

Pattern of Rural Development in District Mandi, Himachal Pradesh

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Abstract

Rural area development is the main objective of developing countries like India. To understand the factors responsible for the population growth and development of any region, it is very important for the planners to analyze the patterns of development in that area. Hence, the present paper will analyze the pattern of rural development in Mandi district of Himachal Pradesh. The Development Index (DI) will be used to study the development scenario of ten community development blocks of district Mandi. The development index will be measured by using deprivation score of each development block. Ten indicators of development i.e. population density, sex ratio, female literacy, rural non-agriculture workforce, proportion of rural female non-agriculture workforce, health facility, education facility, pucca road facility, transportation and communication and availability of more than one source of drinking water will be used to calculate deprivation score. The development index ranged between 0 and 1, where 0 shows minimum development and 1 show maximum development. The analysis will divide the whole 10 blocks in three categories of development i.e. less developed blocks, moderately developed blocks and highly developed blocks.

Key Words: Rural Development, Development Pattern, Deprivation Score, Development Index.

Introduction

Human development is a process to enhance the people's choices. The most critical people like poor, females, specially abled persons and children etc. are to be made able to lead a long and healthy life, to be educated and to enjoy a decent standard of living (Frances Stewart, 2019). The key dimensions of human rights for human development include promotion of gender equity and economic, social and cultural rights, particularly those related to health care, food, education, environment and culture (W.H.O., 2017). Development is a process which concentrated on the improvement of quality of life and living standard of those people who are living in undeveloped areas. The rural isolated and less populated areas are lagging behind to take the benefits of today's modern technological advancements. Therefore the level of poverty in rural areas is worse than that of urban areas. About 67 percent poor people of India are living in rural areas. India is a country which is growing with a fast rate, but still a large number (about 38 percent) of population is living in extreme poor conditions. After 67 years of independence world's largest poor population is living in India. About 26 crore people are living below poverty line, out of these about 19 crores are in rural areas and about 7 crores in urban areas.

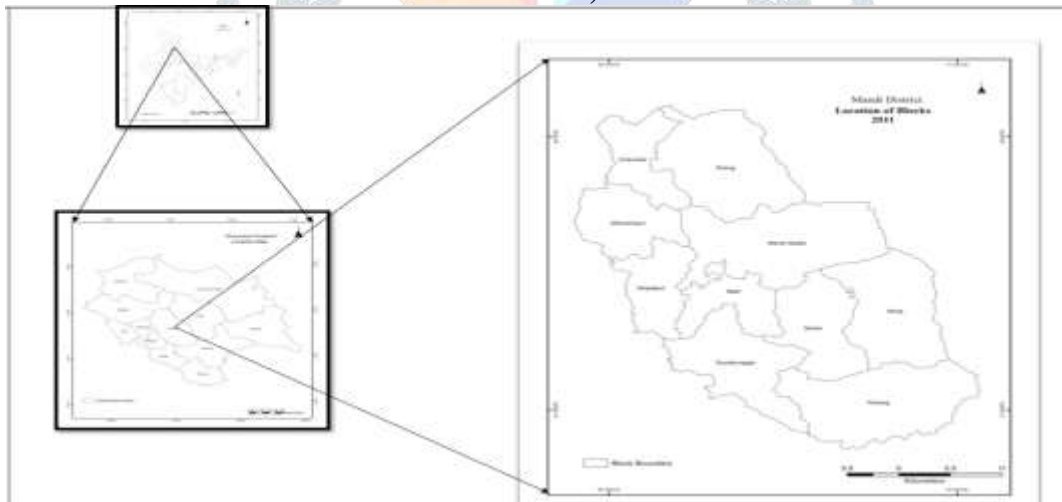
The rural development is an overall development of rural areas to improve the quality of life of rural population. It is also a process which leads to sustainable improvement in the quality of life of rural poor people (Panda & Majumdar, 2013). The rural development programs are focused to reduce poverty and

unemployment, to improve health and education facilities, to fulfil the basic needs such as drinking water and food, shelter and clothes, to improve transportation and communication services of rural people. The different programs such as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Rastriya Sama Vikas Yojana, Indira Awas Yojana, Sampoorna Grameen Rojgaar Yojana, Pradhan Mantri Gram Sadak Yojana (PMGSY), Integrated Children Development Services (ICDS), and National Rural Drinking Water Program (NRDWP) etc. has been inaugurated by Planning Commission of India currently known as NITI Ayog. The main objective of all these programs and schemes is to reduce the imbalance between rural and urban areas and to give a better quality of life with strengthened development process.

Study Area

The present study is concentrated on district Mandi which is located in the middle part of Himachal Pradesh. The total geographical area of the district is 3950 square kilometers. It is located between $31^{\circ} 13' 50''$ North to $32^{\circ} 04' 30''$ North Latitude and $76^{\circ} 37' 20''$ East to $77^{\circ} 23' 15''$ East Longitude. It is bordered by district Kangra in North-West, Hamirpur and Bilaspur in the West, Solan in the South, Shimla in the South-East and Kullu district in the East. The total population of the district is 9,99,777 with the population density of 253 persons per square Kilometers. There are ten community development blocks in Mandi district which have been taken into consideration for the present study.

Map: 01
Location of District Mandi, Himachal Pradesh



Source: District Census Handbook, 2011.

Data Sources and Methodology

The present study is fully based on secondary data which has been retrieved from the District Census Handbook 2011 of Mandi district. Community Development Block is taken as a unit of the study. The Composite Development Index is calculated for each block by measuring deprivation score. The value of development index ranges between 0 to 1, where 0 means minimum development and 1 means maximum development. The analysis value will divide the ten blocks in three categories of development i.e. less developed blocks, moderately developed blocks and highly developed blocks. Ten indicators have been

taken for analyzing the development pattern in the study area; these indicators are population density, sex ratio, female literacy, rural non-agriculture workforce, proportion of rural female non-agriculture workforce, health facility, education facility, pucca road facility, transportation and communication and availability of more than one source of drinking water.

$$\text{Deprivation Score} = \frac{\text{Maximum Value} - \text{Actual Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

$$\text{Average Deprivation Score} = \frac{D1+D2+D3+\dots+D(n)}{N}$$

Where, D = Deprivation Score and 1, 2, 3, (n) = Indicators

$$\text{Composite Development Index} = 1 - \text{Average Deprivation Score}$$

It ranges between 0 to 1, where 1 = Maximum Development and 0 = Minimum Development

By adopting the above process, the Composite Index of Development for each block has been calculated.

Results and Discussions

Socio-economic development of any area mainly depends on physical and human factors, which affects the development pattern of that area positively or negatively. District Mandi is one of the districts of the state which is economically very developed, but the pattern of development is uneven within the district among all blocks. Out of its total area rural area contributes to its 99.33 percent whereas urban area is only 0.67 percent. More than 93 percent population lives in the rural parts and rest in urban. Therefore, it is very important to study the pattern of rural development in the district.

Development Index of District Mandi

To measure the development index, all the ten indicators have been calculated. The following table shows the deprivation score of all blocks with ten indicators and their score of Development Index. The results of the index clearly show that in the above table it is clearly visible that there is a huge variation in the development patterns in all the blocks. The score of Development Index in Karsog and Seraj block is minimum and maximum in Balh block. It means Karsog and Seraj are less developed blocks of Mandi district whereas Balh block is highly developed. All the blocks are divided into three categories to get a clear picture of development pattern of these blocks (Map 02).

Table: 01
Block Wise Deprivation Score and Development Index Mandi, H.P., 2011

Indicators \ Blocks	1	2	3	4	5	6	7	8	9	10	Average	DI
Balh	0	0.85	0.16	0.11	0	0.16	0	0	0.39	0.16	0.18	0.82
Gopalpur	0.26	0.54	0	0.38	0.68	0.52	0.07	0.09	0.71	0	0.33	0.68
Dharmpur	0.56	0.21	0.28	0.39	0.7	0.23	0.23	0.04	0.52	0.13	0.33	0.67
Chauntra	0.6	0	0.44	0	0.68	0.6	0.51	0.36	0.04	0.57	0.38	0.62
Sadar	0.83	0.78	0.57	0.21	0.34	0	0.29	0.17	0.12	0.61	0.39	0.61
Mandi												
Sundernagar	0.75	0.92	0.63	0.12	0.44	0.38	0.6	0.46	0	0.49	0.48	0.52
Drang	1	0.83	1	0.47	0.66	0.08	0.75	0.65	0.51	0.78	0.67	0.33
Gohar	0.9	0.8	0.59	0.72	0.72	0.79	0.62	0.72	0.63	0.76	0.73	0.28
Seraj	97	1	0.98	1	0.64	0.38	0.99	1	1	0.92	0.89	0.11
Karsog	0.95	0.95	0.81	0.7	1	1	1	0.93	0.58	1	0.89	0.11

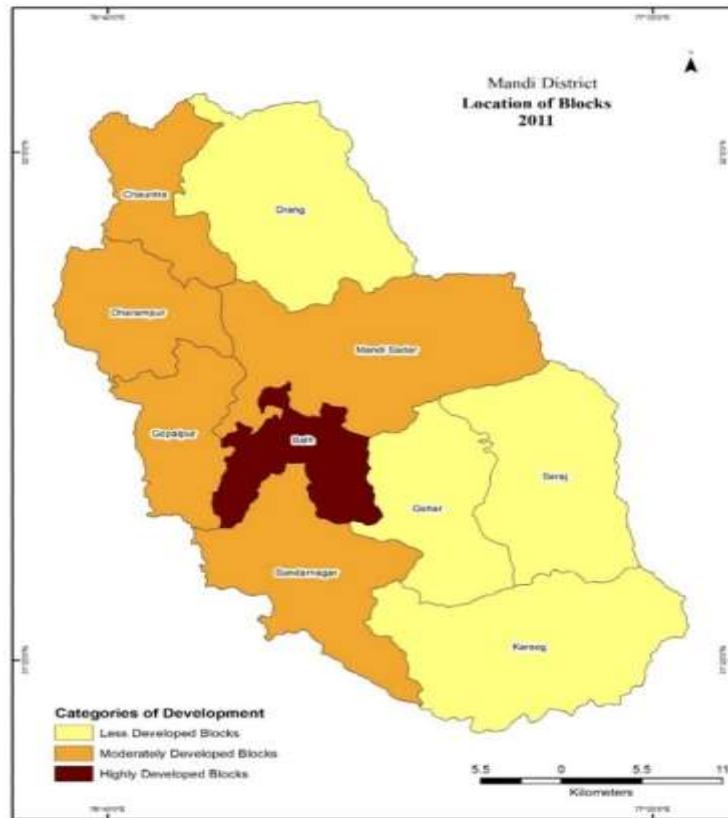
(1= Population Density, 2= Sex Ratio, 3= Female Literacy, 4= Non-Agriculture Workforce, 5= Health Facility, 6= Education Facility, 7= Pucca Road availability, 8= Transportation and Communication, 9= Female Non-agriculture Workforce, 10= Two or More Sources of Drinking Water and DI= Development Index.)

Source: Calculated on the basis of the data according to District Census Handbook, 2011

1. Less Developed Blocks

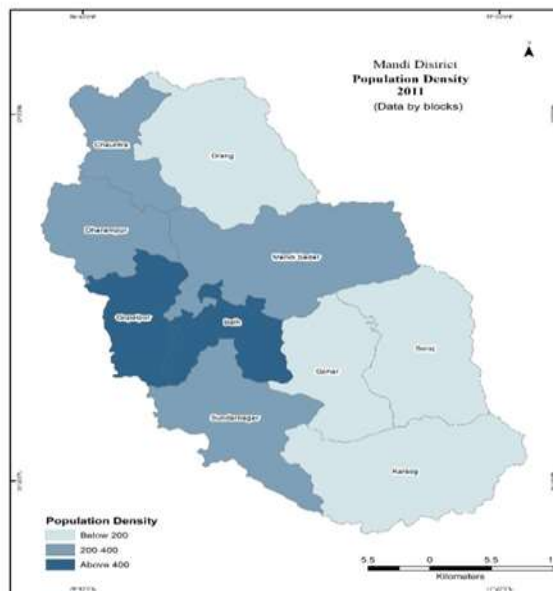
The blocks having less than .50 score of development index comes under this category (Map 01). Karsog, Seraj, Gohar and Drang block fall under this category. In these blocks' population density is below 200 persons per square kilometers (Map 03), sex ratio is below 1000 females per 1000 males (Map 04), female literacy is below 70 percent (Map 05), non-agriculture workforce is below 26 percent (Map 06) and other facilities also lacking in these blocks. These four blocks comprise of about one third population of district Mandi. These blocks share their boundaries with middle Himalayan areas of neighboring districts like, Kangra, Kullu and Shimla. The main reason of deprivation in these blocks are great distance from district headquarter Mandi, lack of infrastructural development, lack of public awareness regarding ongoing schemes and programs regarding their welfare, lack of cultivable land and natural resources and hilly terrain etc. there is a great need to improve the quality and quantity of all the facilities to develop these blocks.

Map: 02
District Mandi: Rural Development Pattern



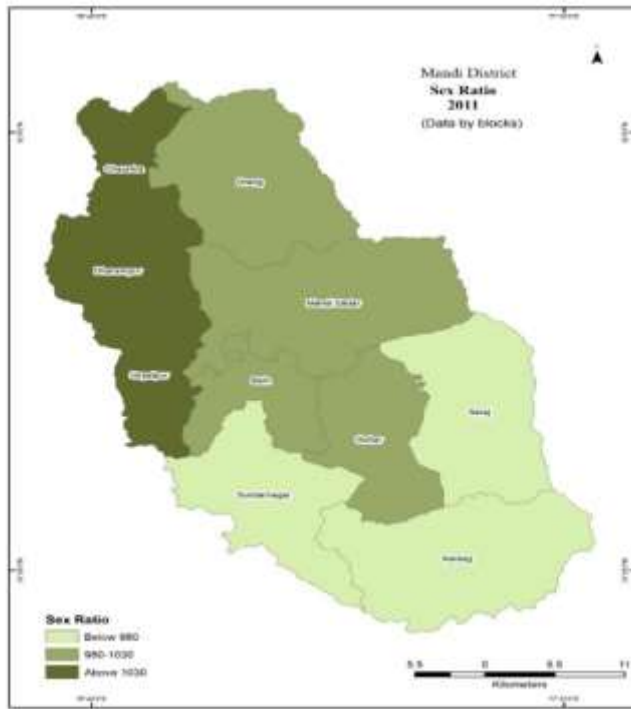
Source: District Census Handbook, 2011 and ArcGIS

Map: 03
Population Density

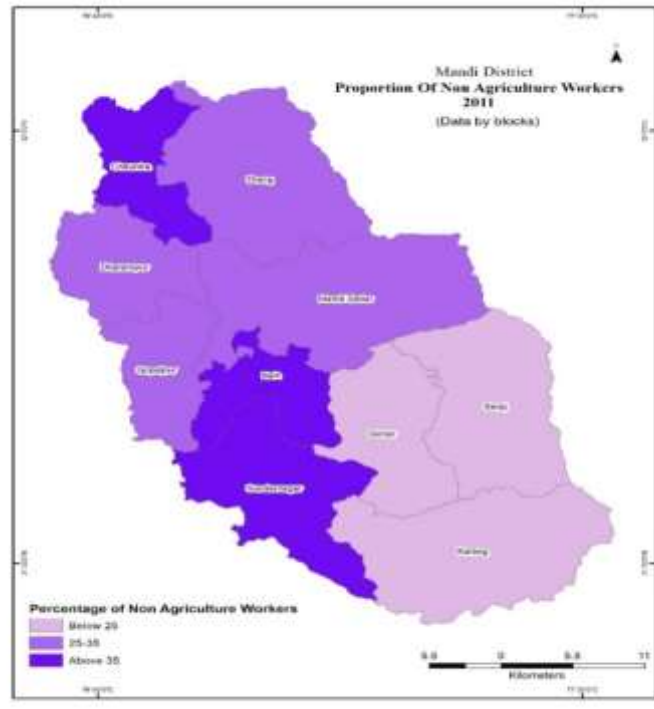


Source: District Census Handbook, 2011 and ArcGIS

Map: 04
Sex Ratio



Map: 05
Female Literacy Rate



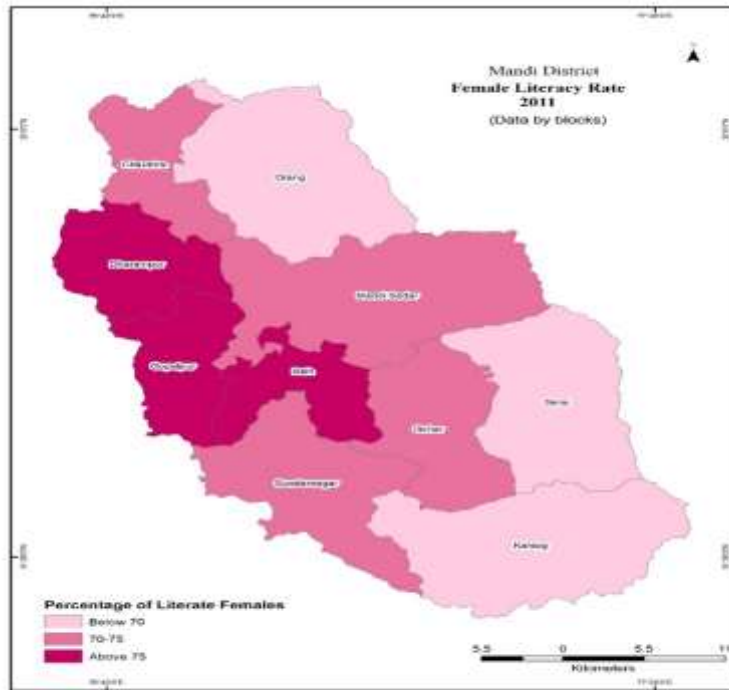
Source: District Census Handbook, 2011 and ArcGIS

Source: District Census Handbook, 2011 and ArcGIS

2. Moderately Developed Blocks

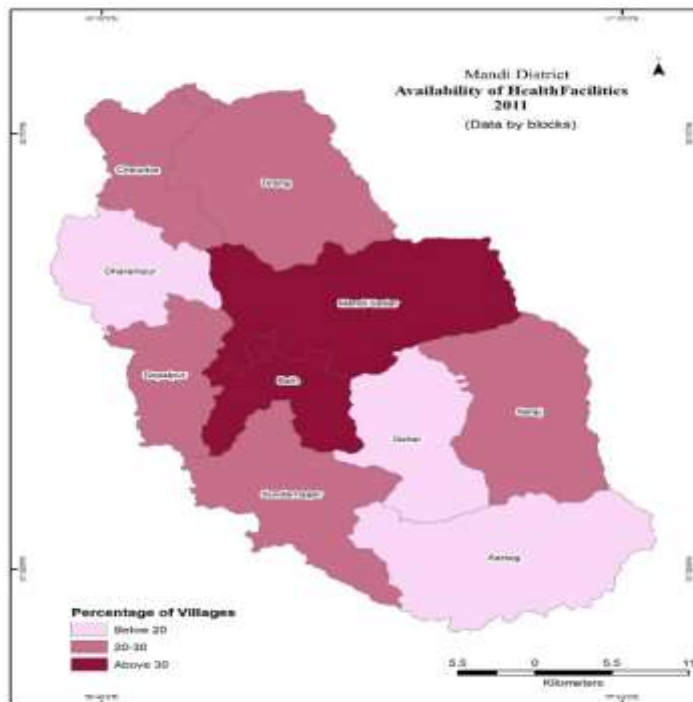
Blocks having development index score from .51 to .80 comes under the category of moderately developed blocks. Chauntra, Dharampur, Gopalpur, Mandi Sadar and Sundernagar blocks fall under this category. Population density in these blocks is between 200-400 (Map 03), sex ratio is uneven which varies from 978 in Sundernagar to 1134 in Chauntra block (Map 04). Female literacy is high in Dharampur and Gopalpur blocks (Map 05), Non-agriculture workforce is high in Chauntra and Sundernagar Blocks. All the major educational institutions, health centers, national highways, industrial areas, fertile land patches, rivers etc. fall in Mandi Sadar and Sundernagar blocks. Map no. 7 shows that Mandi Sadar block of this category has more than 30 percent villages with health facility available, whereas, map no. 8 show that more than 70 percent villages of Mandi Sadar and Gopalpur block have available education facility and other blocks are lacking in this facility. All blocks of this group share their boundaries with neighboring districts of Shivalik Himalayas like Hamirpur, Bilaspur, Kangra, Solan and kullu district, therefore it is easy to commute and sell produces from these blocks to outer areas.

Map: 06
Female Literacy



Source: District Census Handbook, 2011 and ArcGIS

Map: 07
Health Facilities



Source: District Census Handbook, 2011 and ArcGIS

Map: 08 Literacy Facilities

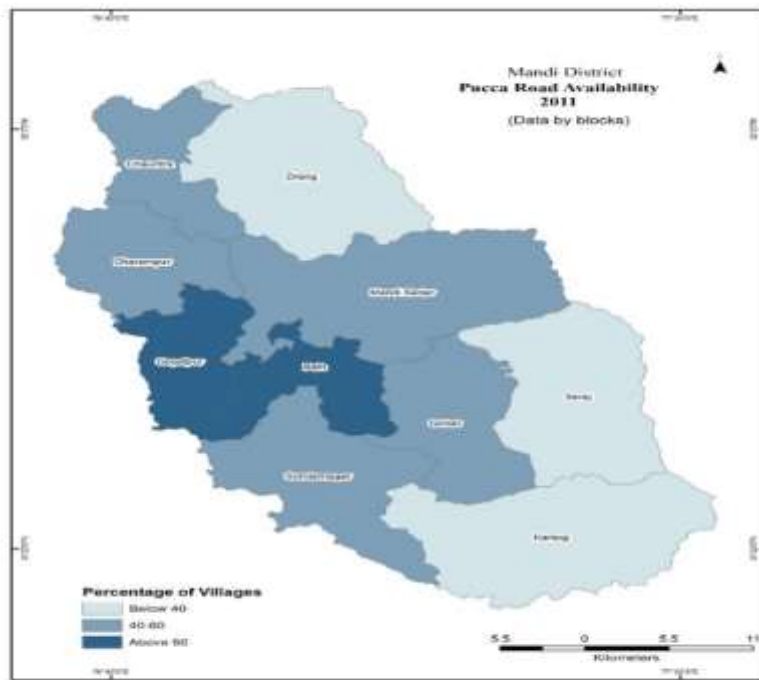


Source: District Census Handbook, 2011 and ArcGIS

3. Highly Developed Blocks

The Balh Block having score of development index above .80 fall in this category. It is located in the central part of Mandi district with having one of the most fertile valleys named Balh valley. It is a part of Suketi river basin. Suketi river is the main source of water for irrigation in this block. Population density of this block is above 400 (Map 03), female literacy is above 75 % (Map 05), non-agriculture workforce is above 35 % (Map 06). Health and education facility of this block is available in above 30 % above 70 % villages respectively (Map 07 and 08). Pucca road and communication facility is comparatively in a better condition than other blocks. Here about 60 % villages are equipped with pucca road (Map 09) and more than 80 % villages have transportation and communication facility (map 10). Map no. 12 is shows that more than 51 % villages of this block have more than two sources of drinking water. Plain topography is the main reason of development of this block. National highway no. 21 also passes through this valley. Balh valley of this region is known as mini Punjab of Himachal Pradesh because of its agriculture production.

Map: 09
Availability of Pucca Road



Source: District Census Handbook, 2011 and ArcGIS

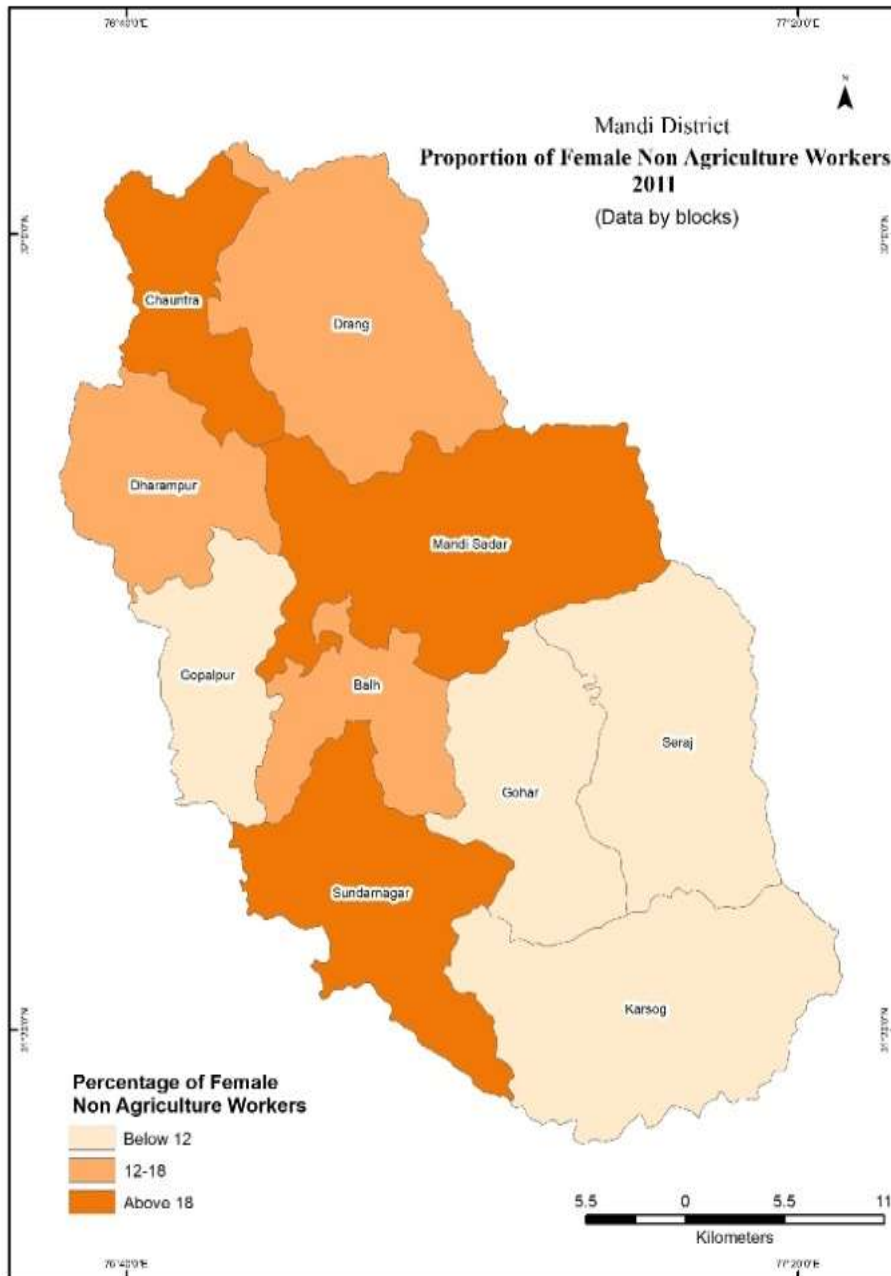
Map: 10
Transportation and Communication



Source: District Census Handbook, 2011 and ArcGIS

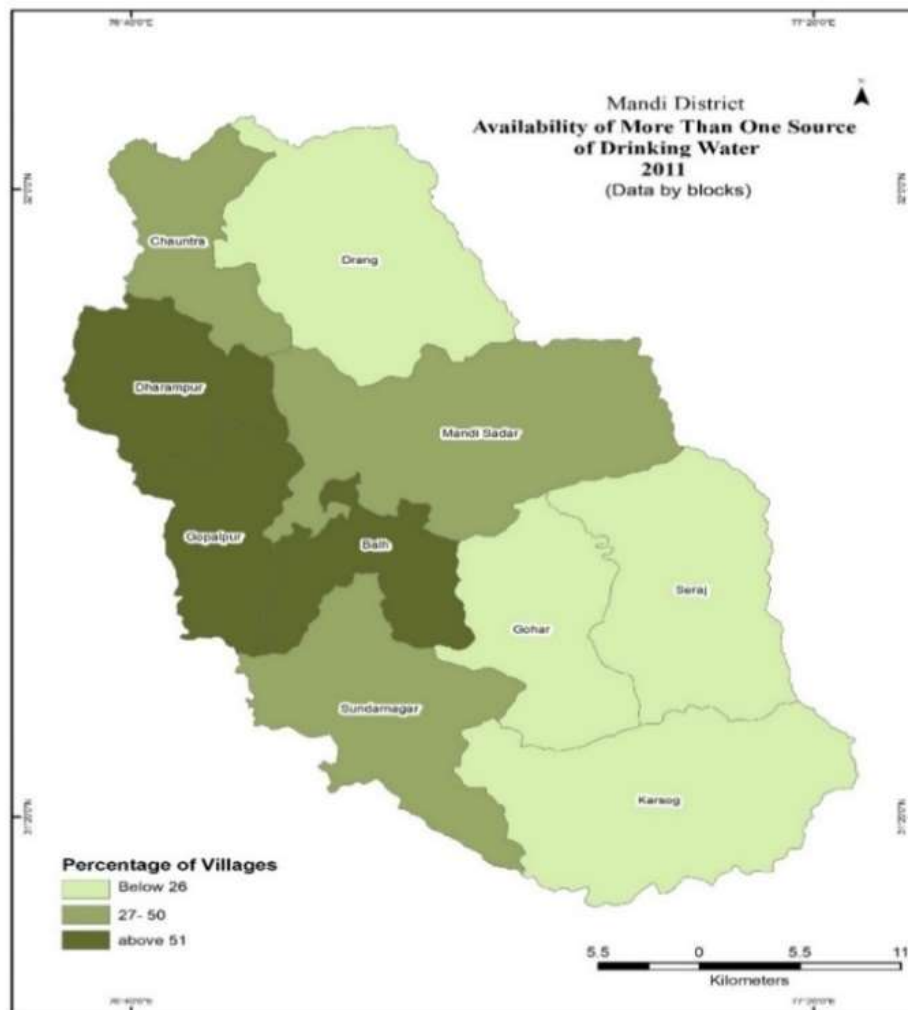
In balh block all other indicators except sex ratio (Map 04) and female non-agriculture workforce (Map 11) are indicating the good status of development. Sex ratio in this block is only 990 which is less than many other less developed and moderately developed blocks. The proportion of female non-agriculture workforce is only 14.33% which is very less than most of other blocks.

Map: 11
Female Non-Agriculture Worker Force



Source: District Census Handbook, 2011 and ArcGIS

Map: 12
Two or More Drinking Water Sources



Source: District Census Handbook, 2011 and ArcGIS

Conclusion

All the indicators which have been discussed in the present study play a significant role in the development of any rural or urban area but, there are some physical factors such as, topography, climate, and natural resources etc. which have an impact on these indicators. The areas where these factors are in favorable conditions are well developed whereas unfavorable conditions of these factors adversely affect the development pattern of any area. The present study reveals that blocks like, Karsog, Seraj, Gohar and Drang are very less developed due to their distant location from district headquarter and lack of natural resources. One more reason of their deprivation is that, these blocks comes under middle Himalayan region and sharing their boundary with high altitudinal areas of Kullu, Kangra and Shimla district and developmental process is difficult to implement in these distant places. On the other hand, moderately developed blocks like, Chauntra, Dharampur, Gopalpur, Mandi Sadar and Sundarnagar are located in the middle and eastern part of the district and share their boundaries with neighboring districts which are located in Shivalik Himalayan region. Therefore, it can be concluded that the physiography plays a great role in the development of any area. The most developed block of district Mandi is Balh block which is located in middle part of the district. Its terrain is comparatively plain and soil is very fertile with abundant sources of water for irrigation.

There is a great need to bring less developed blocks like, Karsog, Seraj, Gohar and Drang of the district into mainstream and it is only possible if basic facilities like education facilities, health facilities, drinking water, road and transportation is provided to these areas. These areas are far located from Mandi district headquarter and are dependent on Mandi town for filling their basic needs. Therefore, the infrastructural development like colleges and health institutions, health care centers should be taken up in these areas, all weather roads should be constructed and Agro-based industries should begin in these blocks. This is the only way by which gap between the developed and less developed blocks will get reduced.

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