COMPARATIVE ANALYSIS OF SOCIO-ECONOMIC STATUS IN SELECTED VILLAGES OF GARHWAL HIMALAYAN REGION

A Case Study of Bachwar, Chandi, Dhan Kurali, and Kothiyara villages in Uttarakhand

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Abstract: Bachwar, Chandi, Dhan Kurali, and Kothiyara villages are situated in Rudraprayag district, Uttarakhand. These villages have stunning natural beauty. This study is to find the working and living condition of the people. The objectives of this study to know all the aspects of the socio-economic condition. The work is mainly based on the primary data resources which are collected with the help of qualitative and quantitative methods. The condition of this area is represented with the help of some visual statistical tools. It is observed a large number of people has increased their living standard but some are in the same condition. Many of them are stressed with the health care facilities, education, unemployment making their survival difficult. They could not maintain their livelihood due to their low income. Therefore, it is very important to explore the socio-economic status of these areas concerning their demography, occupational structure, education, employment, income, housing characteristics, and Government schemes. There are many natural resources available to use in their sustainable livelihood development. Therefore, in this paper an attempt has been made to analyze the socio-economic condition of these Garhwal region villages.

Keywords: Socio-economic condition, Bachwar, Chandi, Dhan Kurali, Kothiyara, Sustainable Development.

INTRODUCTION

The Great Himalayan region holds a special place in the mountainous ecosystem. This region is crucial for the climate perspective; it is essential as a life provider. This region gives water bodies, flora, fauna, cultural diversity, and human communities to the Indian subcontinent. In the Himalayan region, Uttarakhand has a great place in this area. Uttarakhand has stunning natural beauty in mountains, glaciers, rivers, forests, and unique ecosystems. Uttarakhand has all the specialties of the Himalayas in one state. Uttarakhand is called "Devbhumi" or "Land of God" for its rich religious culture. This state is not only known for religious culture; it's also famous for the natural beauty that feels like heaven. Uttarakhand predominantly states with 69.77% workforce residing in rural areas. (Census 2011) Agriculture is an important sector of the Uttarakhand economy as it contributes about 10.20% to the total GDP and provides employment to half of the population. The primary sector growth rate in 2019-20 is 4.15 % compare to 2018-19. (Economics Survey 2020-21) Forests play a significant role in Uttarakhand Economy. Forest cover covers approximately 63% of Uttarakhand's recorded land-use area. "Forest areas in the proximity of population centers or villages are reported to be shrinking and degrading faster due to the collection of fuelwood and cattle grazing. Compared

to forests situated away from population centers and located in inaccessible areas" (FSI 2000). In the Garhwal region, there are scattered small settlements and small size agricultural lands. Traditionally in this area, the agriculture system and habitat are only elevated in 1000-to-2000-meters altitude areas. Above this altitude, there are fewer outcomes from agriculture, so the resource pressure is shifted from agriculture to forest. Most people live in rural areas; they draw their livelihood from agriculture and allied sectors. So, the term rural development contains the overall development of the rural regions to improve the quality of life of rural people. In this sense, it is a comprehensive and multidimensional concept that includes Developing agriculture and allied activities, cottage industries, crafts, socio-economic infrastructure, community services and facilities, and human resources in rural areas. Rural growth is the product of interactions between various physical, technological, economic, social, cultural, and institutional factors. Thus, the growth and development of the rural economy and population are essential to the state's overall growth and inclusive development.

STUDY AREA

The Villages Kothiyara, Chandi, Dhankurali, and Bachwar are located in Jakholi Block, Rudraprayag district, Uttarakhand. The Geographical location of villages are longitude 78°89′34″47 - 78°94′10″37 E, and latitude 30°39′25″55 - 30°41′26″32 N. Geographical area of villages Kothiyara, Chandi, Bachwad, and Dhan Kurali are respectively 50.78hac., 28.91hac., 77.78hac., and 32.1hac. All the villages are in remote areas; the district headquarter is 37km. Away, and Sub-district headquarter 12 km. Away from Kothiyara and Chandi. The village Bachwad is 42 km away from the district headquarter and 2 km. from the sub-district headquarter. In the survey, we found that a total number of households in these villages is 294, and the total population is 1463. The majority of the caste in this area is Kothari, Bhatt, Rana Rawat, Shah, and Anthwal. Inhabitants generally belong to major cast groups, Brahman and Oji (about 15%, 20% respectively), and Hinduism is the major religion of the inhabitants. Most people speak Garhwali, and Hindi is the second primary language of the region. Mountain terrace farming is abundant in the region, with three crops a year: Rabi (October–April/May, e.g., Wheat, Barley, Mustard), Kharif (April–October, e.g., Rice, Corn), and Jayad (May–October, e.g., Cucumber, Pumpkin, Beans).
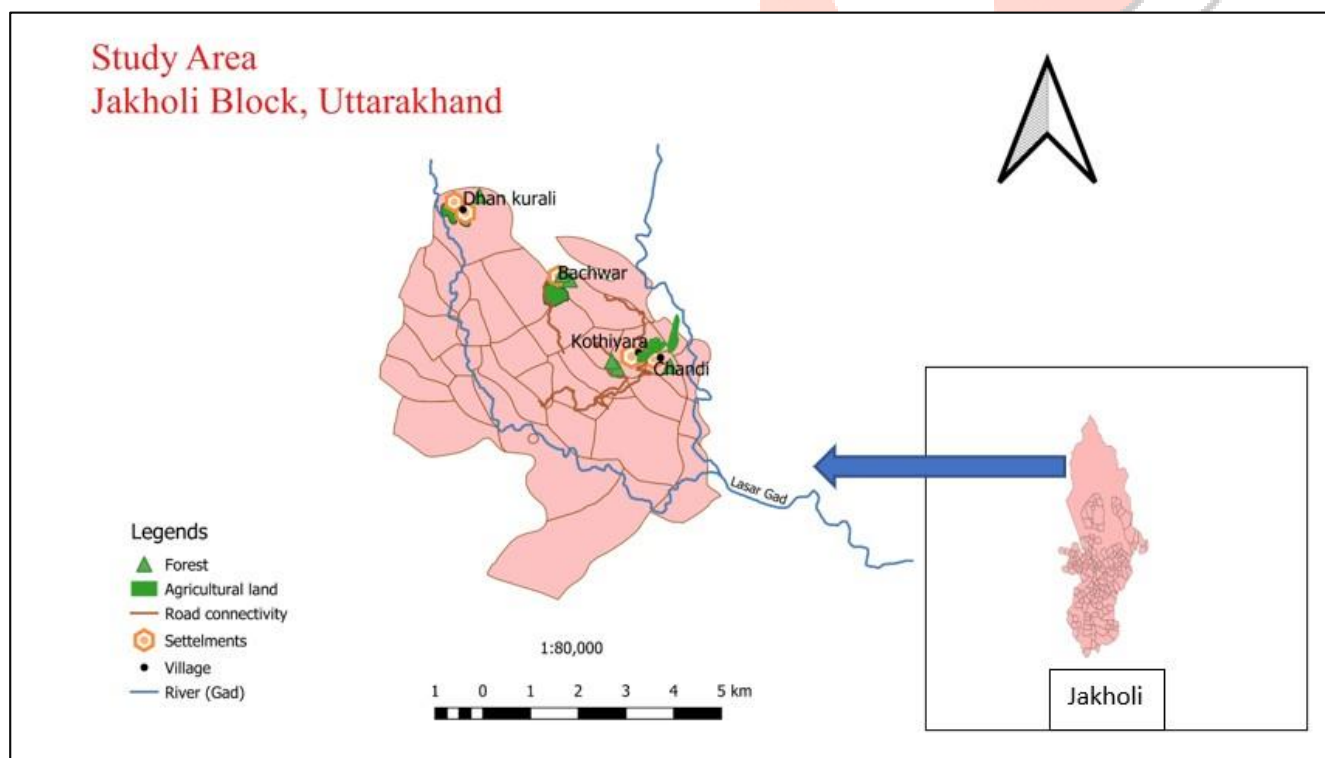

Figure 1 Map Methodology (QGIS)

RESEARCH OBJECTIVES

1. To examine the socio-economic status of villages.
2. To find out the role of agriculture in socio-economic development.
3. To study demographic structure.
4. To analyze the level of education.
5. To find gender equality.
6. To examine the Government schemes implementation.
7. To investigate the housing situation.

HYPOTHESIS

1. The Agriculture sector plays a vital role in village economic status.
2. Unemployment is the main cause of poverty in villages.
3. Various Government schemes are implementing properly.
4. In villages, there are low literacy rate.
5. Out- Migration is a significant problem in Hilly areas.

RESEARCH METHODOLOGY

This study involves both primary and secondary data, which is published and unpublished sources. The source of secondary data is govt. MNREGA website. The quantitative method is used for the collection of data. The primary data has been generated through a census which is held in these villages. The household survey of 294 households is done from Dec. 2020 to January 2021. The data has been collected through a structured questionnaire and personal door-to-door interviews. Rapid appraisal methods like focus group discussion, community group interview, and direct observation are also used. For the collection of qualitative data collection personal interviews of elderly villagers and neighboring villagers are also conducted.

Population density is a measurement of population per unite area. It is calculated with the help of the following formula: -

$$\text{Density} = \frac{P_i}{A_i}$$

P_i = Total population in a particular region in a particular time
A_i = Total area of a particular region in a particular time

Literacy rate has been computed excluding the age group of 0-6 year's population in this area. It is calculated with the help of under mentioned formula: -

$$\text{Literacy Rate (\%)} = \frac{L_i}{p_i} \times 100$$

L_i = Literate people in a particular region in a particular time
P_i = Total population of the particular region in a particular time

RESULTS AND DISCUSSION

The socio-economic status of the villages can be determined by the help of some social, economic, and demographical characteristics. Some important aspects for getting out the result is employment, income, health, education, population, religious condition, migration, property, assets, infrastructure, and house types. These characteristics are helpful to find out the socio-economic status of the villages.

❖ DEMOGRAPHY

Demography is the leading and essential component of every society to determine socio-economic status. It is a statistical and mathematical tool to determine the status. With the help of the primary data collection method (questionnaire-based), population data collected from the villages Kothiyara, Chandi, Bachwar, and Dhan Kurali. The population of these villages is approximately 1463 persons. There is no schedule tribe in this area. Chandi village is the highest dense out of four villages, and bachwad village has the largest area. Kothiyara village has the highest population in these villages. These data show that every village has its demographic uniqueness. The other data is following:-

Table 1: Demographic Characteristics of Selected Villages

S. No.	Village Name	Households	Total population	Male	Female	Area (Hac.)	Density (Person/hac.)	S.C. Population
1.	Bachwad	74	344	159	191	77.8	4.498	15
2.	Chandi	77	366	173	295	28.9	12.733	41
3.	Kothiyara	72	403	203	200	50.8	7.933	38
4.	Dhan Kurali	70	350	176	174	32.7	10.70	00

Table 1 Source- Baseline Household Survey

❖ OCCUPATION STRUCTURE

Taking a look at the populace's economic trade stays incomplete without its connection with the occupational composition of the population. The profession of a man or woman refers to his change, career, and so. The occupational shape of society is made intimately related to factors. When the primary resources are utilized commercially, it generates diversification of occupational structure (Clarke 1972). The societies have often been classified into primary, secondary and tertiary civilizations based on occupational composition (united nation 1964). Those villages are mainly based on the primary sector but partially on allied sectors. In COVID-19-time private jobs are gone the drain because many people who work outside lost their jobs in this period. The occupational structure of the villages:-
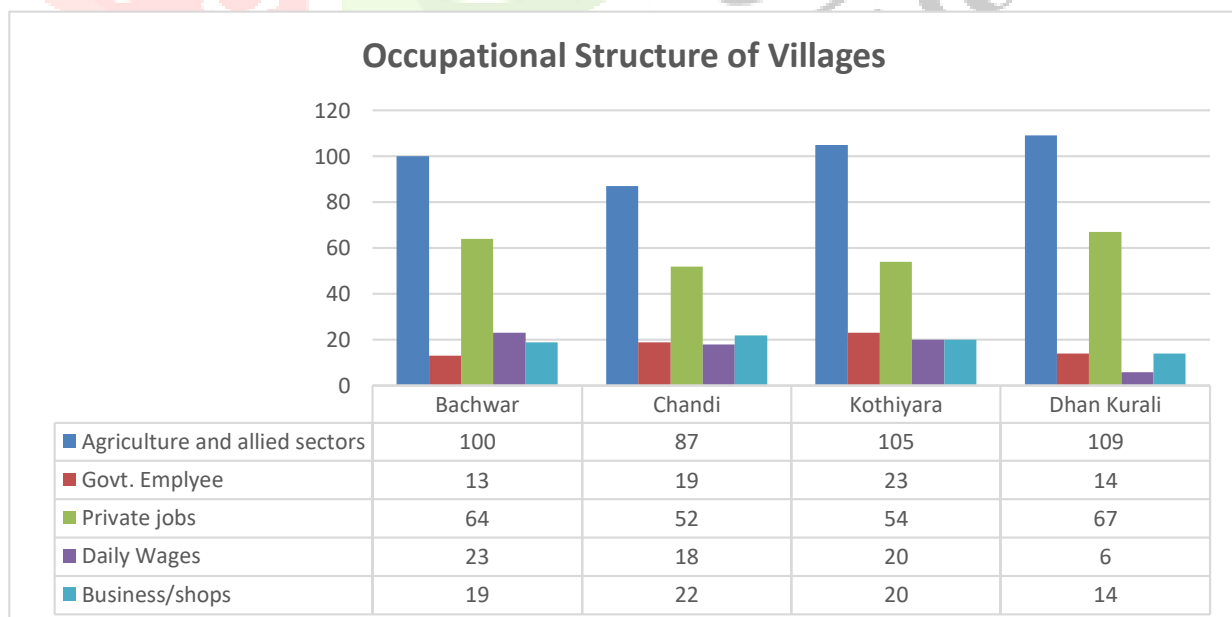

Occupational Structure of Villages

	Bachwar	Chandi	Kothiyara	Dhan Kurali
■ Agriculture and allied sectors	100	87	105	109
■ Govt. Emplyee	13	19	23	14
■ Private jobs	64	52	54	67
■ Daily Wages	23	18	20	6
■ Business/shops	19	22	20	14

Figure 2 Occupation Structure of Bachwad, Chandi, Kothiyara, and Dhan Kurali (Source- Baseline survey Jan. 2021)

❖ **EDUCATION**

"Education is the most powerful weapon; you can use to change the world".

(Nelson Mandela)

Education is one of the essential indirect variables influencing socio-economic behaviour and workforce participation. Education is supposed to be the backbone of every community, and it is a process that helps to learn or acquire knowledge, skills, and habits. It also conveys the content of the human person. The development of villages depends on the literacy rate of the inhabitants. To get socio-economic structure, everyone has to know about the literacy rate. All the four villages literacy rates:-

Table 2 : Educational Status of Villages

S. No.	Education Qualification	Bachwar	Chandi	Dhan Kurali	Kothiyara
1.	Literate	56	48	64	14
2.	1-5	30	36	37	48
3.	6-8	42	57	33	46
4.	9-10	56	53	39	51
5.	11-12	78	64	67	64
6.	Graduation	29	39	31	65
7.	Post-Graduation	11	07	15	43
8.	Technical Education and Diploma	03	08	02	15
	Total	317	312	288	346
	Literacy Rate(%)	88.66	85.24	82.28	85.85

Table 2 Sources- Baseline survey Jan. 2021

Besides all these, there are many dropout students from school and college because colleges are not nearby areas. If someone wants to higher study, then they have to leave the village. There are only 3 Govt. Schools and 1 private school in Kothiyara and no school at Chandi village. In Bachwad, there is only 1 primary school. The degree college is in Rudraprayag. Most senior secondary pass outs go for higher studies in Rudraprayag, Agastyamuni, Srinagar Garhwal and Dehradun. However, some do not get this opportunity because if they are going for college studies, how can their family afford it? Because of distance, girls are not allowed to study outside the area.

❖ **HOUSING CHARACTERISTICS**

The concept of housing in modern terms is a physical shelter and a house where the family can develop physically, mentally, and socially. During the survey, it is learned that their houses were made by woods, stone pieces, floor by mud earlier. Though the mud floor exists even now, other features of houses have undergone many changes and replaced with recently. The pucca houses are made in modern style with a modular kitchen. The data of houses are given below:-

Table 3 : Housing characteristics of villages

House type / Village Name	Kuchcha	Kuchcha-Pucca	Pucca
Bachwar	09	26	39
Chandi	25	22	30
Kothiyara	19	21	34
Dhan Kurali	02	03	65

Table 3 Source- Baseline Survey Jan. 2021

❖ **MIGRATION**

In mountainous states, there is a significant problem of out-migration caused by push and pull factors of migration. A day's migration is associated with global issues such as economic growth, poverty and human rights. Migration can have several social and economic advantages but also challenges. The major problem caused by migration is the drainage of knowledge because people go for a dream job, but they cannot get a good job, the talent and knowledge have gone to drain. In hilly areas, men migration is prevalent for work, and women is living alone in villages. Women work in villages and men in cities for economic wellness. In COVID-19 time the migrants got back home, but they lose their jobs.

Table 4 : Form of Migration in Villages

S. No.	Village	Number of Migrants	
		For Study	For Work
1.	Bachwad	26	39
2.	Chandi	14	24
3.	Kothiyara	59	101
4.	Dhan Kurali	21	56

Table 4 Source- Baseline Survey Jan. 2021

❖ **UNEMPLOYMENT**

Unemployment is not only a mountain area problem; it is a global problem that is mainly faced by developing countries and their states. Villagers working outside the villages get back at the period of COVID-19 because they lose their jobs. Before COVID-19, unemployment is a significant problem in these villages. In villages, there are only the agriculture sector and its allied sector there are only a few MSMEs, not big firm and job opportunity equal to qualifications. There are villages unemployment data which contains COVID-19 affected jobs fired data:-
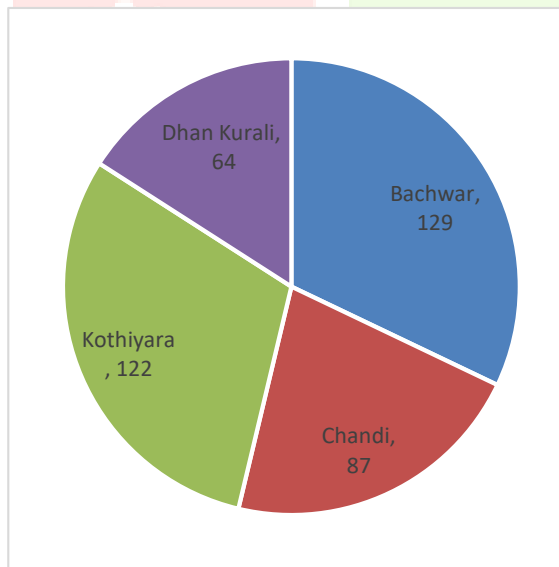

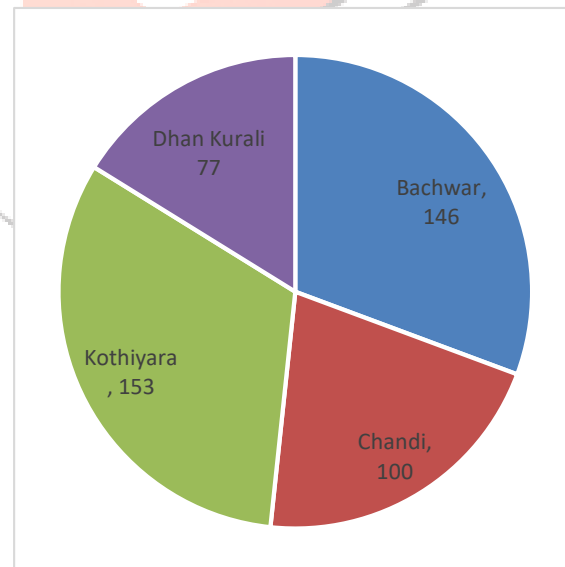*Figure 3 - Before COVID-19 Unemployment*

Figure 4 - After COVID-19 Unemployment

❖ **LIVESTOCK AND MILK PRODUCTION**

After agriculture, livestock is the main economic sector of these villages; women get fodder from the forest or outside the habitat areas. They carry fodders from outlying areas for their livestock. In winter, they have a tough challenge to get food for livestock, so they save fodder before winter starts and in winter, when nothing to get for livestock than they use their collected fodder for animals. Regular trekking on the mountain is strenuous, but women regularly trek on mountainous forests to get fodder for livestock. They do this challenging task to get milk and animal outputs. In Dhan Kurali village, there are 624 sheep and chicks. Some data are following:-
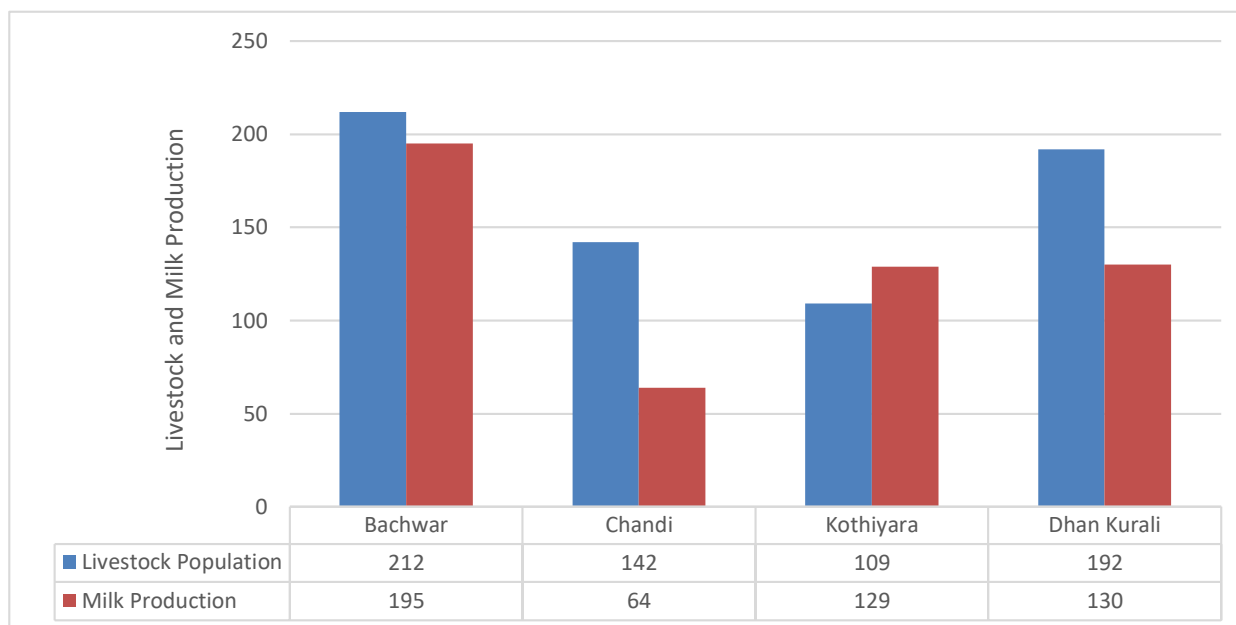
Figure 5 Livestock and Milk production (Source- Baseline Survey Jan. 2021)

❖ **ANNUAL INCOME**

Income is a significant component in socio-economic structure analysis. The economic structure of a village can be prejudice with the help of income data. In villages, the major source of income is the primary sector (agriculture and allied sector). Uttarakhand per capita income in 2019-20 is approximately is Rs.2,02895. (Economic-survey 2020-21) In selected villages agriculture, horticulture and animal husbandry is a significant source of income. Kothiyara village have highest per capita income in these villages. APL per capita in all villages is higher than BPL, showing the difference between APL and BPL is high. The difference creates a gap in the development of the village.

Table 5: Annual Income of APL and BPL families

S. No.	Village	APL Per capita Annual Income (Rs.)	BPL Per Capita Annual Income (Rs.)
1.	Bachwad	52288.25	25144.92
2.	Chandi	42054.26	18189.87
3.	Kothiyara	114560.52	56419.92
4.	Dhan Kurali	141736.80	45448.30

Table 5 Source- Baseline Survey

❖ **GOVERNMENT SCHEMES**

In these villages, two central government Schemes work; the first is MGNREGA, and the second is Swachh Bharat Mission Sochalaya (Toilets). In the MGNREGA program government gives 100 days employment guarantee to MGNREGA applicants. In the Swachch Bharat Mission Sochalaya, scheme government gives money to beneficiaries who do not have toilet at their house, so the government gives a certain amount to build a toilet. The labor is also associated with the MGNREGA scheme. The beneficiaries of the above scheme are those who fill guideline criteria.
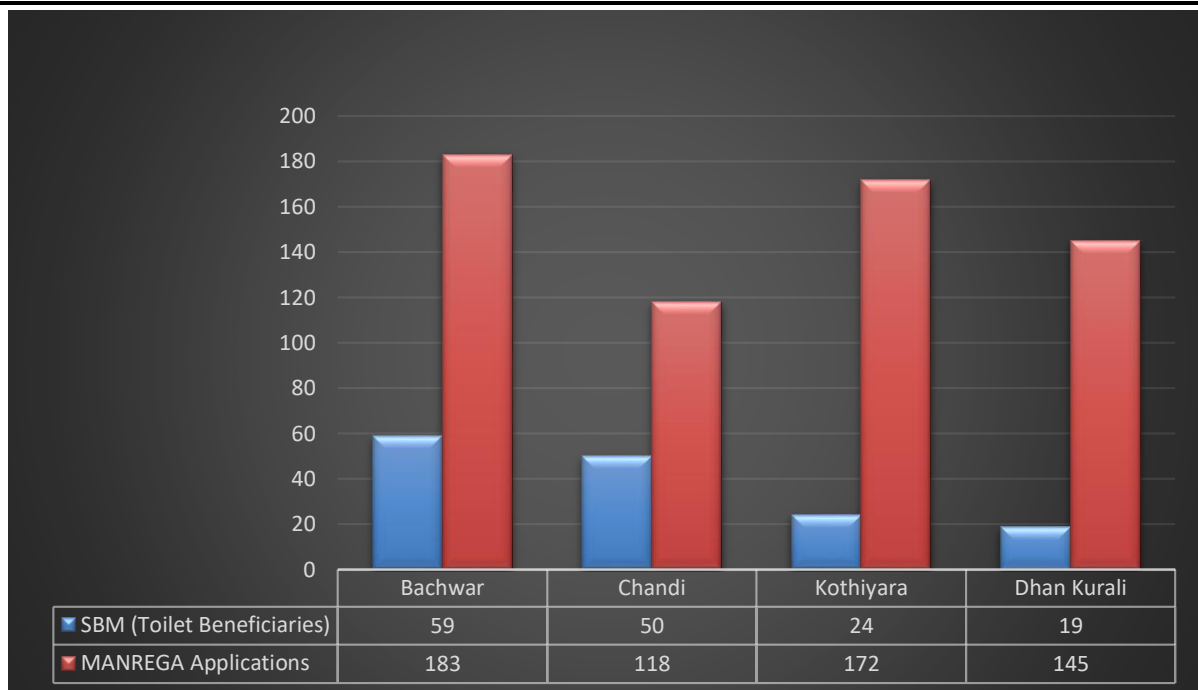
	Bachwar	Chandi	Kothiyara	Dhan Kurali
SBM (Toilet Beneficiaries)	59	50	24	19
MANREGA Applications	183	118	172	145

Figure 6 Source- Baseline Survey and MGNREGA website

TESTING OF HYPOTHESIS

1. The hypothesis "The Agriculture sector plays a vital role in village economic status" stands proved. We can see that agriculture is employment provider in villages' economies.
2. The Hypothesis "Unemployment is the main cause of poverty in villages" stands proved as data saws that the minimum percentage of villagers are in government jobs. Villagers mainly work in the agriculture and private sector; they do not get enough income to live a simple life and are trapped in the poverty cycle.
3. The hypothesis "Various Government schemes are implementing properly" stands disproved. As in data, we can say that only two schemes are implementing properly in these villages. Villagers do not know about other schemes properly. They are not benefited from various schemes like soil health card, PM Ujjwala Yojana, Kisan credit card scheme, agriculture irrigation scheme.
4. The hypothesis "In villages there are low literacy rate". Stands disproved as data represent all the villages have higher literacy rates than India's average literacy rate. It shows that villagers are literate and some are highly educated with different skills.
5. The hypothesis "Out- Migration is a significant problem in Hilly areas" stands proved. In the lack of employment opportunities and higher studies institutions, villagers migrate to cities like Srinagar, Dehradun, Delhi, Mumbai for a better future and survival.

PROBLEMS

By the field observation and household survey there are some significant problems in this area are given below: -

- The prime riddle of these villages is road connectivity and transportation. There is irregular public transport in these villages, and some villages are not connected to any road.
- In this area, there is no nearby market for agriculture and horticulture products for sale.
- Primary Health care centers are not available in all villages. So, the villagers are not benefited by health care facilities.
- Out-migration is also a significant problem in this area cause of the lack of employment and career opportunities.
- Sanitation is also a problem in these villages because authorized bodies are not working well.
- There is lack of higher education institutions.
- Villagers are not aware about the government schemes and they do not get benefits of it.

SUGGESTIONS

There are some suggestions to improve the socio-economic status of these villages.

- The area should be accessible at least by the road connectivity and regular public transportations.
- A nearby local market should be open for villagers to sell their products.
- An authorized body should be responsible for sanitation.
- There is the availability of natural resources, so villagers have to get the knowledge and skill to uplift their socio-economic status.
- Villagers have to get knowledge about government schemes and get benefits of schemes.
- Some agriculture pattern and skill development training are needed in this area.
- Some house industries like food processing industries, bio briquette industry should be open by SHG (Self Help Group) for development.

CONCLUSION

Although these villages are developing, there are some socio-economic problems which are not solved yet. There are many natural resources like water, land, forest, suitable climate, man force. These resources are potential to change the economic status of these villages, but it only happens when the human resources know how to use resources for sustainable development. If the natural resources are used responsibly, then they can get a clean and green economy. These villages have some excellent characteristics like good education, good sex ratio, and human resources. After so many good characteristics and resources, they comprehend many problems like sanitation, health conditions, transportation, and unemployment. Though their daily life environment is in modernization and some aspects, they are in a primitive state. So, whenever they suffer from these problems, we cannot uplift our society. If all the problems are solved, not only villages but also our country can achieve the SDG (Sustainable Development Goals) no. 1, 2, 3,4,6,8,10,13, 15, and rural development in an absolute sense.

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