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RESEARCH ARTICLE

**OCCUPATIONAL STRUCTURE OF POPULATION IN RUDRAPRAYAG DISTRICT
 (UTTARAKHAND).**

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Abstract

Occupational structure is often referred to as aggregate distribution of occupations in society, classified according to skill level, economic function, or social status. The word occupation is often related to industry. Therefore, the classification of occupation (occupational structure) of population is also known as **industrial classification** of population. There are different types of economic activities all over the world which are different by types and quantity. It is not easy to merge all of them into same category. Therefore, United Nations has made a standardized occupational structure at the global level. Many countries provide the occupational data to the United Nations according to this standard, however countries might also use some other standard for their own country to categorise occupational structure. The industrial classification of India also follows the UN standards, but with some necessary modifications depending upon the regional context. Using the same classification, the paper tries to classify the occupational structure of Rudraprayag district in Uttarakhand. Since the region is predominantly dependent upon primary activities especially agriculture and allied activities, engagement of large section of population in this sector was observed, however with the constant socio economic changes the proportion of population share in the primary activities have been constantly declining. Improved access to education and growing dominance of the service sector have diverted the occupational engagement especially millennial population from primary sector directly to tertiary sector specifically. The occupational engagement in the secondary sector was observed to be least in the region.

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Introduction: -

The concept of occupation is very dynamic which changes constantly with time and place and highlights the socio economic evolution of the Society. It primarily means the engagement of a population work force into different economic activities which can be primary, secondary or Tertiary activities. It can also be seen as a continuous process secured by a man to achieve the livelihood and a social level. This is a special economic activity, by which a man could get livelihood. Therefore, all the economic activities are the part of occupation. Hunting, animal husbandry, fishing, forestry, agriculture, mining, industry, transport and service etc are all occupation activities. In this way, the occupation is the permanent source of economy.” (R.N. Singh et al). Since the dawn of human

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civilization human beings have been engaged in many activities which started with primary livelihood activities like agriculture, and later with socio- economic evolution it transcendent to industrial activities (secondary) and later to tertiary activities with emphasis on improving human skills and services like education, health, banking and research etc.

In each time period, the occupational structure is shaped by interplay of various factors like the structure of the economy, technological development, political situations and bureaucracy, the labor market, socio cultural and economic lifestyles, individual and gender issues etc. and the dominance of each one of these may vary over time with societal changes. Further all the factors can be summarized into internal and external factors. While Internal factors are related to the physical and mental capacity of an individual like age, gender, health, education etc. The external factors are controlled by physical-biological, social-cultural and economic activities, which are also closed to each other. Although the evolution of economic activities started with the need of human beings to survive and later to live a settled life. Therefore, primary activities like hunting, gathering, fishing, mining, animal husbandry and agriculture were first to be ventured by human beings in quest of living a settled life. As the civilizations progressed and societies evolved, set of secondary activities dependent on primary activities evolved like paper, textile, agro based, leather, manufacturing industries etc. Well settled societies followed by development in Science and Technology fostered the pace of economic development giving way to economic revolutions like Industrial, technological revolutions of the 19th Century. There was need of expansion of global services hence the tertiary sector boomed in accentuating the transport, communication, commerce, business, banking sector across the societies. Further these were expanded to include the human developmental aspects like education, administration, medical activities, entertainment, defense etc. With highly developed, mechanized societies and increasing role of Science/research, information technology in socio economic and human development, the knowledge based economy emerged also called as fourth category of occupation activities or quaternary activities. Activities associated with this sector include government, art, literature, culture, libraries, scientific research, education, and information technology.

Throughout the evolutionary phase it is evident to highlight the role of Gender in defining the type of activities man and women can undertake. Historically women have been associated with house hold, agriculture and allied sector activities, while men were engaged in more physically intensive activities like mining, hunting, industrial work etc. However, with societies becoming more developed and gender neutral the inclusion of women in every sphere of economic activities is quite remarkable. But even today majority of women work force in the rural areas is engaged in the agricultural sector, and the share of women in the rural mountain areas is even more dominant.

Uttarakhand is primarily an agricultural state although its share in the country's total area and production is very small. The contribution of agriculture to the state's domestic product is about 22.4 per cent and the population dependent on agriculture for their livelihood is about 75-85 per cent respectively. The Rudraprayag district in Garhwal Himalayas is also predominantly subsistence agriculture based economy. The occupation activities are also dependent upon age, level of education and technology in the region. The study area is more dominated by adults (56.92%) population and high share of dependent population can also be observed. The educated, well qualified and skilled laborers are involving in the secondary and tertiary activities, while the uneducated population involve in primary activities.

Study Area: -

Rudraprayag district is located in the central part of the Garhwal region. It is located from 30°10' N – 30°47'N latitude and 78°45' E – 79°30' E longitude. It covers 1990 km² area of the ground. The altitude of the region ranges from 670 M. to 6968 M. The district is centrally located with Uttarkashi district on the North and North-Western side, Tehri district on the Western side, Pauri lies on the Southern side and Chamoli lies on the Eastern side. The district is primarily drained by Mandakini River and is dominated by its catchment area. The Mandakini and its tributaries, i.e. Madhyamaheshwar River, Kali River, Lastar Gad etc. carve out various topographical structures and landforms in the valley and these valley terraces are occupied by the local inhabitants for settlement. The Geographical location of Rudraprayag district is presented in the Fig-1.

THE LOCATION OF THE STUDY AREA

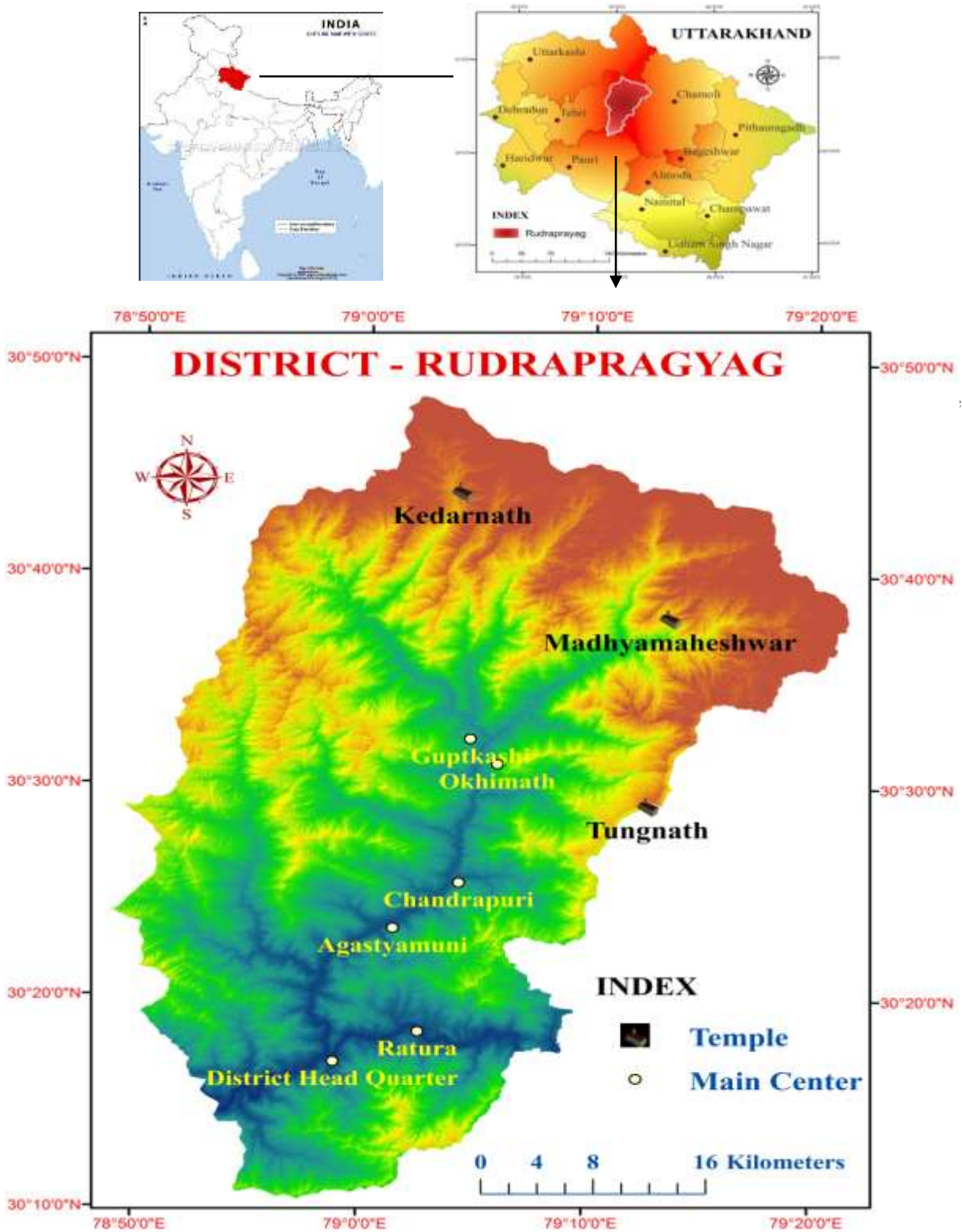


Figure-1

Research Methodology: -

The present study attempts to present the occupational condition in Rudraprayag district. To study the status of occupation in Rudraprayag district, 16 villages have been selected using purposive random sampling method. Demographic as well as occupational data of each village have been delineated using primary survey. Semi structured questionnaire have been used to collect the primary data during the field investigation. Field survey using portable handheld Garmin Montana 650 GPS has been conducted for ground truthing. The spatial mappings of demographic characteristics and migration conditions have been done using Arcgis 9.3 software.

Results and discussions: -

The industrial classification of India follows more or less the same classification as provided by the United Nations, but with some improvisations, depending upon the regional conditions. India classifies workforce engaged in Agriculture more specifically as cultivators and agricultural laborers. The construction sector is described as manufacturing and is classified in household industry and other than household industry. It has been adopted with some changes since in 1951 as follows –

Categories of Occupational structure in India.
<ol style="list-style-type: none"> 1. Cultivators 2. Agricultural Laborers 3. Animal Husbandry, Fishing, Horticulture and Allied Activities 4. Mining and Quarrying 5. Manufacturing, Processing and Repairs <ol style="list-style-type: none"> a. Household Industry b. Other than Household Industry 6. Construction 7. Trade and Commerce 8. Transport, Storage and Communication 9. Other Services

The above classification of occupational structure followed by India is almost same as the standard made by United Nations, but the subdivision of occupational activities has been modified suiting the regional conditions. The first category of United Nations is classified into 3 different classes in Indian census, because lot of differences were observed in the nature and economic conditions of cultivators, agricultural laborers and the people who are involved in different primary activities and a high percentage of people are involved in it. Therefore, it was necessary to reclassify this category. The manufacturing sector is also classified into 2 different categories i.e. i. Household industry and ii. Other than household industry, mainly due to the basic differences in the nature of work and the quantity of production.

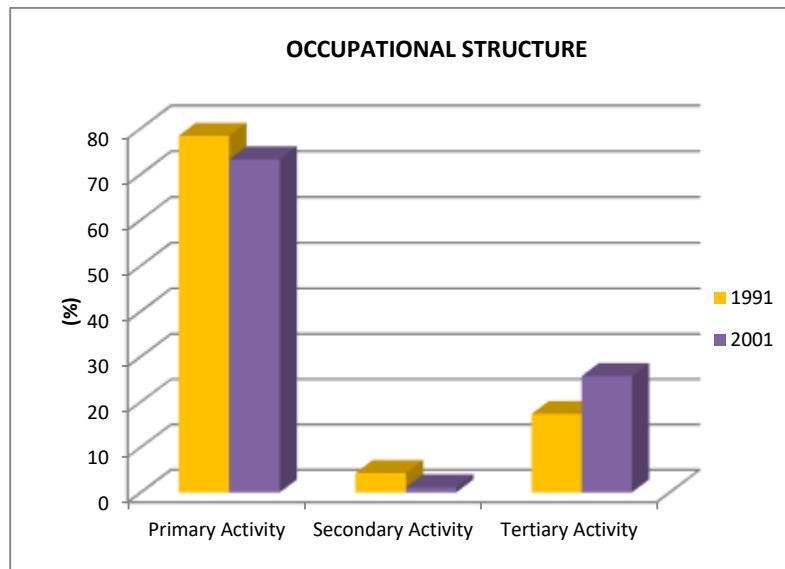
The availability of workforce and its uses are studied in the occupational structure of population. On the basis of their activity, the population can be divided into employed and unemployed. Occupational structure includes the population who are busy in different economic activities. In this way, the occupational structure defines the involvement of active population (employed population) into different economic sectors. Therefore, the occupational structure of population is influenced by cultural, social, economic, demographic and physical factors. The study of occupational structure is very important in the study of population, because we could get the information of available workforce. The **Table 1** (Bhandari, 2007) presents the occupational structure of the Rudraprayag district of 1991 and 2001.

Table 1:-Occupational Structure of Rudraprayag District, 1991&2001

Blocks	Primary Activity	Secondary Activity	Tertiary Activity
Ukhimath	76.1	4.2	19.7
Agastyamuni	76.5	3.9	19.6
Jakholi	82.5	4.8	12.7
Rudraprayag (1991)	78.36	4.3	17.33
Rudraprayag (2001)	73.2	1.11	25.7

Source: Unpublished thesis by Manju Bhandari, 2007

Table-1 reveals the primary, secondary and tertiary activities of Rudraprayag district. The participation of workforce in primary have decreased in 2001 (73.2%) as compared to 78.36% in 1991. A 5.16% decrease was observed for the primary activities,(Figure-2) which can be attribute to improve levels of education in the region, and expanding domain of economic activities in the decades after Liberalization, privatization and globalization of the economy was adopted in 1991, which expanded the tertiary sector pertaining to service sector. Another major factor for the constant decrease in the primary activities is decreased revenue generation from this sector. The climatic and physical factors for agriculture does not provide very conducive conditions for farming in the region, which makes it very labor intensive, small terraced plots do not allow mechanized farming tools like tractors to be used while farming, therefore farming is primarily restricted to subsistence agriculture. Therefore, with improved access to education in the region and expansion of tertiary sector in the last decade, the young adults do not want to engage themselves in primary sector and are conveniently opting for better income sources in the service sector. Most of the young adults can be seen working in hotel and tourism industry, IT sector, as medical and educational professionals, in private companies etc.

**Figure 2: Occupational Structure of Rudraprayag District**

Further the engagement of male population in agriculture is all most negligible. Uttarakhand's economy was traditionally a *money order* economy where male population employed outside the hill region use to send money to their families in the villages. The age old tradition of sending money orders might have come to an end but the male population still reflect highest trends of migration, outside the villages. However, the distances have reduced due to the establishment of industrial zones (SIDKUL) in Uttarakhand Plain region itself but the demand of Industrial

laborers, employees, professionals have remained high, attracting thousands males to migrate from their villages to cities offering these jobs. Therefore, the primary activities in the villages in the district is dominated by women who represent sizable portion of the workforce in the region. Variety of other factors like lack of education, exposure, family pressure, involvement of women in domestic and household work only, male migration to cities to earn livelihood, sole caretaker of the family in the village etc. also contribute to the high share of women in agriculture in the region. Generally sedentary agriculture is practiced in the villages, in small, often terraced plots which is highly labor intensive and manual in nature, where most of the activities from ploughing to harvesting are done by hand. The land is often steep, un-irrigated and therefore, the agriculture is done according to the bunds or contours which are small in size hence use of mechanized farming tools like tractors is not possible. Therefore, more man power is required to perform such farm activities, and in the absence of males (outside for jobs secondary or tertiary activities). majority of such tasks are performed by the women workforce. Therefore, the agriculture is totally dependent on the females, and women have become integral part of mountain economies and livelihood systems.

The maximum engagement of population in primary sector can be observed in the Jakholi block with 82.5 people involved in agriculture. It is due to good quality of agricultural land, which is well irrigated and located along sun facing river valley gentle slopes. The conducive environmental and physical factors have made agricultural activities more sustainable in the block. Least engagement can be seen in the secondary sector (4.6), and much recently share of tertiary activities have reached to 12% in the region due to improved socio economic and educational conditions. Similarly, Ukhimath and Agastyamuni blocks also show more than 2/3rd engagement of population in the primary sector with tertiary being the second most engaging sector of population in the region, and secondary sector being the least engaging sector in terms of occupation.

The share of secondary sector can be seen constantly declining in the region were 4.3% people were engaged in 1991 and only 1.11% in 2001. The 3.19%. reduction in share of occupants can also be attributed to improved educational standards, socio economic status, and changing lifestyle of people which affected the existing market trends (what people buy and sell) in the region. Reduced share of micro industries, local industries like traditional handicraft, weaving, locally produced food products, utensils, furniture and ornaments have been over taken by commercially produced industrial goods which are cheaper in price and readily available in markets, due to improvement in transportation and communication facilities. This has hampered the existing local industries in the region, which were

The reduction in share of Primary and secondary sector occupants have led to increase in the tertiary sector which was 17.33% in 1991, and increased to 25.7% in 2001. The 8.37% increase in the share of occupants can be attributed to numerable push (negative) factors from other sectors and pull factors (positive) of the service sector. Improvement in education is one of the important factors responsible for the drastic increase in the engagement of people in the tertiary sector, which is evident from 8.37% increase within a decade. Better options of livelihood, and skill driven employment in the service sector have led to increase in the share of occupants in the sector post 1995. Further, less paying primary and secondary sector due to physically and climatically harsh regional factors have reduced the share of primary and secondary sector in the region. Still with 73% of population engagement, primary sector remains one of the major sector to employ people in the area.

Table 2:-Occupational Structure of the Sample Villages, 2014

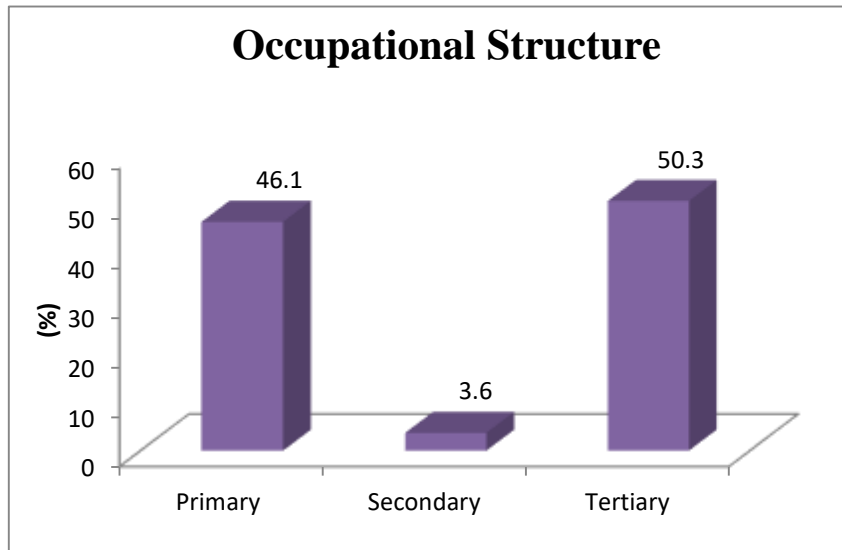
S.No.	Villages	Primary	Secondary	Tertiary
1	Balsundi	43.9	1.2	54.9
2	Baraw Talla	56.4	1.9	41.7
3	Bhainsgawn	49.5	5.1	45.4
4	Dovalya	33	4.6	62.4
5	Tankila	49.4	2.5	48.1
6	Temariya Palla	43.5	8.8	47.7
7	Hyuna	37	0.1	62.9
8	Jai Khanda	40.8	9.7	49.5
9	Jurani	47.1	4.7	48.2
10	Mathya	53.2	3	43.8

11	Dhariyanj	39	4	57
12	Sirwadi	49.1	3.5	47.4
13	Kapaniya	46.9	3	50.1
14	Sisau	51.5	1.5	47
15	Ghengad	48.9	2	49.1
16	Arkhund	48.5	2.2	49.3
	Average	46.1	3.6	50.3

Source: Primary Data Survey

Observing the demographic and occupational data of the 16 sample village of the region, (Table-2) a drastic contrast from 2001 can be observed, where the dominance of tertiary sector is overwhelming with more than half i.e. 50.3 % of the population engaged in the region, followed by 46% in the primary and only 3.6 in the secondary sector (Figure-3). The emerging trend of more involvement of the population in the tertiary activities is predominantly due to agriculture becoming less profitable, immensely improving educational standards in the states, lack of expansion of secondary sector in the region and increasing share of women workforce in the tertiary sector due to improvement in women educational standards and women empowerment initiatives in the last decade. The occupational engagement amongst women can be observed in health, education, tourism, banking sectors as IT professions etc. On an average it was observed that within the sample villages the employment in the primary sector was observed to be more 46% which is way beyond the district average of 73% in 2001. The lack of growth of industrial sector or secondary sector in the region is the primary aim of low levels of occupational structure in this sector with only 3.6% share in the past decade.

Figure 3: Occupational Structure of the Sample Villages in Rudraprayag



Although agriculture might not have remained the sole sector where people are engaged, yet within the sample region there are many villages, where agriculture still remains prominent economic activities like Baraw Talla with agriculture still sharing 56.4 % of occupational structure similarly Mathya, and Syansu are other villages with agriculture as primary occupational activity. Agriculture and allied sectors like diary, vegetable cultivation is still practiced with traditional methods of farming and harvesting. However, changing physiographic and climatological conditions in the region, lack of Market facilities, and transportation have hindered the engagement of people in the sector in recent years. The geomorphology of the region is not only tough with high relative relief but also affected by diversified climatic condition, therefore, the economic growth of the region which is dependent on agriculture moved very slowly.

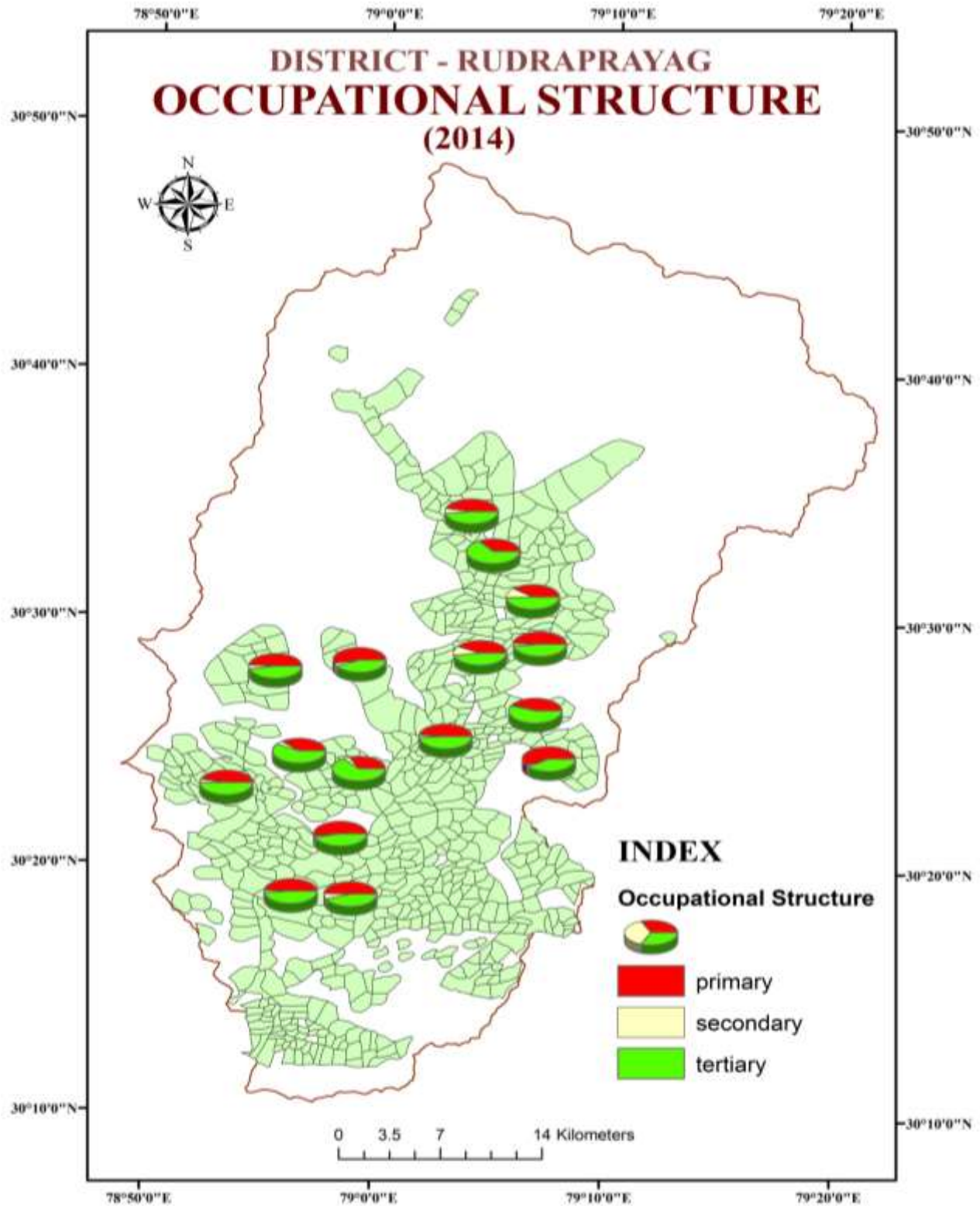


Figure 4
Source: Census of India Maps & Primay Survey Data, 2014

Within the agriculture sector 45.55% average population is involved in farm based agricultural practices and 0.55% people have animal husbandry as occupation. The construction, transport and industry include only 3.6% population. There is 1.67% population in business, 13.77% people are services and 34.86% people are involved in other activities (Primary Survey Data). The most of the share is of agriculture. Temariya Palla has 43.5%, Tankila has 48.95%, Bhainsgawn has 49.5% and Hyuna has 36.45% population involved in agriculture. Jai Khanda has 40.8%, Jurani has 46.55%, Dovalya has the same 33%, Mathya village has 52.65% and Sisau has 51.5% population involved in agriculture (Figure-4). Most of the people of these villages are involved in secondary and tertiary activities. Therefore, the out-migration in these villages is very much. Jai Khanda has 40.9% out-migration, Dovalya has 30.65%, Mathya village has 24.18% and Sisau village has 23.05% out-migration. The least share of agriculture is found in Mathya village. There are only 45.55% people who are involved in agriculture activities. (Table-2 & Figure-4). The basic reason behind this is that the agriculture land is not too much here and these areas are very remote by accessibility. Therefore, the people move outside in search of better livelihood conditions and women do agriculture.

Conclusions: -

Although Primary sector i.e. agriculture and allied sector continue to remain as dominant sector engaging more 60% population in the area, the share of engagement of population in the Tertiary sector have been phenomenal over the years especially after 2001. Nearly 14.51% people were observed to have entered in different sectors other than primary, due to their better status of education, improvement in basic standard of living, availability and accessibility of other employment opportunities in the region. Majority of the workforce in the Tertiary was observed to be engaged in hotel industry and private companies. Small share of i.e. 4.52% population was observed working as laborers primarily as masons and constructional workers. Further 1.71% people started the own business. There are a few respondents (0.025%) who work as folk artists and 0.85% people were automobile drivers. Although the share of population engagement in Tertiary sector have improved, but there is a wide regional gap with in the area, in educational facilities, regions with improved accessibility to education and opportunities are showing improvements but there is still greater dependency on primary sector due to regional disparities. It was observed, in the context of educational conditions that almost 13.69% people are illiterate and the rest people who are graduates and post graduates, they are not more qualified and helpless to get themselves involved in any other sector, hence are either involve in agriculture or work as drivers or laborer etc. Therefore, the existence of multidimensional factors like tough terrain, harsh climatic conditions, inaccessibility to educational facilities and employment opportunities, lack of dispersal of opportunities, social customs and traditional lifestyle methods have restricted the overall regional development, hence majority of workforce is still dependent on sedentary agricultural practices in the region. But with gradual improvement in socio economic conditions in the region and improving opportunities the growth of Tertiary sector seems encouraging, providing diversified livelihood opportunities to the local people of the region.

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