

Spatial Analysis of Occupational Structure of Population –A Case Study of Hadouti Region

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Abstract

Man-power resources are the important capital of the nation in any country, but if these resources are not properly utilized and adequate employment opportunities are not provided, then such manpower resources become a burden for that nation. From this point of view it becomes necessary to study the economic characteristics of the population in an area. According to the Indian Census 'Work' can be defined as participating in any economically productive activities. This participation may be of physical or mental nature. The definition of work includes not only doing actual work, but also effective supervision and direction of work. There are two types of working population - main workers who do any work for more than 6 months in a year, and marginal workers, are those people who have done any work at any time in a year before the census. but has worked for a period of less than 6 months. The main workers are classified into four categories: farmers, agricultural labourers, family industries, other work.

Keywords: Main Workers, Marginal Workers, Farmers, Agricultural Labourers, Family Industry, Other Work.

Introduction

Man-power resources are the important capital of the nation in any country, but if these resources are not used properly and adequate employment opportunities are not provided, then such manpower resources become a burden for that nation. From this point of view, it becomes necessary to study the economic characteristics of the population in an area. The study of the economic characteristics of a population gives information about those economic, demographic and cultural characteristics of the population which are fundamental for the social and economic development of that country.

According to the Indian Census 'Work' can be defined as participating in any economically productive activities. This participation may be of physical or mental nature. The definition of work includes not only doing actual work, but also effective supervision and direction of work. There are two types of working population - main workers who do any work for more than 6 months in a year, and marginal workers are those people who have done any work at any time in a year before the census. but has worked for a period of less than 6 months. The main workers are classified into four categories:

Farmer

A person can be considered as tenant if he himself as a proprietor, as a single worker or as a family worker, owns land, leases from the government He cultivates himself on land obtained on lease or on land taken in cash or in kind from any other person or institution or gets that land cultivated under his direction or supervision.

Agricultural Labourer

A person, who works in another person's field by taking wages or sharing in the form of cash or commodities, is called agricultural labourer.

Family Industry

It is an industry which is carried on by the head of the family himself and mainly by other members of the family at home or within the limits of the village in rural areas and within the house in which the family lives in urban areas and which Not being run as a registered industry. Family industry is concerned with any type of production, processing, servicing, repair or manufacture of goods.

Other Works

This includes animal husbandry, fishing, hunting, plantation, mining, construction work, trade and commerce, transport, storage and communication. Also, it includes all those workers who are engaged in electricity, gas and water, public administration and defense services, medical and health services, religious and welfare services, entertainment and cultural services.

In addition to those who work, there is also a non-working population, which includes domestic workers, students, dependents, retired persons or rent earners, beggars, convicted criminals living in prisons, psychiatric hospitals or charitable institutions.

Objective of the Study

To study the economic characteristics of the population of the study area, so that information about the economic, demographic and cultural characteristics of the area can be obtained, which are the basic elements in the economic development of an area.

Methodology

The study of occupational structure of population has been done on tehsil basis, total 15 tehsils have been included in the study area, in all these population figures have been taken as percentage to study the occupational structure of population, all these population figures included in the analysis are according to the population year 2011.

Review of the Literature

First study on population analysis in the world was done in 1953 by GT Trewartha, after which many geographers and economists made their important contributions, in this Thomson, Lynne Smith, Ackerman, C. Clark, Ward, J.I. Clark Garner, Jalensky, Stamp, Alfrid Peterson, GJ Demko, Adams Landry, Brasley, P.E. James, Buchanan, P.George, W.E. Mori, D.J.Bogue, Karl-Saunders, D.J. Lewis, Andrey Rogers, Peter Schutt, Dickinson, Veit Hauer, RC Colby, H.Gilbert, K.Davis, Harris, L.Burget, Edelman, J.Brunsch, Federic Dath, Kosnicke, Robin Prior etc. are prominent scholars.

Indian Scholars in Population Studies- Ashish Bose, B.L.Agarwal, Chandrashekhar, S.N.Agrawala, R.C.Chandana, G.S.Gousal, B.N.Ghosh, B.N.Puri, V.C. Misra, B.C.Mehta, Mansur Ahmed, S.J.Mehta, Suryakant, R.S.P.Gousal, K.N. Dubey, Prem Sagar, Smita Sen Gupta, S.C.Julka, P.K. Sharma, Keshav.C.Kayastha, Sodhiram, Dhaneshwari, Jitendra Mohan, Meher Singh Gill, F.Z Jamali, NL Gupta, Hemlata Joshi, Sadhna Kothari, Ismail Haque, Indel Singh, Kamalkant Dubey, Mahendra Bahadur, Juzar Singh, Pushpa Pathik, Gopal Krishna, Heather Joshi, Abdul Razak, Nural Alam, A.S. Panwar, Dharmaraj Joshi, Laluram Bhagora, Anju Kohli, Gunjan Garg etc. have made their invaluable contribution.

In recent years significant study done in the reference to occupational structure is:

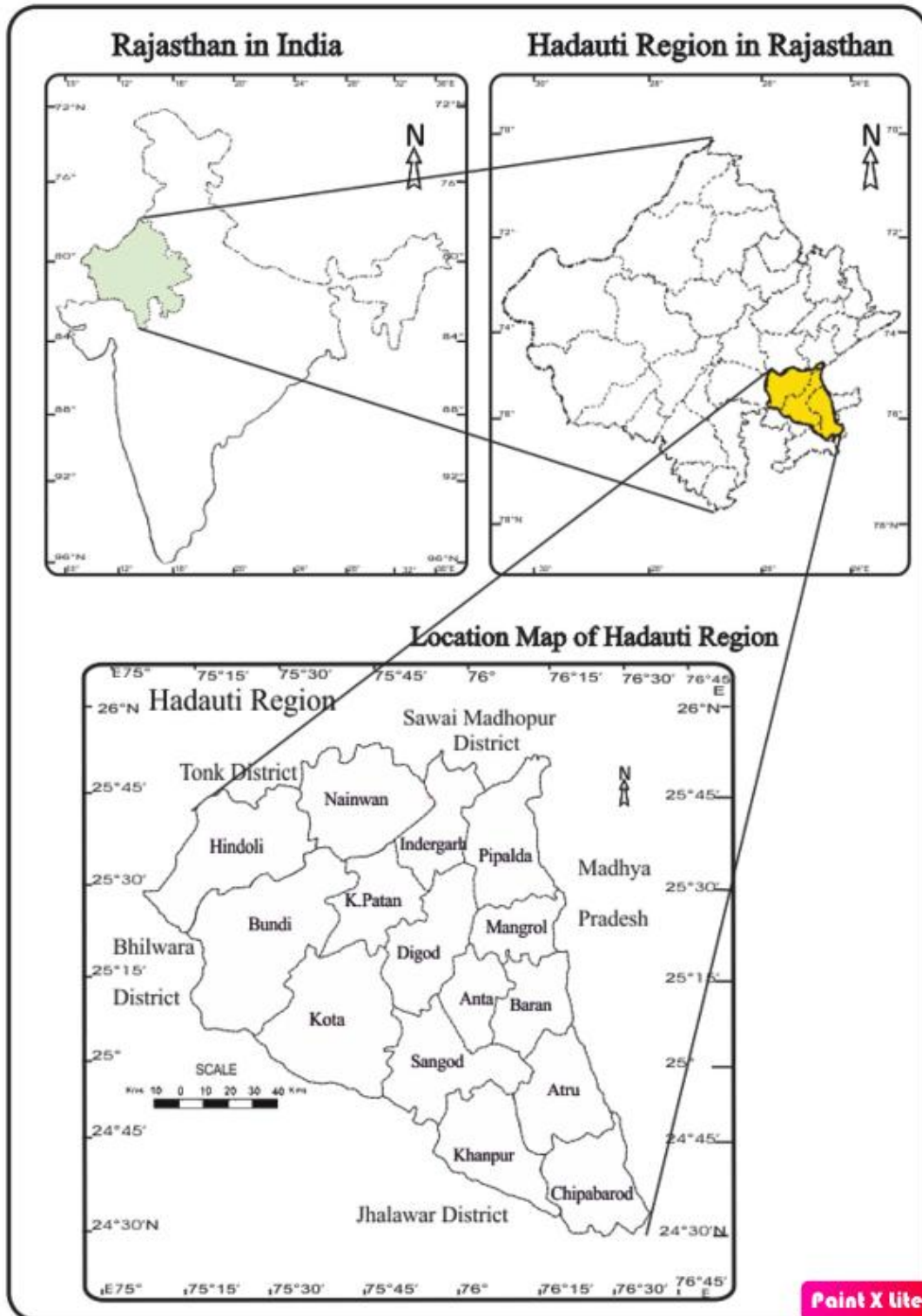
Akinbogun, T.and S.Ogunduyile. 2009, Bendi, S.K.and T.K. Pany. 2017, Bose, C. 2018, Chakrabarti, A.K. 2008, Chutia, L.J., and M. K. Sarma. 2016, Das,D., A. Kumar and M. Sharma. 2020, Dash, M. 2016, Grobar, L. M. 2019.

Study Area

Study area is located in the south-eastern part of Hadouti Plateau in Rajasthan, between 24⁰25' to 25⁰51' North latitudes and 75⁰15' to 76⁰45' East longitudes. The total geographical area of this state is 14481.6 square kilometer. This region includes the entire Bundi district, the entire Kota district except Ramganj Mandi tehsil, the entire Baran district except Chhabra Kishanganj and Shahbad tehsils and Khanpur tehsil of Jhalawar district. There are 15 tehsils in this region, in which there are 2278 inhabited

Villages and 19 towns, the main ever flowing river of this region is Chambal, whose tributaries are Kali Sindh, Parvan, Parvati and Mej. The climate here is semi-arid and sub-arid. Agriculture is the main occupation of the population here.

Key Map



Tehsil wise Occupational Structure of Population

Table - 1 shows that the percentage of working population in 9 tehsils is higher than the study area average of 45.33. These are – Hindoli, Nainwan,

Bundi, Pipalda, Sangod, Mangrol, Atru, Chhipabarod and Khanpur. All these tehsils are located in the west, north, south east of the study area. In 6 tehsils, the working population is seen less than.

Table - 1 Tehsil wise Occupational Structure

S.No.	Tehsil	Total Labourer	Main Labourer	Farm er	Main Agriculture Labourer	Main Family Industries	Main Other Labourer	Margi nal Labo urer	Margi nal Farm er	Margin al Agriculture Labourer	Margin al Family Industries	Margin al Other Labourer	Non Labourer
Atru	Total	46.73	60.69	53.41	19.2	2.49	24.9	39.31	21.62	57.24	2.53	18.61	53.27
	Male	52.46	77.1	53.01	16.07	2.56	28.36	22.9	17.83	52.67	3.08	26.42	47.54
	Female	40.53	37.75	54.58	28.15	2.28	14.99	62.25	23.58	59.6	2.25	14.57	59.47
Anta	Total	42.41	61.16	41.44	19.84	2.36	36.36	38.84	12.27	52.69	1.78	33.26	57.59
	Male	51.39	77.21	42.24	16.29	1.91	39.56	22.79	9.54	45.32	1.82	43.32	48.61
	Female	32.73	34.02	38.4	33.44	4.05	24.11	65.98	13.86	56.99	1.77	27.38	67.27
Baran	Total	38.36	73.62	29.79	14.31	3.21	52.69	26.38	17.63	42.33	2.13	37.91	61.64
	Male	51.58	85.79	29.56	11.27	2.64	56.53	14.21	10.48	34.14	2.35	53.03	48.42
	Female	24.1	45.54	30.81	27.54	5.62	36.03	54.46	21.93	47.26	1.99	28.82	75.9
Bundi	Total	45.33	76.44	43.32	13.08	1.99	41.61	25.36	33.37	38.63	3.09	24.91	54.67
	Male	54.97	86.83	39.56	10.71	1.86	47.87	13.17	28.07	32.12	3.57	36.24	45.03
	Female	34.92	58.8	52.75	19.01	2.33	25.91	41.2	36.25	42.16	2.83	18.76	65.08
Chhip abarod	Total	49.29	68.21	62.91	19.94	1.6	15.55	31.79	30.62	60.58	1.81	6.99	50.71
	Male	52.72	83.2	62.7	16.1	1.41	19.79	16.8	25.26	58.83	1.73	14.18	47.28
	Female	45.62	49.73	63.34	27.87	1.98	6.81	50.27	32.84	61.3	1.84	4.02	54.38
Degod	Total	44.45	66.75	42.6	34.04	1.7	21.66	33.25	17.73	65.22	1.66	15.39	55.55
	Male	53.29	83.66	46.59	28.01	1.66	23.74	16.34	15.6	59.99	1.84	22.57	46.71
	Female	34.92	38.96	28.54	55.29	1.81	14.36	61.04	18.67	67.53	1.56	12.24	65.08
Hindoli	Total	55.56	63.22	68.94	9.62	1.47	19.97	36.78	52.09	28.21	1.59	18.11	44.44
	Male	58.39	78.93	65.32	8.16	1.59	24.93	21.06	48.63	24.94	1.84	24.59	41.61
	Female	52.5	44.32	76.71	12.73	1.21	9.35	55.68	53.67	29.71	1.47	15.15	47.5
Inderg argh	Total	42.4	64.95	39.69	12.14	1.78	46.39	35.05	21.91	45.84	2.26	29.99	57.6
	Male	52.24	80.28	40.53	8.83	1.7	48.94	19.72	17.92	38.68	2.58	40.82	47.76
	Female	31.72	37.57	36.46	24.79	2.08	36.67	62.43	24.17	49.88	2.08	23.87	68.28
K.Pata n	Total	43.33	64.1	47.84	22.04	2.57	27.55	35.9	24.99	57.46	2.17	15.38	56.67
	Male	52.9	81.52	50.17	17.64	2.17	30.02	18.48	17.75	51.57	3.31	27.37	47.1
	Female	33.08	34.25	38.32	39.99	4.22	17.47	65.75	28.48	60.3	1.61	9.61	66.92
Khanp ur	Total	51.15	67.69	56.26	23.42	1.29	19.03	32.31	32.26	56.77	1.41	9.56	48.85
	Male	55.42	82.13	56.81	18.6	1.31	23.28	17.87	26.11	53.35	2.02	18.52	44.58
	Female	46.54	49.11	55.07	33.78	1.26	9.89	50.89	35.03	58.32	1.14	5.51	53.46
Ladpu ra	Total	33.97	87.55	5.58	3.71	4.45	86.26	12.45	7.07	18.72	6.67	67.54	66.03
	Male	51.5	91.74	5.46	2.86	3.33	88.35	8.26	3.69	11.61	4.95	79.75	48.5
	Female	14.5	71.03	6.18	8.08	10.15	75.59	28.97	10.87	26.72	8.6	53.81	85.5

Mangrol	Total	45.48	63.04	42.68	19.54	8.77	29.01	36.96	18.33	65.38	2.6	13.69	54.52
	Male	52.03	81.91	46.75	17.56	2.9	32.79	18.09	14.8	59.15	2.84	23.21	47.97
	Female	38.45	35.56	29.03	26.18	28.49	16.3	64.44	19.77	67.92	2.5	9.81	61.55
Nainwana	Total	48.73	65.31	64.22	9.7	2.2	23.88	34.39	36.33	40.36	3.22	20.09	51.27
	Male	52.09	78.72	61.01	7.51	2.04	29.44	21.28	29.65	35.73	3.43	31.19	47.91
	Female	45.06	49.07	70.73	14.11	2.53	12.63	50.93	39.85	42.81	3.1	14.24	54.94
Pipalda	Total	46.24	54.36	52.08	18.71	1.66	27.55	45.64	17.62	54.18	1.24	26.96	53.76
	Male	53.36	74.56	55.23	15.43	1	28.34	25.44	13.42	50.77	1.45	34.36	46.64
	Female	38.6	24.36	37.79	33.61	4.66	23.94	75.64	19.72	55.89	1.13	23.26	61.4
Sangod	Total	46.5	61.19	51.86	21.16	1.96	25.02	38.81	22.87	61.24	2.07	13.82	53.5
	Male	53.31	78.77	52.54	17.84	1.87	27.75	21.23	16.54	57.5	2.34	23.62	46.69
	Female	39.21	35.64	49.69	31.83	2.24	16.24	64.36	25.9	63.03	1.95	9.12	60.79

The average of the study area - all of them are located in the south, center and east.

Highest working population is in Hindoli tehsil. It is mainly an agricultural tehsil. Where the production of vegetables is high in agriculture and the labor requirement is also high. The lowest working population is in Ladpura Tehsil. Here the number of students coming from outside to study in Kota city is high.

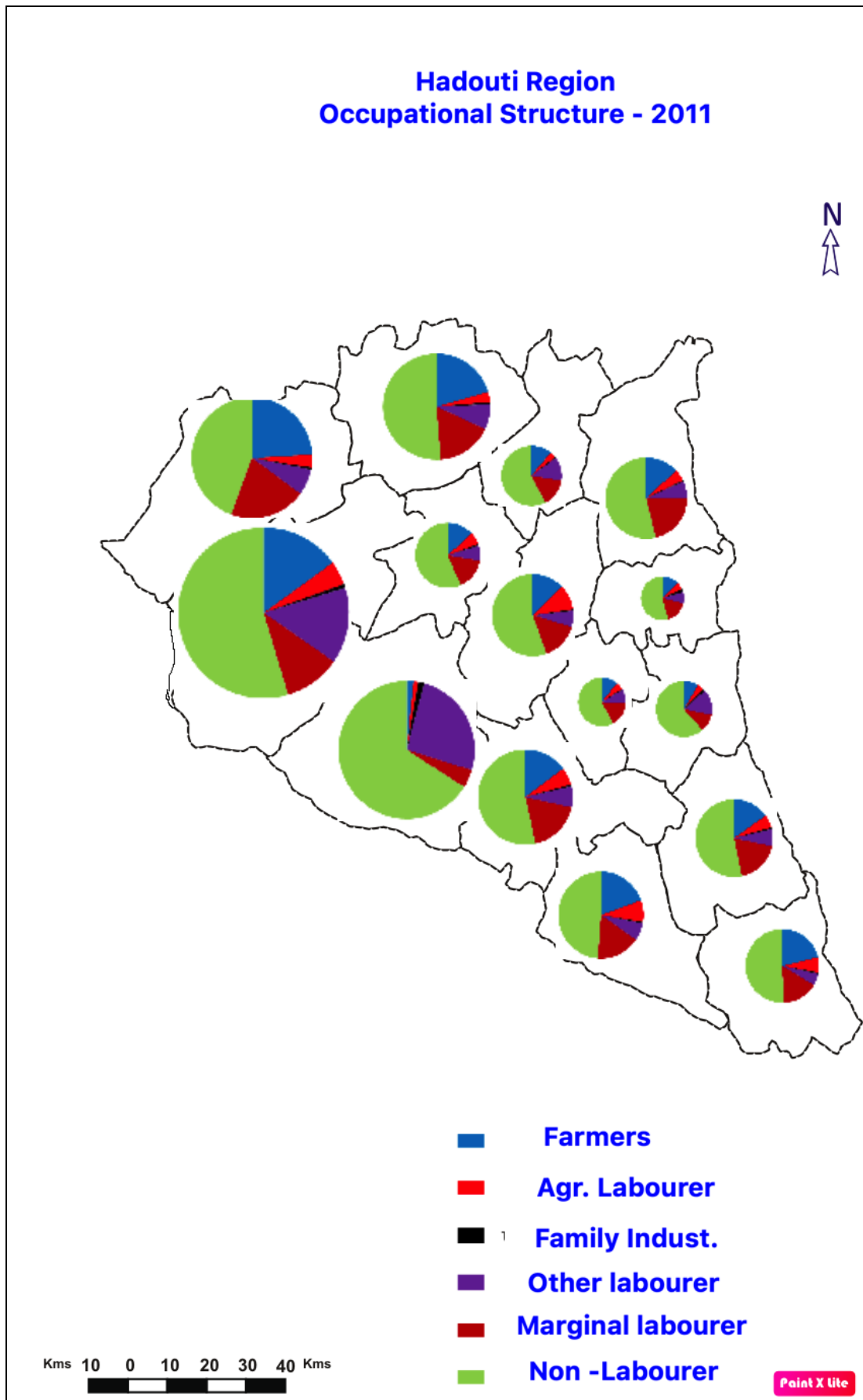
The average farmer population in the study area is 46.84 and in 8 tehsils the farmer population is more than the average. These are Hindoli, Nainwan, Keshorai Patan, Pipalda, Sangod, Atru, Chhipabarod and Khanpur. The highest agricultural population is in Hindoli (68.94 percent). This area is backward. Here the land is rough and here agriculture is based on human labor, whereas in tehsils like Baran, Ladpura, Anta etc., the farmer population is less than the average because here agriculture is done by machines, which reduces the need for labor.

In Bundi, Indragarh tehsils, the reason for the low agricultural population is the reduction in agricultural area and mining operations. Minimum farmer population is in Ladpura tehsil (5.58 percent) because the population here is engaged in other activities. Almost the same pattern is seen in the female and male farming population. In Hindoli,

Nainwan, Bundi, Ladpura, Baran, Atru and Chhipabarod, the number of female farmers is more than that of males.

The average of agricultural labourers is 17.36 percent. The population of agricultural labourers in 6 tehsils is below average. These are - Hindoli, Nainwan, Indragarh, Bundi, Ladpura and Baran. The minimum agricultural labor percentage is of Ladpura tehsil because the population here is engaged in other works due to the proximity of Kota city. Whereas in 9 tehsils the population of agricultural labourers is more than the average. The largest agricultural labourer population is in Digod tehsil. Here, due to the presence of people belonging to the Scheduled Castes, backwardness and being economically weak, more population is agricultural labourers. In other tehsils K.Patan, Pipalda, Sangod, Mangrol, Anta, Atru, Chhipabarod and Khanpur, the percentage of agricultural labourers is above average.

Almost the same pattern is seen in the population of male agricultural labourers. In 6 tehsils the population of male agricultural labourers is below average whereas in 7 tehsils the population of female agricultural labourers is below average whereas in 8 tehsils the population of female agricultural labourers is above average. Remaining 9 tehsils the population of male agricultural labourers is above average.



The average percentage of population employed in major family industries is 2.63 percent. In 12 tehsils the percentage of population engaged in family industries is below average. Minimum is in Hindoli tehsil. The reason for this is that the Tehsil is completely rural and backward. The population engaged in family industries is more than the average in 3 tehsils. These are Ladpura (4.45), Mangrol (8.77) and Baran (3.21) tehsils. Due to maximum being in Mangrol and Ladpura, the population here is involved in the manufacture of Khadi and Kota cordi sarees. Almost the same pattern is of male and female population who are engaged in family industries.

The average percentage of population engaged in other works is 33.16 percent. In 10 tehsils the percentage of population engaged in other work is less than average while in 5 tehsils it is higher. Minimum 15.55 percent is in Chhipabarod and maximum 86.26 percent is in Ladpura tehsil. In Ladpura Tehsil, Kota city which is the divisional headquarters is engaged in government service, trade and commerce, health services etc. The pattern of male and female population percentage which is engaged in other work is also almost the same.

The percentage of marginal workers is also roughly commensurate with the population percentage of main workers. The average of the non-working population is 54.67 percent. In 8 tehsils-Hindoli, Nainwan, Pipalda, Sangod, Mangrol, Atru, Chhipabarod and Khanpur, the non-working population is less than the average. In Bundi tehsil the non-working population is same as average whereas in 6 tehsils the non-working population is more than average. Highest 66.03 percent is from Ladpura tehsil because there is a greater number of a student studying in coaching institutes. In all 15 tehsils, the percentage of female non-working population is more than the male percentage of non-working population. For the low participation of women, their neglected status in the society, low level of female education, limited opportunities of women in employment and women giving birth to many children etc. Not only has this, after marriage, had most of the women taken care of the domestic work which is not included in the category of working population in the Indian census.

Conclusion

Analyzing the occupational composition of the population, it was found that the percentage of working population in 9 tehsils is higher than the study area average of 45.33. While 6 tehsils have less working population than the average of the study area, all of them are located in the south, center and east. Highest working population is in Hindoli tehsil, lowest working population is in Ladpura tehsil.

The average farmer population in the study area is 46.84, and in 8 tehsils the farmer population is more than the average. These are Hindoli, Nainwan, Keshorai Patan, Pipalda, Sangod, Atru, Chhipabarod and Khanpur. The largest agricultural population is in Hindoli. Whereas in tehsils like Baran, Ladpura, Anta etc., the cultivator population is less than the average because here agriculture is done by machines, which reduces the need for labor. In Bundi, Indragarh tehsils, the reason for the low agricultural population

is the reduction in agricultural area and mining operations. Minimum farmer population is in Ladpura tehsil (5.58 percent) because the population here is engaged in other activities.

The average of agricultural labourers is 17.36 percent. The population of agricultural labourers in 6 tehsils is below average. Whereas in 9 tehsils the population of agricultural labourers is more than the average. The largest agricultural labourer population is in Digod tehsil.

The average percentage of population employed in major family industries is 2.63 percent. In 12 tehsils the percentage of population engaged in family industries is below average. Minimum is in Hindoli tehsil. The reason for this is that the Tehsil is completely rural and backward. The population engaged in family industries is more than the average in 3 tehsils. These are – Ladpura, Mangrol and Bara tehsils. Due to maximum being in Mangrol and Ladpura, the population here is involved in the manufacture of Khadi and Kota cordi sarees.

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