASS/THATCH/BAMBOO ROOF

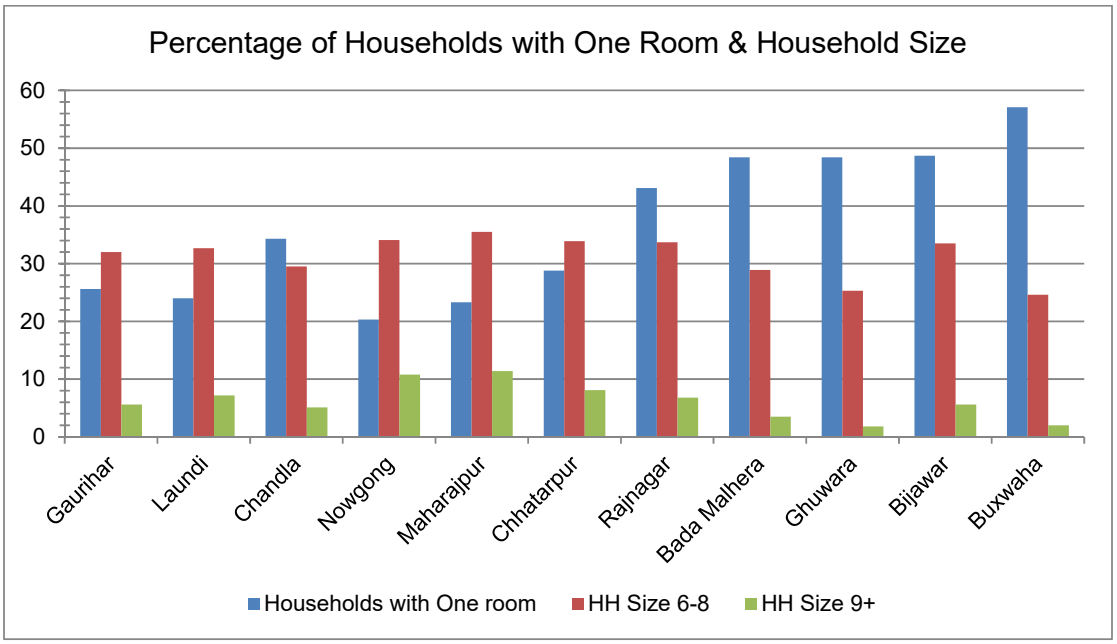


## MAP 23 – PERCENTAGE OF HOUSEHOLDS LIVING IN HOUSES WITH SEMI PERMANENT WALLS



## MAP 24 – PERCENTAGE OF HOUSEHOLDS LIVING IN HOUSES WITH STONE WALLS

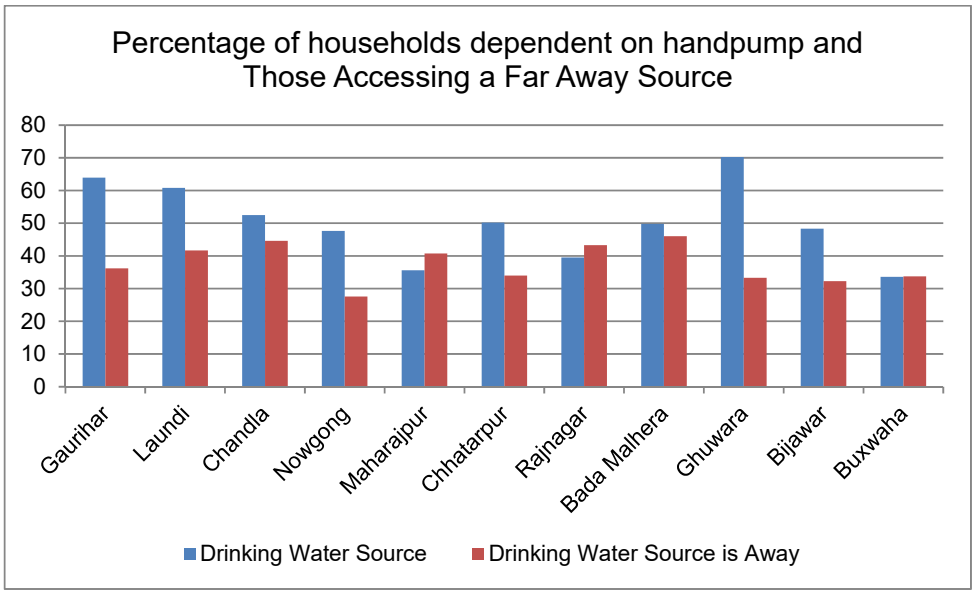





Average 36% households across all blocks live in one room, the maximum percentage of such households are reported in Buxwaha at 57%. Similarity appears in percentage of one room households in Bijawar-Ghuwara and Badamalhara which is 48%. Median household size is 5 but considerable large households (6-8 persons) >30% households are found in majority of the blocks. Very large households percentage is between 5-11%.

| **Percentage of Households by Main Source of Drinking Water** | | | | |
|---|---|---|---|---|
| **Parameter** | Tap Water | Well Water | Handpump | Households |
| State | 9.9 | 25 | 58.3 | 11122365 |
| Division | 4.8 | 38.7 | 52.6 | 1389545 |
| District Panna | 5.3 (43) | 31.8 (11) | 57.6 (31) | |
| District Chhatarpur | 3.1 (45) | 43.6 (3) | 51.6 (42) | |

| **Percentage of Households by Availability (access to) of Drinking Water** | | | |
|---|---|---|---|
| **Parameter** | Near premises | Away | Households |
| State | 50.9 | 36 | 11122365 |
| Division | 50.4 | 42.2 | 1389545 |
| District Panna | 52.8 (6) | 39.9 (12) | |
| District Chhatarpur | 53.2 (12) | 40.5 (9) | |




| Percentage of Households by Number of Members | | | |
|---|---|---|---|
| **Parameter** | 6-8 members | 9+ members | Households |
| State | 27.8 | 4.7 | 11122365 |
| Division | 25.9 | 3.3 | 1389545 |
| District Panna | 25.4 | 2.4 | |
| District Chhatarpur | 31.9 | 5.9 | |

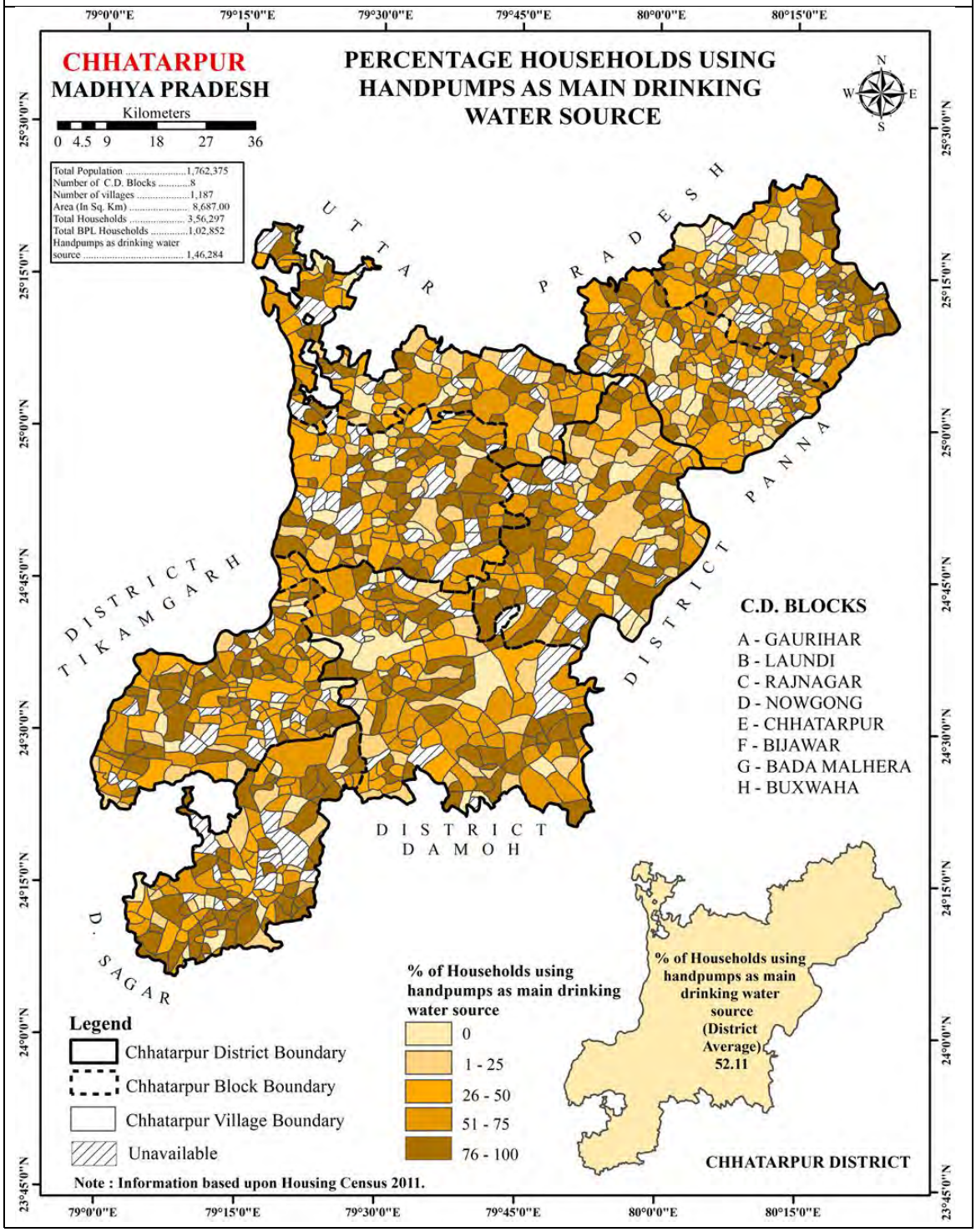
Panna ranks 40 and Chhatarpur 12 for households having family members more than 5

| Percentage of Households by number of dwelling rooms | | | |
|---|---|---|---|
| **Parameter** | One room | No exclusive room | Households |
| State | 44.5 | 2.8 | 11122365 |
| Division | 47 | 2.1 | 1389545 |
| District Panna | 49.7 | 2.1 (20) | |
| District Chhatarpur | 38.9 | 1 (42) | |

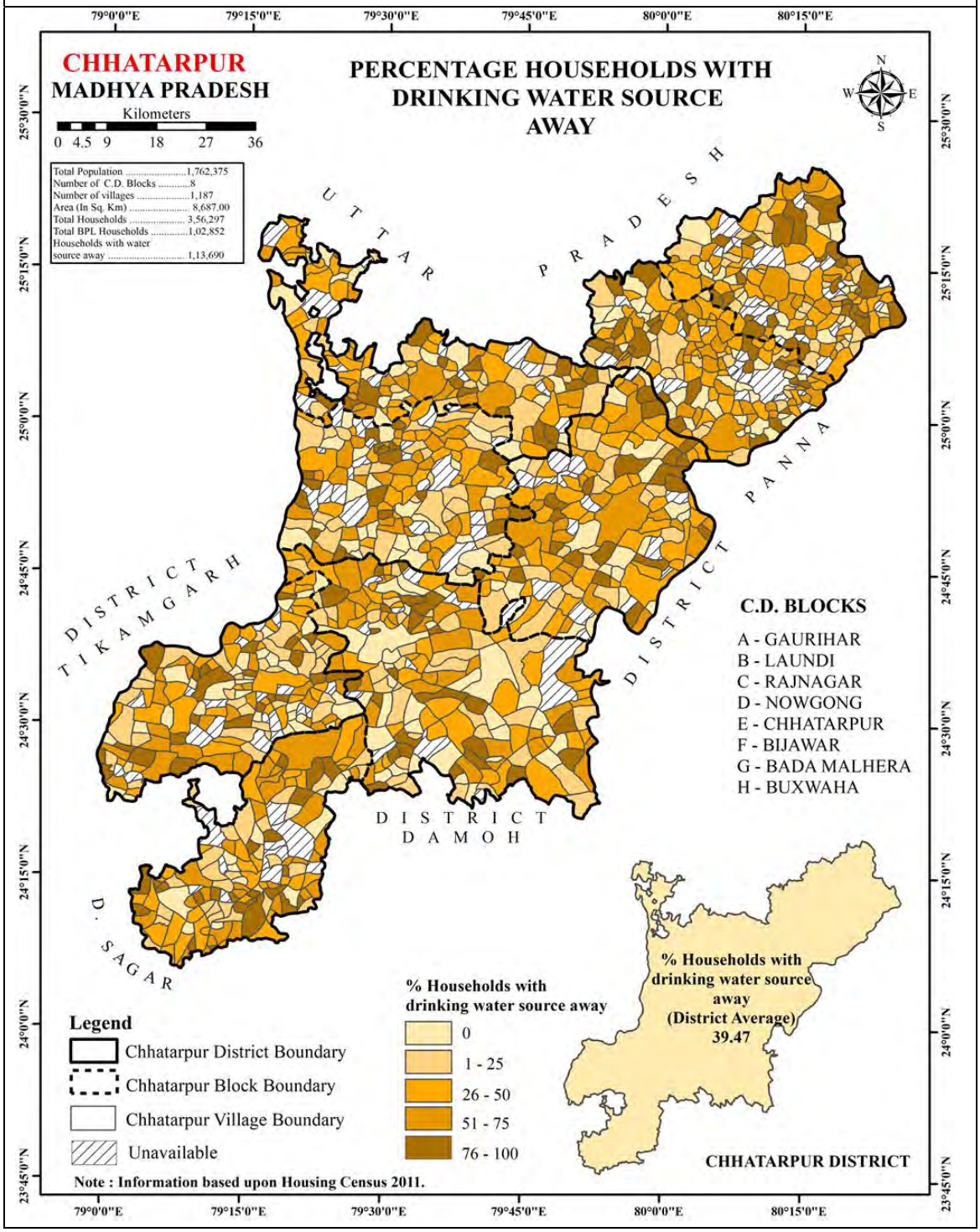
Panna ranks 21 and Chhatarpur 40 for households with 1-2 rooms.

| Percentage of Households by modes of transportation (asset) | | | |
|---|---|---|---|
| **Parameter** | Bicycle | Scooter/Moped etc. | Households |
| State | 36.4 | 12 | 11122365 |
| Division | 40.6 | 7.9 | 1389545 |
| District Panna | 39.3 (20) | 5.9 (47) | |
| District Chhatarpur | 50.4 (5) | 8.7 (36) | |

## MAP 25 – PERCENTAGE OF HOUSEHOLDS USING HANDPUMPS

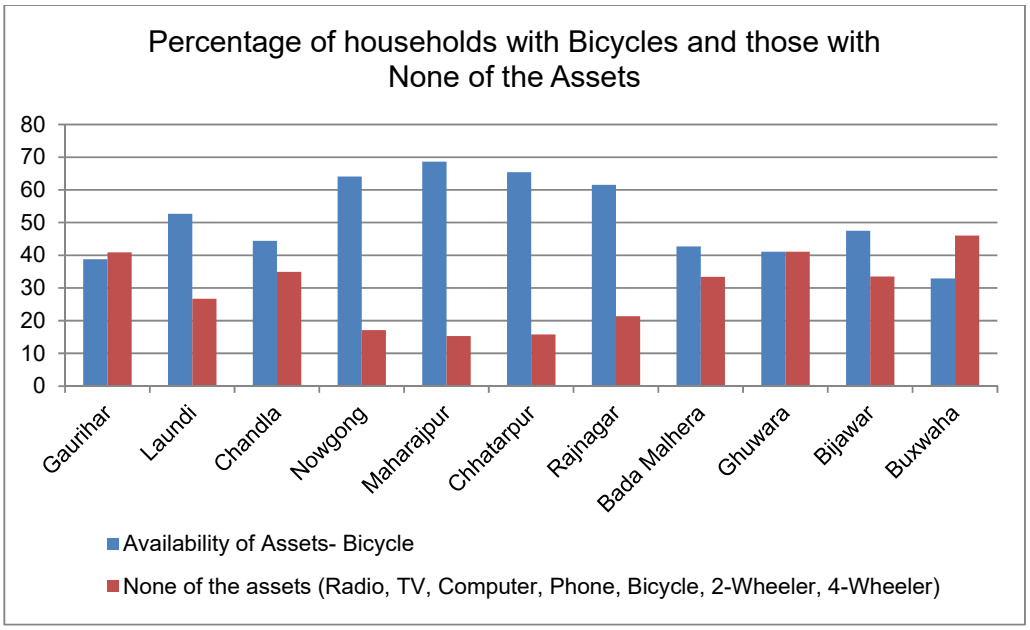


## MAP 26 – PERCENTAGE OF HOUSEHOLDS ACCESSING DRINKING WATER SOURCE AWAY FROM PREMISES



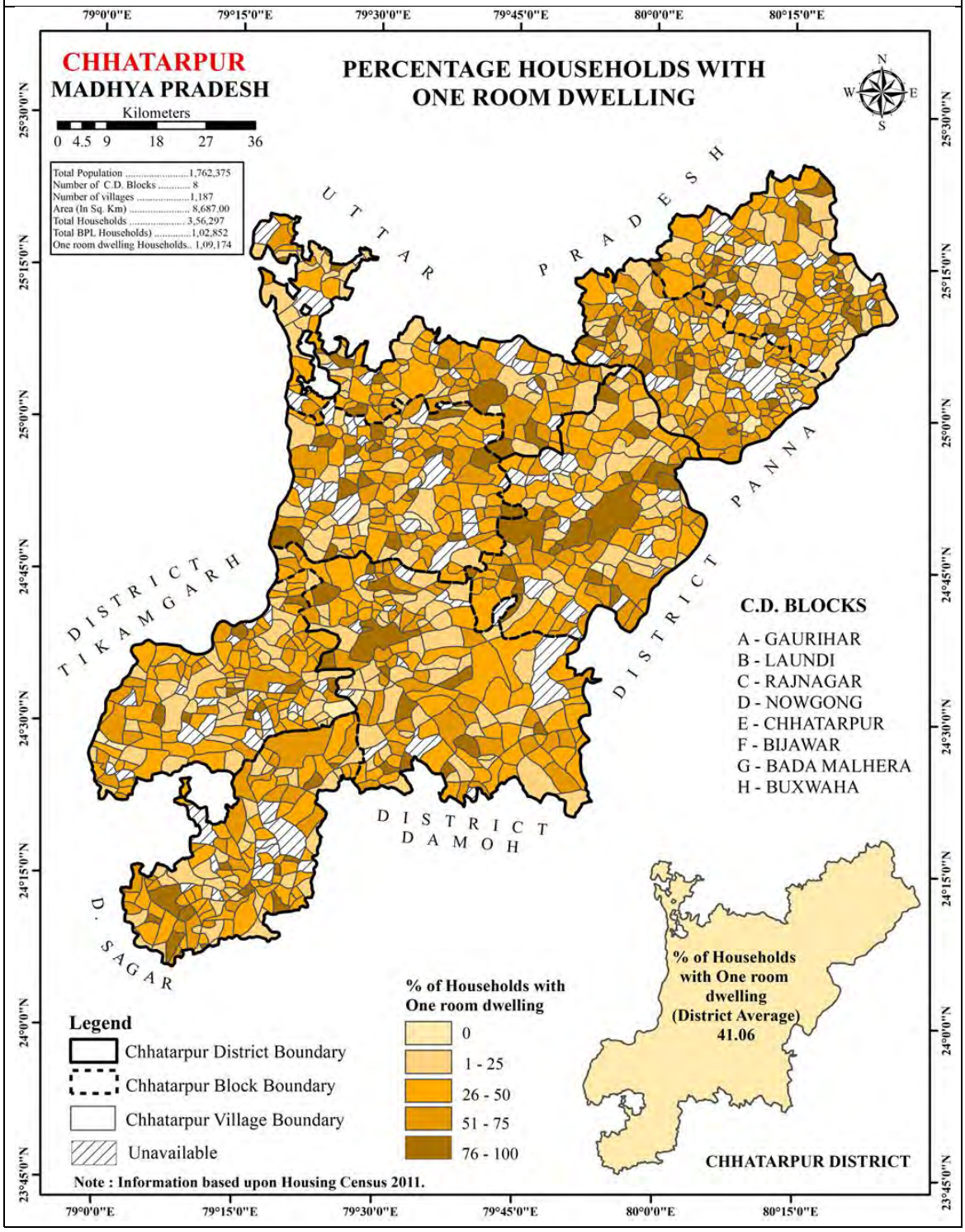
| Percentage of Households by Entertainment and Communication Assets | | | | |
|---|---|---|---|---|
| **Parameter** | Mobile Only | Television | Radio/Transistor | Households |
| State | 33.5 | 8.6 | 13 | 11122365 |
| Division | 34.2 | 14.8 | 17 | 1389545 |
| District Panna | 30.5 (46)[#] | 8.4 (47) | 18.6 (16) | |
| District Chhatarpur | 41.2 (36) | 13.5 (38) | 18 (8) | |

[#]*ranking for telephones include mobile*

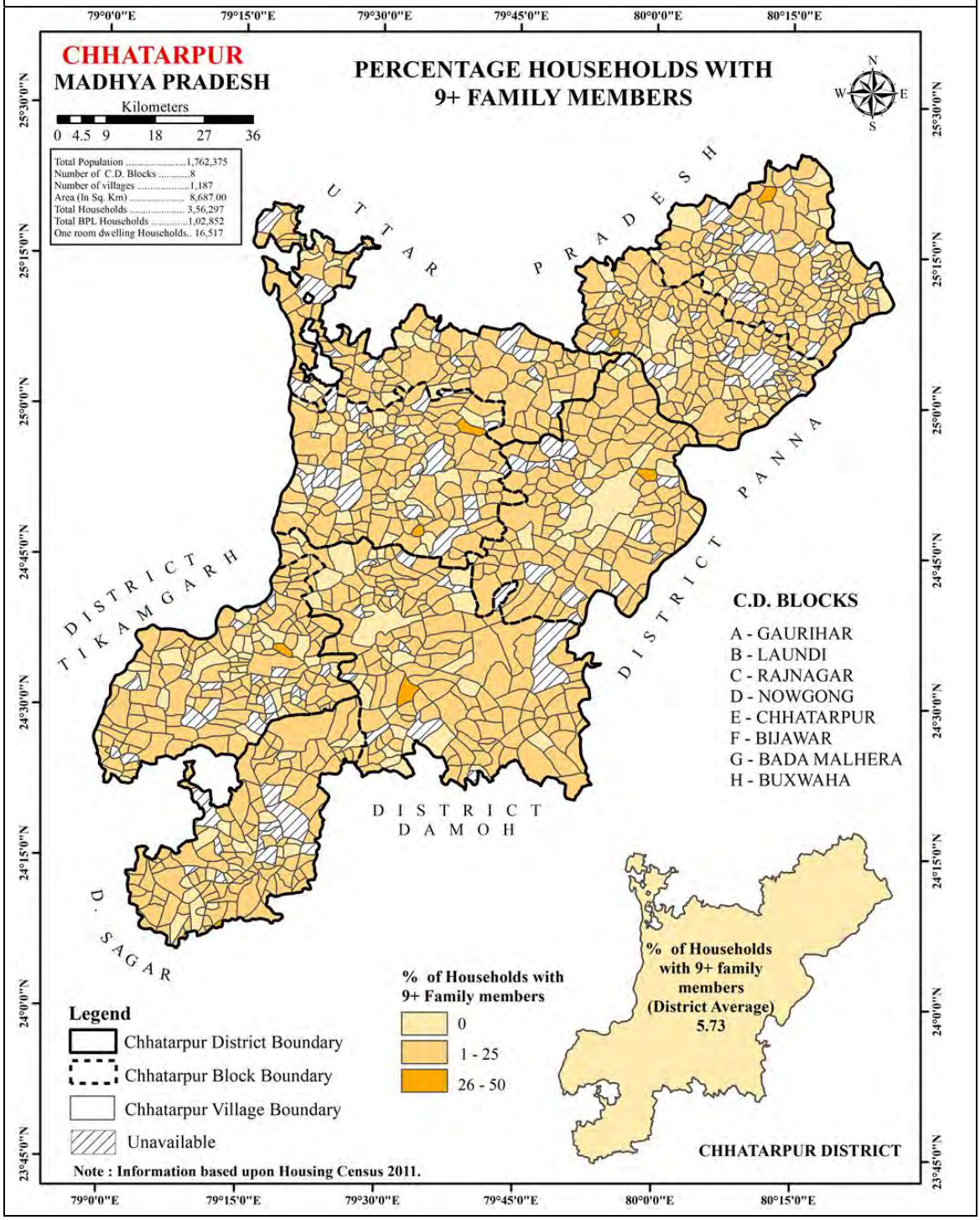



Average 50% households are those owning bicycles barring four tehsils where the percentage crosses 60% but remained under 70%. It is clearly seen in the graph above where affordability of bicycles is more (i.e. more percentage of households having bicycles) the percentage of households having none of the assets decreases. It implies that blocks like Nowgong, Maharajpur, Chhatarpur have better affordability of assets than other blocks in the district. Ghuwara is the only tehsil closely followed by Gaurihar where households having bicycle and those not having any of the assets matches at 40%.

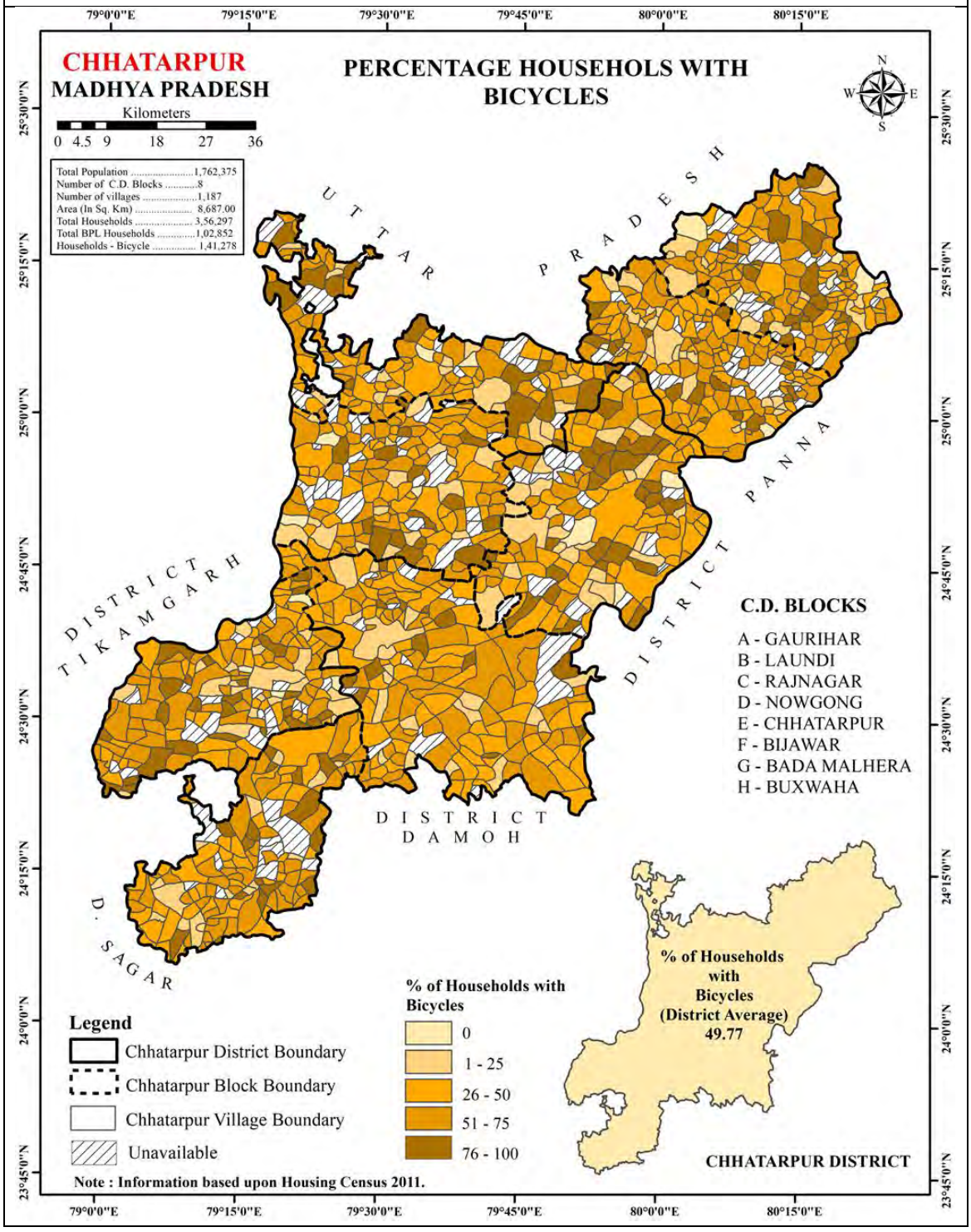
## MAP 27 – PERCENTAGE HOUSEHOLDS WITH ONE DWELLING ROOM



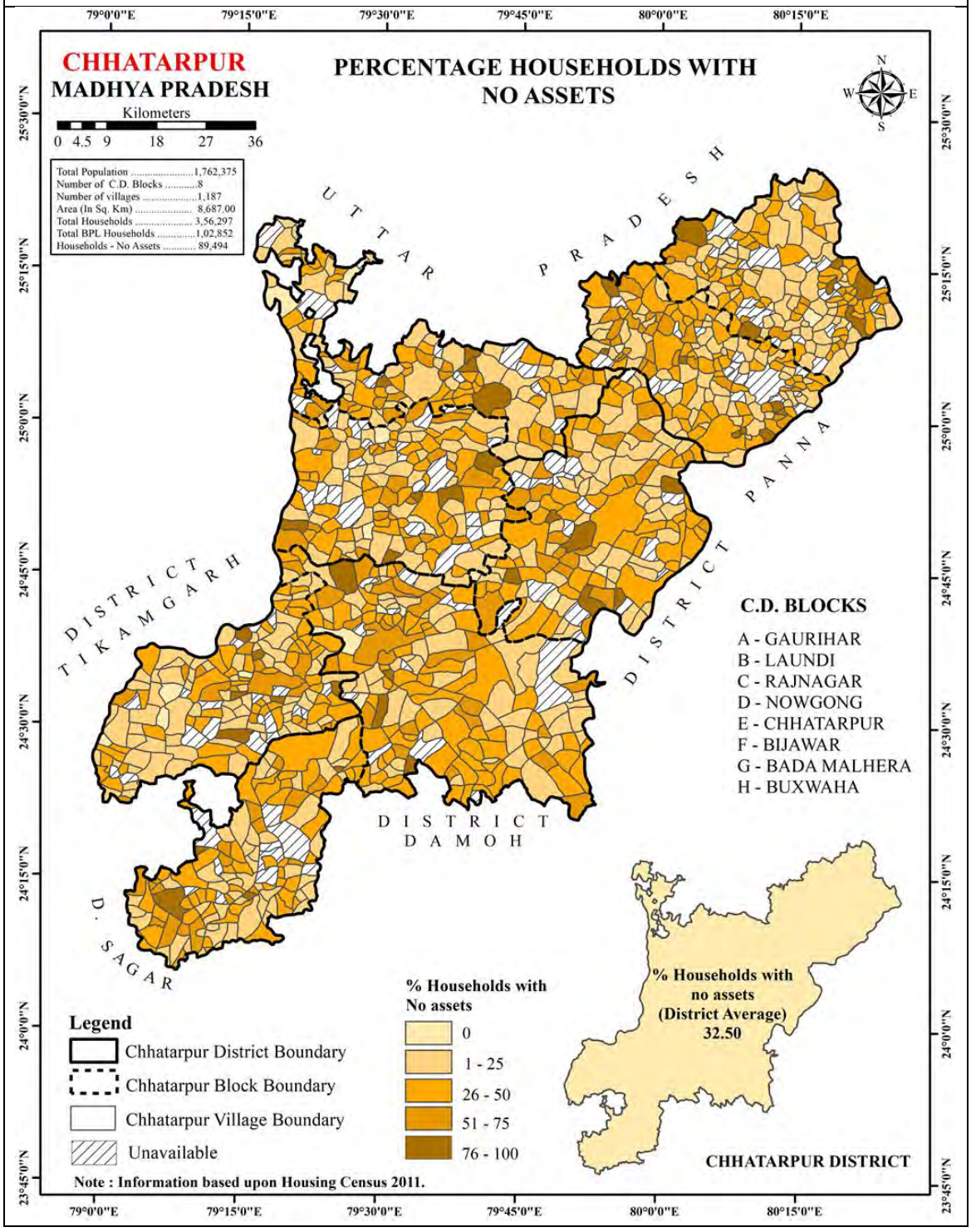
## MAP 28 – PERCENTAGE OF HOUSEHOLDS WITH MORE THAN NINE MEMBERS IN FAMILY



## MAP 29 – PERCENTAGE OF HOUSEHOLDS WITH BICYCLE



## MAP 30 – PERCENTAGE OF HOUSEHOLDS WITH NO ASSET



*Census of India's Houselisting and Housing Census Data provides 'percentage of households to total households with amenities and assets' containing diverse information which is thus helpful to see villages across parameters. The same was used to provide score and arrive at ranking among blocks.*

This ranking methodology is crude yet simple to get a first-hand idea of the scale of issues across different variables selected from the Census's Housing data. The type of materials used in the housing infrastructure highlights the local availability as well as affordability of the respective households, e:g thatch or grass roof may indicate access to these resources from the common land or the forest and on the same hand it hints on the affordability of the households who are without much cash income. Similarly, number of rooms reflect upon the occupancy and probably a large household which if turns into a nuclear family may require additional sources of income to build the infrastructure and henceforth.

Our PDS system also reflects upon the availability of kerosene which is largely used as a lighting source (lamp) and firewood majorly used as a cooking fuel across the districts. These variables among the many were chosen to get a reflection on the overall modest understanding of the region. For example, those households having temporary structures and temporary building materials may provide a socio-economic situational analysis in absence of any other data – there will be deviations but to get a broad idea, this basic approach if followed.

Out of 10 variables for material of wall, we have chosen only those which are most likely to be used by low income or poor households. Similarly, out of 9 roof material variables, only two are chosen – thatch/grass/mud and plastic/polythene which again reflect on the affordability. *Basically finding out 'better among the worst'*. So the average of the district is taken as a cut off and percentage of households reflecting a particular variable is indexed with this average, which may be higher than the average value, equivalent or lower.

The variable entries are sorted in ascending order, the average is taken as the base from which variation (percent) of each tehsil is calculated, if the value of variable is less than the average and it has a variation 25-50 it is given Score 1 (better); if the variation from the average is >50 but <75, its given Score 2 and if variation is from >75 but < or = 100 i.e. above average it is given Score 3 and if the variation crosses 100, its given a score 4. This marks the basic ranking criteria. So the overall rankings of each variable across the block is added and again sorted in the ascending order, the block getting a low score reflects it is better off than the other blocks and the highest score block indicates it is the worst, however there may be very less variation in certain blocks so they can be treated more or less as similar status.

In case of bicycle (+ve variable), a reverse ranking criteria is used, i.e. those blocks where high percentage of households have bicycles have been kept at a better

ranking (rank 1) rather than using the usual (above) criteria of >100% deviation as getting rank 3. Those households possessing bicycle as a commuting mode is the bare minimum what one can afford due to remoteness and no public transport for short distances, even a poor household will make an effort to have one bicycle which has multi utility of its own. Those having absolutely no assets will be low ranked.

Ranking of Districts as per data reflected in Census's Housing Data on assets and amenities

| | **Components from Housing Census** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tehsil | Dilapidated (2.5) | temporary structure (6.5) | roof av (7.88) | Wall (9.51) | no. of hh one room (36.50) | HH size (37.44) | handpump (50.18) | HP away (37.58) | Bicycle (50.88) | none assets (29.64) | Cooking Fuel (82.89) | kerosene (54.95) | Total | Rank |
| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV |
| Nowgong | 2 | 1 | 1 | 1 | 2 | 4 | 3 | 2 | 4 | 2 | 3 | 3 | 28 | 1 |
| Bada Malhera | 3 | 1 | 1 | 1 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 2 | 33 | 2 |
| Chhatarpur | 3 | 3 | 3 | 1 | 3 | 4 | 4 | 3 | 4 | 2 | 3 | 2 | 35 | 3 |
| Ghuwara | 4 | 1 | 1 | 1 | 4 | 2 | 4 | 3 | 3 | 4 | 4 | 4 | 35 | 3 |
| Maharajpur | 3 | 4 | 4 | 1 | 2 | 4 | 2 | 4 | 4 | 2 | 4 | 2 | 36 | 4 |
| Rajnagar | 2 | 3 | 3 | 1 | 4 | 4 | 3 | 4 | 4 | 2 | 4 | 3 | 37 | 5 |
| Gaurihar | 2 | 4 | 4 | 1 | 2 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 38 | 6 |
| Buxwaha | 4 | 2 | 3 | **4** | 4 | 2 | 2 | 3 | 2 | 4 | 4 | 4 | 38 | 6 |
| Laundi | 2 | 4 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 40 | 7 |
| Bijawar | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 41 | 8 |
| Chandla | 3 | 4 | 4 | 1 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 41 | 8 |

*Note: 1. Numericals in Column 1 to 12 are respective scores, Column 13 presents the total score of the block. 2. Figures in parenthesis represent district averages of a particular component*

The difference between the high and low rank tehsil is of 13 points (score). Chhatarpur & Ghuwara share the same rank (3) and similarly Gaurihar and Buxwaha (6) and Bijawar-Chandla tehsils share the same rank (8). These two are at the bottom.

Variation from the District average among specific components is as below;

- More proportion of households with temporary structures in Gaurihar (variation 277% from the district average)
- Similarly more proportion of households with roof type as (grass/thatch/plastic) in Gaurihar (variation 237% from the district average)
- High proportion of households with wall material as (thatch/bamboo/grass/stone) in Buxwaha (variation 619% from the district average)

- Buxwaha has the high proportion of households with none of assets (telephone/mobile, 2-wheeler/4-wheeler, television/radio/computer etc.) (variation 155% from district average)
- Gaurihar and Chandla has more proportion of households with Kerosene usage (variation 150% from the district average)
- Firewood as a cooking fuel is uniformly high in all tehsils, the district average is 82.89% of households using firewood.

The recent poverty data (in terms of BPL households) at the state level is reflected in the Government portal (Smagra) at the village level and the overall updated households as of 2018. BPL data is further categorised into different social groups like the Scheduled Tribes (ST), Scheduled Castes (SC), Other Backward Classes (OBC) and General. Examples of above poverty line households registered as below poverty line households is a common issue in most of the states which is a result of systemic failures and social challenges. But these also affect the entitlements to the deserving households and thereby diversion of entitlements to proxy or ineligible households.

*In the past*

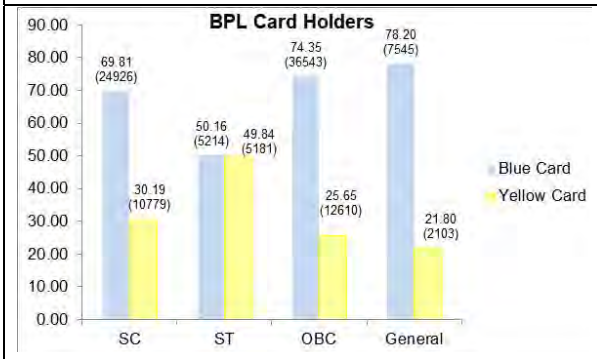
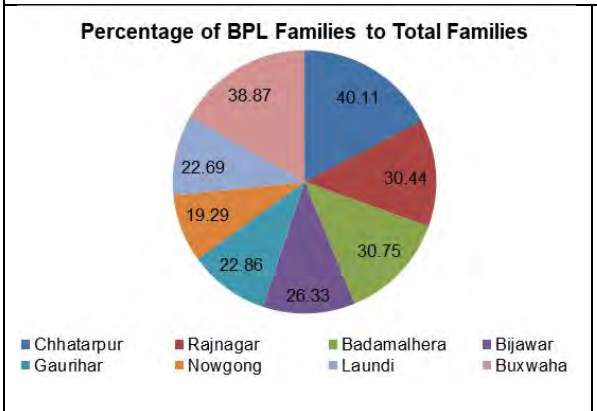
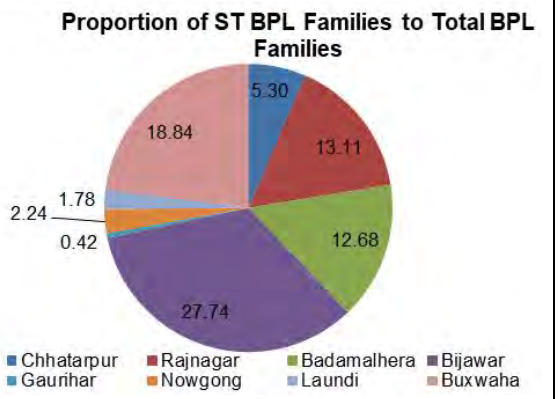
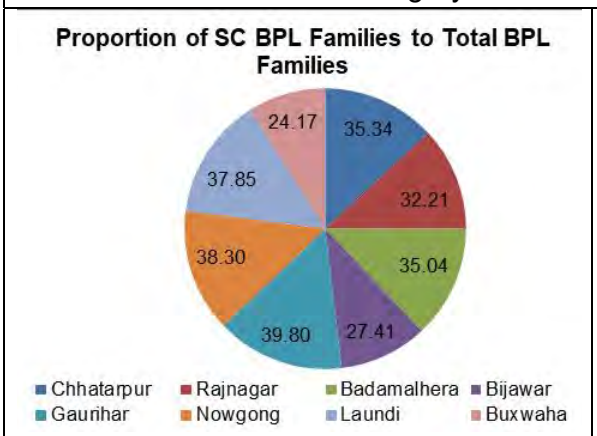
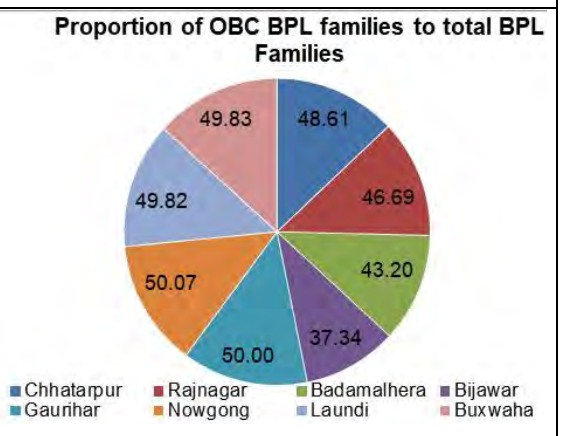
*Poverty[10] is generally observed to be concentrated among certain social groups and sectors. In MP, the incidence of poverty is highest among scheduled tribes (STs), followed by scheduled castes (SCs), other backward classes (OBC) and the rest, in that order. The burden of disadvantage is shared disproportionately by certain social groups and a dent in poverty requires attacking poverty amongst SCs, STs and other vulnerable groups. Similarly, rural poverty in most cases is higher than urban poverty (35.74% vis-à-vis 21% in 2011-12). As is well-known a large part of the urban poverty is an outcome of rural poverty. Development strategies with a rural focus thus become crucial for poverty reduction.*

Poverty data alone may not tell the complete story and to see a trend a combination of different themes are used together to know about a trend at the block level. Four sets of maps are being used here, BPL households is the base layer in all these four maps. Over this base layer, the following themes are being shown in terms of percentage or absolute numbers. The other data[11] i.e. households with one room, households with none of the assets registered by the Census data, percentage of marginal workers to total workers correspond to 2011 Census.

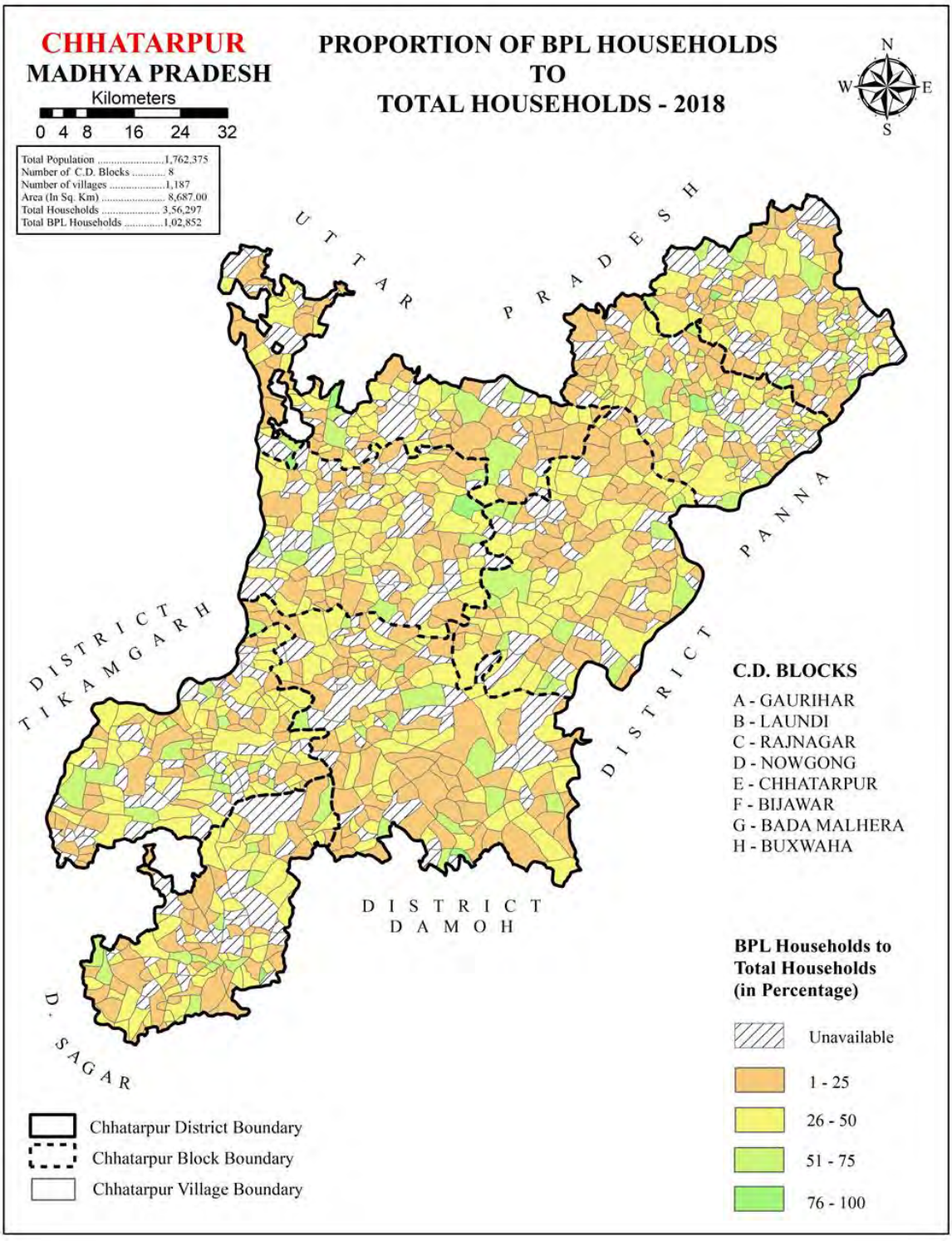
a) Percentage of ‘households with one room dwelling’ over the BPL base layer
b) Percentage of households with ‘family size more than 9 members’ over BPL over base layer
c) Percentage of households with ‘none of the assets’ over the BPL base layer
d) Proportion of ‘marginal workers to total workers’ over the BPL base layer

***Here BPL data is taken as a central theme and rest of the data is shown over it. The maps in the following sections are shown for each block. Thus four maps for each block are shown.***

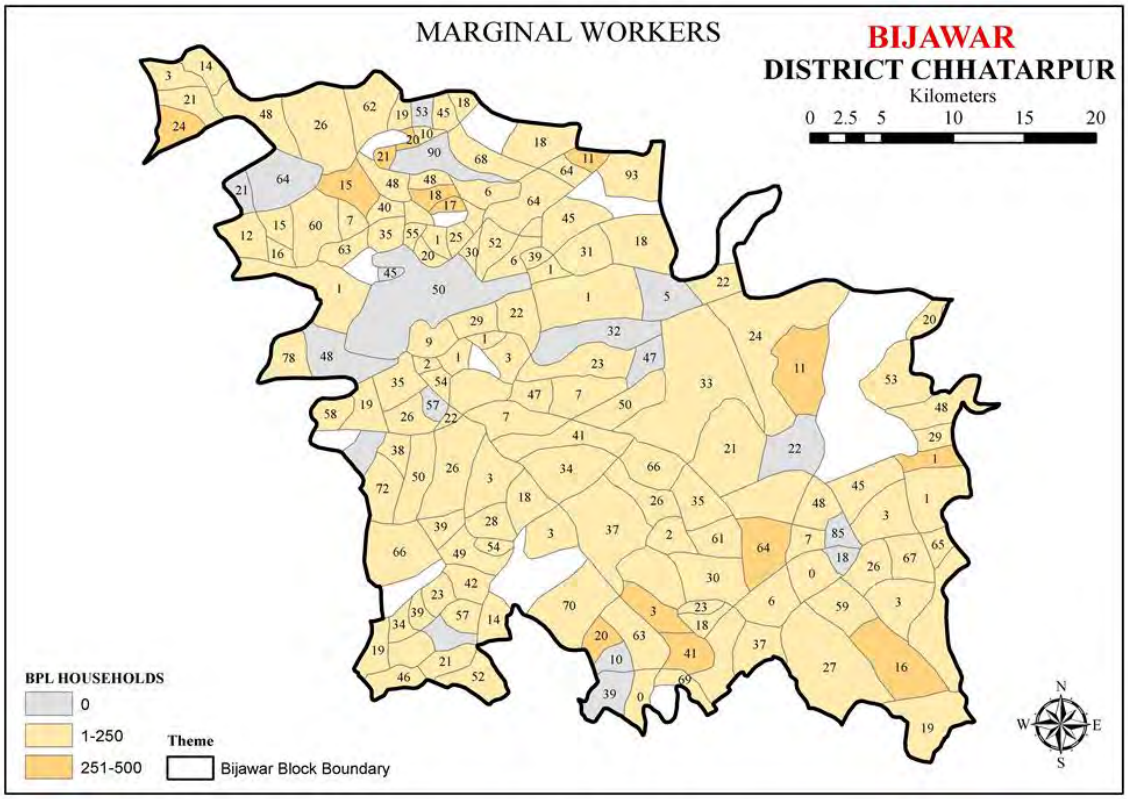
[10] Madhya Pradesh State MDG Report 2014-15
[11] Refer the section on housing

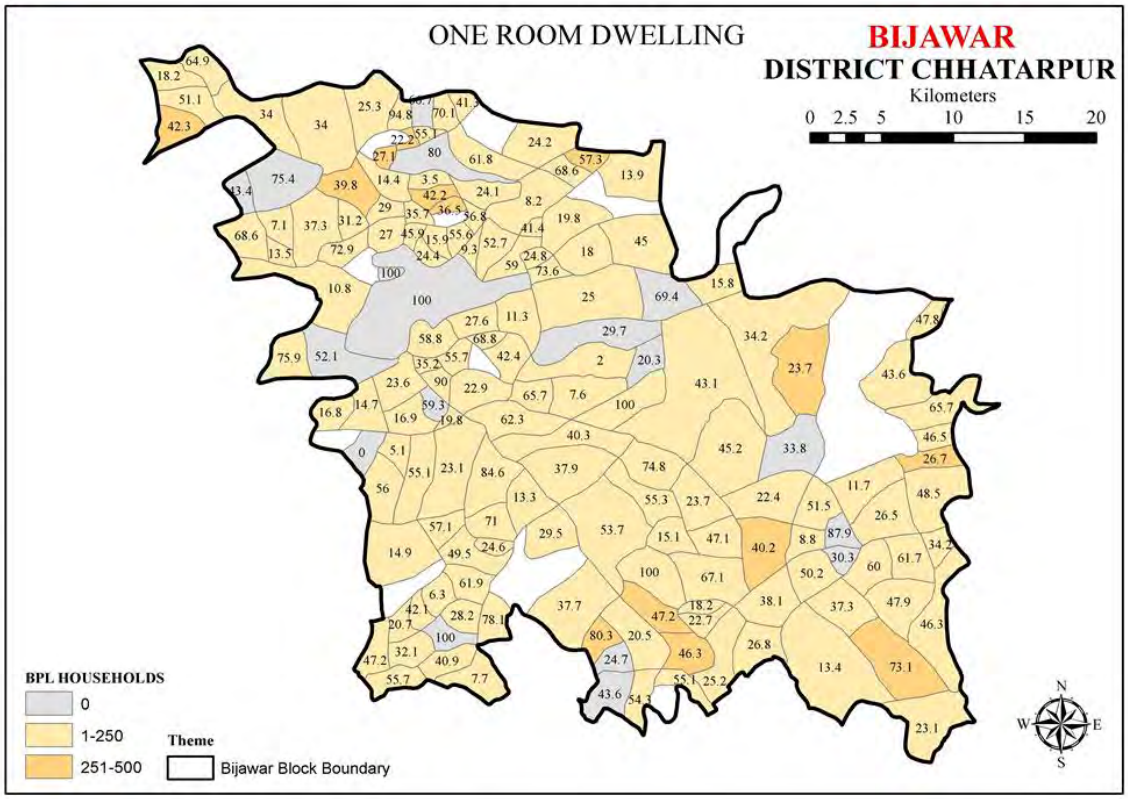
| Looking at BPL Social Groups | |
|---|---|
|  | One can notice that more proportion of yellow card holders or poorest of the poor in scheduled tribe category is more. Rest of the categories also have substantial number of households are entitled for the yellow card. Respective number of BPL families is mentioned within the bracket. Yellow card holders form 29% of the total BPL households. |
|  |  |
| 28.80% (1,04,901 families) of total families in Chhattarpur district are in the below poverty line category. | Proportion of ST BPL families is more in Bijawar, Buxwaha, Rajnagar and Badamalehra blocks. STs form 10% of total BPL families. |
| General category also form 9% of total BPL families. | |
|  |  |
| One can notice similarity in proportion of SC BPL families across the blocks, except Buxwaha and Bijawar. SC's form 34% of the total BPL Families. | Proportion of OBC BPL families is high among all the three social groups. OBC's form 47% of the total BPL families |

## MAP 31 – PROPORTION OF BPL HOUSEHOLDS TO TOTAL HOUSEHOLDS (2018)

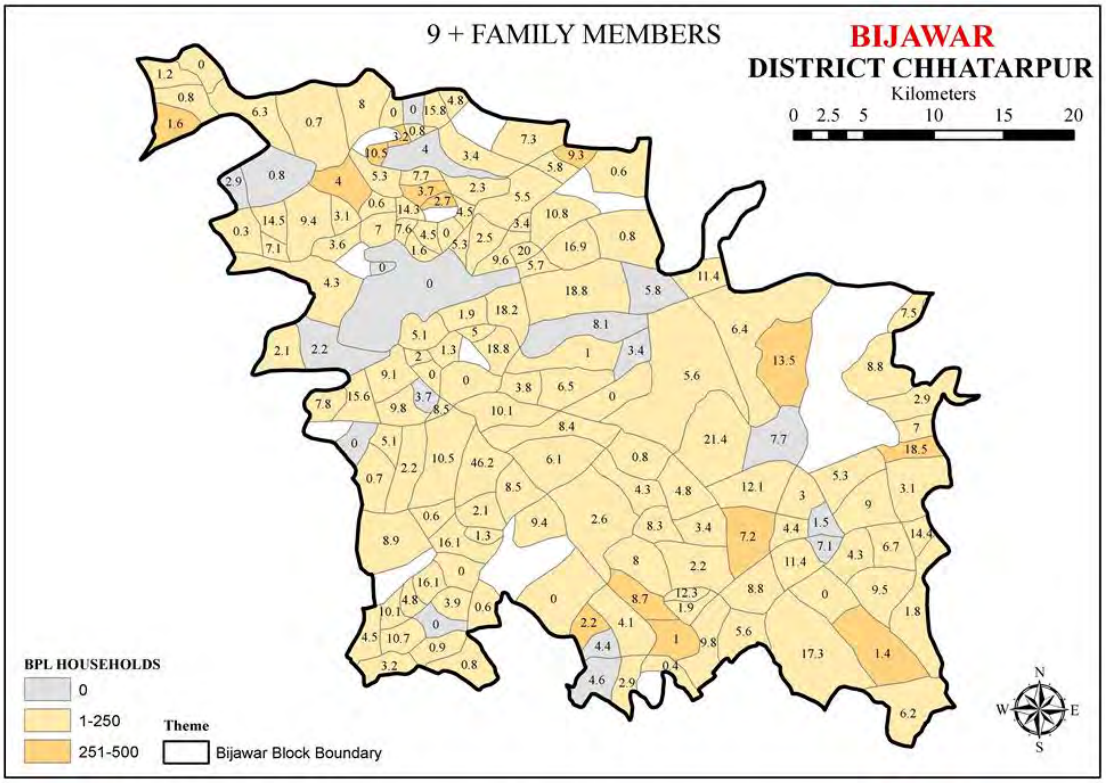


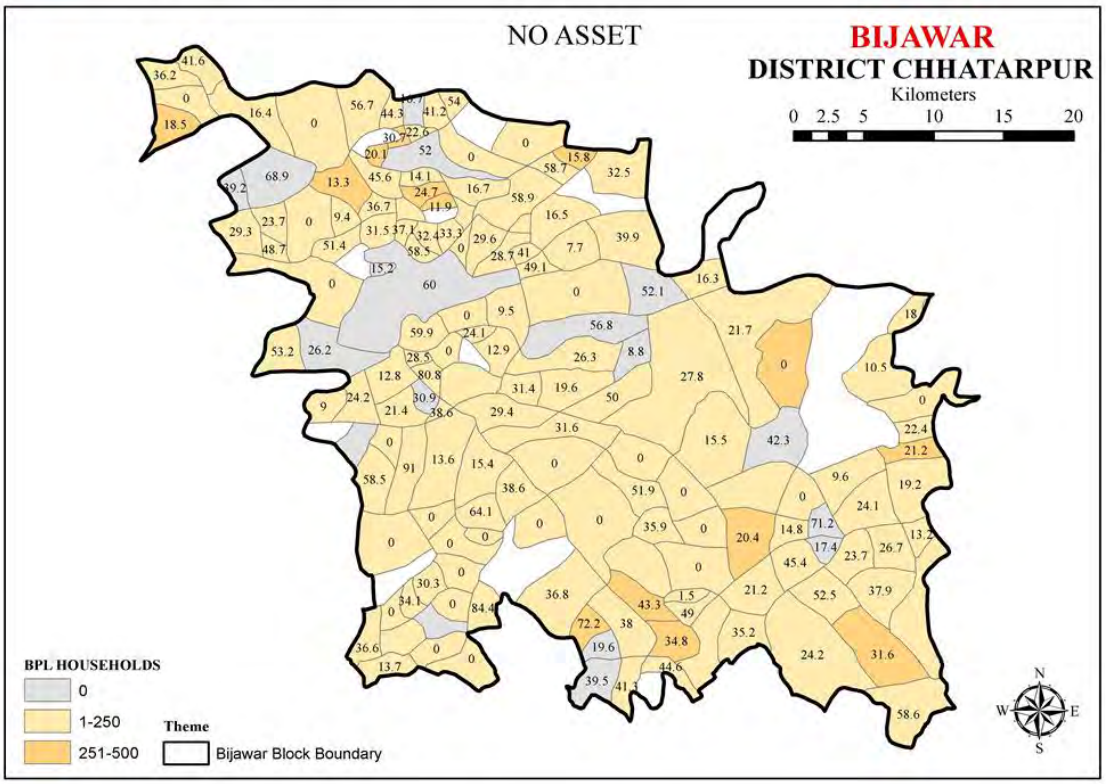
## MAP 32 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



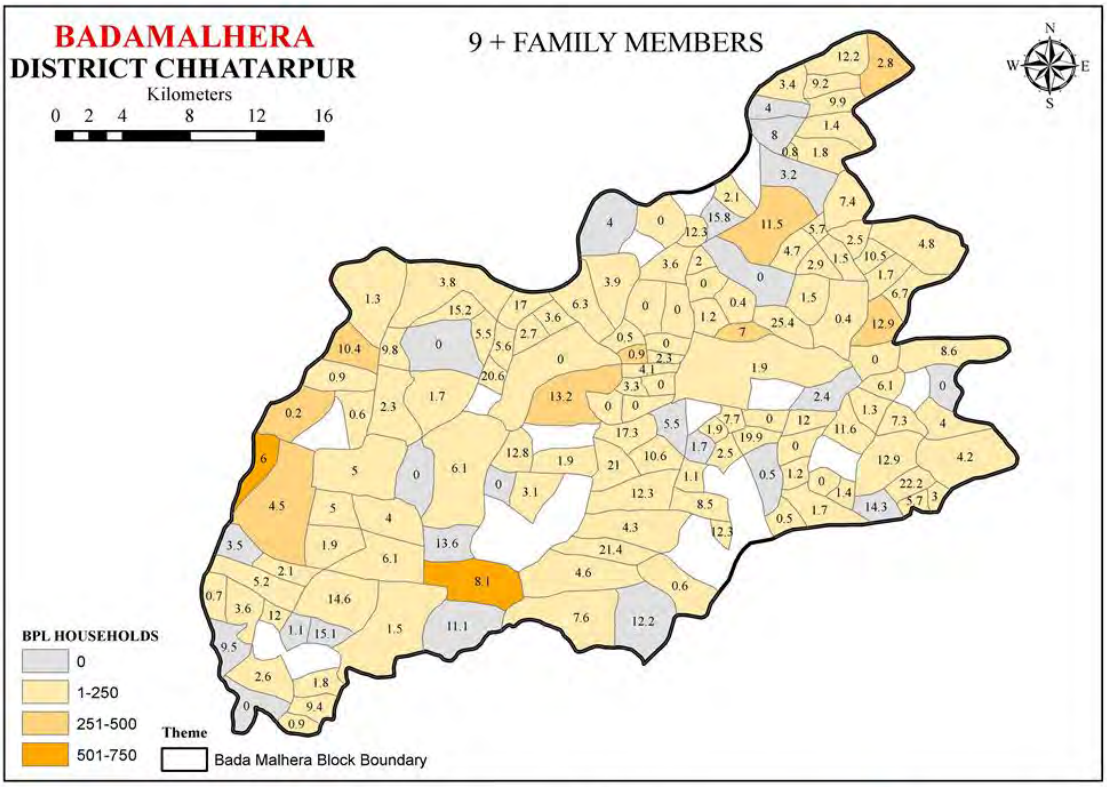



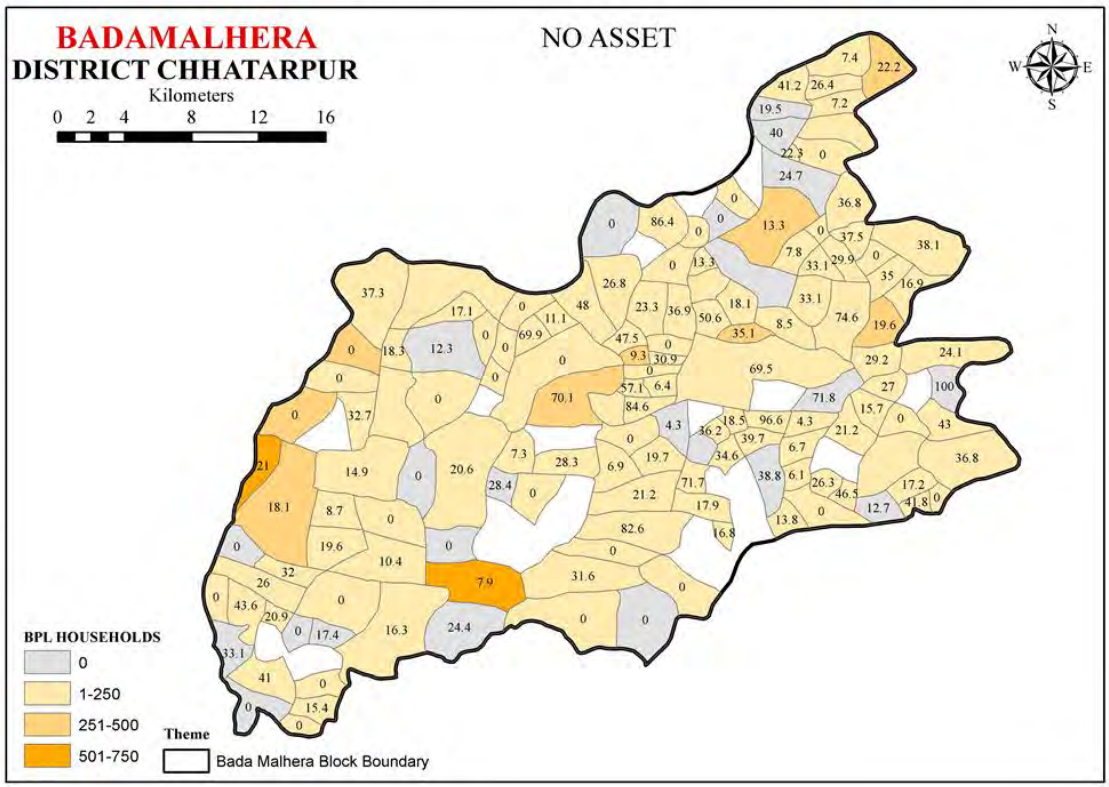
## MAP 33 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



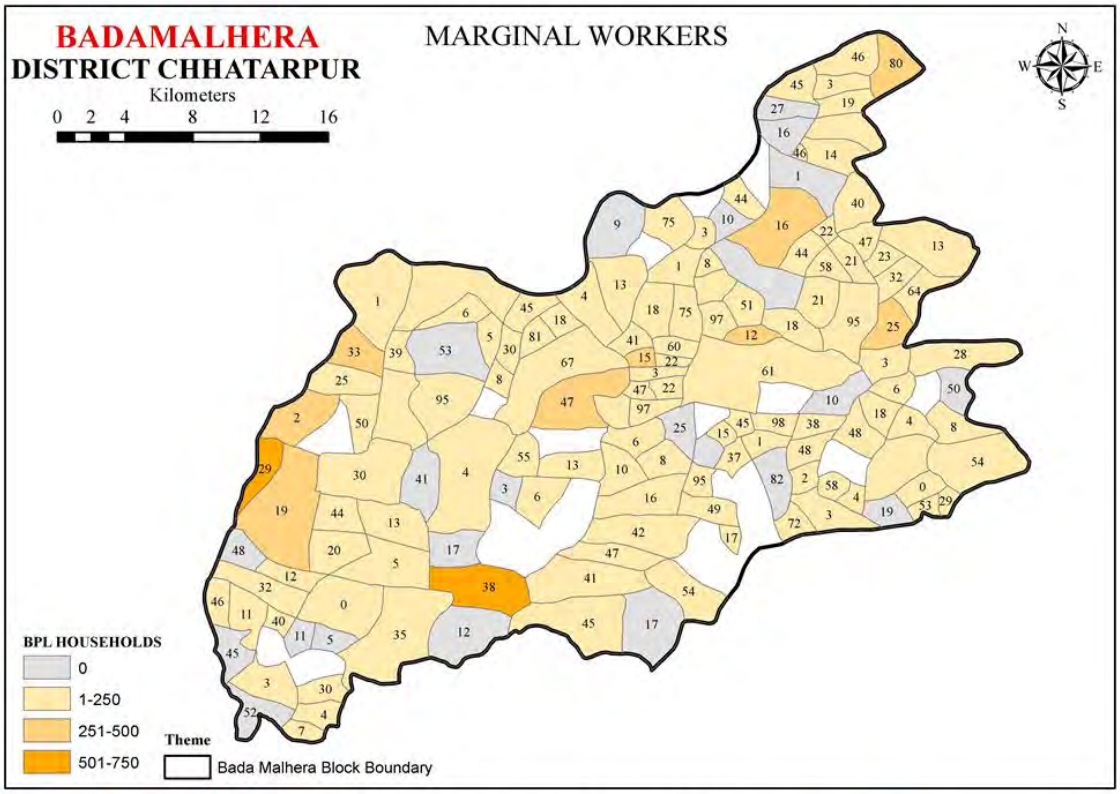



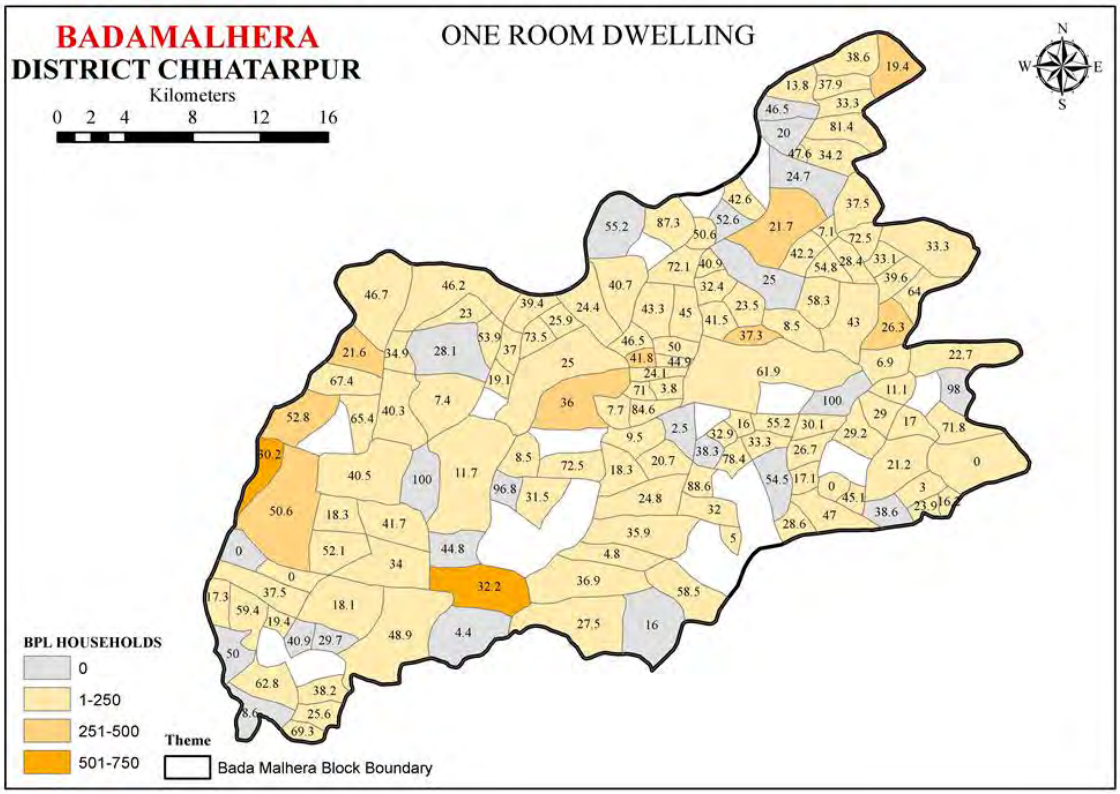
## MAP 34 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



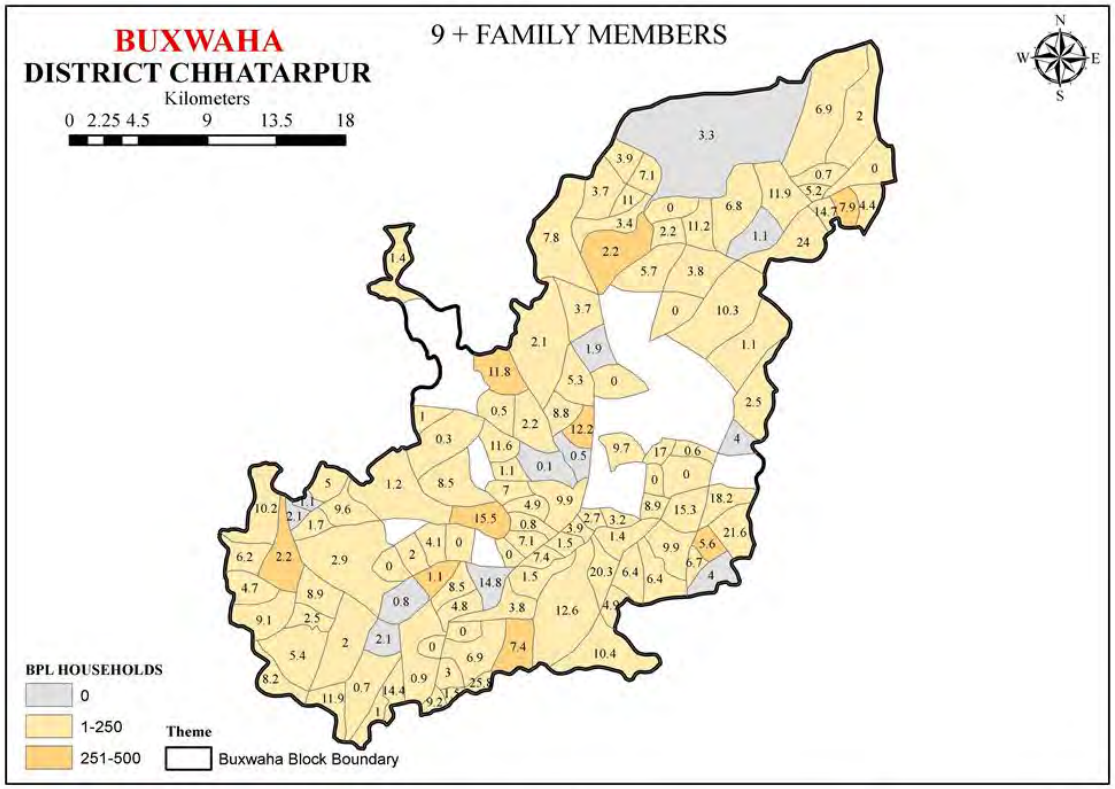



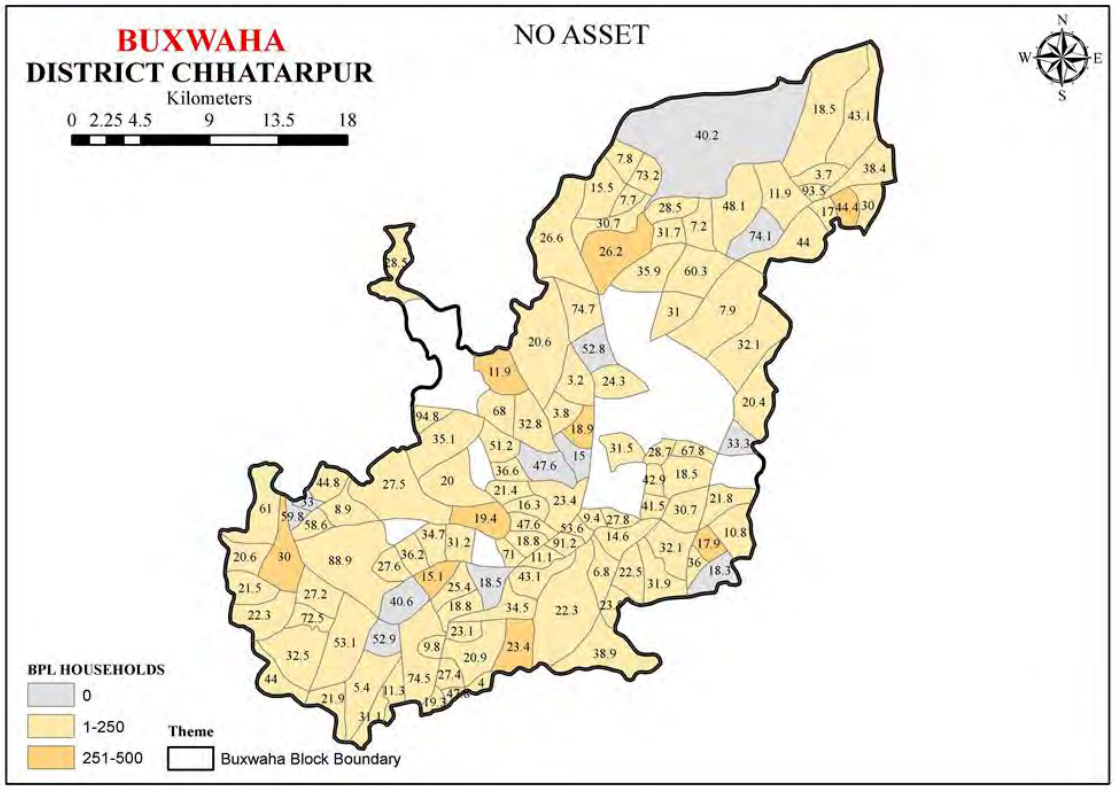
## MAP 35 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



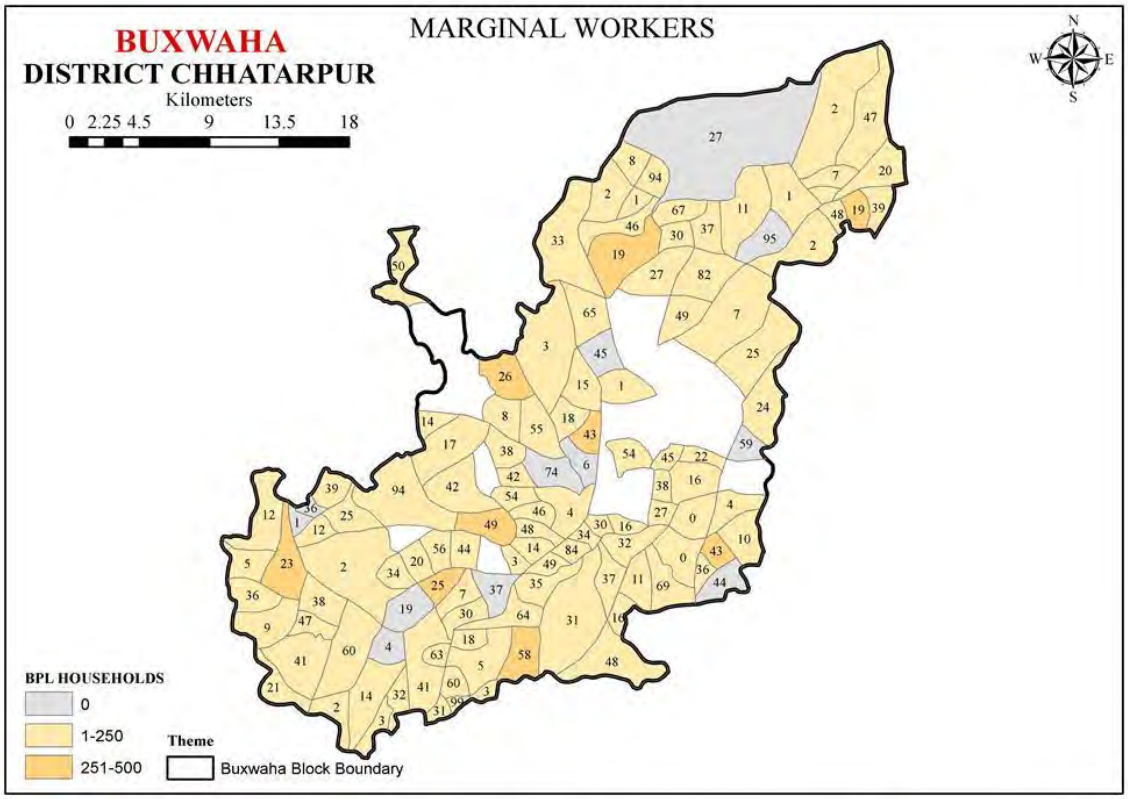



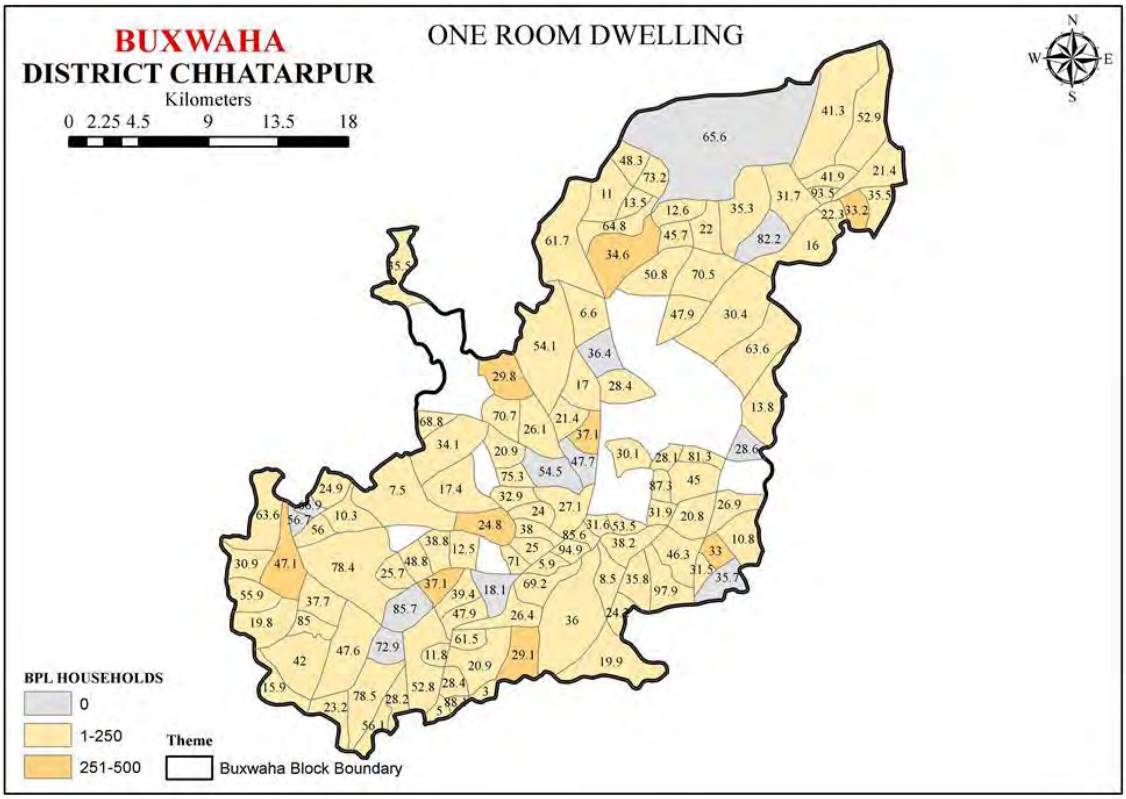
## MAP 36 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



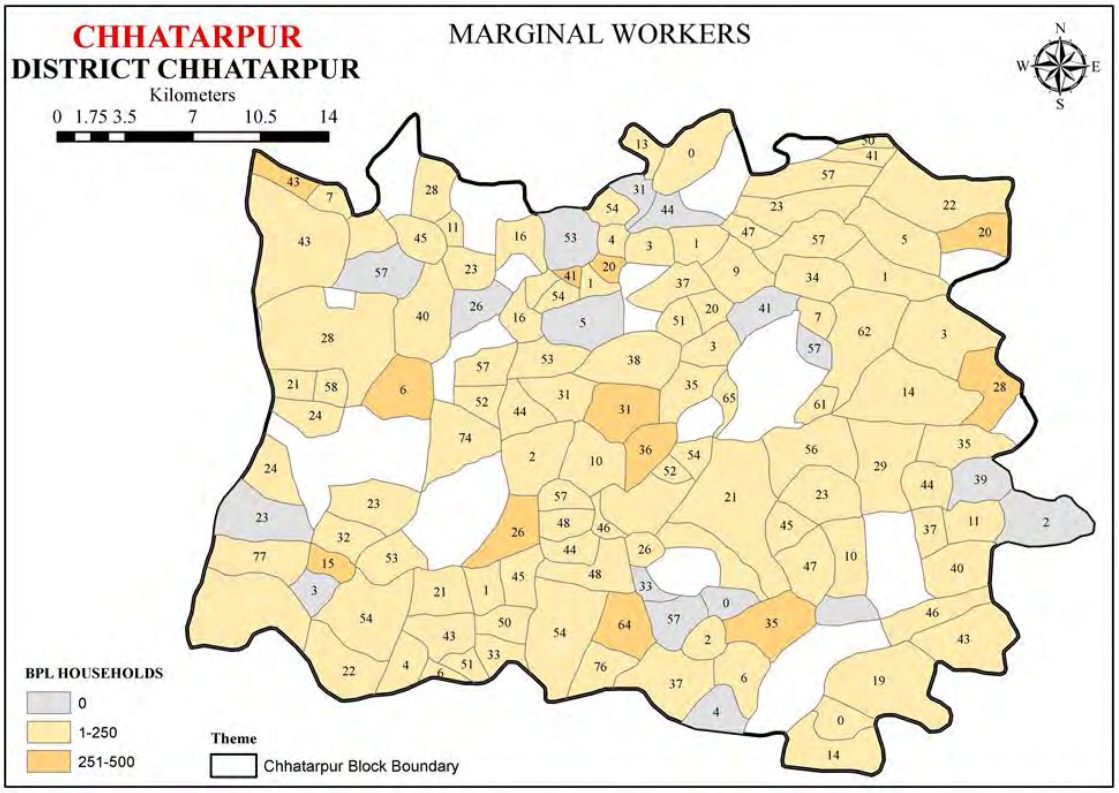



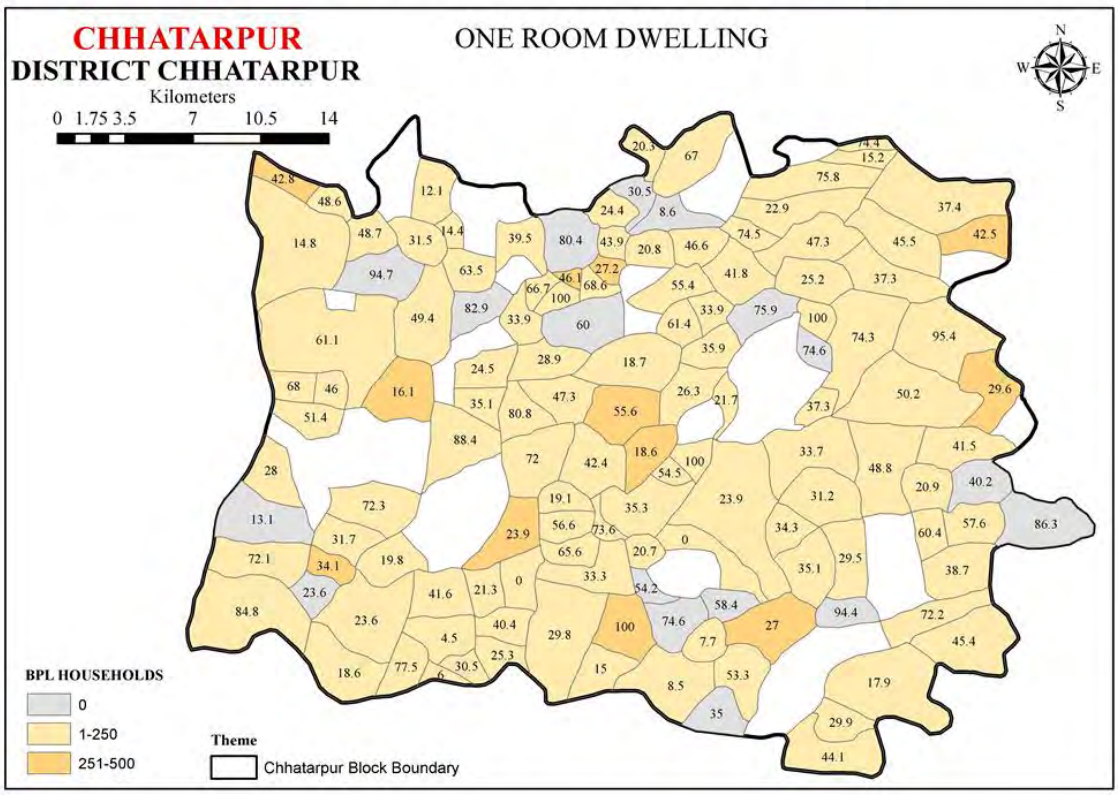
## MAP 37 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



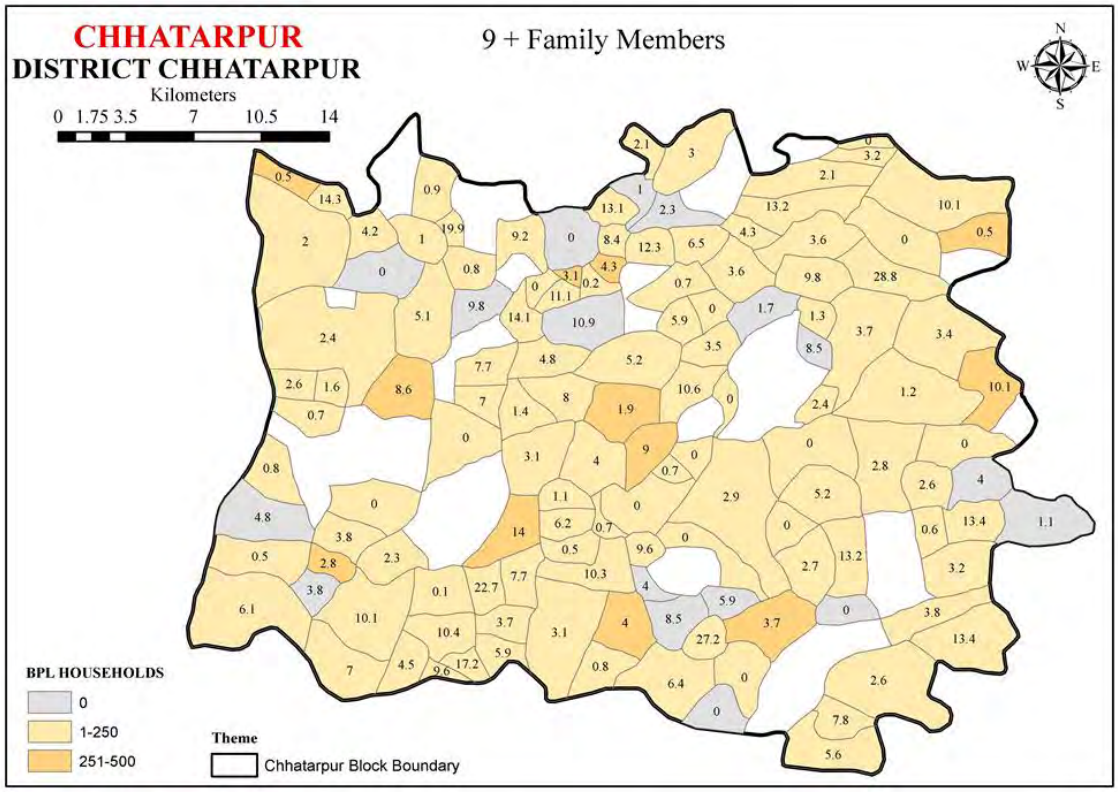



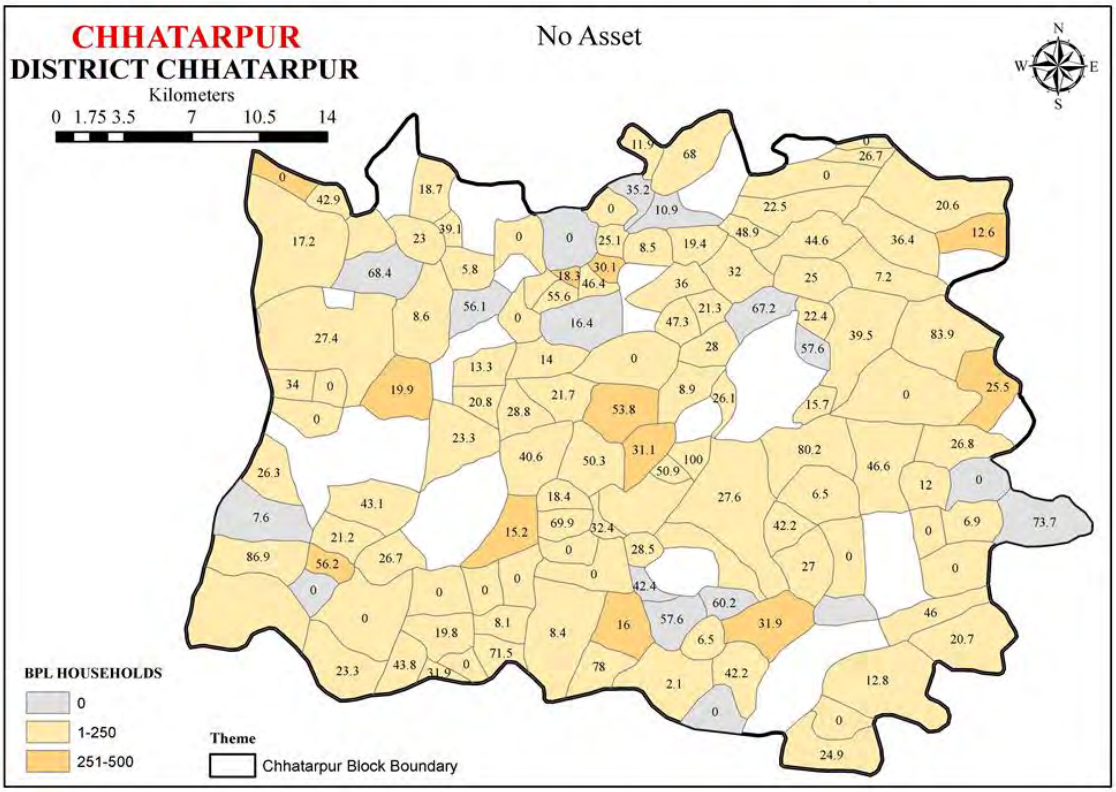
## MAP 38 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



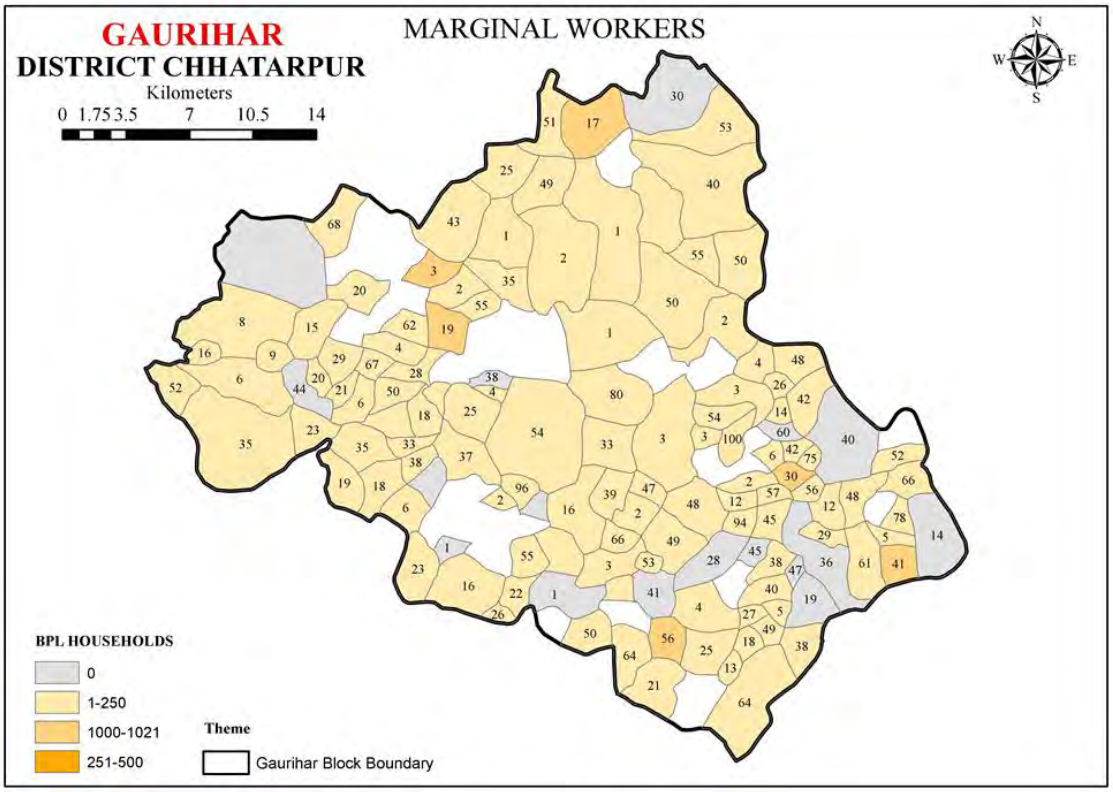



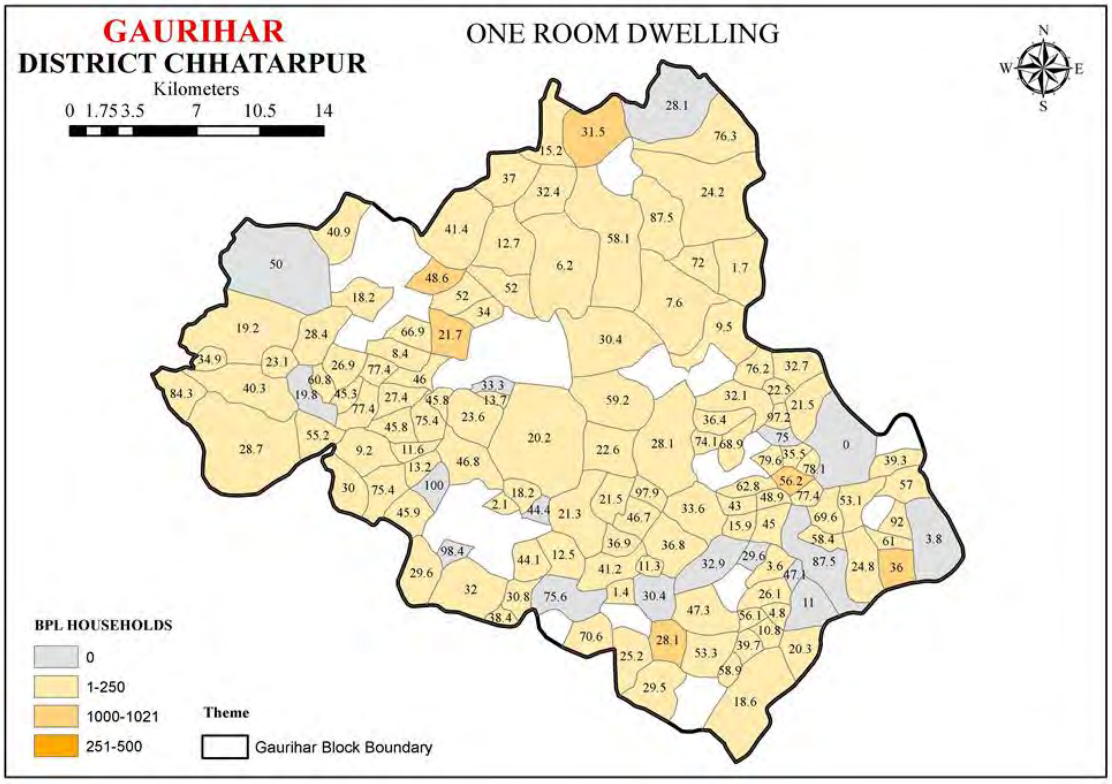
## MAP 39 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



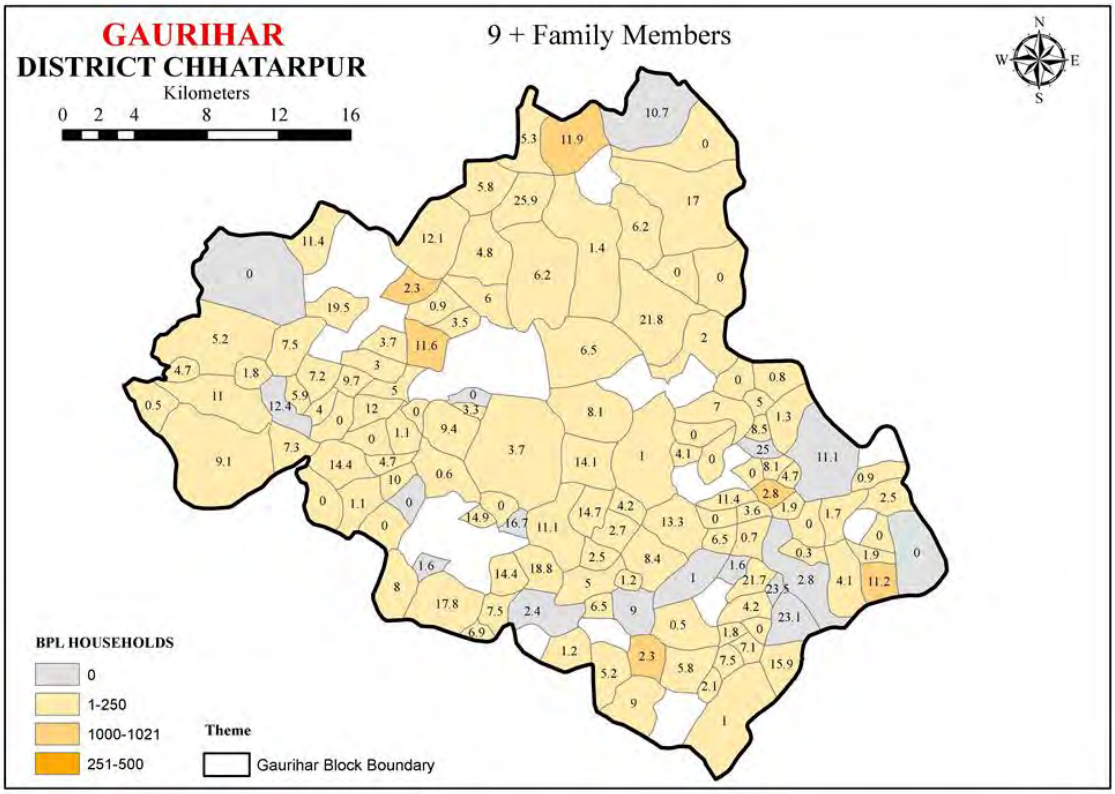



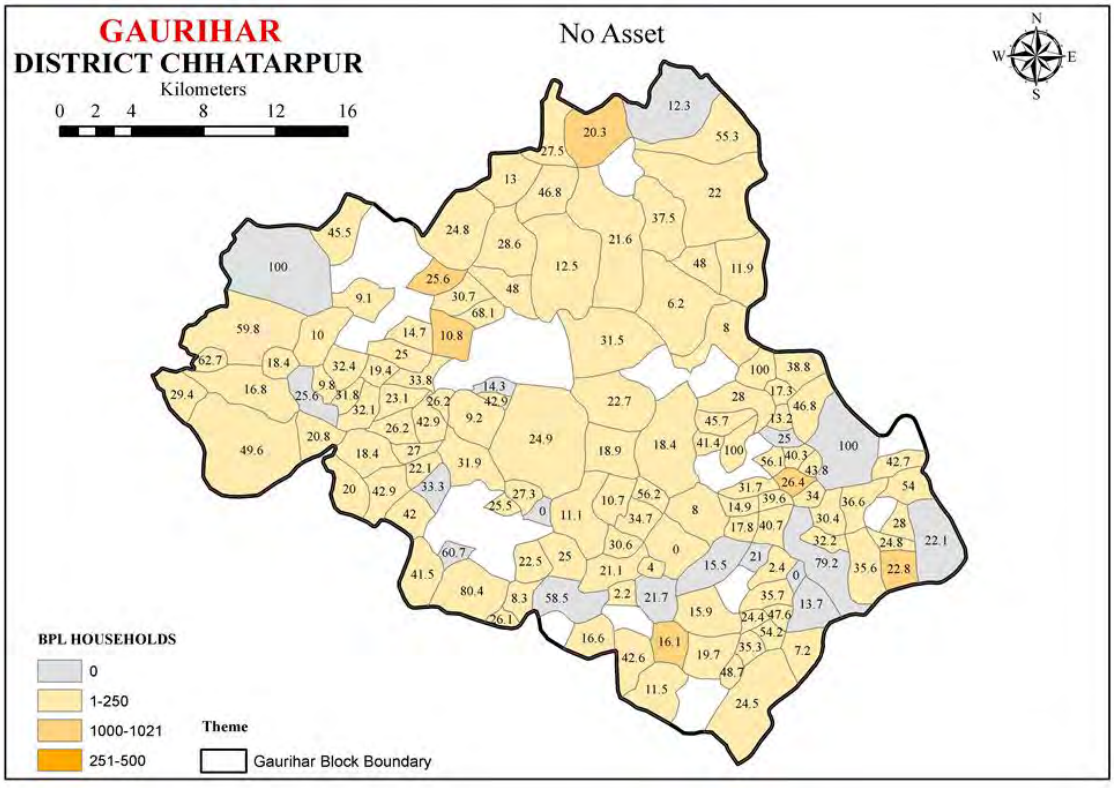
## MAP 40 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



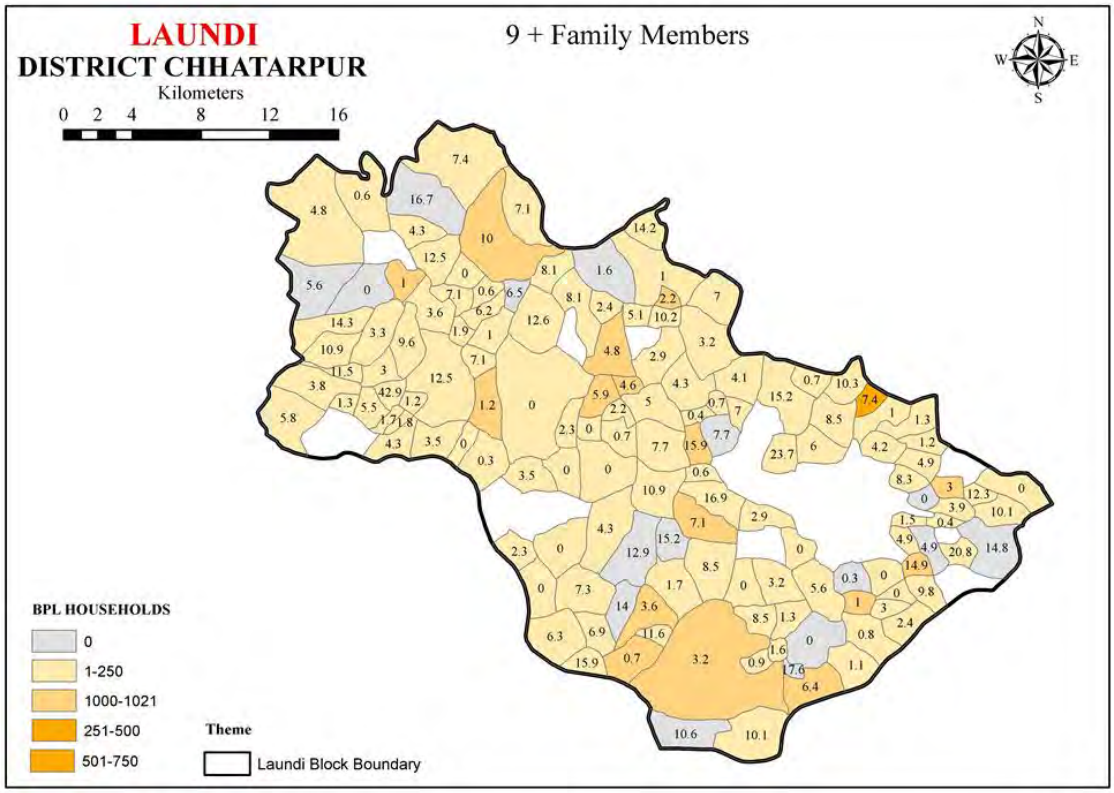



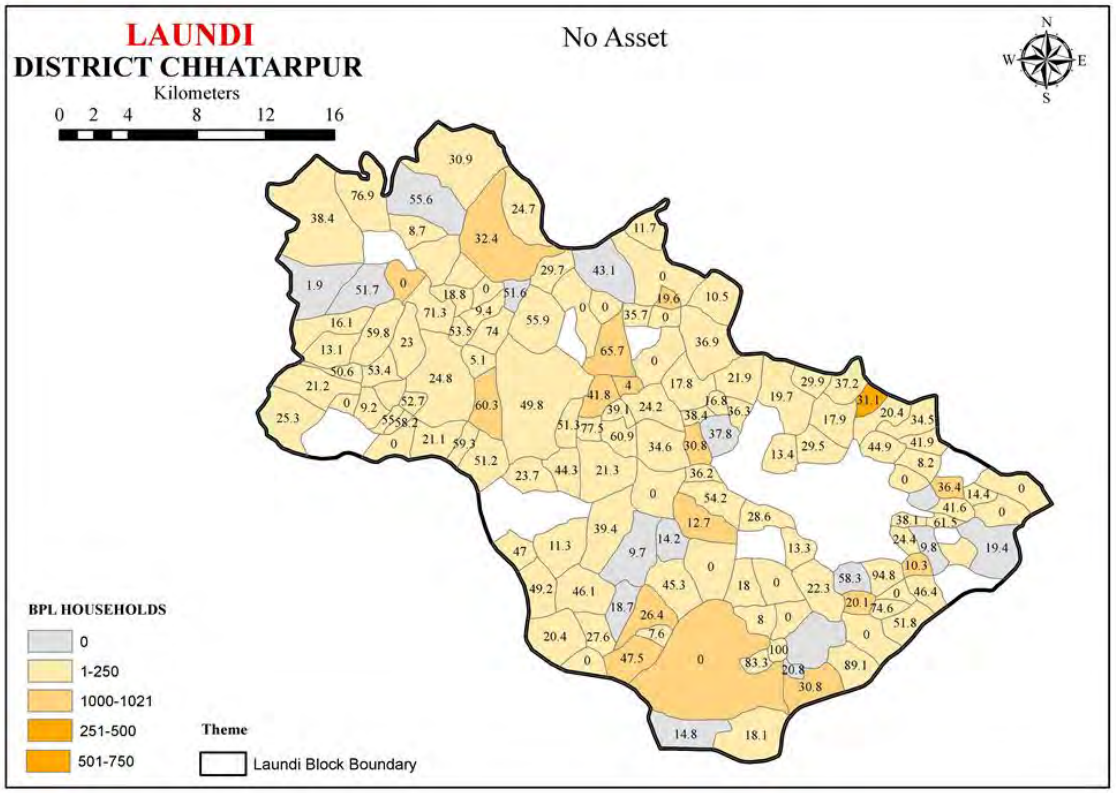
## MAP 41 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



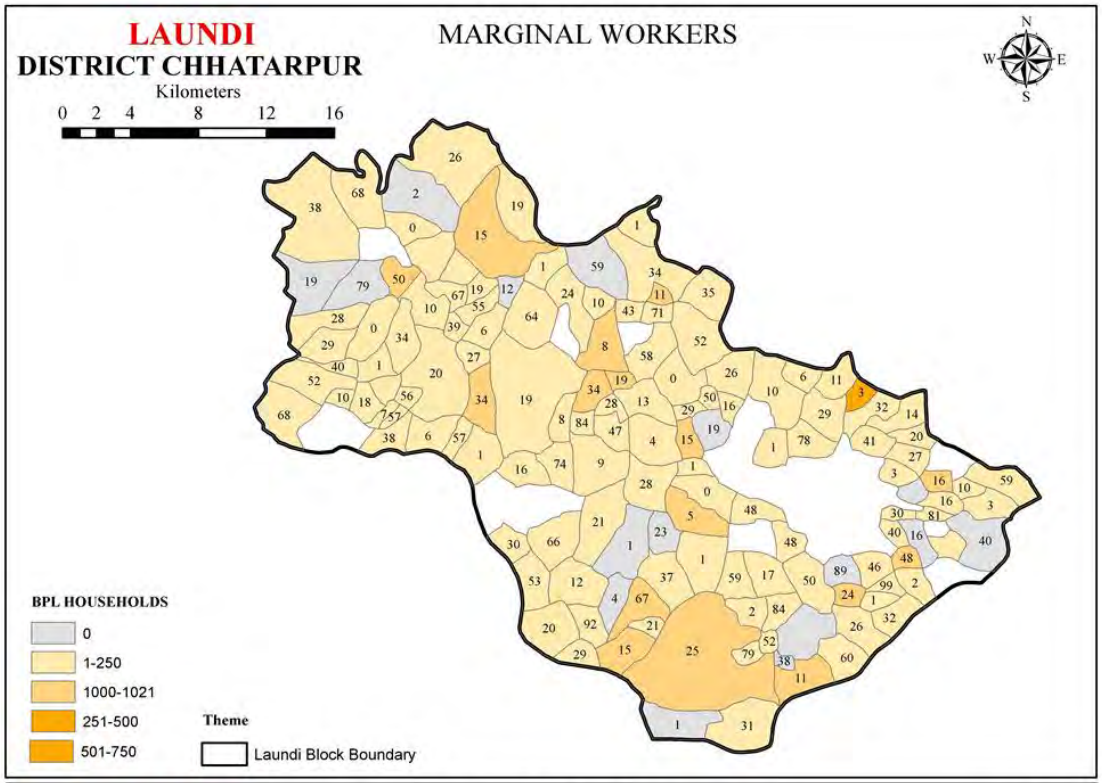



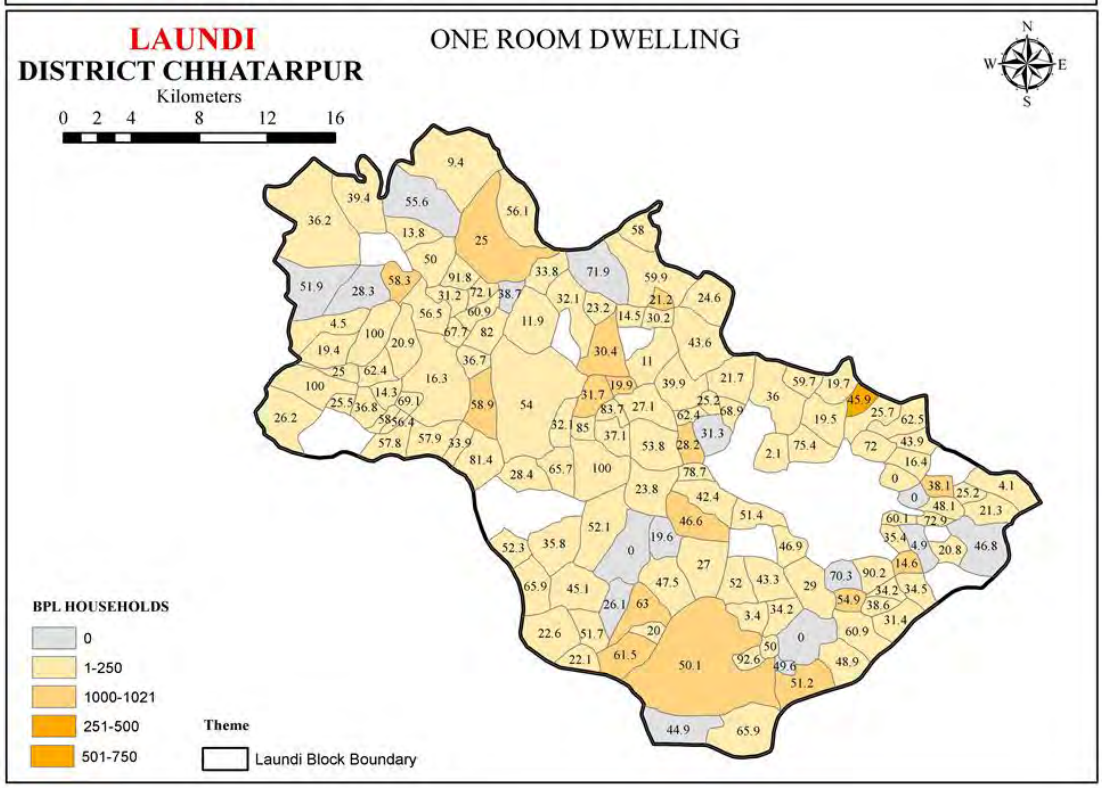
## MAP 42 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



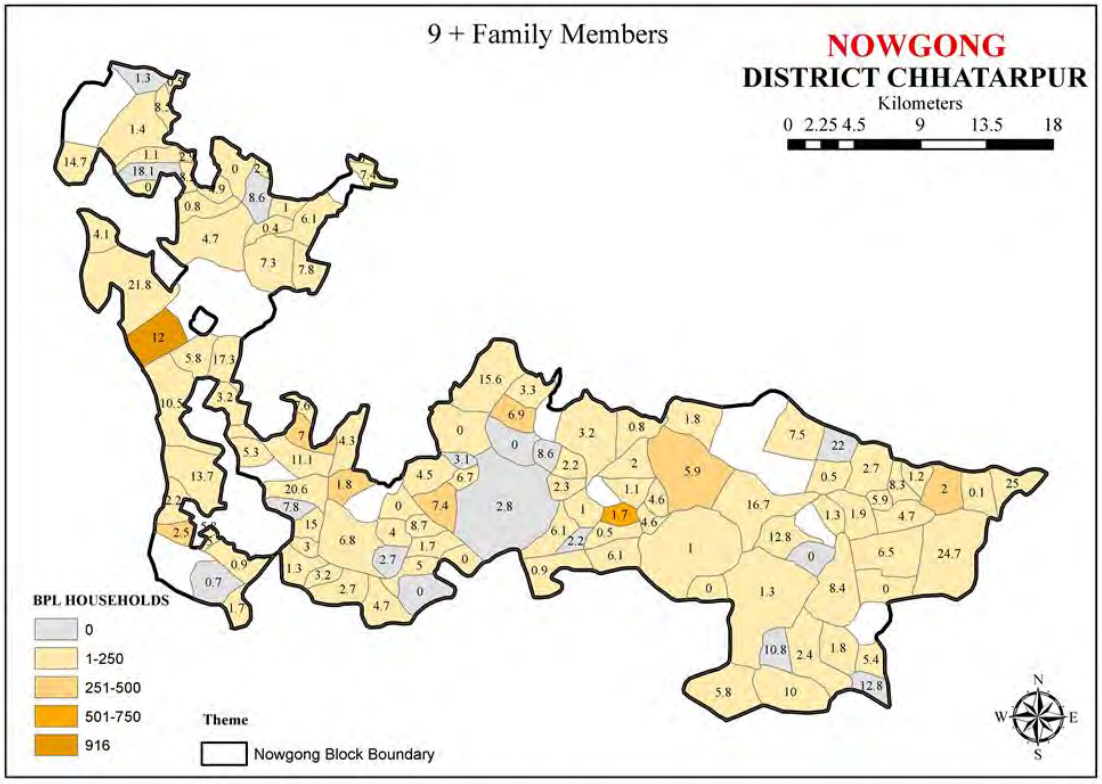



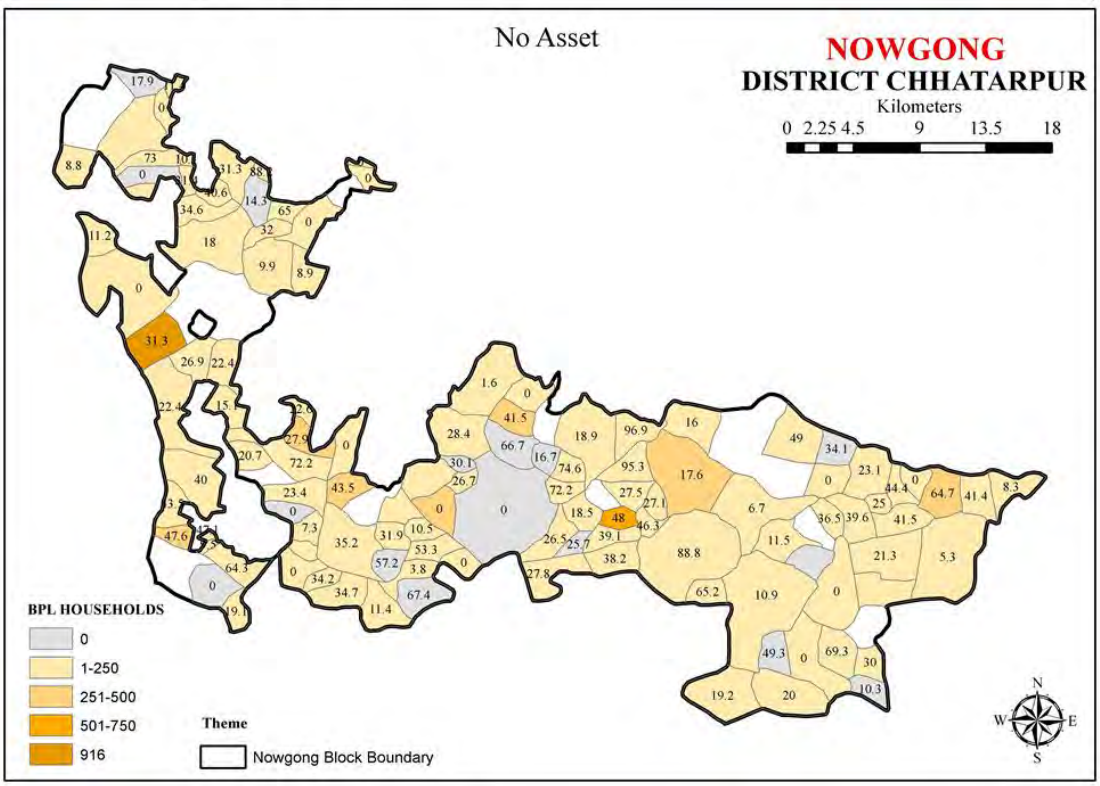
## MAP 43 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



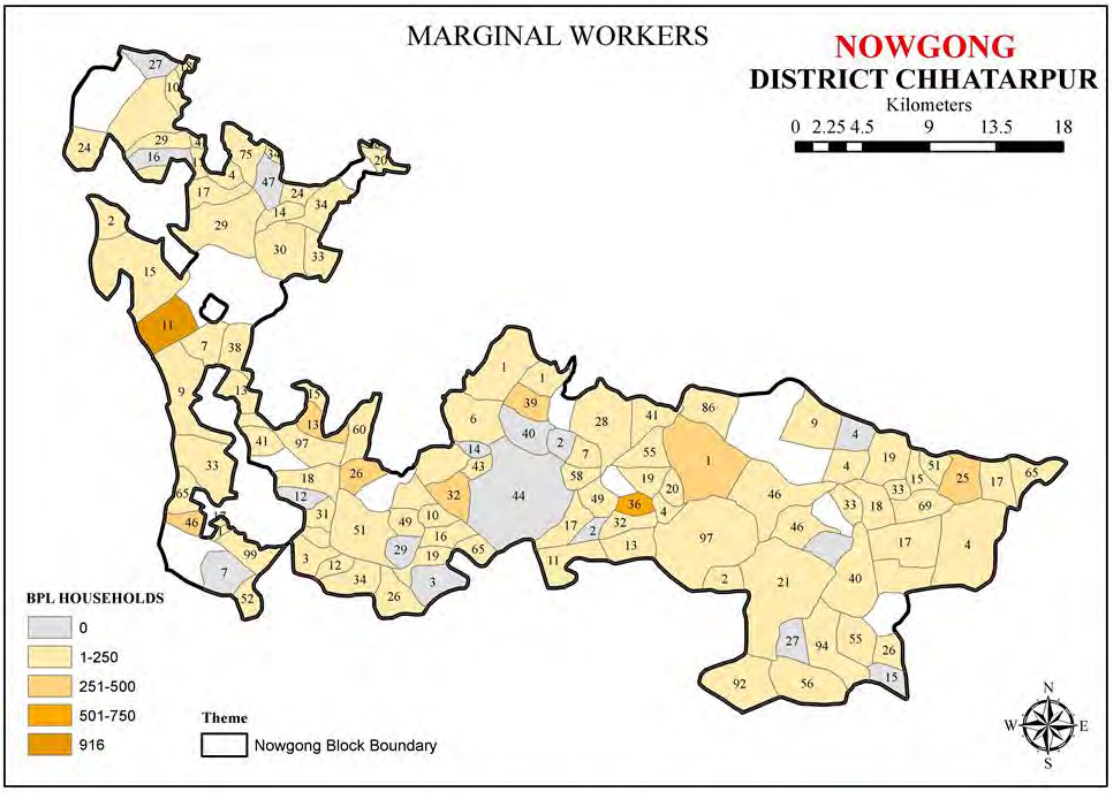



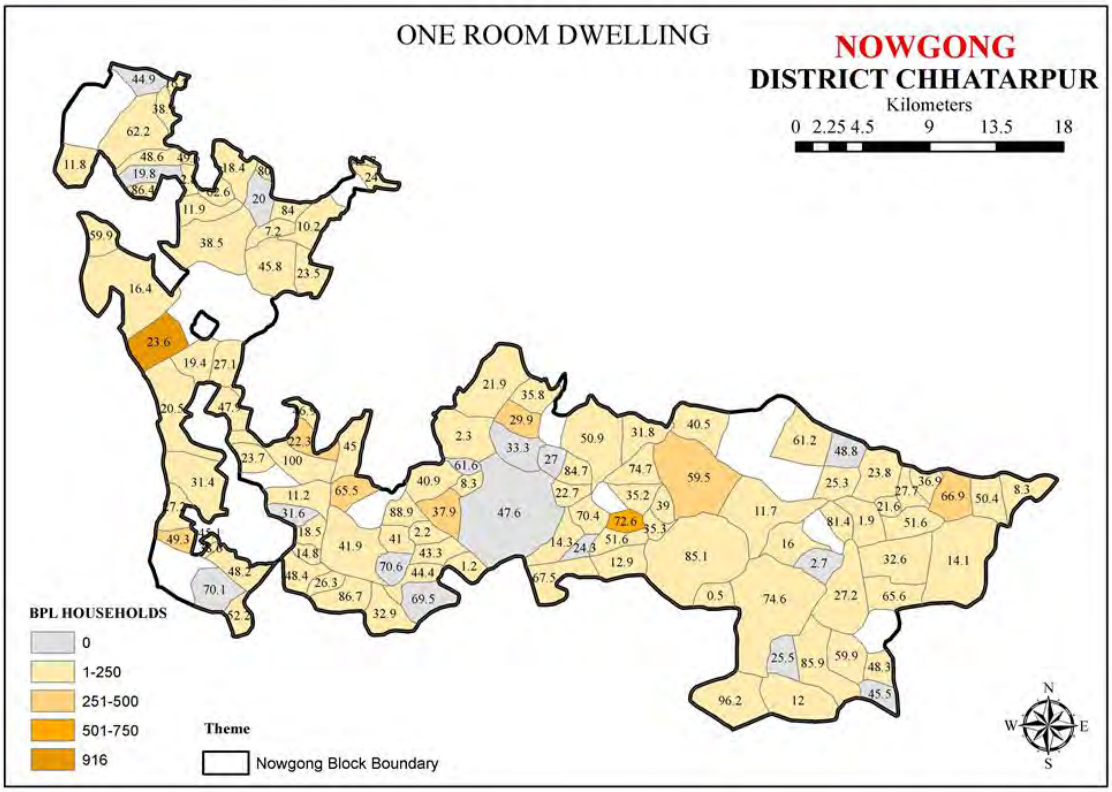
## MAP 44 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



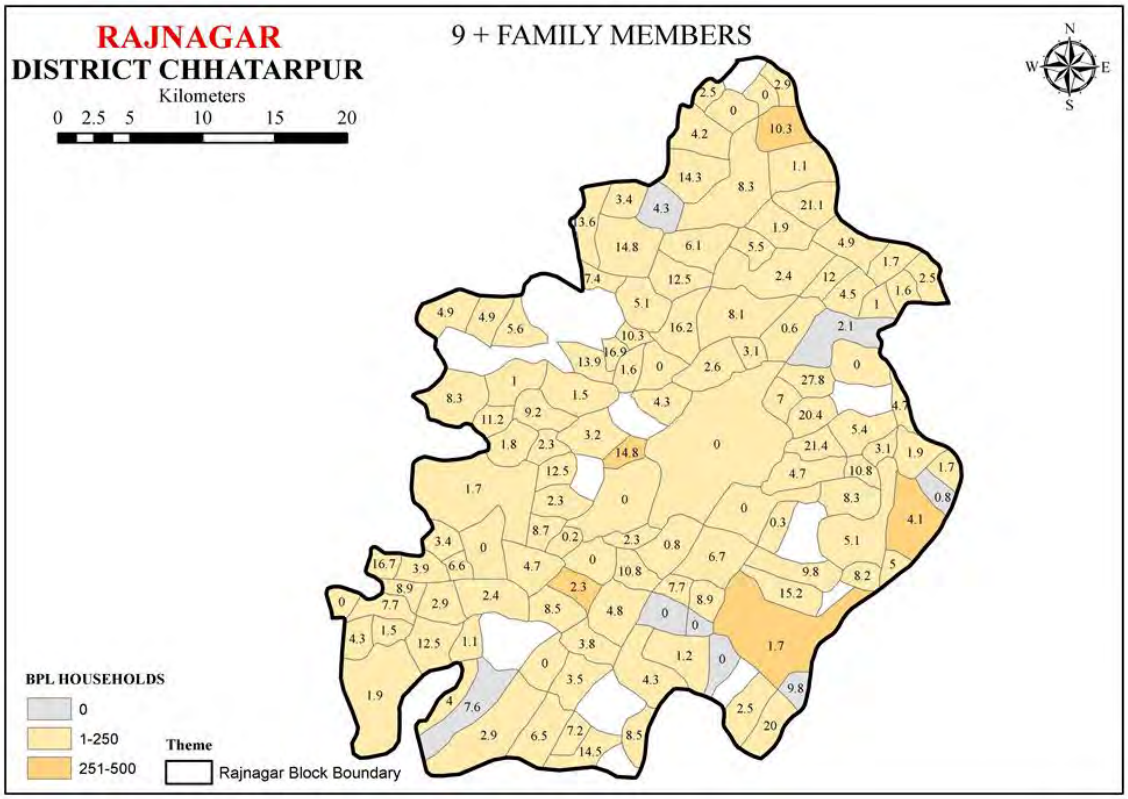



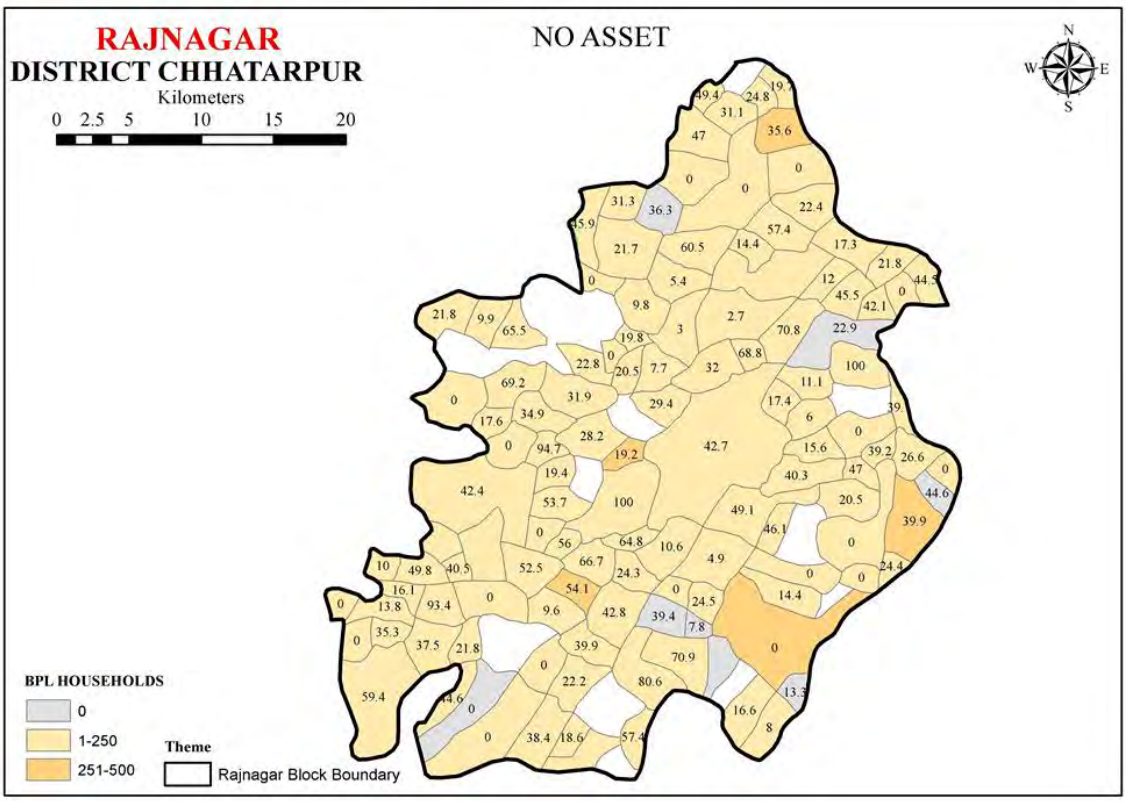
## MAP 45 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



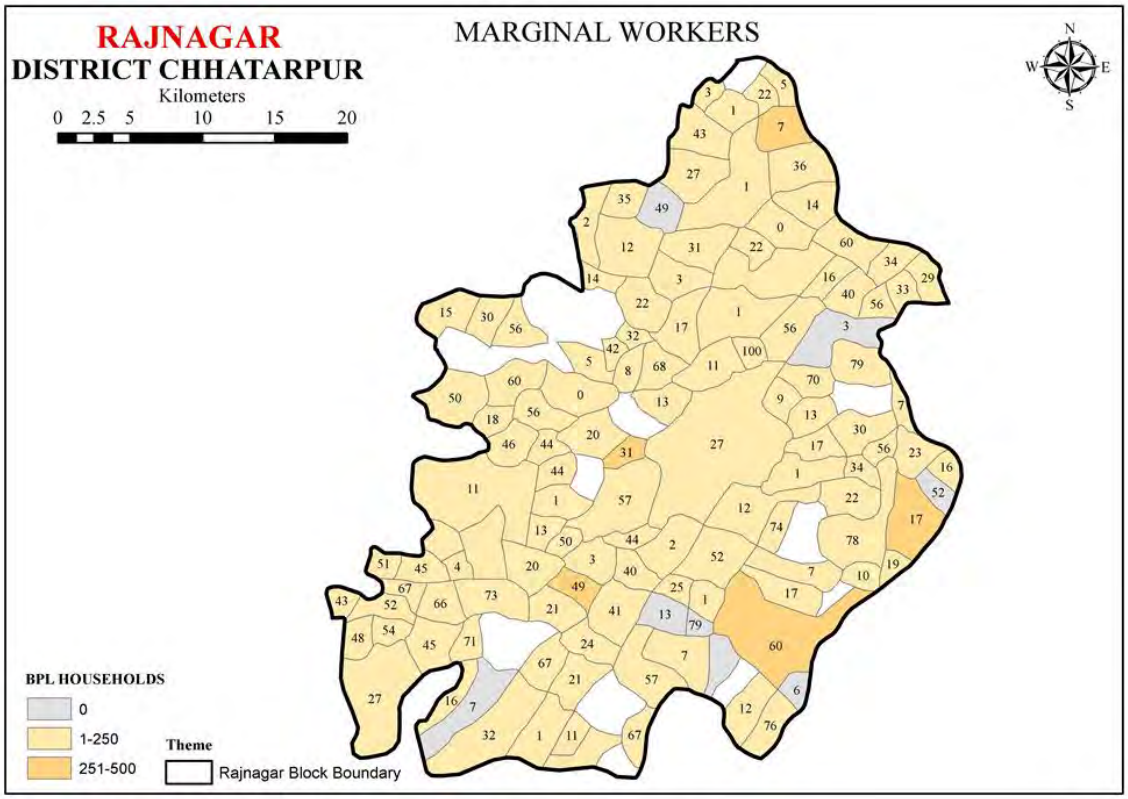



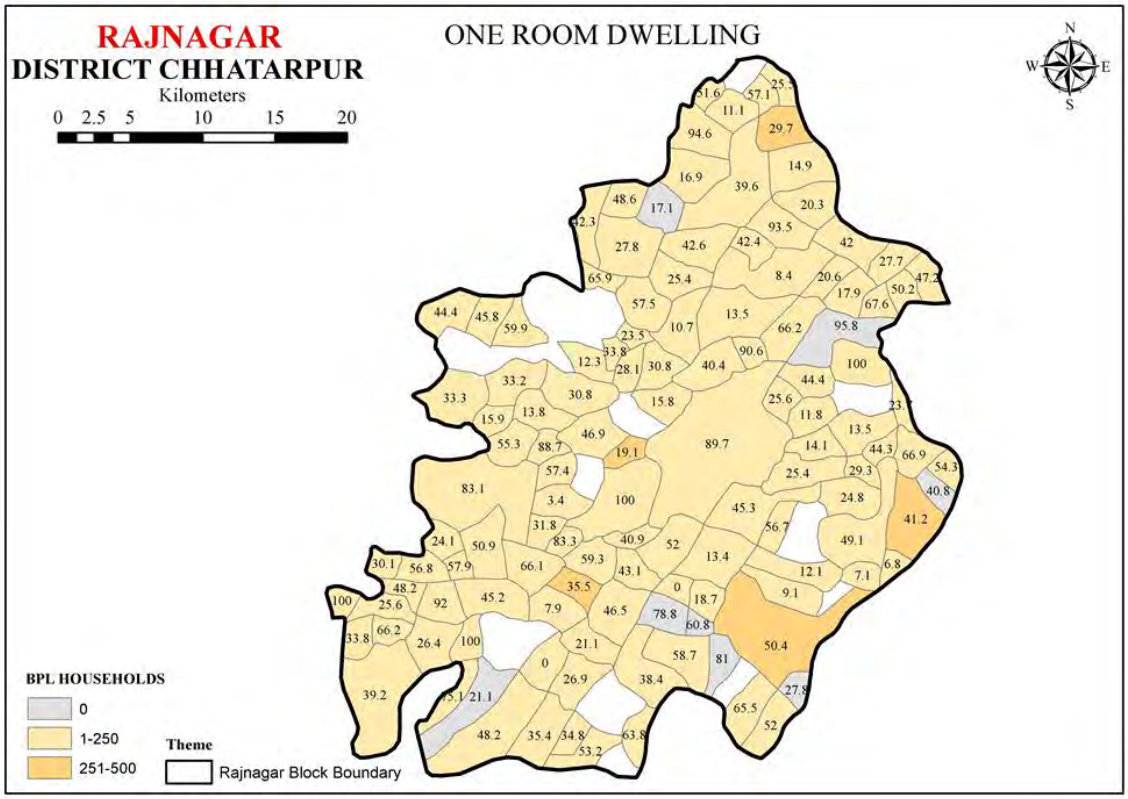
## MAP 46 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



## MAP 47 - INTERFACE OF HOUSING AND WORKERS DATA WITH BPL DATA



*What we call the beginning*

*is often the end. And to*

*make an end is to make*

*a beginning.*

*The end is where we start from.*

***T.S.Eliot***

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