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# Action Research Projects

March 2020

Volume 1



**Mahatma Gandhi National Council of Rural Education**

Department of Higher Education

Ministry of Human Resource Development, Government of India



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Department of Higher Education

Ministry of Human Resource Development, Government of India

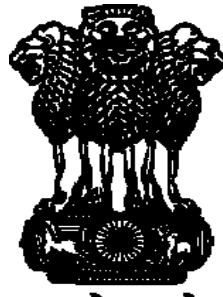
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सत्यमेव जयते

# Rural Internship Programme

## Action Research Projects



Where there is Rural Wellbeing  
there is Universal Prosperity

**Faculty Development Centre**

**Mahatma Gandhi National Council of Rural Education**

(Formerly National Council of Rural Institutes)

Department of Higher Education, Ministry of Human Resource Development Govt. of India

Shakkar Bhavan, Fateh Maidan Road, Basheer Bagh, Hyderabad – 500004



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### Action Research Reports

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## Foreword

Action Research is a specific process for problem solving, verification, and discovery. The process can be used by an individual, teacher or student, but experience indicates the process works best through cooperation and collaboration. The Action Research process comprises: 1. Identifying the problem; 2. A plan to answer or resolve the problem; 3. Use of objective data; 4. Collection of data; 5. Data recording; 6. Data Analysis and Interpretation; and 7. Reporting.

At the end of the Action Research Project, participants will contribute towards institutional improvement by effecting positive social and educational change in their immediate environments and spheres of influence with respect to experiential Learning methodologies/techniques and learn to become more proactive and take responsibility for effecting change. Students can work collaboratively with involvement in research projects by using the expertise of various strata of people; raise their community engagement and research profiles; and engage in projects in collaboration with schools/educators.

MGNCRE called for Action Research Projects simulating the role of the students to influence behavior in order to improve student outcomes. The students (Kumaun University) were asked to do Action Research Projects on rural concerns in villages. The outcomes were positive with students going all out to achieve their goals of Action and Research adopting several research methodologies including identifying the village, identifying problem areas, reviewing related literature, focusing on the objectives of the study, and collecting and analyzing viable data. They submitted the reports by adding the implementation steps and findings complemented by annexures and pictures. This is Volume 1 of the Action Research Project Reports compilation.

**Dr. W G Prasanna Kumar**  
**Chairman MGNCRE**

## **The Case Study of Suring Munsiyari**

**Neeraj Padaliya**

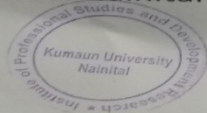
**Kumaun University, Nainital**

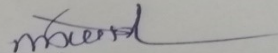
## CERTIFICATE

This is to certify that Neeraj Padaliya student of I.P.S.D.R Hermitage institute has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date:03/03/2020

Place: Nainital



  
Signature

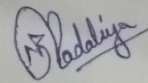
Dr. Atul Joshi  
(College Seal /Stamp)  
Director  
Institute of Professional Studies  
and Development Research  
'The Hermitage' Kumaun University  
Nainital (Uttarakhand)

## DECLARATION

I hereby declare that the project work entitled “the study of rural immersion programme on Suring (Munsyari) Village of Pithoragarh District” submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Prof. Pradeep Joshi. The results embodied in this village report have not been submitted to any other Organization or University.

Date:03/03/2020

Place: Nainital



Signature of Intern

Neeraj Padaliya

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## Introduction to the Village

**Suring** is a village in Munsyari Block in Pithoragarh district of Uttarakhand state, India.

It is located 120 km towards north from district headquarters Pithoragarh and 3 km from Munsyari.

Total area of Suring is 236.065 hectares. The scenic hill station Munsyari in which Suring comes is perched at an altitude of 2298 meters above sea level. Located at coordinates – latitude: N-30°4' 17.463" and longitude: E-80°14' 14.424".

Climatic condition in the area may reach/vary min. 0°C to Max. 23°C. During at, Summer time it vary 13°C to 23°C ; Monsoon time it vary 6°C to 19°C and Winter time it vary 0°C to 11°C.

## Identification of the Problem

- 1- Infrastructure
- 2- Natural calamity
- 3- Unemployment and less income of women.
- 4- Migration due to which people are unknowingly leaving their culture.
- 5- Small market for the area.

These problems give opportunities to start the venture of digital marketing.

## Review of the Literature

Going through the history of digital marketing started in 1990 and now it is an on going platform and there is less digital marketing for **Munsyari, Uttarakhand**. The place is growing in the field of tourism and hotel booking only and not in the field of other product like handicraft, etc.

## Objectives of the Study

- 1- To know the opportunities and rural status for entrepreneurship development. Especially women entrepreneur.
- 2- Examining the problems like migration, unemployment etc.
- 3- Exploring the culture and vegetation. i.e **Kidajadi**.
- 4- Exchange and sharing of ideas.

## Hypothesis of the Study

There is a great chance of achieving success because digital market is spreading worldwide and it is an enormous market with buyers so, There is a chance of growing in this venture. In that area we have a less competition within this platform.

### **Actions Planned to address the problem**

Starting up a new venture ( i.e Digital marketing- tourism, handicraft, potato chips, dairy product, pulses (Rajma) , organic farming, home stay, kidajadi etc.) with sustainable development which will help in reducing migration and will also create employment for the people. This will eventually help in sustaining their culture as well.

### **Implementation of Action Research Steps**

Launching up a website and then promoting through various mediums and social media as well like facebook, whatsapp, instagram, etc. and connect with customers and fulfill their needs.

### **Process of Implementation of the Study**

Firstly, interacting with the people who are manufacturing those products and assuring them a good income. Then Licensing of **e- business**.

Finance status - self finance for launching website and uploading the details of products on the website.

Courier service status- providing best delivery services.

### **Data Collection and Analysis**

The research is based on the secondary data. The analysis is based on the climate change and infrastructure of area and needs of people. Enhancing the area of market on digital platform.

### **Findings**

Women are doing handicraft with help of SHG but not getting income upto the mark and also cultivating famous pulses like rajma and other activities home stay for tourism. There is no good platform for such businesses therefore, digital marketing will help them to achieve it.

### **Conclusion**

Digital marketing is the way to promote the area in the world and to create awareness among people. Then people will love to visit and buy more products. It also affects the rural economy and its infrastructure. People who have migrated will see there are opportunities and will surely return back to their place.



## References

Google search engine

Euttaranchal.com

Digital

## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

1	<b>Name of Village</b>	Suring
2	<b>Address of the Village</b>	Suring , Munsiyari ,Pithoragarh
3	<b>Name of Sarpanch / Contact Person</b>	MRS. BHAGWATI DEVI
4	<b>Date of Visit</b>	21-02-2020

<b>Demographics of the Village</b>		
1	<b>Number of Men</b>	199
2	<b>Number of Women</b>	215
3	<b>Number of Children</b>	21
4	<b>Total Population</b>	414
5	<b>Number of Anganwadis</b>	1
6	<b>Number of Schools</b>	1

7	Number of Primary Health Centres	None
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VILLAGE SCHEDULE				
S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
2	Does anyone go out and defecate in the open in village?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
3	Are these faeces from the toilet being disposed in the river?		No	If, Yes , Then what <b>Action</b> has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
5	Are there institutional toilets at Schools, Anganwadis and Public places?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
6	Is waste from restaurants, public places dumped into the river?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
7	Is there a prevalence Of visitor/tourist OD?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?		No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
9	Are twin-pit toilets common in the Village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities

10	Are septic tank toilets (non-porous) common In your village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
11	Is there a P-Trap in all toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in /for the toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
13	Are all toilets “fly-proof” – or Hygienic?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
14	Is the human waste disposed of in the Drain, a) Nallahs, b) Open pit; c) Ponds or river or streams or any water body etc.	Yes		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities- None but uses of dustbin.
15	Is fecal sludge directly discharged to waterbodies?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
16	Is there a practice to wash the hands with soap after using the toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
17	Is any visible feces found in the environment?		No	If, Yes , Then what <b>Action</b> has been taken by the Village

				Authorities
18	Is there any odour of urine or faeces in the location?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
20	Is child faeces disposed of in open area?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises ?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
22	Is water available in /for the toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
23	Is toilet “fly-proof” – or Hygienic?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
24	Is the human waste disposed of in the Drain, a) Nallahs, b) Open pit; c) Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
25	Are Anganwadi cleaners maintaining and cleaning public toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>School Schedule</b>				
26	Are there separate functional	Yes		If, No, Then what <b>Action</b> has

	toilets for boys and girls in the school?			been taken by the Village Authorities
27	Is there water available for use in the school toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
28	Is the human waste disposed of in the Drain, <b>d)</b> Nallahs,  <b>e)</b> Open pit;  <b>f)</b> Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
29	Is public toilet accessible to all (including Divyangs/physically challenged)	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Public Toilets Schedule</b>				
30	Is there a Public Toilet in the village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
31	Are there separate sections for Men and Women?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
32	Is the human waste disposed of in the Drain, <b>g)</b> Nallahs,  <b>h)</b> Open pit;  <b>i)</b> Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
33	Is any sustainable water supply process/ method adopted for sustainability of ODF?		No	By pipe lines

34	Is any sustainable process/method adopted for fecal sludge management?		No	<p>If ,Yes Describe the process or method</p> <p>If, No, Then what Action has been taken by the Village Authorities- None</p>
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## Annexure 2

### Village Visit (Survey on Sanitation Management and ODF)



Garbage strewn carelessly



Artisan at work

## Annexure 3 Village Visit (General)



Tourist scenic spot



Cow dung dried



A Hamlet

**The Case Study of Bitholi Village in  
Almora District, Uttarakhand**

**Akilesh Bisht  
Kumaun University, Nainital**



## CERTIFICATE

This is to certify that Akhilesh Bisht student of I.P.S.D.R Hermitage institute has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date:03/03/2020

Place: Nainital



  
Signature

Dr. Atul Joshi

(College Seal /Stamp)

Director  
Institute of Professional Studies  
and Development Research  
'The Hermitage' Kumaun University  
Nainital (Uttarakhand)

## DECLARATION

I hereby declare that the project work entitled “the study of rural immersion programme on Bitholi Village of Almora District” submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Prof. Sarika Joshi. The results embodied in this village report have not been submitted to any other Organization or University.

Date:03/03/2020

Place: Nainital



Signature of Intern

Akhilesh Bisht

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## Introduction to the Village

Village Bitholi is perched at an elevation of 1500 m above the sea level in Almora district of Uttarakhand, Bitholi is a medium size village located in Dwarahat tehsil of Almora district 10 kms, away surrounded by mountains. It is one among the villages of Dwarahat block administrations registration. The village is being near to Dwarahat which literally suggests the “WAY TO HEAVEN” in the local language and is also located mid-way to Badrinath, Kedarnath pilgrimage of hindu religion. Nearly more than 55 ancient temples exist here constructed by the Katyuri kings (700CE-1200CE). Bitholi comes under the gram sabha Malli bitholi. This gram sabha has population of 1095 of which 517 are males while 578 are females as per population. Mostly people practices farming and consume whatever they had cultivated seasonally.



Bitholi village near Dwarahat

## Identification of the Problem

The literature concerning various aspects of migration has been enriched to a great extent. An attempt is made to extensively review the literature on migration so that it lays the foundation for further analysis migration on process has been one of most dynamic human activities from the very beginning of human life. During early days people used to move from one forest to another in search of forest products. When most of people divorced forest life and adopted civilized life they developed relationship with domesticated animals and fertile land. As a result, mobility of mankind changed considerably. They almost left a wanderer's life and started developing settlements. Certainly at this stage also mobility of mankind did not stop at all. In fact people continued to move from one region to another in search of fertile land for developing cultivation. Afterwards, the nature of mobility frequently changed. The people moved from early civilized area to other parts of world, partly for agricultural purposes or for trade and partly for investigation. Migration of the people to big cities takes from all the corners of the country with different social and cultural background. When such people meet in cities and stop living together, a new cosmopolitan culture develops, cities are, therefore, known as “melting pot of cultures”. Such cultures are more liberal, impersonal, self- centered and more materialistic. One important facet of study on population is the study of migration arising out of various social, economic or political reasons.

For a large country like India, the study of movement of population in different parts of the country helps in understanding the dynamics of the society better. At this junction in the economic development, in the country, especially when many states are undergoing faster economic development, particularly in areas, such as, manufacturing, information technology or service sectors, data migration profile of population has become more important. When a person is enumerated in census at a different place than his / her place of birth, she / he is considered a migrant. This may be due to marriage, which is the most common reason for migration among females-or for work, what is the case as generally among males, etc. It also happens that many return to their place of birth after staying out.



Emergency water storage units



Water carried by the villagers from daily use

## Review of the Literature

Migration is an important process that has contributed significantly to the other processes such as urbanization, industrialization, population, redistribution, economic development, cultural diffusion and social integration .The immense importance of migration, different aspects of migration have been studied by scholars of different disciplines like demographers, geographers, economists and sociologists who have taken keen interest in this



field and as a result, the literature concerning various aspects of migration has been enriched to a great extent. An attempt is made to extensively review the literature on migration so that it lays the foundation for further analysis migration on process has been one of most dynamic human activities from the very beginning of human life.

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Abandoned house in Village Bitholi

In India, as per Census 2001, about 307 million person have been reported as migrants by place of birth. Out of them about 259 million (84.2%), migrated from one part of the state to another, i.e., from one village or town to another village or town. 42 million (2%) from out side the country.

## Objectives of the Study

1. To know the problems and challenges of village people.
2. To study the specific factors responsible for the migration.
3. To study the socio-economic conditions of the migrants i.e.-before and after migration.
4. To study the cause of migration.
5. To study In-migration, Out-migration and Net-migration levels of the village.
6. To able to appreciate the rich culture heritage.
7. -To know about the water supply, electricity etc.
8. To know about the health, hygiene of villagers & the medical facilities of the area.

To know about the educational status of the particular village & reasons of their educational backwardness.

## Hypothesis of the Study

S. No.	Research Questions	Null Hypothesis (Ho)	Alternative Hypothesis (Ha)
1	Remoteness serves as a barrier, for local people to interact with outside world and due to undulating, topography and inaccessibility, life in villages of Uttarakhand is hard enough and thus people have started to	Inaccessibility, topography, remoteness and poor environmental factors have led to migration.	The above stated factors are not linked with the migration.

	migrate for better quality of life.								
2	If economic	conditions	are	Employment		There will be no			
	unfavorable, at the place of			opportunities will		effect	in	the	
	origin, poor	and unemployed		lead	in	the	number	of	
	individuals would be compelled			reduction		of	migrants if		the
	to migrate to sustain livelihood.			migrants, from		employment			
				village to the city.			persists	in	the
							village.		

## Actions Planned to address the problem

### Rural Tourism

Rural Tourism is any form of tourism that showcases the rural life, art, culture and heritage at rural locations, thereby benefiting the local community economically and socially as well as enabling interaction between the tourists and the locals for a more enriching tourism experience.

Establishing rural tourism as an alternative means of economic development. It is not a long time that the term "rural tourism" has been propagated in the world, but since it has caused economic growth and has created various activities, employment and has increased the income for villagers, it has been emphasized by the regional and local development policies.

### Why Bitholi (Dwarahat)?

Village Bitholi lies in close proximity to Dwarahat ie., just 3 kms. away from the National Highway 109 (previously NH-87) that connects to further famous places like Hindu pilgrimage e.g **Badrinath, Kedarnath**. This further connects to chaukhutiya, Gairsain etc. Secondly, the tourist footfall has been increasing every year in Uttarakhand and thus the Homestay, Dairy, polyhouse & vermin-composting for organic farming can be a good option for the local people for income generation as well as tourists get away from the hustle bustle of town and its nearby places. The most important thing is that there will be continuous economic growth for the villagers.

## Implementation of Action Research Steps



### About Polyhouse Garden-

There are a number of reasons why poly house garden can be preferable for development of the village. The benefits includes:

### Distinctive features with accommodations facilities-

Polyhouse garden offer an unparallel opportunities to experience the incredible diversity of flora with accommodations facilities as a plus factor to enjoy the fresh and delightful cuisine of the particular remote area. The options are almost endless and include Historic monuments, temples and beautiful peaceful places for visitors/tourists. It opens the gate to get interact with remote rural cottages and Indians in various aspects.



Pandukholi spiritual cave temple (Dwarahat)



Spiritual Centres

### Deen Dayal Upadhyay Homestay Scheme

#### Eligibility for Homestay Scheme

- 1- The homestay scheme will be applicable all over the state, except at areas under Municipal Corporation.
- 2- The applicants house should be a purely residential premises.
- 3- The homestay should have owners or leaseholder as its permanent residents living with family.
- 4- The arrangement of food for the guests will be a responsibility of the homestay owner.
- 5- Minimum of one room and maximum of six rooms are allowed in a homestay for guests.
- 6- The registration of the proposed homestay would be mandatory.

#### Concession and Discounts for Homestay scheme

- 1- For the first three years, State GST on the income generated from the homestay under the scheme will be borne by the government.
- 2- The water, electricity bill incurred for the homestay will be charged at non commercial rates by the respective department.
- 3- There would be no requirement for land development in order to start a homestay.

#### Guidelines to avail subsidies for Homestay scheme

- 1- The applicant should be a native of Uttarakhand.
- 2- The applicant should have own house in which he / she currently resides.
- 3- The applicant should not be a defaulter to banks or any other financial institution.
- 4- The benefit of reservation will also be given.
- 5- Priority will be given to the houses already developed in the hills.
- 6- For construction of homestay in hills, 33% of the total amount or 10 lakh, whichever is less, will be given by the government.
- 7- For construction of homestay in plains, 25% of the total amount or 7.5 lakh, which ever is less, will be borne by the government.

In addition to that, the loans taken by the homestay owners under this scheme, 50% of the total loan amount or Rs. 1.5 lakh, whichever is more, will be borne by the government.

## Data Collection and Analysis

	<b>PUSH FACTORS</b>	<b>PULL FACTORS</b>
<b>Economic and demographic</b>	Poverty, Unemployment, Standard of living, Low wages. Development, High fertility rates, Lack of basic health and education.	Prospects of higher wages, Potential for improved , Personal and Professional aspects.
<b>Political</b>	Conflict, insecurity, Violence poor governance, corruption and Human right abuses.	Safety and securities Political freedom.
<b>Social and cultural</b>	Discrimination based on ethnicity religion and the like.	Family reunification, Ethnic(dispora gender, migration) home land. Freedom from discrimination.

## Conclusion

This study derives that migration is a function of push and pull factors that is in rural areas increasing of population did not have job facilities, reasonable income, basic amenities. The pull factors of better job facilities,

good salary, and more income, medical and educational facilities are attracting the rural people to move to the cities like Delhi city.

The push factors of no job facilities, low salary, less income, drought, less medical and educational facilities are the push factors of the rural people from rural to urban migration. Even though, to minimize the rural to urban migration and to prevent to move to cities the following are the some measures has to be taken by government and government organizations where migrants who acquire new skills, new money and new outlooks help transform the institution. However, such volunteer return migration is likely to be attenuated to nearly all sectors employ migrant workers (including children) through a complex system of contractors and agents who are well-positioned to exploit illiterate and poor workers. Where workers have become more experienced and confident the hold of market intermediaries has weakened but in the absence of effective employment exchanges for the poor, agents and contractors provide vital information and job opportunities to people who would otherwise be unemployed in villages.

The immediate need is to change the policy level discourse on migration by reviewing key documents and policies and moving away from theory and language which portrays migration as bad and something that must be stopped.

## References

Dwarahat official website

Falling rain genomics, Inc - Dwarahat

## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

1	<b>Name of Village</b>	Bitholi (Dwarahat)
2	<b>Address of the Village</b>	Dwarahat, Almora
3	<b>Name of Sarpanch / Contact Person</b>	Mrs Mohini devi

4	Date of Visit	15/8/2019
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Demographics of the Village		
1	Number of Men	578
2	Number of Women	517
3	Number of Children	42
4	Total Population	1095
5	Number of Anganwadis	1
6	Number of Schools	1
7	Number of Primary Health Centres	1

VILLAGE SCHEDULE				
S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a toilet?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
2	Does anyone go out and defecate in the open in village?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
3	Are these faeces from the toilet being disposed in the river?	-	No	If, Yes , Then what <b>Action</b> has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
5	Are there institutional toilets at Schools,	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village

	Anganwadis and Public places?			Authorities
6	Is waste from restaurants, public places dumped into the river?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
7	Is there a prevalence Of visitor/tourist OD?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?	-	No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
9	Are twin-pit toilets common in the Village?	-	No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
10	Are septic tank toilets (non-porous) common In your village?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
11	Is there a P-Trap in all toilets?	-	No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in /for the toilet?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
13	Are all toilets “fly-proof” – or Hygienic?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
14	Is the human waste disposed of in the Drain, a) Nallahs, b) Open pit; c) Ponds or river or streams or any	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities

	water body etc.			
15	Is fecal sludge directly discharged to waterbodies ?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed	Yes	-	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
16	Is there a practice to wash the hands with soap after using the toilet?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
17	Is any visible feces found in the environment?	No	-	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
18	Is there any odour of urine or faeces in the location?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
20	Is child faeces disposed of in open area?	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises ?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities

22	Is water available in /for the toilet?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
23	Is toilet “fly-proof” – or Hygienic?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
24	Is the human waste disposed of in the Drain, a) Nallahs, b) Open pit; c) Ponds or river or streams or any water body etc.	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
25	Are Anganwadi cleaners maintaining and cleaning public toilets?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>School Schedule</b>				
26	Are there separate functional toilets for boys and girls in the school?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
27	Is there water available for use in the school toilets?	Yes	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
28	Is the human waste disposed of in the Drain, d) Nallahs, e) Open pit; f) Ponds or river or streams or any water body etc.	-	No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?



29	Is public toilet accessible to all (including Divyangs/physically challenged)	-	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Public Toilets Schedule</b>				
30	Is there a Public Toilet in the village?	No	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
31	Are there separate sections for Men and Women?	-	-	If, No, Then what <b>Action</b> has been taken by the Village Authorities
32	Is the human waste disposed of in the Drain, g) Nallahs, h) Open pit; i) Ponds or river or streams or any water body etc.	-	-	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
33	Is any sustainable water supply process/ method adopted for sustainability of ODF?	-	-	If ,Yes Describe the process or method  If, No, Then what Action has been taken by the Village Authorities
34	Is any sustainable process/method adopted for fecal sludge management?	-	No	If ,Yes Describe the process or method  If, No, Then what Action has been taken by the Village Authorities

**Annexure  
Village Visit (General)**



Village Bitholi (Dwarahat) small market



Household of village Bitholi



Households



Roadway in Bitholi village





Pulse crop



A Farmer in Bitholi village

**The Case Study of Rural Immersion  
in Village Aadukhaan**

**Rohini Chetwani**

**Kumaun University, Nainital**

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**Rohini Chetwani**

**Kumaun University, Nainital**

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## **ABSTRACT**

Green revolution technologies played a great role in alleviating hunger but have also resulted in some adverse effects on our natural resources. Due to these adverse effects, stress is being laid on alternate forms of agriculture that are more sustainable. Organic farming, a holistic way of farming, is one of these alternate forms that are aimed at sustainable agricultural production. It relies on crop rotations, green manures, organic manures, bio-fertilizers, composts and biological pest management for crop production excluding or strictly limiting the use of synthetic fertilizers, chemical pesticides, plant growth regulators and livestock feed additives.

**Keywords: Green revolution, Natural resources, Organic farming, Sustainable agriculture**

## Introduction to the Village

Placed in the rural part of Nainital district 10 kms, away lies a beautiful village surrounded by mountains, it is one among the 108 villages of Bhimtal Block administrations registration. Aadukhan comes under the Gram Sabha Belwakhana. This Gram Sabha consists of 799 houses out of which 35 belong to Aadukhan. The village being near to Nainital features the same temperature as in the whole Nainital district. In the summers the temperature ranges from 30C to min 6-7C in the night. Throughout this period the number of people in the whole district grows over five times. During the Winter months of December and February the temperature ranges between 15C which is usually the peak temperature and -3 or -4C which is normally the lowest. The village gets significant snowfall in the Winters and the Summers are quite pleasant.

## Identification of the Problem

The major problem the village is facing is nothing but of frequent migration. As there is no other option to earn in the village people have to go out of the village toward the city to earn livelihood. Villagers do organic farming in their fields and we would like to make it to large scale and can also increase the production as well as make it a Business model. As in today's world people are more conscious about their health and lifestyle and would prefer organic and fresh crop of farms much than the regular one

## Review of Literature

Howard's (1940) Agricultural Testament draws attention to the destruction of soil and deals with the consequences of it. It suggests methods to restore and maintain the soil fertility. The study contains a detailed deposition of the famous Indore method of maintaining soil health. The reasons and sources of the erosion of soil fertility and its effect on living things are discussed. The criticism of the agriculture research and examples of how it had to be carried out to protect soil and its productivity are discussed in detail. Bemwad Geier (1999) is of the opinion that there is no other farming method so clearly regulated by standards and rules as organic agriculture.

The organic movement has decades of experience through practicing ecologically sound agriculture and also in establishing inspection and certification schemes to give the consumers the guarantee and confidence in actuality. Organic farming reduces external inputs and it is based on a holistic approach to farming. He describes the worldwide success stories of organic farming based on the performance of important countries in the west. The magnitude of world trade in organic farming products is also mentioned. To the question of whether the organic farming can feed the world, he says that neither chemical nor organic farming systems can do it but the farmers can.



Save and Sanghavi (1991) are of the view that after their intensive experiments with organic farming and narrating the results to the informed, it is time that the governments and farmers are brought around. They firmly state that the economic profitability of organic farming can be proved. Four crops of banana grown by the natural way on the same farm by them are compared with those produced by the conventional way. While the natural farm yielded 18 kg of banana in the first round, the conventional one gave 25 kg. 30 kg was the yield a the second round on both the farms. However, on the third round, the natural farm gave 25 kg, the conventional one yielded only 20 kg. The results on the fourth round were stunning the plants on the conventional farm died out; but the natural ones gave 15 kg on an average. Thus, the aggregate output was 88 kg on the natural farm and 75 kg on the conventional one. While, the natural banana commanded a price of Rs 2.50 per kg, the conventional one could fetch only Rs 1.75 per kg. This has been the major reason for the substantial net profit (Rs 154) earned from the cultivation of natural banana (conventional banana could get only a net profit of Rs 26.25). The expenses incurred were Rs 66 and Rs 105 for the natural and conventional bananas respectively. However, a stringent cost and return analysis representing a larger sample size will be necessary to draw meaningful conclusions.

It should be born in mind that the output obtained from the natural banana farm was also because of the accessibility to the inputs and expertise, which the authors happened to possess. Farmers placed in less advantageous positions may not derive such results. The price advantage to the natural organic farming products will also taper off when the supply increases. The environmental costs and returns have to be internalized and it is quite possible that the organic farming will prove to be a far better alternative to the conventional one. However, these aspects will have to be built into scientific and tight economic reasoning, among others.

Kaushik (1997) analyses the issues and policy implications in the adoption of sustainable agriculture. The concept of trades off has a forceful role to play in organic farming both at the individual and national decision making levels. Public vis-a-vis private benefits, current vis-a-vis future incomes, current consumption and future growths, etc. are very pertinent issues to be determined. The author also lists a host of other issues. While this study makes a contribution at the conceptual level, it has not attempted to answer the practical questions in the minds of the farmers and other sections of the people. Sharma (2001) makes a case for organic farming as the most widely recognized alternative farming system to the conventional one. The disadvantages of the latter are described in detail. Other alternatives in the form of biological farming, natural farming and perma culture are also described. The focus is on the organic farming, which is considered as the best and thus is discussed extensively. The work is not addressing the relevant issues in the adoption of organic farming on ground.

Veeresh (1999) opines that both high technology and sustainable environment cannot go together. Organic farming is conceived as one of the alternatives to conventional agriculture in order to sustain production without seriously harming the environment and ecology. However, he says that in different countries organic farming is perceived differently. While in the advanced countries, its focus is on prevention of chemical contamination, we, in countries like India are concerned of the low soil productivity. Even the capacity to absorb fertilizers depends on the organic content of the soil. The principles of organic farming are more scientific than those of the conventional. India's productivity of many crops is the lowest in the world in spite of the increase in

the conventional input use. The decline in soil nutrients, particularly in areas where the chemical inputs are increasingly being used in the absence of adequate organic matter is cited as a reason for low productivity. Doubts about the availability of massive sources of organic inputs also exist. He advocates an advance to organic farming at a reasonable pace and recommends conversion of only 70 per cent of the total cultivable area where un irrigated farming is in vogue. This 70 per cent supplies only 40 per cent of our food production. While this analysis has several merits, it is more addressed to the policy makers and less to the farmers.

Sankaram Ayala (2001) is of the view that almost all benefits of high yielding varieties based farming accrue mostly in the short term and in the long term they cause adverse effects. There is an urgent need for a corrective action. The author rules out organic farming based on the absolute exclusion of fertilizers and chemicals, not only for the present, but also in the foreseeable future. There ought to be an appropriate blend of conventional farming system and its alternatives. The average yields under organic and conventional practices are almost the same and the declining yield rate over time is slightly lower in organic farming. The author also quotes a US aggregate economic model, which shows substantial decreased yields on the widespread adoption of organic farming. Decreased aggregate outputs, increased farm income and increased consumer prices are other results the model gives. While the details about this US analysis are not known, its relevance to India where we already have the lowest yields of a number of crops under the conventional system appears to be open.

Singh and others (2001), recording the experiments on rice-chick pea cropping sequence using organic manure, found the yields substantially higher compared to the control group. Similar results were obtained for rice, ginger, sunflower, soya bean and sesame.

Ahn Jongsung opines that organic agriculture is economically viable (Anon, 1998). The author gives emphasis on marketing the organic products on the basis of reputation and credibility. In Japan, the farmers sell the produces directly to the consumers. The Kenyan farmers have seen that in organic farming, costs go down and profits increase. A farmer from UP who allotted a portion of his land exclusively for organic farming found that the yields of sugarcane, rice, wheat and vegetables were lower than those under chemical farming. An Englishman, settled in Tamil Nadu, who runs an organic farm in 70 acres planted with coffee, citrus, other fruits, rice, pepper and vegetables says that he does not earn a profit and does not have confidence in organic farming.

Somani and others (1992) have published a collection of 42 papers presented at a National Seminar on Natural Farming. Korah Mathen recounts several problems in evolving representative and rigorous yardsticks for comparison between modern and alternative farming. Yields cannot be compared, because of monoculture nature of chemical farming with those of multi crops raised under organic/natural farming. Economic analysis is also problematic because one has to quantify the intangibles. He advocated the resource use efficiency analysis. But the question of profitability of different systems of farming seems difficult to be examined in the absence of an economic analysis although the author does not rely upon it.

Save (1992) found that after three years of switching over to natural cultivation, the soil was still recovering

from the after effects of chemical farming. When the soil regained its health, production increased and the use of inputs decreased. The farm, which was yielding 200 to 250 coconuts per tree, gave 350 to 400 per annum.

Rahudkar and Phate (1992) narrate the experiences of organic farming in Maharashtra. Individual farmers growing sugarcane and grapes, after using vermi compost, saw the soil fertility increased, irrigation decreased by 45 per cent and sugarcane quality improved. The authors say that net profits from both the sugarcane and grape crops are high in organic farms. The foregoing overview of the literature makes it clear that opinions about organic farming are divided both among the farmers and experts. Disputes about the profitability and yield increases in organic farming are acute, but there is a consensus on its eco-friendly nature and inherent ability to protect human health. There are strong views for and against organic farming (the latter, mainly on the grounds of practicability of feeding a billion people, financial and economic viability, availability of organic inputs and the know-how). Those who are totally against it are prepared to ignore the ill effects of the conventional farming system. There are many who while approving organic agriculture, want a mixture of both the systems or advocate a careful approach by proceeding slowly towards the conversion of the conventional farms into organic. The questions about the yield and financial viability are crucial from the point of view of farmers; but they remain unanswered to a large extent. The study of a geographical area in the country endowed with a large number of resources for organic farming, but has not made any significant stride towards it, is also not found in the literature overview.

### Objectives of the Study

1. To know the problems and challenges of village people
2. To understand the need for organic farming in village in the light of the experiences of other states
3. To assess and evaluate the factors which may facilitate the adoption of organic farming in the village.
4. To find out the Status of organic farming in village
5. To examine the major constraints and challenges of organic farming in village

### Hypothesis of the Study

1. Organic farming is eco- friendly therefore more and more farmers are turning toward it.
2. From economic point of view organic farming requires less input, save cost therefore becoming more and more popular. 3. With growing awareness about the ills (side-effects) of chemical farming, people desire to prefer safe and healthy food. 4. Organic farming create local employment opportunity.

### Actions Planned to address the problem

The growing awareness about human health and environmental issues relating to agro chemicals' use in

agriculture has led to interest in alternate forms of sustainable agriculture. Organic farming is one of these alternate forms that are aimed at sustainable agricultural production along with conservation of natural resources. Its global importance owes to adverse effects of modern agricultural practices on environment and soil health and appearance of pesticide residues in human food chain. It is a holistic way of farming in which quality agricultural production is achieved with an aim to conserve, rather improve, natural resources where as conventional or modern farming, on the other hand, is more akin to the factory farming which gives emphasis on input based maximization of crop productivity. Organic farming relies on crop rotations, green manures, organic manures, bio fertilizers, composts and biological pest management for crop production excluding or strictly limiting the use of synthetic fertilizers, chemical pesticides, plant growth regulators and livestock feed additives. However, it does not mean a reversal to the farming methods of 18th century; rather it combines the traditional and modern approaches like improved seeds, bio pesticides, new machinery and equipments, bio fertilizers etc. But, before going into the details of organic farming, we need to have a look at the genesis of modern agriculture. What is organic farming and why is it important? Organic farming is agriculture that makes healthy food, healthy soils, healthy plants and healthy environments a priority along with crop productivity. Organic farmers use biological fertilizer inputs and management practices such as cover cropping and crop rotation to improve soil quality and build soil organic matter. By increasing the amount of organic matter in the soil, as nature does on a forest floor, organic farmers enhance the soil's ability to absorb water, reducing the impacts of droughts and flooding. Improving soil organic matter also helps it to absorb and store carbon and other nutrients needed to grow healthy crops which, in turn, are better able to resist insects and diseases. Organic farming is defined as the farming should be done by using natural fertilizers with out using the artificial fertilizers and weedicides and insecticides. Why organic farming? The organic farming is done to prevent different types of the pollutions and also prevent different types of the food residues and different type of the toxic substances the usage of official fertilizers leads to the global warming and also the eco-system by the organic farming the products should get natural and good taste they are healthy as compared to others.

### **Advantages of organic farming**

1. Prevent residues in the food material and also toxic material present in the food material
2. And also prevent different types of the pollutions
3. The foods become healthier natural and tasty
4. Prevent residues present in the food material
5. This type of farming should be eco-friendly should not affect the environment
6. We should decrease the soil degradation
7. No effect to the biological diversity in the system
8. By the organic farming we should get products they could not have any chemical residues and toxic substance
9. Instead of using the artificial fertilizers and the weedicides and insecticides in the organic farming natural fertilizers like bio compost and other are been used
10. Due to usage of the natural fertilizers no pollution will occur and no residues in the food

## **Disadvantages of organic farming**

1. Soil erosion will be occurs
2. There will be destruction of habitat
3. Excessive use of the fertilizers and weedicides
4. Reduced soil porosity due to the compaction of soil.
5. Different type of pollution occur due to modern farming

1. Air pollution
2. Water pollution
3. Soil pollution

### Effect of Pesticides:

DDT - Cancer, damage to the liver, toxic to the wild life.

ALDRIN/ENDRIN - Cancer suspect and causes the birth defects. o

EDB: potent - Potent cancer , birth defects ,lung and liver damage.

ENDOSULFAN - Nervous system damage.

### Present status of organic farming in India and World

1. Worldwide 31 hectares of land is under organic farming it was been managed by 700000 farmers
2. 138 countries are been growing the organic food
3. India ranks 33 in the organic farming and Madhya Pradesh has highest land under the organic farming (52%)
4. Maharashtra in second place and Orissa in third place.

## Actions Planned to address the problem

Farmer farm organically. In case if the modern farming the cost of production will be very high and non-renewable sources are been used in case of the modern farming by the modern farming there will be loss of the porosity of the land and also the soil become infertile.

Why should one buy organic products? People are buying organic products because they are free from the chemical residues and they should not have any toxic substances they should be natural and have the good taste and by considering all these factors organic products are more healthy than other this is the why people should prefer the organic products.

Organic certification. There are several organisations who should give certification to the products If the product should have the certain standards according to their organisation if the product should have the organic certificate the product should have the more value.

## Implementation of Action Research Steps

Nowadays Government of India is giving more priority for the welfare of farmers. In this regard it is implementing several farmers welfare schemes to re-vitalize agriculture sector and to improve their economic conditions. Therefore, the government has rolled out new initiatives, schemes, programmes and plans to benefit all the farmers. These agriculture schemes or programmes are very helpful for the farmers and he or she must know about it so as to take its benefit. Here are some important government schemes in agriculture

1. Soil Health Card Scheme Launched in 2015, the scheme has been introduced to assist State Governments to issue Soil Health Cards to all farmers in the country. The Soil Health Cards provide information to farmers on nutrient status of their soil along with recommendation on appropriate dosage of nutrients to be applied for improving soil health and its fertility.

2. Pradhan Mantri Fasal Bima Yojana (PMFBY) PMFBY is an actuarial premium based scheme under which farmer has to pay maximum premium of 2% for Kharif, 1.5% for Rabi food & oilseed crops and 5% for annual commercial/horticultural crops and remaining part of the actuarial/bidder premium is shared equally by the Centre and State Government. One of the objectives of the scheme is to facilitate prompt claims settlement. The claims must be settled within two months of harvest subject to timely provision of both yield data and share of premium subsidy by the State Government.

3. Neem Coated Urea (NCU) This scheme is initiated to regulate use of urea, enhance availability of nitrogen to the crop and reduce cost of fertilizer application. NCU slows down the release of fertilizer and makes it available to the crop in an effective manner. The entire quantity of domestically manufactured and imported urea is now neem coated. It reduces the cost of cultivation and improves soil health management.

4. Pradhan Mantri Krishi Sinchai Yojana (PMKSY) It was launched on 1st July, 2015 with the motto of 'Har Khet Ko Paani' for providing end-to end solutions in irrigation supply chain, viz. water sources, distribution network and farm level applications. PMKSY not only focuses on creating sources for assured irrigation, but also creating protective irrigation by harnessing rain water at micro level through 'Jal Sanchay' and 'Jal Sinchan'. Micro irrigation is to be popularised to ensure 'Per drop-More crop'. PMKSY adopts State level planning and projectised execution that allows States to draw up their own irrigation development based on District Irrigation Plans and State Irrigation Plans. Components: Accelerated Irrigation Benefit Programme(AIBP): implemented by Ministry of Water Resources, RD & GR. PMKSY (Har Khet ko Pani): implemented by Ministry of Water Resources, RD & GR. PMKSY (Watershed): implemented by Department of Land Resources. PMKSY(Per Drop More Crop - PDMC)

5. Paramparagat Krishi Vikas Yojana (PKVY) Paramparagat Krishi Vikas Yojana is implemented with a view to promote organic farming in the country. To improve soil health and organic matter content and increase net income of the farmer so as to realise premium prices. Under this scheme, an area of 5 lakh acre is targeted to be covered through 10,000 clusters of 50 acre each, from the year 2015-16 to 2017-18.

6. National Agriculture Market (e-NAM) It provides e-marketing platform at national level and support creation of infrastructure to enable e-marketing. This innovative market process is revolutionizing agriculture markets by ensuring better price discovery. It brings in transparency and competition to enable farmers to get improved remuneration for their produce moving towards 'One Nation One Market'.

7. Micro Irrigation Fund (MIF) A dedicated MIF created with NABARD has been approved with an initial corpus of Rs. 5000 crore (Rs. 2000 crore for 2018-19 & Rs. 3000 crore for 2019-20) for encouraging public and private investments in Micro irrigation. The main objective of the fund is to facilitate the States in mobilizing the resources for expanding coverage of Micro Irrigation. MIF would not only facilitate States in incentivizing and mobilizing resources for achieving the target envisaged under PMKSY-PDMC but also in bringing additional coverage through special and innovative initiatives by State Governments. An Advisory Committee has been set up to provide policy direction and ensure effective planning, coordination and monitoring of the Micro Irrigation Fund.

8. Agriculture Contingency Plan Central Research Institute for Dryland Agriculture (CRIDA), ICAR has prepared district level Agriculture Contingency Plans in collaboration with state agricultural universities using a standard template to tackle aberrant monsoon situations leading to drought and floods, extreme events (heat waves, cold waves, frost, hailstorms, cyclone) adversely affecting crops, livestock and fisheries (including horticulture). Total 614 district agriculture contingency plans are placed in the 'farmer portal' of the Ministry of Agriculture and Farmers Welfare, Government of India (<http://www.farmer.gov.in>) and also in the ICAR / CRIDA website (<http://www.crida.in>) for downloading the full plan by stakeholders for operational use.

9. Rain fed Area Development Programme (RADP) Rain fed Area Development Programme (RADP) was

implemented as a sub-scheme under Rashtriya Krishi Vikas Yojana (RKVY).

#### Aim

To improve quality of life of farmers' especially, small and marginal farmers by offering a complete package of activities to maximize farm returns. Increasing agricultural productivity of rain fed areas in a sustainable manner by adopting appropriate farming system based approaches. To minimise the adverse impact of possible crop failure due to drought, flood or un-even rainfall distribution through diversified and composite farming system. Restoration of confidence in rain fed agriculture by creating sustained employment opportunities through improved on-farm technologies and cultivation practices Enhancement of farmer's income and livelihood support for reduction of poverty in rain fed areas and 10. National Watershed Development Project for Rain fed Areas (NWDPR) The scheme of National Watershed Development Project for Rain fed Areas (NWDPR) was launched in 1990-91 based on twin concepts of integrated watershed management and sustainable farming systems.

#### Aim

Conservation, development and sustainable management of natural resources. Enhancement of agricultural production and productivity in a sustainable manner. Restoration of ecological balance in the degraded and fragile rain fed eco-systems by greening these areas through appropriate mix of trees, shrubs and grasses. Reduction in regional disparity between irrigated and rain fed areas and creation of sustained employment opportunities for the rural community including the landless.

11. National Mission for Sustainable Agriculture (NMSA) NMSA is one of the eight Missions under National Action Plan on Climate Change (NAPCC). It aims at promoting Sustainable Agriculture through climate change adaptation measures, enhancing agriculture productivity especially in rain fed areas focusing on integrated farming, soil health management, and synergizing resource conservation.

NMSA as a programmatic intervention caters to Mission Deliverables that focuses mainly on conservation agriculture to make farm sector more productive, sustainable, remunerative and climate resilient by promoting location specific integrated/composite farming systems.

Schemes under NMSA Rain fed Area Development (RAD): RAD is being implemented by RFS Division. Soil Health Management (SHM): SHM is being implemented by INM Division Sub Mission on Agro Forestry (SMAF): SMAF is being implemented by NRM Division Paramparagat Krishi Vikas Yojana (PKVY): PKVY is being implemented by INM Division Soil and Land Use Survey of India (SLUSI): Being implemented by RFS Division National Rainfed Area Authority (NRAA): Being implemented by RFS Division Mission Organic Value Chain Development in North Eastern Region (MOVCDNER): Being implemented by INM Division National Centre of Organic Farming (NCOF): Being implemented by INM Division Central Fertilizer Quality Control and Training Institute (CFQC&TI):



implemented by INM Division

12. Livestock insurance Scheme It aims to provide protection mechanism to the farmers and cattle rears against any eventual loss of animals due to death. The scheme also demonstrates the benefit of the insurance of livestock to the people and popularizes it with the ultimate goal of attaining qualitative improvement in livestock and their products. 13. National Scheme on Welfare of Fishermen This scheme was launched to provide financial assistance to fishers for construction of house, community hall for recreation and common working place. It also aims to install tube-wells for drinking water and assistance during lean period through saving cum relief component.

14. Scheme on Fisheries Training and Extension It was launched to provide training for fishery sector so as to assist in undertaking fisheries extension programmes effectively.

15. Gramin Bhandaran Yojna Objective of this Scheme: Create scientific storage capacity with allied facilities in rural areas. To meet the requirements of farmers for storing farm produce, processed farm produce and agricultural inputs. Promotion of grading, standardization and quality control of agricultural produce to improve their marketability. Prevent distress sale immediately after harvest by providing the facility of pledge financing and marketing credit by strengthening agricultural marketing infrastructure in the country.

## Data Collection and Analysis

### **On the basis of Push factors Pull factors Economic and demographic**

Poverty, unemployment standard of living low wages, development, high fertility rate lack of basic health and education.

Prospect of higher wages ,potential for improved, personal and professional aspects

**Political** Conflict, insecurity, violence poor governance, corruption and human rights abuses.

Safty and security, political freedom

**Social and Cultural** discrimination based on ethnicity religion and the like.

Family reunification ,ethnic ,gender, migration home land, freedom from discrimination.

## Findings

Organic farming can be profitable and organic food appeals to consumers as both a healthy and ethical choice. Beyond money and ethics, though, organic farming practices result in numerous environmental benefits. Reduced exposure to pesticides and chemicals farmer holding box of organic vegetables combat erosion Not only does organic farming build healthy soil, but it helps combat serious soil and land issues, such as erosion.

A major study comparing adjoining organic and chemically treated wheat fields showed that the organic field featured eight more inches of topsoil than the chemically treated field and also had only one-third the erosion loss. If you aren't concerned about erosion; you should be. Erosion issues are extremely serious, affecting the land, food supply, and humans. However, organic farming practices do help discourage erosion from occurring. Pesticides allow disease resistance to build up in plants, weeds, plant-eating-insects, fungi, and bacteria.

Organic farming not only helps preserve more natural habitat areas but also encourages birds and other natural predators to live happily on farmland, which assists in natural pest control. Additionally, animals who live on organic farms are exposed to clean, chemical-free grazing that helps keep them naturally healthy and resistant to illness. As a perk for organic farmers, happy and healthy organic animals are productive organic animals. Organic Farming Encourages Biodiversity In general, the more biodiversity there is on a farm, the more stable the farm is. Organic farming encourages healthy biodiversity, which plays a critical role in how resilient, or not, a farm is to issues like bad weather, disease, and pests. Additionally, reduced biodiversity may directly correlate with a rise in infectious diseases, which of course, isn't good for people or the planet.

## Conclusion

The increasing awareness about the safety and quality of foods, long term sustainability of the present farming system persuades sustainable agriculture practices. The organic farming has emerged as an alternative system of farming which not only address the quality and sustainability concerns, but also ensure profitable livelihood option for rural community in India. As an initial step to promote Sustainable Farming, the Governmental inventiveness to assist the unorganized frames through various means are essential to overcome the present problems faced by Organic farmers and enable them to achieve social and economic development thorough successful sustainable agricultural practices. The Government should provide subsidies to the farmers and provide facilities to avail easy credit with low interest rate, higher prices should be determined by the government for organic produce than the conventional produce, the government should also want to organize workshops, seminars and conferences by the subject experts for farmers. Organic farming is one of the best farming methods to decrease the cost of the production and also to increase the quality of the product and the product should be free from the chemical residues and other toxic substances.

## References

Chhonkar, P.K. 2003.Organic farming science and belief.Journal of the Indian Society of Soil Science. 51 (4) : 365-377.

FAO 1999.Organic Agriculture, Food and Agriculture Organization of the United Nations, Rome. GoI (Government of India) 2001.Report of Working Group on Organic Farming and Biodynamic Farming for the 10th Five-Year Plan.Planning Commission, New Delhi, September.

Kumara Charyulu, D. and SubhoBiswas, 2010. Efficiency of organic input units under NPOF scheme in India. Working paper (April, 2010), IIM, Ahmedabad.

Roberts, K.J., Warnken, P.F. and Schnuberger, K.C. 1979. The economics of organic crop production in the western Corn Belt. Agricultural Economics. Paper 1976- Department of Agricultural Economics, University of Missouri, Columbia.

Singh, S. 2004. An exploratory study of organic farming in selected plain and hill regions of Uttaranchal. M.Sc. Thesis. G.B.P.U.A. & T., Pantnagar. Uttarakhand Organic Commodity Board Annual Report 2010-11. Uttarakhand State perspective and strategic plan, 2009-2027.

**The Case Study on Rural Immersion  
Programme in Tirchakhet Village**

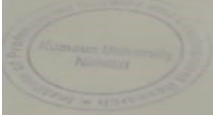
**Kamlesh Joshi  
Kumaun University, Nainital**

**CERTIFICATE**

This is to certify that Kamlesh Joshi, student of IPSDR, Kumaun University, Nainital has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date: 25/02/2020

Place: Nainital



*Kamlesh Joshi*  
Signature

(Name of HOD)

(College Seal /Stamp)  
Institute of Professional Studies  
and Development Research  
'The Hermitage' Kumaun University  
Nainital (Uttarakhand)

## DECLARATION

I hereby declare that the project work entitled

***“Rural Immersion Programme on Village Tirchakhet”***

submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Dr. N. Vijaya Kumari. The results embodied in this village report have not been submitted to any other Organization or University.

Date: 27-2-2020

Place: NAINITAL

Kamlesh

Signature of Intern

Name of Intern – Kamlesh Joshi

## ACKNOWLEDGEMENT

The success and final outcome of this MGNCRE internship programme required a lot of guidance and help from many people and I am extremely privileged to have got this all along the completion of MGNCRE report. All that I have done is only due to such supervision and guidance and I would not forget to thank them.

I respect and **thank DR. WG PRASANNA KUMAR, Chairman, MGNCRE, Hyderabad** for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance.

I respect and thank **DR. VIJAYA KUMARI N-SENIOR FACULY, MGNRCE, Hyderabad** for providing me a golden opportunity.

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**KAMLESH JOSHI**

IPS DR, Kumaun University, Nainital, Uttarakhand.

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## Introduction to the Village



### Tirchakhet Village

The village Tirchakhet (Farsoli Region) which is situated in Bhimtal Block, Nainital District of Uttarakhand state. Tirchakhet is a medium sized village located in the Farsoli region. The village is situated around 15 kilometers away from Nainital Lake. The village is divided into 2 regions viz. Talla Tirchakhet and Malla Tirchakhet

The village being near to Nainital experiences the same temperature as in the whole Nainital district. During the winter months of December to February the temperature ranges from 15 degree Celsius to 0 degree Celsius. In the summer months of April to June temperature ranges from 32 degree Celsius to 7 degree Celsius. The village receives an annual rainfall of around 150 centimeters during monsoons. The total geographic area of the village is around 500 hectares. The village has a total population of around 3200 people according to the 2011 census. There are around 350 families living in Tirchakhet village. Bhowali is the nearest town to the village which is approximately 4 kilometers away from the village.

#### Village Functionaries:

Gram Pradhan - Mr Vinod Arya

BDC Member - Mr Kamal Goswami

Block Pramukh - Dr. Harish Bisht

Block Development Officer - Mr Prakash Pant

Village Development Officer - Mr Ramesh Kanwal

**Village Communities:**

Rawat (GN), Bisht (GN), Pant (GN), Uniyal (GN), Bora (GN), Joshi (GN), Sanwal (GN), Goswami (OBC), Tolia (OBC), Arya (SC), Tamta (SC). The Arya and Tamta community cover approximately 60% population of the village, these two categories come under schedule caste category in India. The remaining 40% population of the village comprises of the General and OBC casts.

**Occupations:**

Agriculture, Labourers , Government Services, Private Services, Shops, Business, Daily wages factory workers, Taxi drivers , Plumbers, Security guards, Carpenters etc. Maximum number of households depend upon activities other than Agriculture. There is seasonal work for agriculture in the village.

**Socio - economic structure:**

There is little caste discrimination between between the upper and lower classes in the village. Lower caste peoples are not allowed to enter into the main community Temples during special events. There are 2 main temples in the village . (Hanuman mandir and Bhumia mandir).

**Power Supply:**

There is minimum 20 – 22 hours power supply in the village.

**Crops:**

The crops mainly grown in the village are wheat, masur, urad, soyabean, corn, beans, turmeric, tomatoes, onions, ginger, peas, urad.

**Water Supply:**

The main source of water supply in the village is Community water tank and Borewells.

If the amount of rainfall is less then there will be scarcity of water in the village.

Irrigation of crops totally depends on the Monsoon or rains.

**Transportation:**

No public bus facility is available in the village . Village Tirchakhet is connected with its nearest town Bhowali by road . The primary source of transportation are private vehicles . Village people face difficulty in transporting their goods from the village to the town and from the town to the village . School children also face transportation problems in the village.

### **Primary Health Center:**

In the village there is no Primary Health Center . Nearby Health Center is Bhowali which is about 5 kilometers away from Tirchakhet .

There is an ASHA worker in the village that provides vaccination to the children and also informs people about various diseases.

### **Schools:**

There are 2 government primary schools (from 1<sup>st</sup> to 5<sup>th</sup> standard) one in Malla Tirchakhet

and one in Talla Tirchakhet. There is also a middle school (6<sup>th</sup> to 8<sup>th</sup> standard ) in Malla Tirchakhet. Dr. Anju Chaurasya is the Headmaster of the school . The strength of the school is 40. The school has been providing with midday meal facilities for the children.



There are 2 Anganwadi centers in the village ( one in Talla Tirchakhet and one in Malla Tirchakhet. Anganwadi and ASHA workers are in the village itself and are working efficiently. They provide services like supplementary nutrition, non-formal pre - school education, health check up, nutrition and health education. It also provides nutritional food to the pregnant women. They also maintain records like Birth , BMI, no. of pregnant.

### **Anganwadi Malla Tirchakhet**

Total children : 3

Staff : Mrs. Pushpa Bora

Helper : Mrs. Neema Bisht

### **Anganwadi Talla Tirchakhet**

Total Children : 17

Staff : Mrs Shobha Bora

Helper : Mrs. Janki Goswami

### Rural Institutions :

Two Anganwadi, Two primary schools, One middle school, One panchayat ghar, PDS, Veterinary center, Milk dairy , and Temples .

## Introduction to the problem



Migrants

**Migration** is a physical shifting of an employee or work force from one place to other. It may be permanent in nature or temporary also. The transition of people from rural areas to urban areas having various internal dynamic, most of the times it is due to compulsion and inadequate infrastructure facility, medical care, education etc. In the present time an attempt is made to understand the various determinants which lead to migration of work force from rural areas to urban areas. In this direction various existing literature were studied to understand and conceptualize the migration related issues.

It was found that the various factors that induce for migration were economic reasons, better education, health care facility and entertainment, better employment opportunity, expected hike in income, existence of surplus work force in rural areas, nature of employment sometimes temporary or seasonal, reduce the risk of income loss, individual migration because of less land holding and family migration because of marriage and less land holding, pursuing higher education, to get social protection, women migrate for increased employment opportunity and social conditions, migration because of geographic proximity, for the improved standard of living, children migration for search of job etc.

## Identification of the problem

Migration has also been identified as a survival strategy utilized by the poor, especially the rural dwellers. The assessment of the effects of migration on rural areas has remained relevant since migration acts as a catalyst in the transformation process of not only the destiny of individual migrants but also the conditions of family members left behind, local communities, and the wider sending regions. One significant source of development for the rural populace as a result of this increasing drift towards the cities is remittances. Recently, migrants'

remittances and the income multipliers they create are becoming critical resources for the sustenance strategies of receiving households as well as agents of regional and national development . Households that receive these remittances tend to use the proceeds primarily for current consumption (food, clothing) as well as investments in children’s education, health care, improvement in household food and security, and water and sanitation. Nevertheless, the ability of remittances to compensate the labour shortage in rural areas is still a function of the amounts and value of remittances received by migrants’ households at home, especially in the developing countries .Consequently, the effects of rural-urban migration in the rural places of origin of migrants may be manifest in two ways. First, the rural-urban migrants send remittances to their relatives in the rural areas and these remittance-receiving households use the remittances for various purposes. Secondly, these rural-urban migrants execute various rural developmental projects in their rural areas of origin.

In Nigeria, most migrants coming from a particular rural community to live in an urban area usually form rural community associations in the urban area. These community associations in the urban areas articulate, from time to time, the developmental needs of their rural communities of origin and contribute resources to execute projects such as road construction and the award of educational scholarships to students.

Migration has its own positive and negative consequences on the place of departure and destination. Natural resource depletion, environmental pollution, earning disparities, redundancy, urban expansion, social unrest, population crowding were/are some of the negative effects of migration. Whereas migration has paved the way for development, enhanced process of industrializations, serve as means of livelihood and even more the remittance become sources of family income and mechanism of to escape drought and famine .

From the review of the literature, it is clear that most of the rural-urban migration studies done in tirschakhet village virtually excluded the effects of these rural-urban migrations on the rural sending communities and are in most cases sample surveys on characteristics and determinants of migration. There is, therefore, a need for studies that will determine the effects of rural-urban migration on rural communities in developing countries especially in tirschakhet where rural-urban migration has been on the increase in recent times. The estimation of the effects of rural-urban migration on the rural communities will aid policy interventions by governments and development agencies in their quest to facilitate the development of these rural communities.

### **An Overview**

Migration is a physical shifting of an employee or work force from one place to other. In India migration related data is mostly captured by two organizations, viz. Census and National Sample Survey Organization. Both these two organization defined migration as follows:

Census defines migrant as a person residing in a place other than his/her place of birth or one who has changed his/ her usual place of residence to another place (change in usual place of residence).

Migration may be due to different factor like economic development, social cultural, environmental, political factors, due to violence, political instability, drought, flood, landslide and low fertility of land.

☒To conceptualize the determinants of migration

☒To undertake the in-depth study of migration related issues in eastern India.

## Methodology of the study

The study is based on secondary data. In this regard various libraries were visited and some on-line journals were also reviewed in this direction. This article discusses the case of village tirschakhet, where rural urban migration creates major change in social and behavioural pattern of migrant people when these migrants decide to shift their base due to availability of better education, healthcare facilities and entertainment and then this force them to socialize their behaviours which ultimately leads to change in behavioural pattern.

## Review of Literature

Migration is an important process that has contributed significantly to the other processes such as urbanization, industrialization, population redistribution, economic development, cultural diffusion and social integration. In view of the immense importance of migration, different aspects of migration have been studied by scholars of different disciplines like demographers, geographers, economists and sociologists who have taken keen interest in this field and as a result, the literature concerning various aspects of migration has been enriched to a great extent.

**Hadi Ghaffari and S.P Singh** have identified the major push and pull factors in rural-urban migration, based on secondary data collected from 1991 census for 50 districts of Uttar Pradesh. The ordinary least square regression model has been used to examine the changing nature of rural-urban migration. They found that development of educational facilities as well as irrigation facilities in rural areas and acceleration of industrialization process in these areas are significant variables in reducing the flow of migration from rural areas.

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**Joysankar Hazarika, Monjit Saikia, Dijen Sarkar, Mohan Das and Gaurab Borthakur** have examined the types and patterns of immigrant labourers and to study the comparative economic strengths of labourers, and also tried to identify the conflict parameters, examined political relations and the probable social impact on Jorhat municipal area of Assam. The study was based on primary data collected from 19 wards of study area. They found that immigrant labourers were grouped into three broad categories namely,

- (1) from the district of Assam,
- (2) from other states of India and (3) from other countries.

As most of the immigrants from the western and central districts of Assam were suspected as Bangladeshi nationals and the majority of laborers in western and central districts are Muslims. They are working in hand cart pulling and rickshaw pulling. The trend of labor migration to Jorhat is highly increasing; however the local work force shows growing division. Opportunities for the western district and central district migrant laborers would increase because of their flexibility in work areas in the event of growing urbanization of the city. Unless the local labour force is motivated to adapt to some areas of work, economic and political pressure may endanger the social security of the people at large.

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**Harishwar Dayal, Anup K.Karan** have made an attempt to explore the causes and consequences of migration of the tribal and non-tribals of Jharkhand region. The study was based on primary data collected from 12 villages of Jharkhand selected from three districts (Gumla, Palamau & Dumka) of the state. They found that the incidence of migration is very high in this region. A large number of migrants engage in short period migration. The main reason of migration is economic in nature. Migration has had wide-ranging consequences on both the migrants and those who stay behind. While migration has resulted in improved income and consumption standards it also has had adverse impacts especially on those who have been left behind.

### Objectives of the Study

1. To develop and test a sound methodology to analyse the rural immigration of youth, with special attention to the drivers of migration and mobility.
2. To examine the diversity of rural youth immigration patterns, and the types of movement and its impact on household and individual food security and livelihoods, as well as labour dynamics in the rural areas.
3. To conceptualize the determinants of migration
4. To undertake the in-depth study of migration related issues in eastern India
5. To undertake the in-depth study of migration related issues in rural areas
6. Establishment of cottage and small scale industries in the villages
7. Providing alternative work opportunities to agricultural workers
8. Providing employment opportunities to women in the village
9. To reduce rural-urban migration by providing employment opportunities to the educated youth.
10. Providing skilled and technical training
11. Encouraging self-employment in the village

### Hypothesis of the Study

The purpose of this study is to test the hypothesis that rural development projects and programs reduce rural-urban migration. Migration theories and empirical research are briefly reviewed, generalizations are established and these are used to test the hypothesis for a variety of rural development interventions. The study concludes that the common belief that rural interventions reduce urban migration is not justified. While the migration impact of any specific intervention depends on its characteristics and those of the rural area into which it is introduced, some generalizations can be made. Rural-urban migration may be reduced by interventions which increase cultivatable land, equalize land or income distribution, or decrease fertility. On the other hand, migration appears to be stimulated by interventions which increase access to cities, commercialize agriculture, strengthen rural-urban integration, raise education and skill levels, or increase rural inequalities.

### Action Planned to address the problem

#### 1. Provision of social amenities in rural areas.

The availability of rural amenities in rural areas will discourage many people from migrating to a urban areas.

## **2. Establishment of industries in rural areas.**

This will provide jobs to rural residents and discourage them from leaving to cities in search of job.

## **3. Provision of recreational facilities**

If recreational facilities like swimming pools, cinemas, amusement parks, etc., are made available in rural areas, they will reduce the propensity of our youth to move to urban areas.

## **4. Establishments of higher education in rural areas**

This will discourage rural urban migration in the quest for higher education who can now be obtained in rural areas.

## **5. Improved agriculture system**

If this is done, agriculture will be more attractive and many school leavers will take it as their occupation and stay in rural areas instead of migrating to urban areas in search of white collar job that are scarce.

## **Implementation of Action Research Steps**

Small scale rooftop solar PV systems are becoming more convenient forms of energy providers for the houses located in the rural villages. This is due to the advantages, abundant availability of solar energy and favorable rural electrification policies in India. However, India has not achieved the 100% rural electrification and the reason for it might be technical, social, or financial. Hence, this paper presents the possibilities of equipping solar PV systems for rural community houses by providing the PV plant design as per the electrical load, roof area required, energy performance and cost aspects.

Benefits of using solar energy that transforms the rural life into light were also highlighted.

Govt. of India introduced few policies and schemes for the welfare of people living in rural parts of India. The main motto of these policies and schemes is to provide electricity access to the remote areas in India.

Policies introduced by Government of India are as follows :-

NATIONAL ELECTRICITY POLICY 2005

NATIONAL RURAL ELECTRIFICATION POLICY 2006

BPL HOUSEHOLD ELECTRIFICATION

PRADHAN MANTRI GRAMODAYA YOZNA

VILLAGE ENERGY SECURITY PROGRAMME

### **Business Plan For Rooftop Solar Pv System**

#### **Site Assessment**



Tirchakhet village is located in nainital district located around 3km from the bhowali. It is surrounded by rocky sandy and five salt ranges. It has well road connectivity from main market [bhowali]. We are planning to install a solar energy based grid connected power project in, under the Uttarakhand solar policy. The identified technology is solar si-poly, while the capacity of proposed power plant is 5mw may be.

### **Application Process For The Scheme**

Interested people should contract their electricity provider to express their interest. Next is to concerned officials will visit the installation site explain the necessary details for installation along with fee structure. User can also seek approval for the installation of monitoring system from the inspection officers during their visit. The customer needs to call the electricity provider for inspection after completion of the installation process. Next the officer will inspect the installation and give their approval for availing the subsidy. Then, customer can avail the subsidy amount, they can also get tariff details of the excessive units that will be sold to the different institutions.

### **Specification Of Rooftop Pv System For Subsidy Schemes**

Approximately 100 square feet of space is required for the installation of the rooftop pv system. The average cost of installation of rooftop pv system without subsidy is around 60,000 – 70,000 rupees. After leveraging 30% subsidy, people just have to pay rs. 42,000 – 48,000 for installing a rooftop pv system. In order to avail generation-based incentive, the customer should generate 1100kwh -1500kwh per year. Under the schemes, a customer can earn up to rs. 2,000-3,000 per annum as generation based incentive.



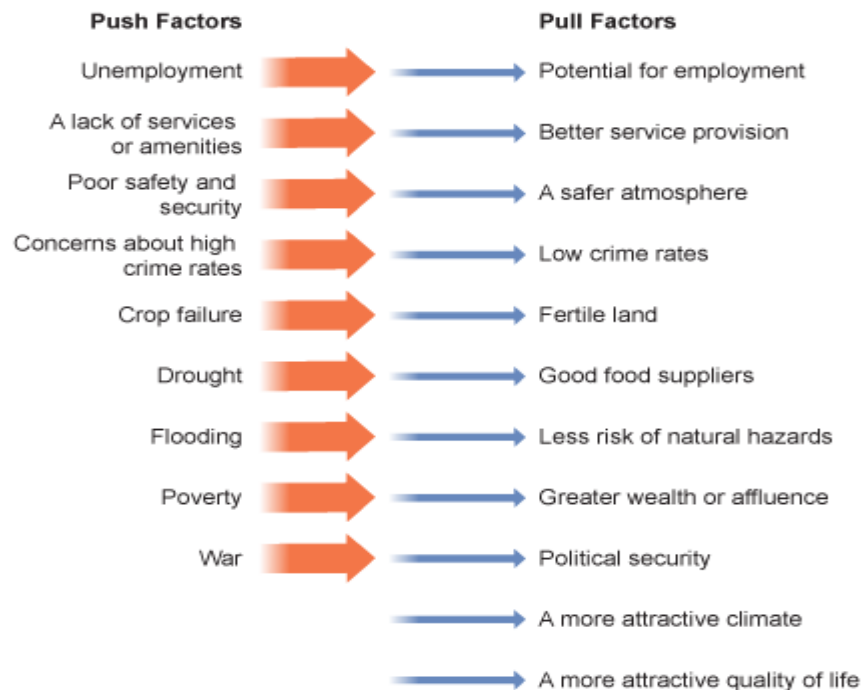
Solar Power Plants

## Data Collection and Analysis

### SWOT Analysis of Tirchakhet Village

<b>Strength</b>	<b>Weakness</b>
<p>Good water facility</p> <p>Bio diversity</p> <p>Agriculture</p> <p>Shops, hotels</p> <p>Development program</p> <p>School</p> <p>Training programs in Panchayath office</p> <p>Self-employment ( selling milk )</p>	<p>Unavailability of labours due to migration of labour for cities to work.</p> <p>High dependence of rain for agriculture</p> <p>Drop outs from the school</p> <p>Caste discrimination</p> <p>No single leader for SHGs</p>
<b>Opportunity</b>	<b>Threat</b>
<p>Environmental effect</p> <p>Land-space to grow</p> <p>Bad financial situation of villagers and high cost of medical expenditure costs in cities</p> <p>Improvement</p>	<p>Reducing children in school</p> <p>Increased use of chemical in agriculture in the form of fertilizers, pesticides and herbicides.</p> <p>Increase in number of people involved in alcohol and gambling.</p> <p>Increase urban migration</p> <p>Loss of interest in agriculture and allied activities by the villagers.</p>

## Findings



The following are the findings of the village are :-

1. Productivity level of agriculture in the village is very low due to non availability of irrigation facilities, thus the agricultural economy of the village is unable to provide continuous work throughout the year.
2. Skills and techniques of the older manual labours have been obsolete i.e. carpenters , and hence these labourers are not being demanded by any employer which causes unemployment in the village.
3. Agricultural landholdings with the farmers are very small which keeps the agricultural workforce employed only for a part time.
4. A part of the village workforce faces seasonal unemployment because their occupations fluctuate with seasons , either because their materials come in at certain seasons or demand for their products is seasonal . example . taxi drivers of the village get work only during the tourist season.
5. The non-availability of subsidiary occupations in the village and the nearby areas has also caused unemployment in the village.

## Conclusions

This study derives that migration is a function of push and pull factors that is in rural areas increasing of population did not have job facilities, reasonable income, basic amenities. The pull factors of better job facilities, good salary, and more income, medical and educational facilities are attracting the rural people to move to the cities like Chennai city.

The push factors of no job facilities, low salary, less income, drought, less medical and educational facilities are the push factors of the rural people from rural to urban migration. Even though, to minimize the rural to urban migration and to prevent to move to cities the following are the some measures has to be taken by government and government organizations where migrants who acquire new skills, new money and new outlooks help transform the institution. However, such volunteer return migration is likely to be attenuated to nearly all sectors employ migrant workers (including children) through a complex system of contractors and agents who are well-positioned to exploit illiterate and poor workers. Where workers have become more experienced and confident the hold of market intermediaries has weakened but in the absence of effective employment exchanges for the poor, agents and contractors provide vital information and job opportunities to people who would otherwise be unemployed in villages.

The immediate need is to change the policy level discourse on migration by reviewing key documents and policies and moving away from theory and language which portrays migration as bad and something that must be stopped.

## References

Website :-<https://journals.sagepub.com/doi/abs/10.1177/019791838301700102?journalCode=mrxa>

Cota, O.D & kumar ,N.M solar energy: a solution for street lightning [vol. 2]

Policies and schemes related to rural stratification

Hinustan times E-newspaper

[www.researchgate.net](http://www.researchgate.net)

[www.downtoearth.org.in](http://www.downtoearth.org.in)

Local village administration

## Annexure

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

1	<b>Name of Village</b>	Tirchakhet
2	<b>Address of the Village</b>	Bhimtal raod farsoli
3	<b>Name of Sarpanch / Contact Person</b>	Mr. Ramesh joshi
4	<b>Date of Visit</b>	20/02/2020

Demographics of the Village		
1	<b>Number of Men</b>	1800
2	<b>Number of Women</b>	1190
3	<b>Number of Children</b>	206
4	<b>Total Population</b>	3200
5	<b>Number of Anganwadis</b>	2
6	<b>Number of Schools</b>	3
7	<b>Number of Primary Health Centres</b>	Nil

VILLAGESCHEDULE				
S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
2	Does anyone go out	No		

	and defecate in the open in village?			If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
3	Are these faces from the toilet being disposed in the river?	No		If, Yes , Then what <b>Action</b> has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
5	Are there institutional toilets at Schools, Anganwadis and Public places?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
6	Is waste from restaurants, public places dumped into the river?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
7	Is there a prevalence Of visitor/tourist OD?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?	No		No <b>Action</b> has been taken by the Village Authorities
9	Are twin-pit toilets common in the Village?	No		No <b>Action</b> has been taken by the Village Authorities
10	Are septic tank toilets (non-porous) common In your village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
11	Is there a P-Trap in all toilets?	No		No <b>Action</b> has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in	Yes		If, No, Then what <b>Action</b> has been taken by the Village

	/for the toilet?			Authorities
13	Are all toilets “fly-proof” – or Hygienic?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
14	Is the human waste disposed of in the Drain, <ul style="list-style-type: none"> <li>a) Nallahs,</li> <li>b) Openpit;</li> <li>c) Ponds or river or streams or any water bodyetc.</li> </ul>	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
15	Is fecal sludge directly discharged to waterbodies ?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
16	Is there a practice to wash the hands with soap after using the toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
17	Is any visible feces found in the environment?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
18	Is there any odour of urine or faeces in the location?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities

19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
20	Is child faeces disposed of in open area?	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises ?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
22	Is water available in /for the toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
23	Is toilet “fly-proof” – or Hygienic?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
24	Is the human waste disposed of in the Drain, j) Nallahs, k) Openpit; l) Ponds or river or streams or any water body etc.	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
25	Are Anganwadi cleaners maintaining and cleaning public toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities



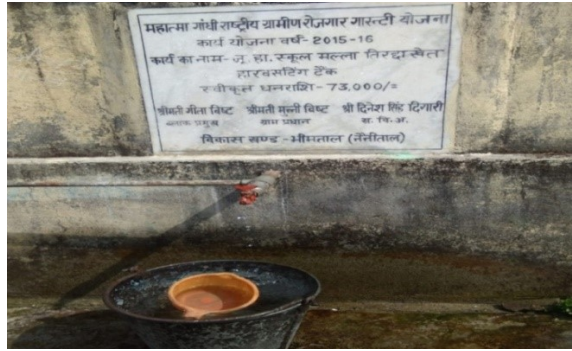
School Schedule				
26	Are there separate functional toilets for boys and girls in the school?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
27	Is there water available for use in the school toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
28	Is the human waste disposed of in the Drain,  m) Nallahs,  n) Openpit;  o) Ponds or river or streams or any water body etc.	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities   Have you taken GPS enabled photographs?
29	Is public toilet accessible to all (including Divyangs/physically challenged)	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
Public Toilets Schedule				
30	Is there a Public Toilet in the village?	No		No <b>Action</b> has been taken by the Village Authorities
31	Are there separate sections for Men and Women?	No		No <b>Action</b> has been taken by the Village Authorities
32	Is the human waste disposed of in the Drain,  p) Nallahs,  q) Openpit;	No		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities   Have you taken GPS enabled

	r) Ponds or river or streams or any water body etc.			photographs?
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
33	Is any sustainable water supply process/ method adopted for sustainability of ODF?	No		No Action has been taken by the Village Authorities
34	Is any sustainable process/method adopted for fecal sludge management?	No		If ,Yes Describe the process or method  If, No, Then what Action has been taken by the Village Authorities

**Annexure 2**  
**Village Visit (Survey on Sanitation Management and ODF)**



Toilets



Water Storage Tank For Schools



Household toilets



Toilets ( Junior High School Malla Tirchakhet)



Toilets



Toilets ( Primary School Malla Tirchakhet)

### Annexure 3

### Village Visit



Group Interaction



Ration Shop





Primary School



School students



Panchayat Bhavan



Nursery School



Sign Board



PDS Shop



Classroom

**Rural Immersion and Engagement  
Component in Vijaipur Village**

**Aditi Agarwal  
Kumaun University, Nainital**

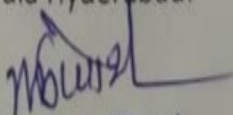
## CERTIFICATE

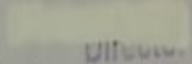
This is to certify that **Aditi Agarwal** student of **IPSDR Hermitage Collage Nainital** has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date:24/02/2020

Place:Nainital



  
(Prof. Atul Joshi)  
Signature

  
Director  
(College Seal/Stamp)  
Institute of Professional Studies  
and Development Research  
'The Hermitage' Kumaun University  
Nainital (Uttarakhand)



## DECLARATION

I hereby declare that the project work entitled “**Rural Emersion and Engagement Component on Vijaipur village**” submitted to **Mahatma Gandhi National Council of Rural Education, Hyderabad**, is a record of the original work done by me under the guidance of **Mr.K.K. Pandey** Faculty of **IPSDR, Hermitage College**. The results embodied in this village report have not been submitted to any other Organisation or University.

Date:

Signature of Intern:



Place: Nainital

(Aditi Agarwal)

## ACKNOWLEDGEMENT

The final outcome of this project is the result of guidance and support of a large number of people to whom I shall always remain thankful. I express my gratitude to all those people who have immensely helped in completion of the project report.

I am thankful to **Dr. Atul Joshi, Honorable head of the Department, IPSDR, Nainital**, who have provided me this golden opportunity to undertake this Internship program to gain practical experience by working in real life situation besides classroom lectures.

I want to thank **DR. WG PRASANNA KUMAR, Chairman, MGNCRE, Hyderabad** for providing me a golden opportunity to be a part of internship program conducted by MGNCRE .

I express my gratitude towards **DR. DEBENDRA NATH DASH-ASSISTANT DIRECTOR, MGNRCE, Hyderabad** providing me an opportunity to do internship under MGNRCE .

I respect and thank **DR. VIJAYA KUMARI N-SENIOR FACULTY, MGNRCE, Hyderabad** for providing immense support, relevant information and guidance throughout this internship program.

I am grateful to **Dr. Pradeep Joshi, Professor of MBA Rural Management and Entrepreneurship Development, IPSDR, Nainital** for his guidance, valuable teachings and support throughout this internship program.

I am pleased to thank **Mr. K.K. Pandey, Faculty of IPSDR, Nainital** for helping me throughout this project.

Most importantly this project would not have been able to be accomplished without cooperation and guidance of people of Vijaipur village, so I express deep pleasure and gratitude for giving me their valuable time and information.

**ADITI AGARWAL**

**KUMAUN UNIVERSITY, NAINITAL**

## ABSTRACT

The study of the village is done to identify the problems of village with respect to infrastructural facilities regarding transportation, education, healthcare, possibility of entrepreneurial ventures and proper utilisation of agricultural productivity.

A survey was done on village sanitation which revealed that despite of other problems this was also a major problem in village due to improper disposal of waste and lack of consideration. The findings show that there is intervention of wild animals in the village besides these issues.

**Keywords: Village, Transportation, Education, Health care, Sanitation.**

## Introduction to the Village

**India** is a country where around **68.84%** of the total population resides in villages. Among the **29** states of India, Uttarakhand is the 27<sup>th</sup> state housing **16,919** villages and it has been divided into **13** districts and 2 divisions i.e, Kumaun (6 districts) and Garhwal (7 districts), where **Nainital** is the district of Kumaun division containing **1,160** villages and its sub district **Haldwani** is home for **216** villages respectively.

### Brief Description of Village

**Village Name** – Vijaipur

**Gram Panchayat** – DewlaMalla

**Block / Tehsil** - Haldwani

**District**- Nainital, which is 45 km away from Vijaipur.

**Sub – District** - Haldwani is the nearest town to Vijaipur. It is located at a distance of 15 km from Vijaipur.

**State** - Uttarakhand

**Climate** - Moderate, same as Haldwani.

**Elevation/Topology** – 443 mt from the sea level.

**Villages under DewlaMalla gram sabha** –Vijaipur, Kishan Nagri, Simlar, Bangar

**Gram Pradhan** – Mr. Anand Singh Mehta

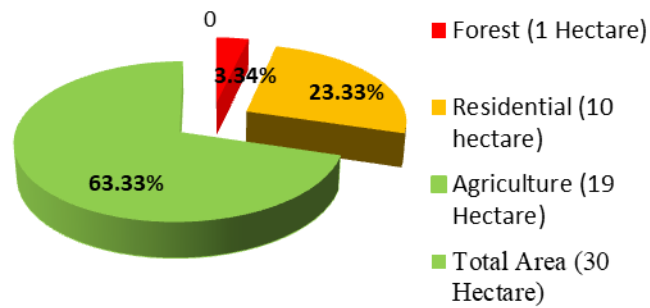
**Vijaipur**, a village of **Gaulapar, Haldwani** is the oldest village of Gaulapar region i.e. around **110 years** old. It is located on a **semi-hilly terrain** at an elevation of 443mt from the sea level. It comes under Dewlamalla gram sabha. It is blessed with **fertile red soil** in which various types of crops can be cultivated like wheat, maize, rice, coconut, tomatoes, pulses, flowers, spices etc, which makes it different from its nearby villages. The primitive occupation of people of Vijaipur is agriculture and they also practice animal husbandry which is their secondary source of income.

Sukhi Nadi, the people of Vijaipur have to cross this seasonal river to go to Vijaipur, but since there is no bridge or road on this river, so during rainy season it poses great problem. The people are isolated from the rest of the areas.



Aerial view of Vijaipur village

The total area of Vijaipur is 30 hectares (0.3km<sup>2</sup>). Out of this 1 hectare (0.01km<sup>2</sup>) area is reserved with Forest Department and 19 hectares ( 0.19km<sup>2</sup>) of area is composed of Agricultural Land and rest 10 hectares (0.1km<sup>2</sup>) area is Residential area. It is situated at an elevation of 443mt from the sea level.



Land use pattern of Vijaipur

### Demographic Profile

**Population** – 70 families, 398 people, on an average 5 people reside in every family.

**Gender ratio**– 60% Males (239) and 40% Females (159).

**Age Structure**– 20% Small children

15% Teenagers

20% Youth

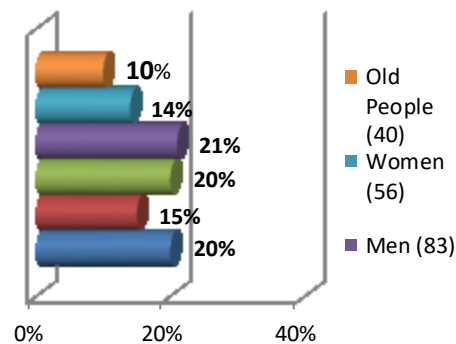
21% Men

14% Women

10% Old people

**Religion and Culture** – 100% Hinduism religion is prevalent in Vijaipur and culture is being practiced.

Kumauni



**•Economic Profile**

**Occupation**– The primitive occupation of people is Agriculture i.e. 95% and parallelly they practice Animal Husbandry as their side business which is their secondary source of income. Around 30% milk of Aanchal Dairy is supplied by Vijaipur. Only 2% people go for jobs.

**Profession** – None

**Size of Land Holdings** – 95% families have own land (on an average 0.28 hectare of land holdings of families). 5% families have no land.

**Manufacturing activity** - None

**Role of NGO** - None

**Role of SHG** - None

**Instances of reverse migration**- None

**Village Market** There is no specific village market except 1 attachakki on khaira chouraha and a very small shop of daily needs.

**• Literacy & Education profile**

**Literacy rate** – 90% amongst which:

95% Males are literate

83% Females are literate

**School enrolment**– 100%

**School dropout** – 10%

**Avenues for higher education** – In Vijaipur village there are no avenues for higher education, so people go to other places like Kuwarpur village, Haldwani or Kathgodam for pursuing their 12<sup>th</sup>, graduation and post-graduation.

**Avenues for technical and vocational education** – Not available, so people go to Haldwani or Kathgodam for this purpose.

**Opportunities for skill enhancement** – Not available in Vijaipur

**Specific/Distinct features of Vijaipur**

**Culture & Tradition** – In Vijaipur, Kumauni culture & tradition of customs, sets and beliefs is being practised.

**Fairs** – Vijaipur has no specific fairs.

- **Rural Health Infrastructure**–Health facilities are not adequate for the people of Vijaipur. Only 1 PHC in whole Gram Sabha which lacks adequate doctors and basic equipment like X-ray, ultrasound machines etc. For these reasons they are referred to hospitals of Haldwani like Base hospital, Sushila Tiwari hospital or other private hospitals. Even for the animals no Veterinary doctors are available or not willing to come due to poor connectivity.
- **Rural Educational Infrastructure** – The educational infrastructure of Vijaipur is in a very poor state. There is only 1 primary school in the whole village with 2 male teachers as staff and there is only 1 class for Aganwadi comprising of 4 children, 2 bhojan mata and a teacher. They don't have adequate funds available to provide good environment, books and infrastructural facilities to students.



Primary School of Vijaipur



Playground of school

**Rural Amenities**

**Power Supply**-There is proper supply of electricity in Vijaipur and 98% people have their own connection of electricity. However, mobile networks are poor.

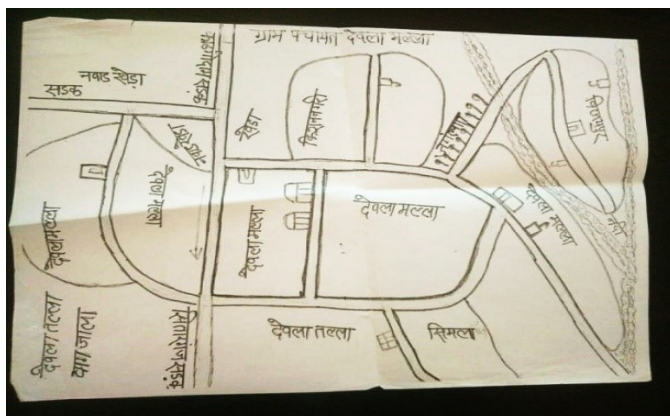
**Water Supply**- The main source of water in village is Dharua nalla. During rainy season they are cut off from this source of water due to damage in pipelines. 98% of rural households have own water connections.

**Transportation** – Vijaipur village does not have adequate transport infrastructure as it is located on a semi hilly terrain so people have to cross a seasonal river called as **Sukhi Nadi**, which overflows during rainy season. This isolates the people of Vijaipur from rest of the areas. To **solve** this problem a **1.2m long bridge** has to be constructed. Within the village there is no pucca road except 1 which is also under construction till now and it is mainly used for vehicles.

**Financial Infrastructure** – There is no Bank in Vijaipur village. However due to initiative of former Gram Pradhan (Mr. Prakash Tamta) a mini bank has been opened in DewlaMalla gram sabha under BANK OF BARODA. There are seven banks in whole Gaulapar region. Some of them are PNB, IDBI, SBI, Nainital Distt. Cooperative Bank etc.



Map of Vijaipur village



Villages under DewlaMalla gram sabha



## Identification of the Problem

- Rural areas are mainly depended on Agriculture as their primitive source of income and maximum number of family members are engaged in agricultural activities which restricts their other source of income generation, leading to low income levels.
- For development and individual empowerment increase in per capita income is essential, this could be done through either initiating entrepreneurial activity in village or through changes in agricultural pattern to ensure proper utilization of agricultural produce.
- Government and private employment opportunities are not sufficient enough to provide gainful employment opportunities and they all lack the skills required due to inadequate infrastructural facilities.
- For development it is important that the entrepreneurial activity requires less capital investment and does not requires specialized skills so that each and every individual could be benefitted.
- Since rural economies are largely depended on agriculture and the transportation channel is not good enough as it lacks adequate connectivity to bridge and roads, so Marketing of perishable crops like vegetables, fruits, flowers etc is quite difficult and requires high maintenance like cold storages and already have good supply in the market. Hence, for this reason crops of less perishable nature and longer shelf life like **pulses** are a better option.
- Resistance to change and take initiative to do new things.

## Review of Literature

### Entrepreneurship in Agriculture: Not only Opportunity, but also a Necessity

Agriculture has been the important and dominant sector of Indian economy because of its high share in employment and it being the source of livelihood for approximately 65 percent of Indian population till date. It still remains a major contributor to India's GDP. It supports more than half a billion people and is providing employment to 52 percent of the workforce. Its contribution to the nation's GDP is about 10.5 percent in 2014-15 (statisticstimes.com, 2015).

India is managing 17.5 percent of world population on 2.4 percent of world land. During independence, more than half of the national income was contributed by agriculture and more than 70 percent of total population was dependent on agriculture (Pandey, 2013). Due to changing socio, economic, political, environmental and cultural dimensions throughout the world, the farmers' and nations' options for survival and sustainability, and ensuring success in changing their respective economic environments, have become increasingly critical. The rapid growth of agriculture is essential not only for self-reliance but also for meeting the food and nutritional security of the people, to bring about equitable distribution of income and wealth in rural areas as well as to reduce poverty and improve the quality of life. Growth in agriculture has a maximum cascading impact on other sectors, leading to the spread of benefits over the entire economy and the largest segment of population.

The emergence of free market economies has led to the development of a new spirit of enterprise 'Agripreneurship' and the increased individual need for responsibility for running their own businesses (Alex,

2011). There is a need for tremendous innovation and investments in this sector. Government of India has allowed 100 percent FDI under automatic route in storage and warehousing and also for the development of seeds.

The **social entrepreneurship** ecosystem is on a growth path but is still very nascent in India. With the wave of social entrepreneurship flowing across various sectors of social impact, agriculture sector is not left untouched. Innovative social enterprises are coming up which are focusing on the problems and needs of farmers. With very few impact investment funds in India, there are even fewer, which have invested in the agriculture sector (Kirti Punia, 2013).

### **Entrepreneurial Environment for Farmers**

The farmers-entrepreneurs operate in a complex but unstable and dynamic environment. They are the part of a larger collection of people including other farmers, suppliers, traders, transporters, processors and many others. Everyone is having an important role in producing products and moving them to the market through the value chain. Each one needs to be an entrepreneur and work in an integrated manner to make the whole system work better and to be more profitable in their business.

**Entrepreneurship** is a key factor for the survival of farming in an ever-changing and increasingly complex global economy. Farmers-entrepreneurs see their farms as a business and as a means of earning profits (David Kahan, 2012). They are so passionate about their farm business that they are willing to take calculated risks to make their farms profitable and their businesses grow. Many of them think that there is little future for farmers unless they become more entrepreneurial in the way they run their farms. They must have a positive thinking for increasing produce for markets and for earning profits. Becoming more entrepreneurial can be a challenge for small-scale farmers. They will need help from extension workers and other institutions to come up at better position as an agripreneur.

### **Entrepreneurship Dynamics**

To become a successful **farmer-entrepreneur**, they must be technically competent, innovative and plan ahead to gear up their farm businesses through the stages of enterprise development – from establishment and survival to rapid growth and maturity. There are many challenges that these farmers face such as social barriers, economic barriers, regulations, access to finance and information, and their own managerial capacity to cope with risks and changes and to seize opportunities.

Entrepreneurship is connected with finding ways and means to create and develop a profitable farm business. The term entrepreneurship and agripreneurship are frequently used in the context of education and small business formation in agriculture. Dollinger (2003) has described entrepreneurship in agriculture as the creation of innovative economic organisation for the purpose of growth or gain under conditions of risk and uncertainty in agriculture.

### **Need of Agripreneurship Development**

There is a need of entrepreneurship in agriculture for more productivity and profitability. This is the need of the hour as the people are facing growing unemployment and poverty in rural areas. But after the inception of New

Economic Reforms, adoption of liberalisation, privatisation and globalisation and accepting objective of World Trade Organisation in 1995, it is expected that rural area has the capability of growing at par with urban area.

Entrepreneurship in the field of agriculture can generate wide range of economic benefits such as increased agri-productivity, creation of new business ventures, new jobs, innovative products and services, development of rural areas and increased wealth. Agripreneur is a dynamic business manager who performs various agri-based activities using different resources viz, physical resources, financial resources, human resources and information, in order to accomplish a certain goal.

### **Promotion of Agripreneurship in India**

India is having 52 percent of total land that is cultivable as against 11 percent in the world. All 15 major climates of the world exist in India from snow bound Himalayas to hot humid southern peninsula, and desert to heavy rain areas. There are 20 agro-climatic regions and nearly 46 out of 60 soil types in the country. The sunshine hours and day lengths are ideally suited round the year for cultivation of crops.

India is ranked the second largest producer of rice and wheat in the world. It is first in pulses and fourth in coarse grains according to the data. India is also one of the largest producers of cotton, sugar, sugarcane, peanuts, jute, tea and an assortment of spices. In terms of the real value added, the Indian agriculture sector ranks third, after China and the United States. The share of agriculture in the total value added to the economy, at around 13.2 percent, is still quite high. This implies that agriculture is likely to remain a priority, both for policy makers as well as businesses, in the foreseeable future and any move to ramp up the sector calls for a multi-pronged strategy.

### **Challenges**

Farmers need to adapt certain qualities to become entrepreneurs. They need to be innovative and look forward to accept challenges for managing their businesses as long-term ventures with a view to making them sustainable. They must learn to identify opportunities and grab them for their benefits. Some small-scale farmers do have these qualities, but they still focus on maintaining their traditional way of life. Their production decisions are based on 'what they need' and not on 'what is possible' (David Kahan, 2012). The farmers must develop an entrepreneurial spirit to cope with the risks they would face in the future. A farmer must be enthusiastic and careful enough for making different decisions about his farm business.

#### **Other challenges are as follows:**

- Market-related risk;
- No easy access to finance and credit;
- Lack of information;
- Low bargaining power;
- Vulnerability to economic shocks;

- Lack of proper training.

### Opportunities

Farmers may be given a specialised training to run their farms as a profit-making business and to invest profits back into the business to generate long-term growth. They also must be encouraged and motivated to develop and adapt new technologies and share them with other farmers. Extension workers can facilitate partnerships among farmers and between farmers and researchers to work together to identify, develop and test new technologies and practices to improve productivity and profitability. They must be aware of the fact that they have greater opportunities that allow them to produce beyond just surviving. However, by changing their resource mix and overcoming access and risk issues, opportunities can be expanded. They should expand their survival farming to include some economic activities and can move towards the path of developing profit-driven farming businesses (David Kahan, 2012).

### Conclusion

**Agripreneurship is the need of the hour in India to make agriculture a more attractive and profitable venture. There is a great scope for entrepreneurship in agriculture.** The potentiality of the country can be tapped only by effective management of agricultural elements such as soil, seed, water and market needs. The youth who can bear the risk and having a quest for latest knowledge in agriculture sector can prove to be right agripreneurs. It also has a large potential to contribute to the national income while at the same time providing direct employment and income to the numerically larger and vulnerable section of the society. Agripreneurship is not only an opportunity, but also a necessity for improving the production and profitability in agriculture and allied sector.

### Agriculture in Uttarakhand

Uttarakhand, located at the foothills of the Himalayas, is characterized by diverse geographical features ranging from snow-capped mountain peaks in the North to tropical forests in the South. It has been divided into two regions- the western region- Garhwal Mandal and the eastern region- Kumaun Mandal. It is divided into 13 districts which consist of 95 blocks.

Out of a total geographical area of 5.35 million ha in the state, 4.6 million ha (86%) is hilly area and 0.74 million ha (14%) is plain area. Only about 14 percent of the geographical area is cultivable which is mainly attributed to the topography of the state. Because of its location and diverse climate, the State has certain unique advantages for development of horticulture, agro processing industries, organic farming, off season vegetable cultivation and cultivation of medicinal and aromatic plants which can be gainfully exploited. Similarly, service sector, particularly tourism offers a large potential for employment generation in both urban and rural areas. The State is having about 61.1% area under forests. The share of net sown area is only about 14 % as against the national average of 43.37%. The share of culturable wasteland is about 7% which provides a huge potential for fodder trees and other plantation crops including fruits.

Agriculture is a predominant sector in the state economy which contributes around 23.4% in State Domestic Product (GDP). The average size of land holding in the state is 0.95 ha (Marginal-0.39, Small-1.38, Medium-3.33 and Large-36.00) as against the National Average of 1.57 ha. The share of small and marginal holdings is higher

in Uttarakhand State as compared to National Average. The agriculture sector in the state continues to remain heavily depended on rainfall. The net Irrigated area in the State is 3.45 lakh ha. Out of which 85.83% is in plains and 14.17% are in hills. The irrigation intensity in the State is 159% which varies between 155% in plains to 184% in hilly region.

## Objectives of the Study

The following points reflect the objectives of the study: -

- To gather relevant information about the village undertaken.
- The objective of the proposed study is to explore the viability and flexibility of entrepreneurial opportunities in the village.
- To explore new possibilities to revamp agricultural practices.
- To understand the effect of resources, infrastructure on villagers & how it affects their lives.
- To identify new sources of income generation.

## Hypothesis of the Study

The project undertaken is not of an empirical nature. It is descriptive and the broad analysis have been drawn from the surveys conducted related to the village and on the opinion of the residents. It is because of these factors that no testing tools have been used to establish and validate the hypothesis.

Therefore, the hypothesis is framed in a general format considering the possibilities and the feasibility of entrepreneurial possibilities.

**H1:**Entrepreneurial opportunities involving high technology are possible in the villages.

**H(Alt):**The entrepreneurial opportunities are not possible in villages due to lack required skills amongst villagers.

**H2:** There is possibility of big investment in entrepreneurial ventures.

**H(Alt):** Since the primitive occupation of villages is agriculture, so procurement of funds for additional purpose is quite difficult.

**H3:** Specialised skills are available in villages.

**H(Alt):** Due to lack of educational infrastructure specialised or technical skills are not available.

**H4:** Good marketing channels and commercialisation is available in rural areas.

**H(Alt):**Due to inadequate infrastructural facilities i.e., roads, bridges in villages there is lack of transportation facilities which restricts marketing channels for commercialisation of products.

Analysing the possibilities and feasibilities of entrepreneurship in terms of the above hypothesis established, our survey reveals that these hypotheses cannot be substantiated, and therefore the alternative hypothesis need to be considered.

Since, the village has facilities only for basic formal education of a non-technical nature, establishment of ventures requiring high levels of technology would be inappropriate, as its main aim is to generate new sources of income for the villagers.

As mentioned earlier due to the existing educational systems, prevalent in the villages the villagers do not possess a satisfactory level of technical skills.

The residents belong mainly to middle income groups with a significant proportion at the BPL level, large investments would not be possible. This is the case for both owned and loaned funds.

The question of loaned funds through government agencies and bank depends to a large extent on the of present income as it represents the repaying capacity of the borrowers.

Marketing and transport networks are not very well developed in the villages due to lack of infrastructural facilities and for market operations the middlemen play a dominant role which very often runs opposite the interest of the farmers.

Moreover, there are volatile market fluctuations especially with respect to perishable agricultural crops for this reason there should be special emphasis on crops which have a lesser degree of perishability also the price fluctuations are not very frequent like other crops like tomatoes, onions etc and have higher market value.

## Actions Planned to address the problem

### ❖ Action Research Project

For preparing the action research project on Vijaipur village to address its problems, a **SWOC ANALYSIS** has been done on the village so as to analyse its strengths, weakness, opportunities and challenges, which is as follows: -

### Swot Analysis of Vijaipur

#### Strengths:

1. Vijaipur is blessed with fertile red soil, so various types of crops can be cultivated over there.
2. The productivity is good amongst other nearby villages of Gaulapar region.
3. Since it is located on a semi-hilly terrain so it provides a mesmerizing scenic beauty of nearby towns like Haldwani and Lalkuan.
4. The people of Vijaipur are well educated and are willing to do something new and progressive for development of their village.

#### Weaknesses:

1. The biggest weakness of Vijaipur is that it lacks adequate connectivity as the whole Village has no roads.
2. It does not have any Hospital and Secondary level schools.
3. It is surrounded by a seasonal river known as Sukhi Nadi which isolate them with other villages during rainy season as it overflows.

**Opportunities: -**

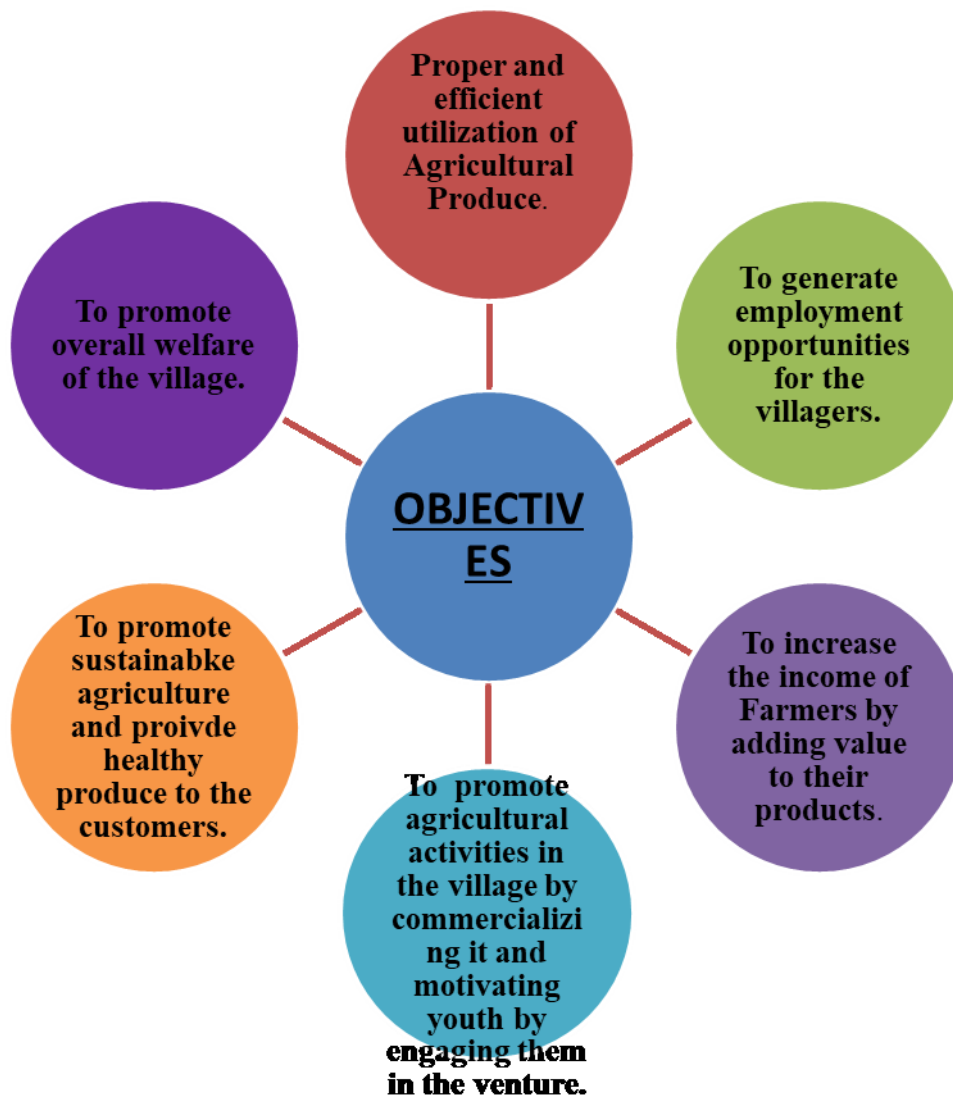
1. There is scope for doing organic farming and growing more of cash crops like Tea, Spices and Medicinal Plants.
2. They can sell their Agricultural produce by packaging them into finished products.
3. There is scope for doing Aquaculture near Dharua nala.
4. Seed bank can also be opened there as it has scope for Higher agricultural yield.

**Challenges:**

1. Sukhi Nadi poses a great challenge for people of Vijaipur because there is no bridge or road on this seasonal river.
2. As 1% of Vijaipur is covered with forest area without fencing so it faces frequent intervention of wild animals like Elephants, Wild Pigs, Deers and Monkeys which destroy their crops.

After analysing the opportunities and challenges of Vijaipur and to solve the problems I have developed a business plan for its economic development.

## Proposal of Entrepreneurial Venture



### Formulation of A Business Plan Titled “Pahadi Grains”

#### I-General Information

- The biggest strength of Vijaipur is its fertile soil, but due to lack of knowledge, initiative and finance the village is discarded from prosperity and lack adequate utilization of its agricultural produce.
- Sol have identified a business opportunity in Vijaipur in the field of Agribusiness.
- Dealing in Pulses (**Gauhat, Madua, Bhat, Urad, Rajma**), Millets (**Jowar, Bajra, Ragi**), Cereals (**Wheat, Rice**), as raw materials and then converting them into finished goods for consumption by adding value to them through new packaging and by creating a customer base for the products through marketing.
- Initially these products will be sold through Kumaun Mandal at Haldwani which is nearest potential market of the Vijaipur.



## II- Product Details

- **Type of Products-** Pulses (Gauhat, Madua, Bhat, Urad, Rajma); Millets (Jowar, Bajra,Ragi); Cereals (Wheat, Rice)
- **Packaging of Products-** Keeping in consideration the convenience to customers the pulses will be packed in small packets of ½ kg and 1kg packets made of cardboard boxes. The cardboard boxes will be covered with Low Density Polythene (LDP) to provide good strength, prevention from moisture, environment friendly and have good printing properties which attracts customers
- And for 5kg and 10kg of products i.e., Wheat Flour, Rice Flour and Multi grain Flour jute sacs will be used for packaging.

### Prices of Products:-

**GauhatDal** - Current Market Price Rs 180 per kg and our price will be Rs 165 per kg.

**Bhat Dal** -Current Market Price Rs 100 per Kg and our price will be Rs 85 per Kg.

**Urad Dal** - Current Market Price Rs 90 per kg and our price will be Rs 75 per kg.

**Mandua Flour** - Current Market Price Rs 70 per kg and our price will be Rs 60 per kg.

**Multi Grain Flour** - Current Market Price Rs 75 per kg and our price will be Rs 60 per kg.

**Rice Flour** -Current Market Price Rs 50 per kg and our price will be Rs 40 per kg.

These prices are kept low from Market Price so as to gain competitive advantage and to provide good quality products to consumers by eliminating middlemen.

## III- Physical Infrastructure

**Raw Materials** - The raw materials will be procured and processed from Vijaipur itself.

**Manpower** -The people especially **Women and Youth** of Vijaipur will be employed in the procurement, production and transportation of goods.

**site-** Production and Packaging will be done in Vijaipur and will be stored in a warehouse in Vijaipur. And the retail outlets will be established in Haldwani.

**Machinery-** Machine for hulling will be deployed for fast production and will cost around Rs 12,500. And there is already Flour Mill in Vijaipur so it will be used for milling.

### Utilities

**Power-** Adequate supply of power is there in Vijaipur which is sufficient for meeting the requirements.

**Water-** Adequate supply of Water is there through Dharua Nala in Vijaipur.

**Transportation-** Small trucks will be used for transportation. However, the road to Vijaipur is incomplete so firstly the produce should brought to the nearby village manually after that it will be loaded in the trucks.

## IV- Market Analysis

Since the staple diet of India consists of Pulses, Millets and Cereals etc. so, there is good demand for agricultural goods.

The target customers will be of Haldwani and nearby cities like Nainital, Lalkuan, and Rudrapur etc and for middle income groups.

These products have longer shelf life as compared to other agricultural crops so it's a viable and feasible option.

**Advertisement-** Initially goods will be promoted through hoarding, loudspeakers for general reach. After attaining certain level of market demand a retail outlet could also be opened in Haldwani and the goods will be sold online also.

## V- Finance

An estimated initial investment of Rs 1.2 lakhs will be required in setting up the business and around Rs 30,000 will be required as initial working capital.

## Data Collection and Analysis

### Data Analysis and Interpretation

The required data was collected both from primary and secondary sources.

**Primary Source** – The data collected for the village has been collected basically through primary source i.e. through personal observation and consists primarily on the interaction and opinion of residents of the village. It is based on the survey conducted. Two people were assigned one village for the study.

**Secondary Source** – The secondary source of data include quantitative data collected through the village authority i.e. Gram Pradhan, primary school, aganwadi workers

**Agriculture Productive Efficiency** – The Vijaipur village is blessed with fertile and productive red soil. In numerical terms the agricultural productive efficiency is expressed as follows :

**Productivity per hectare** = Total productivity / Total productive land

In kg =  $8700\text{kg} / 19\text{h} = 458 \text{ kg per hectare yearly produce}$

In Rs. = Total earning from produce / Total productive land

=  $\text{Rs } 1600000 / 19 \text{ h} = \text{Rs } 84210 \text{ per hectare yearly earning}$

**Productivity per worker** = Total production / Total no of workers =

In kg =  $8700\text{kg} / 298 = 29.19\text{kg per worker yearly produce}$

In Rs = Rs 1600000 / 298 = Rs 5369 per worker yearly produce.

Note – Here 298 workers are as 378 – 80 i.e. no of small children is excluded.

## Findings

- I. Need for building transportation infrastructure i.e. roads and bridges.
- II. Lack of doctors and equipment in PHC.
- III. Immense potential for agricultural activities
- IV. Intervention of wild animals leading severe damage to crops
- V. Requirement of teachers and infrastructure for better education.
- VI. Matra Vandana Yojna is being implemented in 2018 under which due care is taken of child from i
- VII. inception and till the age of 2 to 3 years in aganwadi.
- VIII. Under Pradhan Mantri Swachh Bharat Mission 3-4 households have got their own toilet
- IX. Under Pradhan Mantri Swachh UrjaYojna solar street lights have been installed in village.

## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

1	<b>Name of Village</b>	Vijaipur
2	<b>Address of the Village</b>	Vijaipur, KhairaChouraha, Gaulapar,Haldwani
3	<b>Name of Sarpanch / Contact Person</b>	Mr. Anand Mehta
4	<b>Date of Visit</b>	15-11-2019

#### VILLAGESCHEDULE

S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a	Yes		

	toilet?			
2	Does anyone go out and defecate in the open in village?	Not frequent		
3	Are these faeces from the toilet being disposed in the river?		No	
4	Is there any OD spot / excreta in an open place?	No		
5	Are there institutional toilets at Schools, Anganwadi and Public places?	Yes		
6	Is waste from restaurants, public places dumped into the river?		No	
7	Is there a prevalence of visitor/tourist OD?		No	
8	Is there an institutional mechanism to check OD by insiders/outsideers?		No	
9	Are twin-pit toilets common in the Village?		No	
10	Are septic tank toilets (non-	Yes		

	porous) common  In your village?			
11	Is there a P-Trap in all toilets?		No	
<b>Household Schedule</b>				
12	Is water available in  /for the toilet?	Yes		
13	Are all toilets “fly-proof” – or Hygienic?		No	
14	Is the human waste disposed of in the Drain,  d) Nalliah’s,  e) Open pit;  f) Ponds or river or streams or any water bodyetc.		No	
15	Is faecal sludge directly discharged to water bodies?		No	
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvased	Yes		

16	Is there a practice to wash the hands with soap after using the toilet?	Yes		
17	Is any visible faeces found in the environment?		No	
18	Is there any odour of urine or faeces in the location?		No	
19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		No	
20	Is child faeces disposed of in open area?	Yes		
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises?	Yes		
22	Is water available in /for the toilet?	Yes		
23	Is toilet “fly-proof” – or Hygienic?		No	
24	Is the human waste disposed of in the Drain, s) Nallahs,		No	

	<p><b>t)</b> Openpit;</p> <p><b>u)</b> Ponds or river or streams or any water bodyetc.</p>			
25	Are Anganwadi cleaners maintaining and cleaning public toilets?		No	

## References

Food Recipes

Innovation

By: Anju Bharti

<http://www.worldagribusiness.com/ArticleNovScenario.html>

<http://www.zenithresearch.org.in/images/stories/pdf/2011/June/5%20ATUL%20BANSAL%20.pdf>

<http://ageconsearch.umn.edu/bitstream/47436/2/1-Presidentialaddress.pdf>

[http://articles.economictimes.indiatimes.com/2008-10-06/news/28437665\\_1\\_young-entrepreneurs-technology-retail-outlets](http://articles.economictimes.indiatimes.com/2008-10-06/news/28437665_1_young-entrepreneurs-technology-retail-outlets)

<http://www.indianweb2.com/2015/09/15/vc-funding-in-agri-tech-startup-ramping-up-in-india-544/>

<http://www.hindustantimes.com/business-news/india-inc-hails-pm-modi-s-thrust-on-agri-production-startups/article1-1380496.aspx>

<http://knowstartup.com/2015/07/agri-startups-sector/>

<http://www.ibef.org/industry/agriculture-india.aspx>

<http://www.doiuk.org/> (Department of Industries, Uttarakhand)

<http://agriculture.uk.gov.in/> (Department of Agriculture, Uttarakhand)

<http://ukmandi.co.in/> (Uttarakhand Krishi Utpadan Mandi Parisad)

<http://uk.gov.in/contents/view/1/6/> (Directorate of Food Processing)

<http://www.sidcul.com/> State Infrastructure and Industrial Development Corporation of Uttarakhand Limited (SIDCUL)

<http://des.uk.gov.in/> (Department of Economics and Statistics, Uttarakhand)

## Conclusion

Vijaipur village is the oldest village of Gaulapar region i.e. around 110 years old. It is blessed with fertile red soil which makes it the most fertile village amongst other villages. It is a small village located on semi hilly terrain. Due to its complex location it is surrounded by a seasonal river i.e. Sukhi Nadi which pose great problem for the people of Vijaipur.

During rainy season this river overflows which isolates the people of Vijaipur from the rest of the areas. Vijaipur has electricity and water supply and the out there are technology friendly. But, there is lack of educational and health facilities, which deprives them from technical skills.

Despite of fertile land the farmers are not able to get high prices for their crops as size of landholdings is small and investment in seeds and pesticides is more. For this they need a marketing channel for their produce and need to grow more of cash crops to earn higher returns.

### Snapshots



Rice field



Wheat



Atta chakki on Khaira chouraha



Women Working in Field

Marigold



Cultivation of different crops

**The Study of Rural Immersion  
Programme in Village Tirchakhet**

**Mayank Rawat  
Kumaun University, Nainital**

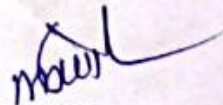
<b>S No</b>	<b>Contents</b>
<b>1.</b>	Introduction to the Village
<b>2.</b>	Identification of Problem
<b>3.</b>	Review of literature
<b>4.</b>	Objectives of the Study
<b>5.</b>	Actions Planned to address the problem
<b>6.</b>	Implementation of Action research Steps
<b>7.</b>	Process of implementation of the study
<b>8.</b>	Data Collection and Analysis
<b>9.</b>	Findings
<b>10.</b>	Conclusion
<b>11.</b>	References
<b>12.</b>	Annexure

## CERTIFICATE

This is to certify that Mayank Rawat student of IPSDR, Hermitage, Nainital has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date: 27-2-2020

Place: NAINITAL



Signature

Director  
(Name of Principal)  
Institute of Professional Studies  
(College Seal/Stamp)  
'The Hermitage' Kumaun University  
Nainital (Uttarakhand)



## DECLARATION

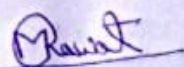
I hereby declare that the project work entitled

***“Rural Immersion Programme on Village Tirchakhet”***

submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Dr. N. Vijaya Kumari. The results embodied in this village report have not been submitted to any other Organization or University.

Date: 27-2-2020

Place: NAINITAL



Signature of Intern

Name of Intern – Mayank Rawat

## ACKNOWLEDGEMENT

The success and final outcome of this MGNCRE internship programme required a lot of guidance and help from many people and I am extremely privileged to have got this all along the completion of MGNCRE report. All that I have done is only due to such supervision and guidance and I would not forget to thank them.

I respect and **thank DR. WG PRASANNA KUMAR, Chairman, MGNCRE, Hyderabad** for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance.

I respect and thank **DR.DEBENDRA NATH DASH-ASSISTANT DIRECTOR, MGNRCE, Hyderabad** providing me a golden opportunity to do internship under MGNRCE and giving us all support and guidance

I respect and thank **DR. VIJAYA KUMARI N-SENIOR FACULTY, MGNRCE, Hyderabad** for providing me a golden opportunity.

I respect and thank **PROF./DR. K.S RANA , Honourable Vice chancellor , Kumaun University Nainital**, for providing me an opportunity to do internship under MGNCRE and giving us all support and guidance, which made me complete this report duly

I owe deep gratitude to **DR. ATUL JOSHI our Course coordinator** who took keen interest on MGNCRE internship program and thankful for his guidance and support.

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I am heartily thankful to and fortunate enough to get constant encouragement, support and providing all information from elected representatives of village Tirchakhet and all staff including Anganwadi and ASHA workers who collaborated with me during process of the study.

**Mayank Rawat**

(IPSDR) Kumaun University Nainital.

## ABSTRACT

The present study is focused on the problem of unemployment in the village and the challenges faced by the people with respect to Unemployment. The detailed study was conducted to know the actual causes and effects of Unemployment in the village. The primary data was collected through interacting with village people and through observation and interview method, and the collected data was analysed through self observation. The findings of the study showed that the major causes of unemployment are Lack of employment opportunities and seasonal nature of agriculture. From the outcomes of the study it is recommended that villagers need to be made aware of the importance of self-employment generation. The attention of the villagers can be oriented towards solving the problem.

**Keywords - Unemployment, Employment Generation, Sanitation, Youth, Action Plan**

## Introduction to the Village

**Village Name-** Tirchakhet

**Gram Panchayat** –Sangurigaon

**Block-** Bhimtal

**Tehsil-** Nainital

**District-** Nainital

**State -**Uttarakhand



Location of the village in Nainital district

Village Tirchakhet (Farsoli region) in Sangurigaon Panchayat is situated in Bhimtal Block , Nainital District of Uttarakhand state. The village is in a beautiful valley surrounded by mountains. It is one among the 108 villages of the Bhimtal Block administration . Tirchakhet is a medium sized village located in the Farsoli region . Tirchakhet comes under the Gram Sabha Nagarigaon . The village is situated around 15 kilometers away from Nainital . The village being near to Nainital experiences the same temperature as in the whole Nainital district. During the winter months of December to February the temperature ranges from 15 degree Celsius to 0 degree Celsius .In the summer months of April to June temperature ranges from 32 degree Celsius to 7 degree Celsius . The village receives an annual rainfall of around 150 centimeters during monsoons. The total geographic area of the village is around 500 hectares. The village has a total population of around 3200 people according to the 2011 census. There are around 350 families living in Tirchakhet village . Bhowali is the nearest town to the village which is approximately 4 kilometers away from the village. The village is divided into 2 dimensions Talla Tirchakhet and Malla Tirchakhet.

The main communities living the village are General ,SC and OBC. The village people speak Hindi and Kumaoni (regional language of kumaun). The main crops grown in the village are wheat, onion ,masur ,ginger and turmeric. Agriculture work finds seasonal work in the village and maximum number of households in the village depend on activities other than agriculture.

### **Village Functionaries**

**Gram Pradhan** – Mr. Vinod Arya

**Block Pramukh** – Dr. Harish Singh Bisht

**Block Development Officer** – Mr. Prakash Pant

**Village Development Officer** – Mr. Ramesh Kanwal



**BDC Member** – Mr. Kamal Goswami

**Ward Members** – Mrs. Renu Arya (ward no. 1)

Mr. Tarun Kumar (ward no. 2)

Mr. Chandan Kumar Arya (ward no.3)

Mrs. Geeta Bisht (ward no.4)

Mrs. Prema Arya (ward no. 5)

Mrs. Champa Arya (ward no.6)

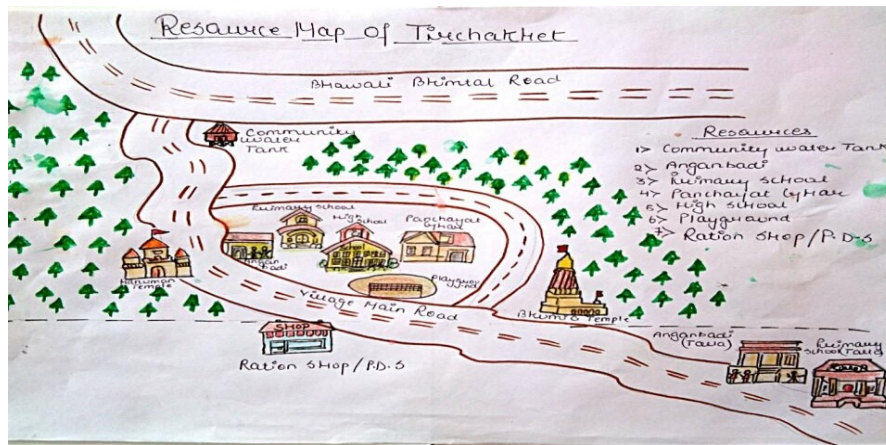
Mrs. Basanti Devi (ward no.7)

Mrs. Rajini Devi (ward no. 8)

Mr. Ghajeswar Prashad (ward no. 9)

### Demographic Information

<b>Total population of the village</b>	3200(approx)		
<b>No. of Households</b>	Total	BPL	APL
	350	17	333
<b>Number of Men</b>	1740		
<b>Number of Women</b>	1160		
<b>Number of children (0-6)</b>	Total	Male	Female
	300	180	120
<b>Number of Anganwadi</b>	2		
<b>Number of Primary Schools</b>	2		
<b>Number of Middle Schools</b>	1		
<b>Sex Ratio</b>	6 (male) : 4 (Female)		
<b>Literacy</b>	Total	Male	Female
	68%	80%	60%
<b>Gram Panchayat</b>	Sangurigaon		



Resource map of Village Tirchakhet

List of Resources present in the village

Indication	Resource
1	Community Water Tank
2	Anganwadi
3	Primary School
4	Panchayat Ghar
5	Middle High School
6	Playground
7	Ration Shop/PDS

### Schools

There are 2 Government Primary Schools from 1<sup>st</sup> to 5<sup>th</sup> standard one in Malla Tirchakhet and one in Talla Tirchakhet. There is also a Middle High School from 6<sup>th</sup> to 8<sup>th</sup> standard in Malla Tirchakhet.



Primary school



Middle high school

**Primary School Malla Tirchakhet**

Total Number of Enrolments : 25

Staff : Mrs. Manju Negi

Helper (Bhojan Mata) : Mrs. Lakshmi Dhami

**Primary school Talla Tirchakhet**

Total Number of Enrolments : 22

Staff : Mrs. Meera Singh (Principal) , Mrs. Sunita Rana (Assistant Teacher)

Helper (Bhojan Mata) : Mrs. Khila Devi

**Middle High School Malla Tirchakhet**

Total Number of Enrolments : 17

Staff : Dr. Anju Chaurasya (Principal), Mr. Jagdish Prashad (Assistant Teacher), Mr. Kailash Verma (Assistant Teacher)

Helper : Surendra Rajwar (Peon), Pushpa Goswami (Bhojan Mata)



Government school

All the schools in the village are having good infrastructural facilities . The students are getting mid day meals and there are separate toilet rooms for girls and boys and sufficient water facility.

**Anganwadi**

There are 2 Anganwadi centers in the village ( one in Malla Tirchakhet and one in Talla Tirchakhet )

Anganwadi and Asha are in the village itself and are working efficiently. They provide services like supplementary nutrition , non –formal-pre school-education ,Health check up , nutrition and health education . It also provides nutritional food to the pregnant women. They also maintain records like Birth, no. of pregnant, BMI etc.

**Anganwadi Malla Tirchakhet**

Total children : 3

Staff : Mrs. Pushpa Bora

Helper : Mrs. Neema Bisht

**Anganwadi Talla Tirchakhet**

Total Children : 17

Staff : Mrs Shobha Bora

Helper : Mrs. Janki Goswami



Anganwadi

### **Village Panchayat Ghar**

There is a Panchayat Ghar situated in Malla Tirchakhet. The Panchayat Ghar was constructed in the year 2008. Various welfare programs at regular time intervals are organized by the Village Panchayat for the benefit of the people of the village at the Panchayat Ghar. Welfare programs like gram sabha open meetings, vaccination camps, Homoeopathic medical camps, yuva mangaldal meetings, awareness camps etc. are being conducted in the Village Panchayat Ghar.



Village Panchayat Office

### **Village Public Distribution Shop**

There is a government sponsored Public Distribution Shop or ration shop in Malla Tirchakhet. The Public Distribution Shop of the village is entrusted with the work of distributing basic food and non- food commodities to the needy sections of the village society at subsidized rates by the government.

Wheat, rice, kerosene, sugar and pulses are few major commodities distributed by the Public Distribution Shop of the village. These items are sold to the village people at a price lower than the market price of the goods. Any family of the village with a ration card can buy stipulated amount of these food and non food items. The quantity of the commodities depends upon categorization of people below the poverty line.



Ration shop

## Identification of the Problem

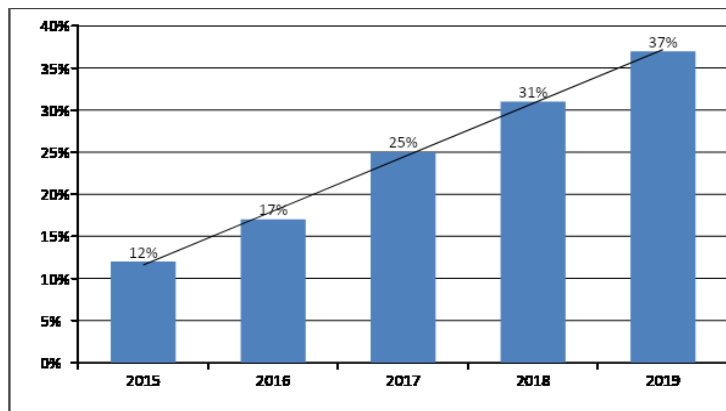
Village Tirchakhet in general has been experiencing various social-economic problems such as unemployment, poverty, lack of transport facility, lack of primary health center, lack of quality education etc. Amongst the various problems mentioned above unemployment is the most serious one. The problem under investigation concerns unemployment as the major problem of the village, which is both a cause and result of poverty in the village. It is a cause, since without a job a person has no income and cannot pay for proper housing, food, medical care for himself or herself and his or her family. It is a result since ill health is often caused by imbalanced diet, poor housing and lack of appropriate education and prevents a person from finding and keeping gainful employment.

Tirchakhet village which is the focus of the study is a perfect example of widespread unemployment. The problem of unemployment will be investigated in the study. The causes and effects of unemployment will also be investigated. Among the people of village Tirchakhet socio-economic problems, unemployment is the most serious problem. It is the greatest single cause of abject poverty in the village. As a result of high rate of unemployment in Tirchakhet village most people are living in poverty and have been extremely vulnerable to diseases and lack of capacity of leading worthy lives. Unemployment is becoming an ever increasing problem in the village not only in terms of growing number of people who cannot get jobs in formal and informal sector or in terms of social consequences such as poverty, malnutrition and crime.

Village Tirchakhet faces massive unemployment and poverty. Without jobs most of the people at Tirchakhet village have no income and thus cannot afford to pay for proper housing, food, medical care, education etc. which results in poor health caused by improper diet, poor housing and lack of appropriate education.

A part of the population of the village faces seasonal unemployment during the year. Around 50% workforce of the village is engaged in occupations like field labors, daily wage factory workers, taxi drivers, plumbers, carpenters etc. these workers get work only when their work demand arises and during rest of the days of the year they remain without any work. Agriculture sector finds seasonal demand of work in the village, agriculture labors face seasonal unemployment during slack season of crops. Productivity level of agriculture in the village is also very low due to non availability of irrigation facilities thus agriculture sector of the village is unable to provide continuous work in the village. A part of educated youth of the village is also unemployed due to lack of unemployment opportunities in the village and nearby areas and due to lack of quality education. Many educated people in the village are seeking work for wages but are unable to find any job suitable to their capacity and qualification and thus face involuntary unemployment.

Within the past 5 years there has been a gradual rise in the unemployment rate of the village. From the collected data of the village survey it has been found that there is a continuous increase in unemployed persons in the village from 2015 to 2019. In 2015 the percentage of unemployed workforce in the village was 12% which increased to 17% in the year 2016 and then to 25% in the year 2017. It reached 31% in 2018 and became 37% in the year 2019.



Percentage (%) of unemployed workforce

## Review of the Literature

Unemployment is a universal problem with which almost every nation of the world has to deal with. Even the USA which has emerged as the dominant economy of the Global Village, is forced to invest considerable resource in job creation and economic development programs aimed at reducing unemployment from villages. The matter of unemployment in Indian villages has become so significant to be studied and solved as the level of unemployment in the villages indicates the socio economic well being of the country. The question of widespread unemployment in villages is a significant consideration in developing nations like India. It must be considered as being of critical importance in emerging economies and underdeveloped economies like India. The rationale for this view is that there is clearly a very direct relationship between the socio economic well being of the economy of a country and the levels of unemployment in its villages because the available jobs increase in a growing economy and conversely the available jobs decrease in a declining or a stagnant economy. Relying on this factor village Tirchakhet must be a matter of groove concern as there are no alternate occupations available in the village and the nearby areas.

The rural unemployment is mainly in the nature of lack of full utilization of labour than of complete unemployment. This phenomenon is so on account of two factors viz.

- (a) The predominance of self-employed workers on family farms without receiving wages and
- (b) The seasonal variation in the demand for labour due to the seasonality of farming operations.

Another factor which affects the rural employment and unemployment is that during the slack agriculture season women also enter the labour force to cope up with the volume of work. Though agriculture provides employment to two-third of India's population, maintaining its dominance in the Indian economy, yet in recent



years it is losing its labour absorbing capacity. In order to overcome the low labour absorption capacity of organized industrial sector and traditional agriculture sector, rural non-farm sector plays a very crucial role. A large number of studies have been conducted on farm and non-farm employment in order to judge their validity from the conceptual and methodological point of view. The related studies on employment and unemployment at the national level have been reviewed in this section. This section deals with the review of studies on farm and non-farm employment conducted at the national as well as the state level.

The National sample survey (1955) undertook a comprehensive survey of 16,240 households in India with a view to find out the context and character of rural unemployment. It concluded that out of the total rural workers, 0.41 percent were found to be unemployed and further the main problem in the rural Indian economy was that of underemployment rather than of employment proper. The board of Enquiry (1955)<sup>^</sup> conducted a survey in the rural areas of Jalandhar and Kamal districts of 1198 households with a view to assess the extent and form of unemployment and underemployment. By using the time norms approach it has been concluded that 2.81 percent of the total rural population were unemployed, 32.19 percent of the total rural population were employed and 33 percent of the total rural population were underemployed.

Gill (1960) by assuming full employment norms of 315 days per worker per year concluded that 28 percent of labour force in Punjab agriculture is surplus. Mathur (1964) carried out a study in West Bengal, U.P. and Punjab on the basis of Farm Management Data with a view to estimate the extent of disguised underemployment. On the basis of standard land-man-ratio, by taking into account only one factor i.e. irrigation, he concluded that 33.1, 8.8 and 4.5 percent of the labour force were disguisedly underemployed in West Bengal, U.P. and Punjab respectively.

Dandekar and Rath (1971) by using the income criterion stated that an adequate level of employment must be defined in terms of its capacity to provide minimum living to the population. They estimated that rural unemployment to be 40 percent of the actual population of which 10 percent are unemployed because they do not possess any effective earning capacity and the remaining 30 percent are those who possess the earning capacity but are unemployed or underemployed.

Grewal (1972) studied employment of human and bullock labour by comparing cross sectional data relating to mechanized and non-mechanized farms. The study noted that mechanization mainly effected bullock labour utilization. The effect on human labour employment was rather nominal. The average labour input on mechanized farm was 31.49 man days per cultivated area as compared to 35.74 on non-mechanized farms, which meant a decline of 11.89 percent only.

Jain (1973) conducted a study in twelve villages of Northern Mahakoshai in Madhya Pradesh. In order to determine the nature and extent of agricultural unemployment and underemployment, 10 percent of the total agricultural households were selected from each selected village. By applying the time criterion he concluded that 4.7 percent of the total population and 30.2 percent of the working population is unemployed and underemployed respectively. Further the under-employment was much higher among males as compared to females.

The Committee of Experts on Unemployment Estimates (1973)<sup>^</sup> stated that the number of unemployed persons in 1971 was 18.7 million including 9 million who were unemployed and 9.7 million who work for less than 14 hours a week and who may be treated at par with unemployment, out of 18.7 million, 16.1 million persons were estimated in rural areas.

Krishna (1973)<sup>^</sup> stated that Dandekar and Rath have abandoned the time criterion altogether for measuring unemployment and in fact, rejected the distribution between poverty and considered it as an involuntary failure to get income yielding work for the normal number of working days in a year. He (1973) further stated that during 1971, out of 9.1 percent of the national labour force 9.7 percent in the rural areas and 5.8 percent in urban areas may be held to be unemployed in India. Krishna (1973) on the basis of data relating to 487 male workers in 4 villages of Rajasthan, further calculated all of the possible estimates of unemployment based on one or more of the 3 criterion: time, income and willingness. The reference week is the first week of January, 1972 workers who are gainfully occupied for less than 36 hours in the week are defined "idle" workers earning an income of less than Rs. 60 per month are defined as "poor" and workers who *are* willing to work more in prevailing conditions are defined as "willing".

Acharya (1973) studied the impact of high yielding varieties and mechanization on the demand for farm labour inputs from a sample of 120 households selected from Udaipur and Chittourgarh district of Rajasthan in 1971-72. He observed that the adoption of high yielding varieties increased human labour used by 32 percent. The installation of pumping sets decreased labour use by 18-20 percent and the introduction of tractors reduced labour used by 50 percent. The adoption of high yielding varieties reduced and mechanization increased inequalities in the seasonal distribution of employment. The production function and labour demand function shifted upwards as a consequence of the deposition of High Yielding Varieties (H.Y.V).

Dantwala (1975)<sup>^</sup> on the basis of 1972-73 data, indicated that the percentage of unemployed in Bihar among male workers was 17,2 percent and in South-Gujarat 17.8 percent, where as the unemployment percentage among the female workers was 48.6 percent in Bihar and 63.8 percent in South-Gujarat. In this study information pertaining to the disposition of human labour time was collected only once in a year and hence do not show the year round situation of employment and unemployment. Finally the study has estimated the visible unemployed and not the invisibly unemployed which is a crucial problem in the rural area.

Randhawa (1975) studied the impact of green revolution on human labour employment and concluded that the use of human labour increased by 58 percent from 1967-68 to 1969-70. Human labour employment per cropped hectare has increased by 8 days for 1956-57 to 1968-69 period.

Mitra (1976) by using farm management data for the year 1967-68, 1968-69 and 1969-70 conducted a study in order to estimate the surplus labour in agriculture. By assuming a full employment norm of 8 hours in a day, 25 days in a month and 300 days in a year he concluded that the surplus labour in agricultural sector of Ferozpur district was 20.57, 20.04 and 17.16 percent during the year 1967-68, 1968-69 and 1969-70 respectively. He further stated that the extent of the total seasonal surplus in all farm size groups in that area near 85.79 and 73.73 percent during the year 1968-69 and 1969-70 respectively. He has also taken into account the seasonality factor which is an improvement over the previous studies.



Ahuja (1978) in order to obtain a detailed time profile of the economic activities and other transactions of the village population, conducted a survey of five villages in Rajasthan for the entire year of 1971-72. After applying all the four measures of unemployment viz. poverty, time, willingness and productivity criterion to the same population she concluded that about 31.1 percent were poor, 34.0 percent were underemployed and 10.6 percent were poor and underemployed. She further stated that if the zero marginal product hypothesis is assumed to apply then our results strongly confirm the existence of surplus labour.

Rao (1979) has analyzed national income data to bring out the structure changes having taken place in Indian economy during the period 1950-51 to 1976-77. These changes are in the direction of modernization and shows that during this period the share of secondary and tertiary sectors has increased and that of agriculture sector has tended to decline.

Bhalla and Chadha (1983) studied the changing agrarian situation in Punjab during the year 1974-75. They made an attempt to see the share of farm and non-farm income occurring on each farm size group. They concluded that the households derive its major income from cultivation. Small farmers derived between 60 to 70 percent of their income from crop production while large farmers derived 90 percent of their income from cultivation. But on the other hand marginal farmers derived between 60-70 percent of their total income from non-farm activities such as dairying, poultry, wage employment, receipt of salaries remittance etc. and the share of non-farm income declines steeply as we move towards high farm size groups.

Chaudhary and Giri (1986) made a comparison between progressive and non progressive areas in order to know the nature and extent of female labour use in agriculture and concluded that in progressive area there was significant share of wage employed female laborers made available from the concerned village as compare to non-progressive area. The main reason for this trend was mainly on account of migration of female laborers from non-progressive area to progressive area during peak season of agriculture operation for higher wages.

Paul (1988) examined temporal and spatial variations in unemployment and underemployment in rural India and identified some of the correlates of rural employment with data related to the years 1977-78. (NSS 32 round) and 1983 (NSS 38 round). The rates of unemployment and underemployment were higher for females than for males. The problem of under-employment was found to be more serious than full employment in rural India. The rates of unemployment and underemployment varied from state to state like Assam, Himachal Pradesh and Rajasthan. The person day rate of unemployment was highest among agricultural laborers and lowest among self-employed households. The usual status unemployment rate was lowest among illiterates and highest among the graduates and above for rural sector.

Thakur, Chaudhary and Singh (1993) studied the relationship between employment and wage productivity of agricultural labour on different size group of farms in developed and under-developed agriculture in Bihar. They selected 200 households from four villages of two blocks of two districts (i.e. Darbhanga and Rohtas) in Bihar. They concluded that there were comparatively more opportunities for human labour employment in developed agriculture. Among the different size group of farms, per worker employment generation was comparatively higher on small size group of farms than landless, marginal and large households indicating potentiality of small households in the generation of employment through agriculture and allied activities. The service employment

was comparatively higher on larger households and lower on smaller households, indicating poor assess of the workers to service employment.

Srivastava, et al. (1995) by using secondary data evaluated current status of women in non-farm rural employment. They stated that only 22.73 percent of the country's female population was economically active against 51.66 percent of male and 44.23 percent female workers worked as agriculture labour and 34.57 percent as cultivator and rest were employed in other non-agricultural activities.

At last the overall conclusion has emerged after discussing the above-mentioned studies that Indian economy is agriculture based where majority of the population is engaged in agriculture, but returns to labour productivity in agriculture sector is very low. Therefore, in such type of economy the problem of underemployment and disguised unemployment is more serious than of employment. In other words, there is a large number of surplus labour in agriculture which can be shifted to some other occupation without reducing the output in agriculture. It is also observed that the rate of underemployment is much higher among males as compared to females, while unemployment is higher among females. The share of non-agriculture sector in income, output and employment has increased and that of agriculture sector has tended to decline. A continental shift of male workforce is observed to non-agriculture sector in rural areas and it has a positive impact on rural livelihoods in various ways.

## Objectives of the Study

The following are the main objectives of the study:

- To identify those who are unemployed at village Tirchakhet.
- To find out the major causes of unemployment at Tirchakhet village.
- To find out the psychological consequences of unemployment at village Tirchakhet.
- To investigate the social challenges faced by the unemployed at village Tirchakhet.
- To investigate the economical challenges faced by the faced by the unemployed at Tirchakhet village.
- To examine the ways in which the unemployed people at Tirchakhet village survive.
- Developing possible strategies in which the unemployed village people can make a living.
- Encouraging self employment in the village.
- Making plans to establish cottage and small scale industries in the village .
- Developing strategies for providing alternative work opportunities to the agricultural workers of the village.
- To make plans for providing employment opportunities to the women of the village.
- To make strategies to reduce Rural- Urban Migration by the way of developing employment opportunities for the educated youth of the village.
- Making plans for providing skill and technical training in the village.
- To promote self sufficiency in the village.
- To promote the culture and lifestyle of the village and the state.
- To make plans to utilize the available resources of the village.

## Actions Planned to address the problem

To tackle with the problem of unemployment in the village some alternative action plans are:

- Pine Needle Charcoal Manufacturing
- Dairy Development
- Mushroom Cultivation
- Developing Home Stays
- Poultry Business

These alternative action plans are briefly described below:

### **Pine Needle Charcoal Manufacturing**

An alternative action plan to address the problem of unemployment in the village is setting a pine needle charcoal manufacturing unit in the village. The village is surrounded by acres of area which contains thousands of pine trees, pine leaves act as a waste material of the forest area, which becomes the reason for forest fire during summer season. So there is a big need to handle the forest waste efficiently. Pine Needle Charcoal manufacturing basically uses forest waste like forest leaves, fuel wood, crop residue, and cow dung for the production operation. The Pine Needle Manufacturing unit can help in preventing the forest fires and there is a huge necessity to handle the forest waste efficiently in the village. Moreover the manufacturing unit can provide employment to many people of the village specially women who go to the forest for collecting fuel and fodder.

The manufacturing unit has the following benefits:

- Forest waste management.
- Women employment generation.
- Preventing forest fires.
- Preventing air pollution.

### **Dairy Development**

India has the largest livestock population in the world, being the first in buffalo population. Livestock sector plays a significant role in the Indian economy particularly for the welfare of the rural population of India. Out of total households in the village Tirchakhet (both Talla and Malla Tirchakhet) about 60% to 70% own some form of livestock and out of these households ¾ account for small and marginal farmers. Mainly the livestock are milch cows, milch buffaloes, egg laying hens and goats. Many buffalo and cow breeds are owned by many households of the village. The breeds of cows and buffaloes have survived over last hundreds of years in respect of their suitability in the local environment of the village.

A huge quantity of milk is produced through animal rearing in the village by small, marginal and landless laborers. Mainly household women are engaged in animal rearing in the village. Around 30% to 40% of the milk produced by each household is consumed at their homes and the balance 60% to 70% of the milk is marketable surplus available for sale to consumers.

An entrepreneurial initiative as Dairy Development in the village can become an important source of secondary income for many household families of the village . It can also play an important role in providing employment and income generating opportunities for marginal farmers and women of the village. A dairy business can be started in the village for production of quality milk. Procurement, processing and marketing of milk and milk products. This has a considerable potential for generating additional employment through milk production in the village. The marketable surplus of milk held with the producers can be procured by the producers on daily bases on reasonable prices. After the collection milk can be processed for making products like paneer, ghee, butter milk, cheese butter etc. Processing, packaging, distribution of milk would employ many people of the village specially household women.

The village women would be benefitted the most through dairy development in the village as women participation in livestock sector in the village is very high. Activities like milking , care of young and sick animals, grazing ,cleaning and feeding the animals is handled by women in the village. Women being employees of the dairy would increase their earning capacity and ultimately lead to their economic empowerment. At the same time best remunerative prices to the milk producers would increase the earning capacity of the milk producers of the village.

### **Mushroom cultivation**

An alternative business idea to tackle with the problem of unemployment in the village is starting a mushroom cultivation center in the village. Mushroom cultivation is also known as fungi culture. Fungi culture is the cultivation of mushrooms and other fungi. By growing fungi food, medicines, construction material and, many other products can be attained. The climatic conditions of village Tirchakhet being cold are most suited for the cultivation of mushrooms. The demand for mushrooms is very high in India and in many other parts of the world as it contains lots of protein and other essential nutrients in it like vitamin D.

Various varieties of mushrooms can be grown in the mushroom center like Button mushroom, Paddy straw mushroom, medicine mushroom, Dhingari and Oyster mushroom as these varieties of mushrooms are suitable as per the available climate of the village. Mushrooms have a lot of demand at various places. Various hotels and medicine manufacturing companies demand for it. Mushrooms are mostly used in chinese food because of its other uses and features. It is also used in field of medical sciences. Mushrooms are also exported to various countries, so there are various places to sell it.

The mushroom cultivation being labour intensive will require workforce to make its operations. This can play an important role in providing employment and income generating opportunities for the unemployed people in the village. This can also lead to increase in the earning capacity of people of the village and enhance their standard of living.

### **Developing Home Stays**

One of the action plans to address the problem of unemployment in the village is initiating Home Stays in the village. A Home Stay is the best way to experience the famed Himalayan hospitality of Uttarakhand. Uttarakhand being situated at the foothills of the Himalayas attracts tourists from all over the world throughout the year. Home stays can be developed in the village where tourists can be provided with budget friendly accommodations

and services by individual family and the local community. A registered Home Stay can be made available in the heavenly village where one can explore local locality full of splendid natural surroundings, enjoy local culture and explore hidden spots. All this with the help of native village people. Establishing home stays to promote rural tourism is an alternative means of economic development. It can benefit in sustaining ecology by minimizing migration, help in promoting local culture and tradition and also in providing employment to the native rural people.

Home Stay business In the village can benefit in the following ways :-

- Help boosting the rural economy.
- Sustain ecology by minimizing migration.
- Help in sustaining local culture and tradition.
- Help in providing employment to the native rural people.

### **Poultry Business**

To cope up with the problem of unemployment in the village. Another alternative business course of action is starting a poultry business in the village. A poultry farm can be developed in the village where domesticated birds can be raised for the production of eggs and meat. The poultry farm can include raising of chicken, ducks, turkey, young pigeons etc. Chicken are the most common birds of poultry as it has huge market demand across the world. Most of the farmers prefer growing chicken when they start up a poultry farm. Chicken can be raised for both eggs and meat. Both broilers and egg laying hens can be raised in the poultry farm. Some special breeds of poultry can also be raised for shows and competitions. Because of the population which is raising across the world, the demand for poultry food is also becoming high because of the protein content present in it.

Establishing a small scale poultry farm in the village has a huge potential of providing employment to many peoples of the village. The business being small scale can be started with small investment and the business can be grown gradually depending on the returns of the business.

## **Implementation of Action Research Steps**

Amongst various alternative action plans described briefly in the previous step Implementing Home – Stay action plan for promoting Rural Tourism will be the best in village Tirchakhet.

### **About Homestay**

A Home Stay is a form of lodging where travelers live in an individual's home living in the locality where they are travelling. People have been staying in hotels while on vacations. It has become clear that human beings are known to get bored. Hotels do not give them the satisfaction they want from the trip. For these reasons people are looking for other options like HomeStays. A Home Stay is the best way to experience the famed Himalayan hospitality of Uttarakhand. Uttarakhand being situated at the foothills of the Himalayas attracts tourists from all over the world throughout the year .Home Stays can be developed in the village where tourists can be provided with budget friendly accommodations and services by individual family and the local community .A registered Home Stay can

be made available in the heavenly village where one can explore local locality full of splendid natural surroundings , enjoy local culture and explore hidden spots. All this with the help of village native people.

### **Advantages of staying in a Home Stay**

There are a number of reasons why staying at a Home Stay can be preferable to staying in a hotel . The benefits are :-

- People get comfort of a home while still being a tourist.
- People get an experience of the local lifestyle firsthand.
- People enjoy native meals from a person who has been in the land for years.
- People get a better taste of the local culture.
- More pocket friendly as compared to hotel fees.
- People get a better position to make connections with the locals on different matters.
- Staying in a family and lodging environment.

### **Distinct Features About Home Stays**

Some distinct features of Home Stays are:-

#### **Distinctive and special accommodation:**

Homestays offer an unparalleled opportunity to experience the incredibly diversity and delights of Indian villages. The options are almost endless and include plantation bungalows, historic haveli or mansions, forts and remote rural cottages. On one hand, it is possible to stay with a royal family. On the other, a tribal family there is no better way to interact with Indians from all walks of life.

#### **Personalized service:**

In contrast to a hotel, a homestay usually only has a few rooms. The family who resides there runs it and acts as host. This guarantees that guests receive plenty of individual attention. One can spend as little or as much time with the host family . Some guests choose only to dine with them, while others spend hours chatting to them. Regardless, staying with an Indian family is the easiest way of finding out about Indian culture. Many guests and hosts find that they bond with each other so much; they keep in touch long after the vacation is over.

#### **Home Cooked Food:**

There is a huge difference between the Indian food served in restaurants and hotels , and the food that is cooked in Indian Home. By staying at a Home Stay, one can taste authentic Indian home cooked food , made to order . It is a lot lighter and has more variations and flavor than restaurant food . Some Homestays even welcome their guests into the kitchen and let them watch and participate in the cooking process.

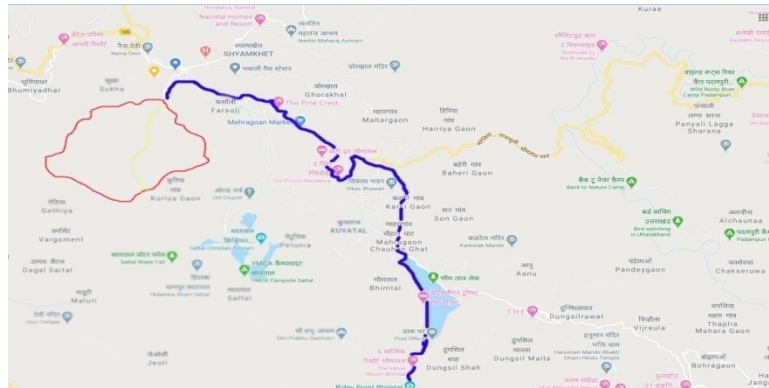
#### **Safety:**

If you're a solo female traveler who is visiting India for the first time or are simply concerned about staying safe, you'll have a family who looks after you at a homestay. They'll provide you with advice and may even pick you up.

### Local Knowledge:

The wealth of information that the hosts have about their local area makes deciding what to see and do a breeze. Such local knowledge is extremely helpful in getting the most from your visit. Many hosts are delighted to show their guests around their local area, providing them with invaluable insights that simply aren't available from a guide book. Hosts usually have reputable contacts and can assist in making travel bookings.

### Why Village Tirchakhet



Village State Highway Road

Village Tirchakhet is located very close to the main road. Tirchakhet lies in a close proximity to Bhimtal and Sattal ie. just 1 kilometer away from the state highway that connects that connects Bhowali from Kathgodam. Secondly tourist visit to Uttarakhand has been increasing year by year ,thus Homestay can be a good option for the tourists away from the crowded surroundings of Bhimtal and its nearby places. Moreover it can benefit in sustaining ecology by minimizing migration, help in promoting local culture and tradition and also in providing employment to native village people. The most important thing is that village unemployed ones will get employed and there will be continuous economic growth for the villagers.

### Process of Implementation of the Study

The Home Stay action plan can be implemented under the “DEEN DAYAL UPADHYAY HOME STAY SCHEME ” of the State Government of Uttarakhand.

### Deen Dayal Upadhyay Homestay Scheme

In order to improve the rural economy in the state and provide livelihood to the people, Uttarakhand Government has given green signal to the ambitious Home Stay scheme in the state. The nod to the scheme was given in the recent cabinet meeting. According to the scheme the State Government of Uttarakhand hopes to develop around 5000 Homestays in the state by 2020. The Government will also offer concessions and subsidies to the people who will be covered under the scheme.

### Objectives of the scheme

- To stop migration from hilly areas.

- To promote and boost tourism.
- To create more jobs and income generation opportunities for locals.
- To provide platform to promote local food and culture for locals.

### **Eligibility For The Homestay Scheme**

- 1- The homestay scheme will be applicable all over the state , except at areas under municipal corporation.
- 2- The applicants house should be a purely residential premises.
- 3- The proposal homestay should have owners or leaseholders as its permanent residents living with family.
- 4- The arrangement of food for the guest will be a responsibility of the homestay owner.
- 5- Minimum of 1 room and maximum of 6 rooms are allowed in a homestay for guests.
- 6- Registration of the proposed homestay would be mandatory.

### **Concessions and Discounts for the Homestay Scheme**

- 1-For the first 3 years , state GST on the income generated from the Homestay under the scheme will be borne by the government
- 2-The water, electricity bill incurred for the homestay will be charged at non –commercial rates by the respective department.
- 3-There will be no requirement for land development in order to start a Homestay.

### **Guidelines to avail subsidies for homestay scheme**

- 1- The applicant should be a native of Uttarakhand.
- 2- The applicant should have own house he or she currently resides.
- 3- The applicant should not be a defaulter to banks or any other financial institution.
- 4- The benefit of reservation will be given.
- 5- For construction of homestays in hills 33% of the total amount or 10 lakh whichever is less will be given by the government.
- 6- Priority will be given to the houses already developed in the hills.
- 7- For construction of homestays in plains 25% of the total amount or rupees 7.5 lakh ,whichever is less will be bore by the Government
- 8- In addition to that , the loan taken by the homestay owner under this scheme, 50% of the total loan amount or rupees 1.5 lakh , whichever is more will be bore by the government.

### **Home Stay Policy Benefits**

- Rupees 10 lakh subsidy for converting homes to Homestay in the hilly areas.
- Rupees 7.5 lakh subsidy for converting houses to home stays in plains.
- Tax exemption of 1.5 lakh for first 5 years.
- Locals can earn additional income by selling local food and cultural items.
- Interested candidates will be given training in hospitality management by the government.



- Government will develop infrastructural facilities in the village where there are more than 6 homestays.

## Data Collection and Analysis

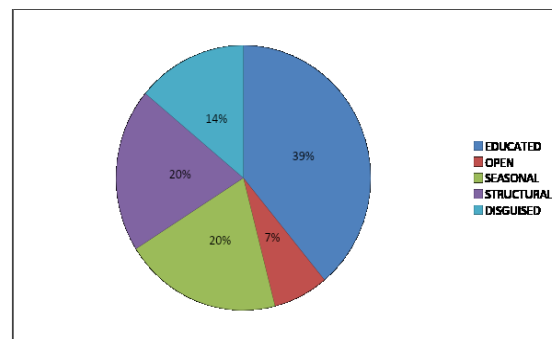
### Methodology

The study was done by the collection of primary and secondary data. The primary data is collected through interacting with village people and collected fresh through observation and interview method. The secondary data is collected from the records maintained by the past gram pradhan of the village and was also collected from the internet.

The Primary data was collected through interviewing the village functionaries ie. Gram pradhan, BDC member and ward members. It involved some interactive questions to ask from the respondents and the data was analyzed through self observation.

### Nature of Unemployment in The Village

Among the different types of unemployment primary survey reveals that , out of total unemployed peoples in the village 7% are open unemployed, 39% are educated unemployed,20 % are structurally unemployed, and 20% fall in the seasonal unemployment category.



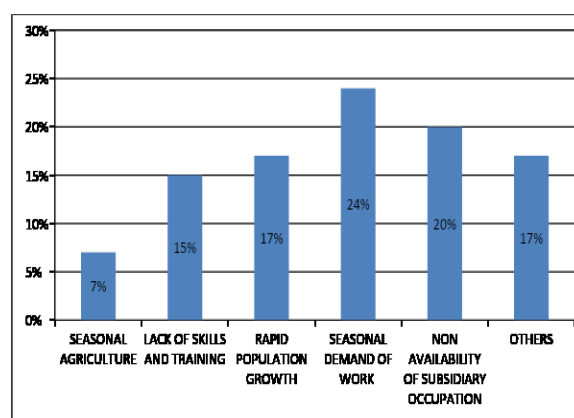
### Nature of Unemployment in the Village

Educated unemployment rate in the village is maximum because present education system does not produce such level of skills by which a person himself fit with any type of job. Wrong education system is responsible for that. Lack of technical education, lack training course programs, unwillingness to join another format of job , lack of government initiatives lead to scenario more complex. In an economy where people tried to engage In any work but unable to find any job is known as open unemployment. In the village seasonal unemployment rate is also very high.

### Causes Of Unemployment In The Village

Through the analysis primary data it is found that the main causes of unemployment in the village are :-

- Rapid population growth.
- Seasonal nature of agricultural occupation.
- Unwillingness of the people to move out of the village to work.
- Skills mismatch.
- Lack of training and skills for work.
- Improper employment planning of the government.
- Increased education expectations.
- Security and social restrictions specially in case of women.
- Non availability of subsidiary occupation in the village and its nearby areas.
- Seasonal demand of work in the non – agricultural sector.
- Wrong education system



Causes of unemployment in the Village

### Consequenses/Effects Of Unemployment In The Village

Unemployment in the village has made the following effects on the population of the village:

- Rural to urban migration of the educated youth in search of employment.
- Increase in the poverty rate of the village.
- Low standard of living of the village people,
- Mental unrest ie. Depression among the youth.
- Societal unrest ie. Undesirable and criminal activities like drug abuse, alcoholism, theft etc.

### Findings

The major findings of the village are:-

- ❖ Productivity level of agriculture in the village is very low due to non availability of irrigation facilities, thus the agricultural economy of the village is unable to provide continuous work throughout the year.
- ❖ Technological Development is a major cause of labour displacement. Employers buy machines and strength workers. This has also caused unemployment in the village.

- ❖ Skills and techniques of the older manual labors have been obsolete i.e. carpenters , and hence these laborers are not being demanded by any employer which causes unemployment in the village.
- ❖ Agricultural landholdings with the farmers are very small which keeps the agricultural workforce employed only for a part time.
- ❖ A part of the village workforce faces seasonal unemployment because their occupations fluctuate with seasons , either because their materials come in at certain seasons or demand for their products is seasonal . example taxi drivers of the village get work only during the tourist season.
- ❖ The non availability of subsidiary occupations in the village and the nearby areas has also caused unemployment in the village.
- ❖ The rapid population growth of the village also plays a significant role in increasing the unemployment graph of the village.
- ❖ Unwillingness of the villagers to move out and leave the village surroundings to take up employment elsewhere has also caused unemployment in the village.
- ❖ Educated youth of the village basically face unemployment due to lack of employment opportunities and due to lack of quality education.
- ❖ The state government has not succeeded in organizing any initiative to address the problem of unemployment in the village.
- ❖ Opportunities for young people of the village to undergo training or upgrade their skills are very limited in the village and its nearby areas.
- ❖ Income condition of the families of unemployed peoples of the village is poor.
- ❖ Nature of unemployment in Tirchakhet Village is mostly educated (39%) followed by structural unemployment (20%) and seasonal unemployment (20%).
- ❖ The main causes of unemployment in the village are population growth , lack of skills and training, seasonal nature of agricultural work, seasonal demand of work and non availability of alternative occupations.
- ❖ The major effects of unemployment on the population of the village are rural-urban migration ,poverty, mental unrest among the youth and undesirable and criminal activities like drug abuse ,alcoholism ,theft etc.

## Conclusion

Tirchakhet Village is a developing village in Nainital district of Uttarakhand and unemployment is a burning issue now a days that not only population explosion is the main factor of unemployment but also other factors too have effects on unemployment. Unemployment is a kind of social and economic problem that persist in rural and urban areas but their level of magnitude is slightly different. In rural areas mainly the nature of unemployment seasonal , structural and disguised. Unemployment problem affects the socio-economic condition of livelihood patterns of the unemployed workforce as well as the family members of the family. It is a challenging task to tackle with unemployment. However solutions are abundant : Some are specific and

applicable only to particular environment, others are more general and flexible , while some are more disputable and others are most widely accepted.

The study derives that unemployment in the village is a result of factors like rapid population growth, seasonal nature of agriculture, peoples unwillingness to move out of the village to find work, skill mismatch, lack of training and skills for work, improper employment planning, increased educational expectations, security and social restrictions, non availability of subsidiary occupation and wrong education system etc. The study also reveals that educated unemployment rate in the village is highest because the present education system does not produce such level of skills by which a person can make himself/herself fit with any type of job. In the village seasonal unemployment rate was also found high. The village survey also reveals also underlines some psychological and social effects of unemployment in the village which are mainly rural to urban migration of youth, increased poverty rate , low standard of living of village people ,mental unrest ie. depression among the youth, undesirable and criminal activities like drug abuse , theft and alcoholism.

New employment generating policies are urgently needed to address the severity of unemployment among rural people. Unemployment among the laboring poor of rural India results from two forces that operate against the creation of greater employment opportunities. First from the development of agricultural production process of a labor displacing nature, and secondly from cutbacks in rural development programs. It is also evident that a state sponsored scheme like Mahatma Gandhi National Rural employment Guarantee act has failed to provide enough employment to offset the effects of double pronged attack on the laboring poor. A solution to the problem of unemployment of the severe army of laborers , through public investment in various development projects and schemes is therefore crucial to improve the livelihood conditions of the rural workers.

Offering solutions to rural unemployment in India must have three dimensional approach firstly, adequate changes must be brought in the form of quality of Indian education. Indian government should select a committee which includes value and skill based syllabus in schools and universities, Because all the syllabus taught is of no use to the industrial needs. Indian government should encourage and develop the agriculture based industries in rural areas by offering initiatives , interest free loans for seasonally unemployed people. Beside more assistance should be offered to self- employed people in the area of cottage and small –scale industries etc. These persons should be helped financially, providing raw material and technical training.

## References

- ❖ Abhishek shaw (19 October 2013) , “Employment Trend in India: An overview of NSSO 68<sup>th</sup> Round’. Economic and Political Weekly.
- ❖ [www.labour.gov.in](http://www.labour.gov.in). Ministry of labour and unemployment. Retrieved 9 November 2018
- ❖ Indira Hirway (2002) .”Employment and Unemployment situation in 1990s. How Good are NSS data?”. Economic and Political Weekly.
- ❖ Combating Youth Unemployment in India , Pravin Sinha (March 2013) Friedrich –Elbert- Stiftung, Berlin , Germany.
- ❖ Verma Rubina (2012) .” Structural Transformation and Jobless Growth in the Indian Economy’.

- ❖ Bhalotra , Sonia R.(1998) . The Puzzle of Jobless Growth in Indian Manufacturing”. Oxford Bulletin of Economics and Statistics .Wiley.

## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

1	<b>Name of Village</b>	Tirchakhet
2	<b>Address of the Village</b>	Bhimtal Road. farsoli
3	<b>Name of Sarpanch</b>	Mr. Ramesh Joshi
4	<b>Date of Visit</b>	21-02-2020

Demographics of the Village		
1	<b>Number of Men</b>	1740
2	<b>Number of Women</b>	1160
3	<b>Number of Children</b>	300
4	<b>Total Population</b>	3200
5	<b>Number of Anganwadis</b>	2
6	<b>Number of Schools</b>	3
7	<b>Number of Primary Health Centres</b>	nil

VILLAGE SCHEDULE				
S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a toilet?	Yes		
2	Does anyone go out and defecate in the open in village?		No	
3	Are these faeces from the toilet being disposed in the		No	

	river?			
4	Is there any OD spot / excreta in an open place?		No	
5	Are there institutional toilets at Schools, Anganwadis and Public places?	Yes		
6	Is waste from restaurants, public places dumped into the river?		No	
7	Is there a prevalence Of visitor/tourist OD?		No	
8	Is there an institutional mechanism to check OD by insiders/outsideers?		No	No action has been taken by the village authorities
9	Are twin-pit toilets common in the Village?		No	Every house in the village has a separate septic tank.
10	Are septic tank toilets (non-porous) common In your village?	Yes		
11	Is there a P-Trap in all toilets?		NO	No action has been taken by village authorities
<b>Household Schedule</b>				
12	Is water available in /for the toilet?	Yes		
13	Are all toilets “fly-proof” – or Hygienic?		No	No action has been taken by the village authorities
14	Is the human waste disposed of in the Drain, a) Nallahs, b) Open pit; c) Ponds or river or streams or any water body etc.		No	
15	Is fecal sludge directly discharged to water bodies ?		No	
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed		No	
16	Is there a practice to wash the	Yes		

	hands with soap after using the toilet?			
17	Is any visible feces found in the environment?		No	
18	Is there any odour of urine or faeces in the location?		No	
19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		No	
20	Is child faeces disposed of in open area?		No	
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises ?	Yes		
22	Is water available in /for the toilet?	Yes		
23	Is toilet “fly-proof” – or Hygienic?	Yes		
24	Is the human waste disposed of in the Drain, a) Nallahs, b) Open pit; c) Ponds or river or streams or any water body etc.		No	
25	Are Anganwadi cleaners maintaining and cleaning public toilets?	Yes		
<b>School Schedule</b>				
26	Are there separate functional toilets for boys and girls in the school?	Yes		
27	Is there water available for use in the school toilets?	Yes		
28	Is the human waste disposed of in the Drain, d) Nallahs, e) Open pit; f) Ponds or river		No	

	or streams or any water body etc.			
29	Is public toilet accessible to all (including Divyangs/physically challenged)	Yes		
<b>Public Toilets Schedule</b>				
30	Is there a Public Toilet in the village?	-	No	No actions have been taken by the village authorities
31	Are there separate sections for Men and Women?	-	-	-
32	Is the human waste disposed of in the Drain, g) Nallahs, h) Open pit; i) Ponds or river or streams or any water body etc.	-	-	-
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
33	Is any sustainable water supply process/ method adopted for sustainability of ODF?		No	No action has been taken by the village authorities
34	Is any sustainable process/method adopted for fecal sludge management?		No	No action has been taken by the village authorities

**Annexure 2**  
**Photographs of the Village Visit**  
**(Survey on Sanitation Management and ODF)**





Toilets in Junior High School



Toilets in Primary School - Malla Tirchakhet



Toilets (Primary School Talla Tirchakhet)



Water Storage Tank

**Annexure 3**  
**Village Visit (General)**



Village Milk Dairy



Primary and Middle School Gate



Primary School





Village Anganwadi



Middle School



Village PDS shop



Mid - day meal menu

**The Study of Rural Immersion  
Programme in Sarmoli Village**

**Prachi Kandpal  
Kumaun University, Nainital**

## CERTIFICATE

This is to certify that **Prachi Kandpal** student of **IPSDR Hermitage Collage Nainital** has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date:24/02/2020

Place:Nainital



Signature

(Dr.Atul joshi)

(College Seal /Stamp)

Director  
Institute of Professional Studies  
and Development Research  
"The Hermitage" Kumaun Univer  
Nainital (Uttarakhand)

## DECLARATION

I hereby declare that the project work entitled “**The Study of Rural Immersion Programme on Sarmoli Village**” submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Prof. Vinod Joshi, faculty of IPSDR MBA (RMED), Kumaoun University. The results embodied in this village report have not been submitted to any other Organization or University.

Date: 24/Feb/2020

Place: Nainital



Signature of Intern

(PRACHI KANDPAL)

## ACKNOWLEDGEMENT

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I consider myself as a very lucky individual as I was provided an opportunity to be a part of MGNCRE internship programme. I am also grateful for having a chance to meet so many wonderful people who led me through this internship period.

Bearing in mind previous I am using opportunity to express my deepest gratitude and special thanks to the Programme organizer to have given such an opportunity that we raise the village ahead and go about it. I am also thankful to al all along the completion of MGNCRE report. All that I have done is only due to such supervision and guidance and I would not forget to thank them.

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**PRACHI KANDPAL**

(RMED)Hermitage College, Kumauon University, Nainital, Uttrakhand

<b>S. No.</b>	<b>Contents</b>
1.	Introduction to the Village
2.	Identification of Problem
3.	Review of literature
4.	Objectives of the Study
5.	Hypothesis of the Study
6.	Actions Planned to address the problem
7.	Implementation of Action research Steps
8.	Process of implementation of the study
9.	Data Collection and Analysis
10.	Findings
11.	Conclusion
12.	References
13.	Annexure 1. (Survey questionnaire/ photos/ any other supporting document)
14.	Annexure 2. Photographs of Village Sarmoli



## **ABSTRACT**

This project report deals with the study and development of village as a smart village. In this there is detailed study of the village. There is a SWOT analysis to recognize village in a well mannered way. In this report we focus on Agriculture i.e. their problems, challenges, opportunities, strengths, weakness. Through this process of Research Methodology we lighten the hilly area village Sarmoli, agriculture i.e. How it is and it would be? We are making a common village into smart village using smart technologies and services and through awareness in people.

**Keywords– Smart village, Agriculture, Tourism, Technology**

## Introduction to the Village

### Village Description

S.No	Description	Census 2019	
1	Village	Sarmoli	
2	State	Uttrakhand	
3	District	Pithoragarh	
4	Tehsil	Munsiyari	
5	Block	Munsiyari	
6	Gram Panchayat	Sarmoli	
7	Total Village in Sarmoli	2	Sarmoli
			Shankh Dhura
8	Pin code	262554	
9	Parliament Constituency	Almora	
10	Assembly Constituency	Dharchula	
11	Geographical Area	122.75 (hect)	

**Climate Description** - Munsiyari is a Hill Station located in Pithoragarh area of Uttarakhand State of North India in the midst of snow bound Kumaon Himalayas. This is a famous tourist destination. Munsiyari has charming atmosphere.

- ✓ **Summer Season** - Summer starts from March and is stretched out till June. [Max./Min. 16°C/ 26°C]
- ✓ **Monsoon Season** - Monsoon starts in June and is extended till September. [Max./Min. 13°C/20°C]

- ✓ **Winter Season** - Winter season starts from November and it last through mid March. The temperature in winter seasons drop down to below zero. During this season the whole area is covered with the sheet of snow. [Max./Min.-12°C/20°C]

SARMOLI is a small village situated above Munsiyari in Uttrakhand that shares its border with Nepal and Tibet. Sarmoli is nestled in Kumaon region with the PANCHACHULI RANGE in the background and GORI GANGA RIVER flows right next to it. Sarmoli has gained quite a lot of popularity for its rural tourism and scenic beauty. Almost 15 home stays are available in Sarmoli which are hosted mostly by the women. Sarmoli is quite famous for having unseasonal rainfall even during the summer time. Villagers host a week- long annual summer ritual called HIMAL KALASUTRA festival. 3 Trekking Spot from Sarmoil MESAR KUND, DHANADHAR RIDGE and KHALIYA TOP. ORGANIC FOOD and AGRICULTURE practices that pluck some fresh cucumbers, lemons, corns, carrots and taste them. MAATHI SANGATHAN in that the women interact with the workers to know about the functioning of the enterprises. Shops of handcrafted woolen fabric including Pashmina and Angora and local grown organic food products. As per the government register, the village number of Sarmoli is 4848922. The village has 246 homes.

#### Village Functionaries

1	<b>Block Pramukh</b>	Mr. Narendra Singh Rawat
2	<b>Gram Pradhan</b>	Mr. Inder Singh
3	<b>Block Development Officer</b>	Mr. Asit Anand
4	<b>Village Development Officer</b>	Mr. Narendra Ram
5	<b>Primary Health Centres</b>	None
6	<b>School Teacher</b>	Mr. Tilak Singh

#### Economic Profile

1	<b>Occupation &amp; Profession</b>	(40%) in government job, transport, home stay, and handcrafting, agriculture.
		▶ Total Cultivable Area (in hectare) 78.337
		▶ Net sown Area (in hectare) 23.792

2	Size of Land Holding	▶ Kharif (in hectare) 23.792
		▶ Rabi (in hectare) 21.198
3	Village Market	1-2 km (munsiyari)
4	Entrepreneurial Initiatives	None
5	Role of NGO's and SHG's	Only SHG's (MAATHI SANGATHAN)

### Demographic Profile

1	Population of Village	✓ Total	1190
		▶ Male	580
		▶ Female	610
2	Number of Households	246	
3	Number of Anganwadi	2	
4	Number of School	1- Primary School	
5	Literacy Rate	90.5%	
6	Religion	Hindu	Kumauni
			Tibetan
7	Avenues for Higher Education	G.G.I.C (munsiyari 2-3 km)	
8	Avenues for Higher Education	None	
9	Avenues for Higher Education	None	

Sarmoli Village, with population of 1190 is Munsiyari sub district's the 8<sup>th</sup> most populous village, located in Munsiyari sub district of Pithoragarh district in the state Uttarakhand in India. Sarmoli is the 108<sup>th</sup> biggest village by area in the sub district.

Munsiyari is the sub district head quarter and the distance from the village is 3 km. 9% of total village's area is covered by forest. The village is the home of 1190 people, among them 51.26% are female and 48.74% are male of the whole population are from general caste, 8% are from schedule caste and 70% are schedule tribes. There are 246 households in the village and an average 4 persons live in every family. Population of village has increased by 71.26% in the last 10 years. Total 1120 people in the village are literate. Literate rate is 90.5%. Overall literacy rate is increased by 54.20%. Sarmoli has 46% population engaged in either main or marginal works.

**Other Profile**

<b>1</b>	<b>Agriculture</b>	Potatoes, Barley, Rajma and other pulses.
<b>2</b>	<b>Handicraft</b>	Carpets and woollen clothes.
<b>3</b>	<b>Drinking –water and Sanitation</b>	No system to collect garbage, 24×7 hr. water
<b>4</b>	<b>Communication</b>	Landline, mobile coverage ,internet facility available
<b>5</b>	<b>Transportation</b>	Bus service available in 3km. No Railway Station.
<b>6</b>	<b>Commerce</b>	No ATM, commercial bank available. Cooperative banks is in less than 5km.
<b>7</b>	<b>Power Supply</b>	18 hours in summer and 17 hours in winter



Map of Munsiyari

## Distance Map

From Munsiyari To Village  
Sarmoli

From Haldwani (My Home) To Munsiyari



## Identification of the Problem

### Problem of Whole Village Sarmoli

- ✓ Safety of crops from wild animals like pig, monkeys, mongoose etc.
- ✓ Transportation of raw material.
- ✓ No Capital Improvement Program to Plan & Budget.
- ✓ No proper market for expansion and no plan related to business.
- ✓ No proper sale outside the village for handcraft items or in the agriculture production.
- ✓ No new techniques used and innovative ideas.
- ✓ No road facility (Kacchi Sadak)
- ✓ People don't want to do any work because of laziness.
- ✓ Migrated people.
- ✓ Electricity problem.
- ✓ Seasons of winter and rainy during heavy rainfall and snowfall the crops destroyed.
- ✓ We can't set up plant and machinery for the industry.
- ✓ Banks and A.T.M Facilities.
- ✓ Doctor And Hospital or Clinic facilities

- ✓ Low Investment in Land Conservation.
- ✓ Large Commercial Development
- ✓ School facility.

### **Problems in Agriculture (Rajma/Kidney Beans)**

About 75-85% population of Uttarakhand is dependent on agriculture for their livelihood. In order to provide a sustainable source of income to those living in the hilly areas of Uttarakhand, there is a need to revive agricultural productivity in villages. In village Sarmoli, there are certain problems related to agricultural productivity, use of new technologies and increasing the productivity of cash crops. Innumerable laws have come into force for supporting the farmers for practicing organic farming and using modern technologies to raise agricultural produce. But everything has gone in vain due to illiteracy and ignorance of the local bodies for reviving agricultural productivity. The poor farmers don't have the access to new machines and modern farming equipment as they are economically weak. Therefore, the land remains barren because the farmers lack resources and information regarding agriculture. Though the mountainous terrains are fertile but due to the lack of resources and monetary issues the land remains bald.

Apart from this, there are issues of primitive battles between man and primates who ruin the crops of the poor farmers. A part of the crop is either destroyed by the insecticides, pesticides or by the wanton destruction caused by monkeys and wild pigs. Another problem faced by the farmers is how to sell the produce? Selling the output in the cities can be profitable but due to lack of transportation, it becomes impossible. The farmers have to deal with numerous problems such as complete loss of crop due to landslides, non-availability of seeds, lack of irrigation facility, scarcity of fodder, non-availability of modern farming equipment, transportation, and marketing problems.

- The question remains, What to produce? How to produce and for whom to produce?
- The problem arises is how can we revive agricultural productivity?
- How new technologies can play an important role in raising agricultural productivity?
- How can we provide a sustainable source of income to the farmers?

Over the last decade though, more and more households have abandoned farming. The reason is the wanton destruction caused by monkeys and to a lesser extent, langurs. Unlike other pests, like wild pigs, locals are not willing to cull the animals themselves, because of the primates' sacred status. But the limits of their piety are being tested.

Uncontrolled population growth in developing countries accelerated the imbalance between human needs and sustainable use of land. Though by virtue of chemical fertilizers the production and productivity of crops has increased, the increased use of pesticides has posed many environmental and health problems. The chemical fertilizers and pesticides used over a long period of time have adverse toxic effects on the production potential of the land and the ultimate consumers of the products. Therefore Indian farmers are gradually increasing fertilizers for more and more production of agriculture.

**Farmers in the village Sarmoli face the following problem:-**

- ✓ **Mechanization-** In Sarmoli village, common farmers still uses traditional equipments for their agriculture.
- ✓ **Small Land holding/size-** Land is scattered due to topography.
- ✓ **Knowledge transfer/Sharing-** Knowledge transfer & sharing is not easy due to topography of the land.
- ✓ **Market Reach-** No near markets to sale and get good prices for the crops. It is less than 3km away from village.
- ✓ **Transportation & connectivity-** Transportation is one the major problem of village people. If they wanted to increases their business they don't have transportation facility like road is not good for daily transport items from village to other cities also. In that case there is no proper sale outside the village. And no proper market expansion.
- ✓ **Productivity-** Due to topography & other factors affect productivity as well as return on investment. There is no capital improvement program to plan & budget for their agriculture increment. There is no plan related to business.
- ✓ **Technology & Techniques-** There is no new techniques and technology for planting crops and no plan for the upcoming season's crops. And no innovative ideas related to crops production and in village there is no automation for agriculture.
- ✓ **Security-** There is no security for the crops such as from wild animals like pigs, monkeys, lungoors etc and unconditional weather.
- ✓ **Lazy people-** People of the village are very lazy they don't want to do any work or they don't want any progress in their work they only want money for survival that's it. And even they also don't want any new techniques so in this case they don't want any new things in their work.
- ✓ **Industry-** This is fact that we can't set any industry in the hilly areas i.e. in village Sarmoli also. It is also in a hilly area. So in that case we can't set up the plant and machinery for the industry because for that we want a proper place or area to set up a proper industry.
- ✓ **Households-** Larger households, more dependents, labor scarcity, increasing burden on women, higher proportion of children in the labor force, reduce cultivated area per capita, increasing landlessness, frequent and permanent food deficits, scarcity of firewood, indebtedness, and outmigration. focus on short-term needs that further aggravate medium and long term problems
- ✓ **Forests-** Reduced forest area, decreasing forest crown cover, continuing encroachment, overgrazing, loss of species, limited government control on wood harvested, very poor forestation.
- ✓ **Cultivated Land-** Declining fertility, loss of land, increasing soil erosion and partial desertification, major problems of fertility and water management.



- ✓ **Seeds:** Seed is a critical and basic input for attaining higher crop yields and sustained growth in agricultural production. Distribution of assured quality seed is as critical as the production of such seeds. Unfortunately, good quality seeds are out of reach of the majority of farmers, especially small and marginal farmers mainly because of exorbitant prices of better seeds.
- ✓ **Manures, Fertilizers and Biocides:** Indian soils have been used for growing crops over thousands of years without caring much for replenishing. This has led to depletion and exhaustion of soils resulting in their low productivity. The average yields of almost all the crops are among the lowest in the world. This is a serious problem which can be solved by using more manures and fertilizers.
- ✓ **Soil erosion:** Large tracts of fertile land suffer from soil erosion by wind and water. This area must be properly treated and restored to its original fertility.
- ✓ **Scarcity of capital:** Agriculture is an important industry and like all other industries it also requires capital. The role of capital input is becoming more and more important with the advancement of farm technology. Since the agriculturists' capital is locked up in his lands and stocks, he is obliged to borrow money for stimulating the tempo of agricultural production.

Now, the use of technology can be effectively done in various manners in order to help out farmers. Such as:-

- ✓ Direct transfer of capital by the government to the farmers which has already got initiated by our PM NaMo under the Jan Dhan Yojna. Agricultural Marketing through means of modern technology like mobile phones will be another step forward. Educating farmers about techniques to avoid soil erosion and increasing harvests through means of using suitable fertilizers by reaching out to them through means of advanced technology will also be a big step forward.

## Review of the Literature

Review of literature is an essential part of any investigation as it not only gives an idea of the work completed in the past, but also provides the basis for interpretation and discussion of the findings. Following Studies investigating employment and income on individual farms have following results:-

### Maati Sangathan (SHGs)

Maati started as a small group of women who came together in the mid 1990s to protest against rampant alcoholism. In 1994, within one month there were two cases in which husbands in their drunkenness had burnt their wives to death, but there was a conspiracy of silence around these shocking incidents with nobody willing to speak up. Malika, Basanti and a few others got together, held meetings in several villages and mobilized women, writing post cards to people's representatives in villages all around. 1000 women came forward for a meeting in Munsiyari where they put forth a memorandum to the SDM asking for the sale of alcohol to be stopped. This protest became a seed from which the sangathan grew into a space for women to meet, talk, express themselves, and share their joys and sorrows.

Over the years, Maati has continued its work in opposing alcoholism (Anti Liquor Protest 2011) and in crisis intervention. People from around 50 surrounding villages know of them and victims of rape, harassment and domestic violence come to them regularly for help and support. The sangathan has also been involved in rallies and agitations demanding qualified staff and proper infrastructure in the local schools, college and hospital.

## **Livelihood Support**

Recognizing that women cannot step out of their homes and participate in the collective process unless there are efforts to provide livelihood support, Maati has been finding various means by which women can earn. This includes offering marketing support for woollen products like carpets, rugs, blankets, sweaters, etc. which the women have been weaving/knitting traditionally. In 2010, the Maati Workshop was started to take the production and sale to a slightly larger, yet manageable scale. Maati organizes a fortnightly Mahila Haat where women can come and sell their produce from the fields, homemade snacks and woollen products. This is also an opportunity for the sangathan to interact and connect with the wider community, especially the women.

## **Van Panchayat**

In 2003, Malika was elected the Sarpanch of the Sarmoli-Jainti Van Panchayat (Village Forest Council). She along with the women of the sangathan initiated a process in which the community enthusiastically took up the responsibility of regulating use of their forest's products (grass, wood and leaves), regenerating the Mesar Kund (a pond) and regular afforestation. An innovative way to link conservation to livelihoods was started in 2004 through the home stay and Guide/porter programmes (Tourism, Livelihoods and Conservation). A ground breaking achievement of her tenure was extending membership of the van panchayat to women, including single women and resident daughters, thereby recognizing them as right holders. Another was the formation of a sangathan of 40 van panchayats to discuss and take up shared concerns.

## **Environmentally Sustainable Development**

Maati has vociferously supported environmentally sustainable development and has been encouraging the use of solar lanterns and organic seeds. They have also raised their voice against the large hydroelectric projects in the region that are riding roughshod over environmental and livelihood concerns. NTPC undertook a 261 MW hydro electric project by the name of Rupsiabagar-Khasiyabara on the Goriganga River that required 218 hectares of forest land and 60 hectares of private land. The sangathan in conjunction with many other groups raised serious procedural questions on land acquisition, compensation, rehabilitation and the ecological impact of the project. In July 2010, MoEF denied permission for the project to be implemented.

## **Structure of the Sangathan**

The dedicated membership of Maati comes from the villages of Sarmoli, Shankadura and Naya Basti. There are about 7-8 members who meet every day, have discussions, and keep a regular record of their activities and accounts. Each person is given a well defined area for which she is responsible. The strength of the sangathan lies in the diversity of the skills that the different members bring to it. The sangathan has small groups of 10-12 women working in different fields like seed conservation, forests, woollen products, cattle etc. Maati often works under the banner of larger groups like the Uttarakhand Mahila Manch, Van Panchayat Sangathan etc. and networks closely with the Nadi Bachao Abhiyan and the Kisan Mahasabha.

In a society where women dared not move out of the house to participate in public meetings and speak their minds, Maati has succeeded in opening up a new world for them by offering them space to explore their political and creative potential, develop a deeper and wider understanding of issues and given them the confidence to take on leadership roles in the community.

A kilometer from Munsiyari is the tiny village of Sarmoli. Maati in Sarmoli is a collective of about 20 women that first came together as a response to domestic violence. Maati Sangathan started its village Home stay program in 2004 where the locals rented out extra rooms in houses to tourists / paying guests.

Maati in Sarmoli, Uttarakhand is a collective of about 20 women that first came together as a response to domestic violence. They have since grown into a living example of direct democracy, through participation in local politics, in management of their forest and water resources, in agriculture based on seed diversity and in complementing their livelihoods with low-impact tourism based on home stays. At the other end of the scale is Kudumbashree, a mammoth state-led initiative in Kerala that attempts to empower women through a decentralized governance structure from the bottom up (self, neighborhoods, district); and training, networking and marketing for micro-enterprise set-ups that produce goods locally. While the programme has been exemplary in empowering women, challenges remain in ensuring local sourcing of raw materials and local consumption of products.

In a society in which women's independence and rights are diminished by patriarchy and the predominance of arranged marriages, Malika's background and efforts with the Maathi collective have established her as an influential member of the community. The non- governmental organization focuses on opposing the liquor lobby and the lack of female independence and abolishing domestic violence from the lives of village women. Malika is the epitome of urban Indian intellectualism, standing in stark contrast to the mostly uneducated rural women with whom she works. Sarmoli is a small village with seemingly tight-knit community. Rural life posed unique issues for Indian women. Traditional and conservative lifestyles in villages are growing increasingly different from modern and western culture of India's large cities.

Maati is a collective of mountain women committed to working together on everyday issues and struggles: striving for a life free from violence, food sovereignty and live hood security and strong empowered and informed voice in our democratic self governance, and foraging alliances with other such communities locally and globally.

Maati is founded by local women along with Malika Viridi; Maati spoke up against the growing violence on women and came out to protest against liquor sales and its rampant use. Maati has laid stress on livelihood support for women in order to empower them. They have found out means to earn, through selling their agricultural produce like Rajma and homemade snacks, starting home stays and tour guide programmes, and creating a market for their handicrafts including carpets, rugs, blankets, sweaters, etc. all the Maati members are farmers themselves and they grow local produce on their farms. At Original Indian Table, we produce a variety of products from them, especially the different kinds of Rajma and Himalayan herbs, which taste delightful owing to the efforts these women have put in and also due to the agro-climatic conditions at high altitudes.

In 2003, after being elected as the Sarpanch of the village Van Panchayat (Forest Commons), Malika along with the women of Sangathan started taking up the responsibility of their forests by regular afforestation and structured the use of the forest's produce like grass, wood and leaves. Maati has set a benchmark for women

development in the hills where women were earlier not involved in any public matters. They have made a lot of achievements and are right on the road to development, in pace with nature.

## Objectives of the Study

### Objective Study in Agriculture

#### What to produce?

**Let us consider the first question, which commodities are to be produced and in what quantities?**

The farmers should grow such crops which yield more output in less amount of capital. High Yielding crops should be grown by the farmers as they will yield more at a low cost of production. Therefore, the introduction of High Yielding Variety seeds in village Sarmoli can be profitable. These seeds have a shorter life cycle which enables the farmer to practice multiple cropping.

#### How to Produce?

**Another question that arises is how to produce? Which techniques are to be adopted?**

There are two types of techniques which are -:

- **Labor**– Intensive Technique which employs relatively more labor and less capital.
- **Capital**– Intensive Technique which requires more capital and less labor.

The choice of technique depends on the cost of the factors of production. That is, if labor is cheap and capital is expensive then a labor-intensive technique should be considered and vice-versa.

#### For Whom to Produce?

The solution of this problem is very simple only those commodities should be produced which can target poor, middle and high-class people as well.

#### How new technologies can play an important role in raising agricultural productivity?

Introduction of modern machines at low cost can help in replacing traditional farming equipment.

We can bridge the gap between farmers struggling to market traditional and sustainable food ingredients and customers looking for healthier, more nutritious and local alternatives. As we study of village Sarmoli in agriculture is about Rajma and the potatoes are very famous. So for that it should get to familiarize with the socio- economic conditions of the farmers & their problems with reference to agricultural development. They (the farmers) should get the market exposure so that they increase their business i.e. farming in different levels. It should be in state or in the national levels also. They can expand their market in most of the cities through online marketing. Farmers get many benefits in online marketing. But for online marketing they have knowledge about the cyber and e-commerce facilities. They need to get the training programmers about that cyber sides. All Indian people know about the quality of Munsiyari, Uttarakhand Rajma/ Kidney Beans by online marketing.

A farmer has to maintain their quality in their product so that demand will increase. If the demand increase, supply increase also. Demand increase by quality of their product maintains. Government should provide schemes to the farmers for their agriculture so that they will get benefits and feel save for their agriculture. Through online marketing a farmers get benefits as mediators will go away and directly money will comes to the farmers. They should provide the new technologies i.e. machines and equipments so that their work goes in an easy way. They do not do work hard. Government should provide farmers machines i.e. tractors etc.

To protect crops from natural calamities like heavy rainfall, snowfall etc. and from the wild animals, there should be preparation of contingency plan according to the circumstances, to provide farmers the information about right crops cycle and arrangement of necessary farm inputs accordingly.

Resetting, PRESERVING AND ENHANCING ECOSYSTEMS dependent on agriculture and forestry. Improving the organization of the FOOD SUPPLY CHAIN AND MANAGEMENT RISK in the agricultural sector. Promoting social inclusion, poverty reduction and ECONOMIC DEVELOPMENT IN RURAL AREAS. Promoting KNOWLEDGE TRANSFER AND INNOVATION in agriculture and forestry and rural sector. Increased profitability of farms and purchasing power of farmers. Expand export opportunities and new markets. Improve the conditions of farmers in the Food Chain (to minimize imbalances and disadvantage of farmers with intermediate distributors and other agents in the food and agriculture).

Providing comprehensiveness to the crop insurance schemes implemented in the state to compensate the damages caused by natural calamities, insects/ diseases in agricultural production. We have to improve the competitiveness of the farm and forestry sector through support of restructuring, modernization/ innovation and quality production in Rajma. Through agriculture we can give many people employment through farming, and if we do online marketing from that also many people get employment on that in making websites and app for selling product.

We are growing Rajma in village Sarmoli, so for that we have to plan and follow them for better results. Rajma is grown in winters. Plantation is starts in October. We have to give advertisement for marketing. It is little bit expensive also but if government provides farmers some schemes to establish business in a higher level than they can do anything. And for the protection of crops from wild animals i.e. pigs, monkeys etc government should provide them fencing to every farmers and for the unconditional weather farmers should known already.

➤ **Comparative analysis of cost and profit of organic and conventional**

I. Comparative analysis of the use of fertilizers on organic and conventional.

II. Farming in selected areas by taking selected farmers.

III. Analysis of organic and conventional farming on water, land and

#### IV. Farming on health and environment

##### **Objective Study in Rajma/ Kidney Beans**

Growing kidney bean is becoming very popular throughout the world; especially it is very popular in India. Growing kidney bean either commercially or in small scale both are very easy. But growing kidney bean commercially can be a good way for generating some extra income. However, here we are describing more information about growing kidney bean from planting, caring to harvesting.

So basically our main objective is to grow pulses i.e. Rajma. The kidney bean plants can be grown on wide variety of soils from light sandy to heavy clay soils. But the kidney bean plants generally grow well in loamy soil which is well drained and slightly rich in organic contents.

##### **Main objective in growing Rajma is:-**

- ✓ **Choose a Variety of Rajma** what type of Rajma we have to grow because there are different types of Rajma produced? Some popular kidney bean varieties are Cabernet Dark Red, California Early Light Red, Montcalm Dark Red, Red Hawk, Red Rover and Sacramento Light Red. You can choose any variety depending on its availability in your area. There are white and red rajma is popular of Village Sarmoli, in Uttrakand.
- ✓ **Purchase Seeds** we don't have to purchase seeds from outside of village because it is available in our own village only. If we wanted to purchase seeds than we will purchase from our village only from this our village income is also comes into our village only.
- ✓ **Seeds per Acre** Actual amount can vary depending on the chosen variety and also production type. On average, you will require about 30-35 kg seeds per acre for early sown varieties, and 10-12 kg per acre for the pole type varieties.
- ✓ **Planting** We can use the dibbling method for sowing the kidney bean seeds. The seeds are sown on ridge in hilly areas. But the seeds are sown in line or on bed for growing kidney bean in plain areas. Space the rows to about 1.5-2 feet apart for the early shown varieties, and space the seeds to about 4-6 inches distance in rows. Sow the seeds at about 6-7 cm depth and try to water the field lightly after sowing the seeds. We should treat the seeds before sowing.
- ✓ **Caring** The kidney bean plants generally require less care and maintenance as compared to many other commercial crops. Although taking additional care will help the plants to grow better and which will ultimately increase the total yield. Here we are describing more about the additional caring process for growing kidney bean plants. **Fertilizing, Watering, Controlling Weeds we can care like this.**

- ✓ **Pests and Diseases** Like many other commercial crops, the kidney bean plants are also susceptible to some common pests and diseases. Aphid, thrips and mites are some of the common pests for the kidney bean plants. And wilt, yellow mosaic and powdery mildew are some common diseases for the kidney bean plants. We have to consult with an agriculture specialist in our area for having good suggestion for getting rid of all these pests and diseases.
- ✓ **Harvesting** Depending on the variety, the kidney bean crop will be ready for harvesting within 120-130 days. We can expect to harvest when the pods are fully grown and ripe and their color turn to yellow. Majority of the leaves turn yellow or drop when the crop becomes ready for harvesting. Timely harvesting kidney beans are important, because delaying can cause shattering.
- ✓ **Yield** Total yields depends on many factors such as type of soil, variety of seed and farm management practices. But on an average, you can expect 1000 to 1200 kg kidney bean seeds per hectare.

So this is our objective to achieve our target in planting Rajma to till harvesting it and after that we have to sell it in our village and then other cities and states. For more profit we have to advertise our product and increase our sell. If the sell increases then we can plant some more seeds of other items. But land will be in lease and land is of farmers only so that they will work in their own land and grow all the items after that selling part is our through online or the other ways. It will increase our sell. Second main motive is to ear profit. And profit maximization will be through if we maintain our product quality in lower prices also. In starting we will maximize our product selling in low rate.

### Hypothesis of the Study

There is no difference in profitability of organic and conventional Standardization, marketing and trade of the products of organic and Farming. Soil science is not included in this study. Conventional family is treated equivalent.

Qualitative research is not really designed for hypothesis testing. It is designed to explore an area that can later be hypothesis tested with quantitative approach (or alternately, it can be used to explore the meanings of quantitative answers in more detail). We need to convert our qualitative data into categorical data that can be quantified (usually through coding), then use hypothesis test the categorical data.

**H1 (Null H0)** - Entrepreneurial opportunities evolving high technology are possible in the village.

**H1 (Alternative)** - Entrepreneurial opportunities evolving high technology is not possible in village.

**H2 (Null H0)** – Specialized skills are not available in village and in villagers.

**H2 (Alternative)** - Specialized skills are available in village and in the villagers.

**H3 (Null H0)** – There is possibility of big investments in entrepreneurial ventures.

**H3 (Alternative)** – There is no possibilities of big investment in entrepreneurial ventures.

**H4 (Null H0)** – Good marketing channels and communications are available in rural areas.

**H4 (Alternative)** – There is not good marketing and communications are available in rural areas.

**H5 (Null H0)** – Village people hardworking and knowledge of new technologies.

**H5 (Alternative)** – Village people are not hardworking as well they don't have much knowledge of new technology. They are lazy.

Since, the village has facilities only for basic formal education of a non- technical nature, establishment of ventures requiring high levels of technology would be inappropriate.

As mentioned earlier, due to the ensuring educational system prevalent in the villages. The villagers do not possess a satisfactory level of technical skills.

The residence belong mainly two middle income group with a significant proportion at the BPL level large investments would not be possible. This is the case for both owned & loaned funds. The quantum of loaned funds through governmental agencies & banks depends to a large extent on the level of present income as it represents the repaying capacity of the borrowers.

Marketing and transport network is not very well developed in village and for market operation the middle man play a dominant role which is very often runs opposite to the interest of the farmers. Moreover, there are market fluctuations especially with respect to perishable agricultural crops for this reason there should be cash crops should be grown. And from this price will also fluctuate in an amount.

Many things which we predict they get wrong or we can say null hypothesis is rejected and sometimes it got accepted. And vice versa for alternative hypothesis also.

## Actions Planned to address the problem

### Solution in Agriculture

- ✓ **Smart water Management** – If we work in a systematic way it means using drop by drop or sprinkler irrigation system if we use that it can increase crop yields up to 50%.
- ✓ **Farm management software** – We can manage our farm without tracking things like we do i.e. driving, etc. Farm management software helps us to take complete control over farming activities and analyze usage of all inputs and expense, so we could identify our weak points and make improvements.
- ✓ **Protection** – We have to protect our crops from wild animals and unconditional weather by providing them protection. From wild animals we can protect crops by implementing fencing and from unconditional weather it should be the forecasting so that we can prepare us for the future.
- ✓ **Increasing sales** – We can increase regional sales by enabling local procedures to reach out to the other states in India (Domestic Market).
- ✓ **Small Farmers** – We can direct access of small farmers to the market.



➤ **New approaches can help in promoting agriculture and in providing a healthy lifestyle to the peasants:**

1. **Encouraging Organic Farming:** Organic farming should be encouraged as organic produce is sold at high prices in the market. There is a huge demand for organic produce as it is good for health and has a limited supply.
2. **Relief Measures:** To sustain a healthy lifestyle and ensure a safe future the farmers can avail benefits of relief measures proposed by Department of Agriculture & Cooperation which provides relief in case of drought, hailstorm, and pest attacks. Therefore, the crops will be insured and the farmers will not have to sleep with empty stomachs.
3. **Village Seed Banks and Nurseries should be opened:** Village seed banks and nurseries should be opened for preserving regional seeds. This will help in increasing local varieties of millets, maize, mustard, beans etc. Nurseries should also be opened for promoting cash crops.
4. **Soil and Moisture Conservation:** Soil is the main component of farming if the soil is infertile then it will not yield good crops. Therefore, soil conservation techniques should be adopted by the farmers. Trenches should be dug which can be filled with rain water.
5. **Practices such as Slash and Burn should be abolished:** Slash and burn is an agricultural technique in which farmers cut down trees and burn forests to create fields. It is subsistence agriculture which is practiced by the tribal people as it uses little technology. The major drawback of using this technique is that it degrades the environment. The tribal relate this practice to the organic agricultural approach which is famous for millet cultivation.
6. **Chemical Insecticides and Pesticides should not be used in farming:** Chemical insecticides and pesticides are detrimental to the environment. Insecticides and pesticides destroy the natural composition of air, water and soil. Pesticides affect biodiversity by reducing nitrogen fixation, contribute to the disappearance of pollinators, threaten fish and cause severe damage to animal habitats. They are also harmful to humans as they cause neurological and psychiatric disorders, brain tumors, cancers, spontaneous abortions, stillbirths and birth defects. Pesticide exposure is damaging to the immune system. Many pesticides are endocrine disrupters which when exposed to humans can have a detrimental effect which can cause hormonal imbalance.
7. **Testing of Farm Machines and Equipment:** For increasing the output and reducing the cost of production new and improved technology should be introduced in agriculture. Subsidy should be given to the poor farmers on agricultural equipment such as hand tools, planting, reaping, harvesting and threshing equipment, tractors, power-tillers and other specialized agricultural machines which are used in farming.
8. **Developing Mandis:** Mandis should be developed in order to create a link between the producers and buyers. Mandis will help in providing good quality produce at reasonable prices which will help in raising the sales. Separate markets can be set up for unique organic products.

India is the largest agricultural powerhouse worldwide and the leading producer of spices, pulses, and milk. Not only that, our country has the largest area that is used to cultivate cotton, wheat and rice. Agriculture held almost 75% share in India's GDP a few decades ago. To this day, the share has gone down to around 14%. However, agriculture continues to be the source of livelihood for about 50% of the working population, three-quarters of which is based in the rural parts of India.

In a nutshell, agriculture is a vast industry and has an impact on every citizens of the country, either directly or indirectly. Like any other sectors, agriculture too has its own set of challenges, some of which are very critical and impeding. If we talk about the possible solution than it depends on the government and with the villagers. Urban people are dependable upon the villagers i.e. farmers because they only protect us from starvation. Without food we can't survive so we have to protect village and the villagers. We have to motivate them to do work regularly and government should provide them facilities and gave them some training so that they can grow vegetables, fruits etc.

Farmers are our backbone. So for them all types of facilities should given to them i.e. machines, equipments and any other things which they want to use in doing agriculture. To know the farmers about the schemes started by the government for the farmers. There should be a low interest rate for the farmers in taking loans. They should provide a training to know about new techniques or technologies in farming. There is automation in farming in which the work of farmers or we can say burden will be less after getting automation techniques to the farmers.

### Implementation of Action Research Steps

- ✓ Firstly we have to decide what enterprises, programmed or project we want to investigate i.e. it's our Rajma Munsiyari production in Sarmoli village.
- ✓ Then we have to give brief background of the crop i.e. in this we can go for the samples of our crops.
- ✓ Then we have to state the problem i.e. related to the technology which is not so advance in planting a seeds, no automation is their or no transportation facilities provided by the government or others.
- ✓ Main objective for growing kidney beans is that:-
  - a) To assess farmers' knowledge of key recommendations in kidney beans production.
  - b) To asses farmers application of key recommendations.
  - c) To identify factors affecting application of recommendations.
- ✓ We have to identify the key recommendations for a successful enterprise, programmed or project is that what do farmers need to know and do for them to be successful in enterprise project? Etc.
- ✓ We have to set questionnaire to assess farmer's knowledge i.e. the varieties of Rajma in the area?

Construct a checklist for assessing farmer application (questionnaire) i.e. why do we grow these varieties? What is our plant spacing? Etc.

- ✓ Then we have to decide which farmers and how many farmers, we will test (interview) i.e. we can take growers and non- growers of Rajma or in men and women farmers or will interested in small- scale grower or it may be large scale grower. Etc.
- ✓ Deciding on the sampling strategy and technique i.e. it may be probability or non- probability sampling methods.
- ✓ Then selecting the sample by which we selected above and avoid bias.

- ✓ Then we have to construct our research design table so that we can collect data in a systematic way. i.e. in a primary or in a secondary data bases.
- ✓ Administer the test so that respondent in our sample answers all the questions in test.
- ✓ Then analyze the result through findings that is overall performance by farmers etc.
- ✓ At last identify opportunities for improvement. That is if we think the farmers have less knowledge then we have to give them training. But if the farmers have much better knowledge then we have to explore ways of dealing with the constraints through their suggestions.

There should be schemes for the farmers such as inexpensive and efficient. The scheme is such that the farmers are profitable in their business. Farmers should feel convenience with the schemes. Government should be them land for agriculture it can be at lease also in low rate and the raw material for planting crops. Transportation facilities should also there because in many villages there is no road facility i.e. Kachi sadak. Government should provide a truck with the driver for the transportation of finished goods. And there should be storage facility also so that farmers can store there product and save them from the wild animals and the unconditional weather and for the long time so that they can sell their product when they get there fair/profitable prices.

Government should provide them training and programmers for better results in farming to make finished goods in better quality. Training should be for new techniques used by farmers with new innovative ideas and technologies like machines and equipments. Farmers should know about the new technology used in the agriculture for better quality in their finished goods so that customers will demand in high range and supply should be maintained.

There should be no mediators like as a long chain. It should be only one mediator like farmers to wholesaler to customers. From this short chain there will be no brokers between the farmers and the customers who extra charge/ prices from the customers and from these farmers also get there fair price.

There should be program of motivation. From this program people get motivated to do the work i.e. it should be related to the farming or other work. Because people of village are very lazy nowadays they do not want to work anymore. Especially in Uttrakhand laziness seen in man and all the women works in the farm also with their home.

The most effective way to improve the lives of millions in poverty is to support agriculture in developing countries. Most of the world's poor are farmers, and those who are not spend much their income on food. Transforming a country's agriculture sector can create jobs, raise incomes, and reduce malnutrition and kick-start the economy on a path to middle-income growth.

Firstly we have to discuss about this topic which is beneficiary for the farmers. Agriculture related things depend to the crops like protection of crops through wild animals and unconditional seasons weather which not well for the farmers crops. They all destroyed without any protection facilities. The entire villager should provide the programme of motivational in their work because some of the villages were very lazy they do not want to work at all.

For growing Rajma we have to take land on lease after that we have to find some farmers for that planting crops and for the safety of the crops, guard should also be provided for the protection. After that till finished good and for the marketing and packaging, labeling the product all work should be trained by an expert who knows about that very well. We can sell it through online for better experience and for profitability. If we want profit in product then we have to maintain the quality of the product so that customer will purchase again and again. Organic farming should be done by the farmers so that there is less chemical attached with the product. Organic farming has its own fragrance in their product and taste is present in it.

## Process of Implementation of the Study

1. Firstly we have to purchase raw material i.e. seeds of Kidney beans.

### ➤ Steps of planting seeds of Rajma :-

- ✓ Plant the beans after the last frost in the spring.
- ✓ Choose a spot in your garden with full sunlight.
- ✓ Use loose, well-draining soil to plant the beans.
- ✓ Space the beans 8 in (20 cm) apart in the soil if they're a bush variety.
- ✓ Leave 4 in (10 cm) in between the beans if they're a pole variety.
- ✓ Cover the beans with a 1–2 in (2.5–5.1 cm) layer of soil.

### ➤ Caring for the Beans

- ✓ Wait for the top layer of soil to dry out before watering the beans.
- ✓ Avoid transplanting the kidney bean plants.
- ✓ Keep the stem and leaves dry to avoid any fungal diseases.
- ✓ Use an organic pest spray if bugs are eating the leaves

### ➤ Harvesting and Storing Kidney Beans

- ✓ Wait for the beans to turn brown and dry out before picking them.
- ✓ Shell the kidney beans to remove the outer casing.
- ✓ Store the kidney beans in a cool, dark place for up to 1 year.
- ✓ Avoid eating the kidney beans uncooked.

### ➤ Storage Tips

Keep our uncertified organic Rajma Munsiyari in a dry and cool place, away from moisture. At original Indian table we are passionate about increasing farmer income by bringing the finest indigenous and healthy ingredients from farmers across India to customers. To do this, we have travelled more than 90,000 kilometers across 24 Indian states to meet with farmers. We have found farmers increasingly move towards local crops and

sustainable ways of growing food that are safer for us and healthier for the climate. Our mission is to bring these products to customers looking for clean, nutritious and local food.

Kidney Beans require relatively little processing after harvest, although they must be sorted to ensure their quality storage. Pick through the beans and separate any with obvious defects such as mold, splits or puckering because they may impact the quality of the other beans during storage. Dry Kidney Beans will maintain their original quality for six months of storage. However, heat and humidity will cause degradation, so they must be kept in a cool, dark and dry place.

### ► How to grow Kidney Beans? – Steps

#### Preparations

1. We have to prepare seeds instead of seedlings because most of the plants do not survive the transplanting process.
2. As we choose a suitable location in village Sarmoli, which is in hilly area. So we have to understand weather of village Sarmoli and the season time in which Rajma we can grow because Kidney Beans need full sun in order to thrive, so we planned on growing them in a spot that gets at least six hours of direct sunlight day.
3. Then we have to amend the soil in this solid need to be fairly light and loose so that water can drain. If our soil is too heavy, then we needed to amend it with enough organic material to even it out. The pH of soil also needs to be near neutral. The pH of the soil should be between 6.0 and 7.0.

#### Planting

1. We have to wait until after the last frost passes. In this Rajma requires adequate warmth and humidity to thrive. Soil temperatures should be 70 to 80 °F (21 to 27 °C). If at all possible, avoid letting the soil temperature drop below 60 °F (16 °C). If a frost does arrive unexpectedly after your kidney bean plants have sprouted, cover the seedlings with a bit of mesh cloth or canvas to help protect them from the freezing temperatures.
2. The plant seeds should be deep enough. Kidney bean seeds should be planted 1 to 1-1/2 inches (2.5 to 3.8 cm) deep.
3. Farmers should give the seeds enough space. For most varieties, you will need to sow separate kidney bean seeds 3 to 4 inches (7.6 to 10 cm) apart from one another. The seeds should germinate within 10 to 14 days.

#### Growing

We have to put in a field in we are growing in a large scale. And If we are growing in a small scale than we will grow in a large pot. It is our choice to grow kidney beans anywhere but it should be large space to grow. For each kidney bean plant, we will need a space with a diameter of 12 inches (30.5 cm).

## Daily and Long- Term Care

1. Water only when the soil dries out. Instead of watering the soil in an effort to keep it continually damp, we should only water it if you check the soil and determine that it has dried out at least a full 1 inch (2.5 cm) down from the surface`
2. Avoid high-nitrogen fertilizers. If your plants are suffering and in need of more nutrition, use a small amount of organic fertilizer that does not supply a hearty amount of nitrogen.
3. Be careful when removing weeds. The roots of the plant are quite shallow, so when you dig up weeds, you need to do so carefully to avoid accidentally disturbing or damaging the roots of the kidney bean plant.
4. We should pull the weeds up by hand.
5. We could also help keep weeds out by spreading a 1- to 2-inch (2.5- to 5-cm) layer of mulch on around the plant after it sprouts.
6. Watch out for pests and disease. Some garden pests do target kidney beans, and the plant is also vulnerable to a few different diseases .If we run into problems, you may need to apply an appropriate pesticide or fungicide

## Harvest and Storage

1. Collect all the beans at the end of the season. Bush varieties should be harvested once at the end of the growing season. Pole varieties can be harvested several times throughout the season, but the largest harvest will usually be at the end of the season. Depending on the variety you chose, kidney beans should be ready to harvest after 90 to 150 days.
2. Store the beans in a dark spot. Place the harvested kidney beans in a jar and store them in a dry, dark location until ready to use. Dried beans can last up to a year in the right conditions.

## Data Collection and Analysis

### SOURCE OF DATA:-

The required data were collected from both primary source and as well secondary source.

#### Primary Data :-

The primary data were collected from direct integration with villagers during households surveys (through questionnaire), informal interviews, SHGs meeting, non- participatory observations, and other village meetings.

This data is very accurate because we observe the things by our own experience and b personal interaction with the people and the nature.

## ❑ Secondary Data :-

The secondary data were collected from government employees (Patwari, VDO, VPDO etc.) , Bankers ( managers, employees) Gram Panchayat Office, Anganwadi, primary schools, Sarpanch, Internet, websites, etc.

The secondary data is collect in a correct way if the information is right given by others i.e. through internet or people. It is very easy and fastest way to do the work quickly.

But sometimes the information is not correct and accurate. The information will be the past years sometimes it is not a recent matter or the information related to the research that we were doing in present.

Data related to the investment or for the land and the raw material this information it may comes from primary or from secondary data also.

The secondary data were collected from government employees (Patwari, VDO, VPDO etc.) , Bankers ( managers, employees) Gram Panchayat Office, Anganwadi, primary schools, Sarpanch, Internet, websites, etc.

## Sample Design:-

For questionnaire survey systematic random sampling was done. 32 households selected randomly, efforts were made to collect different information regarding social and economical status of villagers from all caste, economic group.

## Data Analysis:-

Statistical tools like tables, percentages were used to analyze the data collected on various things like, caste, sex ratio, different occupations, livestock, assets, land holding, literacy level and different infrastructure like road electrification etc.

## Limitation of Data Collection:-

- People hesitate to tell about the details regarding income and assets.
- People are not correct in their data.
- Many people migrated; they come on their holidays only.

## Findings

### About Village Sarmoli (ENTREPRENEURIAL)

### SWOT Analysis

### Strength

- ✓ Small Town , Quiet Rural Lifestyle
- ✓ Rural Character
- ✓ Natural Resources
- ✓ Low Investment In Land Conservation
- ✓ Undeveloped Slopes (Scenic Value )
- ✓ Fertile Land For Crops / Agriculture
- ✓ Strong Identity And Have Insta Page
- ✓ Women's were very supportive.

In village Sarmoli, there is a fertile land for crops i.e. agriculture, farming. Farmer grows Potatoes, Pulses like, Rajma etc., Yellow Chillies, and Cabbage etc. There is an Instagram page also that shows a strong identity of village Sarmoli. In village there is very supportive women's who helps their husbands in agriculture and other work. Women do handicraft like carpets work as well as making woolen clothes etc for survival. Many things to do in village Sarmoli, it is good in tourism field also. Agriculture, Tourism, Home stays, Hotels, handicraft work etc done by the villagers especially a women. There is SHGs where women works and earn money. As we can say villages is the backbone of India because most of the food crops are in villages. So, literally, villages are feeding everyone. In village people there is more unity, helping nature, hardworking nature is shown.

Well Village Sarmoli is also known for their traditional & cultural values. Festivals and traditional ceremonies are celebrated in this village. Festival is celebrated in Naina Devi temple and it is known as Naina Devi fair.

Ecological balance is maintained by village Sarmoli, because of the environment of village. There is more trees. Eco- friendly habits helps to keep village pollution free. Village Sarmoli, promoting small scale industries like, Handloom Industry, Dairy Farm, Poultry Farm.

The villagers lived over there in very good conditions, well maintained; they have that much facility in which they can live in a good way. Toilets in every villagers home are available no one go outside from their home. They do all types of work such as agriculture, handloom work, etc. mostly women works in every field. Because men were gone outside of villages (cities) for work or we can say for employment. Village women grow vegetables for their own use. Women's work as a labor also, they do not have any hesitation of doing any kind of work.

### **Weakness**

- ✓ Crops Safety (Wild Animals) Which Decrease Agriculture In Sarmoli.
- ✓ No Capital Improvement Program To Plan & Budget
- ✓ No Proper Market For Expansion
- ✓ Transportation of raw material
- ✓ No proper sale outside the village.
- ✓ No plan related to business.
- ✓ No plan in planting the crop.



In village Sarmoli, agriculture is resulting in loss due to increase in cost of agriculture. And many people of village is very lazy in their work they don't want to do work (Especially men). Men of village only need alcohol for the survival from this there wife and children suffer. Some of them are getting attracted to luxurious life in cities and migrated. They come only in holidays or for other reason only. There is no employment in village so the villagers want to go in cities to earn money for their family and for own. There is no proper market for expansion to get benefits or no profits. This is the main reason from which the villagers do not want to live in village.

If we talk about in Agriculture, in this there is no profit for the farmers. If they grow or plant crops, it will destroyed by the wild animals like pigs, monkeys, etc. there is no protection facilities for the crops so that it should be protected by the farmers. This is not only one reason the second reason is of unconditional weather that affects crops i.e. due to heavy rainfall and snowfall.

There is the problem of transportation also because there is no road facility to transport finished goods to another place. As there is no capital improvement program to plan & budget. No plans related to business or for other things.

### **Opportunities**

- ✓ Potential To Access Small –Scale
- ✓ Product Sales in Market to Increase Their Income like agriculture in rajma, potatoes etc.
- ✓ Provide Market Facility Areas
- ✓ SHG'S like Saras market in Sarmoli village.

Main opportunities are in agriculture, home stays, hotels, and in handlooms. If we talk about agriculture there is an income increased if there is less mediators between farmers and their customers. If there is an warehousing for the farmers to protect their crops then also there is an increment in the income of farmers because it occurs less loss in damage of their crops in unconditional weather and from the wild animals. There should be boundaries of fencing so that crops will be protected from animals; they are not able to destroy our crops.

There is SHGs in village Sarmoli, named Maati Sangathan started by 20 women's having Saras Market in Muniyari, and distance is about 2-3km. We can start business and to extend it we have a market (Saras) in this market we can sell our product and if business make profits then we will go further outside the village.

### **Challenges**

- ✓ Limited Public Transportation Option and with Road Facilities.
- ✓ Large Commercial Development
- ✓ Agriculture Production
- ✓ Training and programmes related to the agriculture.
- ✓ New techniques and innovative ideas.
- ✓ Provide knowledge to the labour and the farmers
- ✓ Less mediators
- ✓ Online selling of products

- ✓ Organic farming
- ✓ To protect crops from wild animals.
- ✓ Provide land facility
- ✓ Provide loans to farmers to purchase raw materials.
- ✓ Provide schemes by the government to the farmers.

We can organize a program or by the government related to development of villagers by their business. In this we can tell how they can plan for their business i.e. agriculture, handlooms etc. and how they can grow up their business in a profitable manner. Government should aware about their schemes to farmers.

Schemes are:-

- i. Soil Health Card Scheme
- ii. Pradhan Mantri Fasal Bima Yojna
- iii. Pradhan Mantri Krishi Sinchai Yojna
- iv. National Agriculture Market (e-NAM)
- v. Micro Irrigation Fund (MIF) etc. schemes

We have to do fewer mediators by selling farmers product by online. It is very profitable for farmers. Farmers and the laborer should provide knowledge of new technologies like how to start machines etc. for this they should provide programmes and training so that they know about the new technology. And loan facilities should also available for farmers without any burden of loan.

They should provide a road facility for transportation of product from village to another place. Farmer is done with organic farming as customer liked it. They should maintain their quality of their product which is farmers planting in their land.

Most of the farmers sell their final produce to village merchant because they have taken loan from him on condition of selling crops. There is awkward situation for the farmers, “No Crops without Loan and No Loan without Crops”.

There is no motivation in Agriculture since many farmers do not earn more than one lakh in a year. Young and educated people are least interested in Agriculture Employment. Benefits of subsidized fertilizers and quality seeds are confined to certain influential people. There is lack of scientific quality checking system of seeds; Standardization and grading facility at Panachayat/Tehsil Level, due to this; farmers are unable to leverage the better quality crops.

Farmers in India have teamed up with scientists to find new ways to produce more food, improve the quality of their farmland and earn more money. With the help of nuclear techniques, they now have a method for producing high quality livestock and more crops while protecting the health of their soil for a future of more fertile farming.

Approximately 70% of people in India rely on agriculture as a source of income. Many conventional farming methods involve inorganic fertilizers and using only one crop type each season, which puts a strain on farmers soil and water resources. This often leads to less productive crop yield, which in turn means less food and lowered incomes. As the already strained situation gets worse due to climate change, farmers are now in need of more efficient modes of production.

## Conclusion

- ✓ Generate employment to unemployed people.
- ✓ Increases standard of living in the village
- ✓ Scope in production of Rajma
- ✓ Need a market to expand our product.
- ✓ Need new ideas and technologies.
- ✓ Needed for the new generation students.
- ✓ From marketing of a product it increases the economy of Uttarakhand.
- ✓ Stops migration through employment
- ✓ Provides protections from the wild animals.
- ✓ Creates Organic farming
- ✓ Provide training programmes
- ✓ SHG'S helps in marketing our product also.
- ✓ Exporting a product
- ✓ Provide machines for packaging, labeling, and branding the product.
- ✓ Can do work in a partnership.
- ✓ Business name
- ✓ Government schemes works
- ✓ Purchasing a raw material from which areas, cities of by own.
- ✓ Providing Land for plantation of crops.
- ✓ Capital investment
- ✓ Advertising a product for the exposure

During my stay in the village I found that giving right information can help people to make right decision. I observed that the people of the village have the potential and skill to come up from poverty and misery but the most important thing they lack is information and knowledge about what is happening around the world. I saw that mere distribution of money by government and SHGs has degraded the community's value and generated a feeling of dependency. I learned the importance of life skills & functional literacy which will help them to operate & manage their enterprise. The households have very small amount of savings which is not enough for their risk mitigation.

The village study enabled me in studying the various aspects of the village life. I came to know various things knowing which perhaps were not possible without saying village among the rural population. We can say that providing subsidies will not help but what the villagers actually needed is the information and knowledge about

their products, their value and their demand in outside market, so that they could get appropriate return for their hard work. And second hand experience is how they cope up with the expenditure when there have no job.

Government should focus on dealing with challenges created by globalization, volatility in prices, shrinking farm size dry land farming challenges and environmental stress. Any upcoming Government policy or economic policy reforms should address:-

- The issues created by highly restrictive and complex labor laws.
- High inflation
- Corruption and graft as well as
- Lack of political consensus and will.

It can be concluded that the design implemented in the present work provide portability, flexibility and data transmission is also done with low power consumption.

Agriculture has to focus on developing institutions for better delivery systems. Agriculture can be ignored at our peril. If we want inclusive growth, both Central and State Government have to focus on agriculture sector. Let us hope that government has the political will to implement the policies effectively and helps the farmers without testing their patience.

Based on the above discussion it may be concluded that a number of promising technical, social and institutional approaches with potential to contribute to low impact aquaculture have been identified and to some degree tested, however, strategies are required that promote and support their uptake and where necessary adaptation. Awareness of promising approaches to low impact of agriculture and aquaculture should be promoted amongst target institutions including national and local government authorities, extension agents, development practitioners, educational establishments and communities that stand to benefits.

This study has investigated the importance of small farms and specifically small traditional farming and how it can be revived and become sustainable in this new dispensation. It has demonstrated that, despite the many challenges faced by the sub- sectors, especially over the last twenty five years, its revitalization and sustainability is not only attainable but is also critical.

Small farmers are not getting much benefit from chicken through current market. No market intermediation mechanism is made to help small farmers. No interaction between producers and consumers through many local people support the product. Limited implementation of government policies and regulations on food safety and slaughterhouse management.

The vast majority of small and marginal farmers in India lack an effective voice in influencing research and extension priorities. The public and private sectors should identify the existing farmers associations and support them to develop their organization.

Women farmers now own land for leading to economic empowerment, decision making powers. The distribution of tractors from area to area should be normalized so that the custom hiring is increased. Technical know-how should be provided to the farmers with respect to appropriateness of farm machinery for the situation and for its proper use.

## References

This is the primary as well as secondary data we have collected.

Firstly Primary Data is based on the personally interaction with the villagers and asked questions to them about the village culture, style, food, agriculture etc. We personally identify the problems of the villagers and after that we find out the problems solutions and find out the opportunities to the people.

Secondary Data is based on the internet, news, magazines, and the other secondary matters.

### ❑ Websites :-

- [www.amazon.in](http://www.amazon.in)
- <http://www.scu.edu.au/schools/gcm/ar/aro/aandr.html>
- [homeburps.com](http://homeburps.com)
- <http://www.istage.ist.go.jp/browser/idsa/>
- <http://www.roysfarm.com>
- <http://www.yourarticallibrary.com/agriculturemajor-agriculture-problems-of-india-and-their-possible-solutions/20988/>
- <https://www.greenbook.net/>

### ❑ Author :-

- Dick,B.(2002). Action research
- Farm Chemicals Handbook (serial). 2000

An agricultural chemicals reference source. Product information is prepared by participating manufacturers. Includes ingredients, precautionary statements, application instructions, workers protection requirements, and more. Also includes indexes for brand and company names, product category, and pest use, a table of state registrations, and a list of state pesticide control officials.

Impartial reference work “on the active ingredients in products for the control of crops pest and diseases, weeds, animals ectoparasites, and pests in public health.” Coverage includes beneficial microbial and invertebrate agents. Entries include chemical structure, physic- chemical properties, applications/ uses, environmental and toxicological data. Also has a Latin- English glossary of target species. For professionals.

## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

<b>1</b>	<b>Name of Village</b>	Sarmoli
<b>2</b>	<b>Address of the Village</b>	Sarmoli, at distance of 2-3km away from Munsiyari
<b>3</b>	<b>Name of Sarpanch / Contact Person</b>	Malika Viridi (Founder of SHGs also)/ +919411194041
<b>4</b>	<b>Date of Visit</b>	10/Jan 2020

<b>Demographics of the Village</b>		
<b>1</b>	<b>Number of Men</b>	580
<b>2</b>	<b>Number of Women</b>	610
<b>3</b>	<b>Number of Children</b>	112
<b>4</b>	<b>Total Population</b>	1190

5	Number of Anganwadis	2
6	Number of Schools	1 (Primary)
7	Number of Primary Health Centres	0 (in Munsiyari 2-3km nearest)

VILLAGE SCHEDULE				
S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a toilet?	✓		If, No, Then what Action has been taken by the Village Authorities
2	Does anyone go out and defecate in the open in village?		✓	If, Yes , Then what Action has been taken by the Village Authorities
3	Are these faeces from the toilet being disposed in the river?		✓	If, Yes , Then what Action has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?		✓	If, Yes , Then what Action has been taken by the Village Authorities
	Are there institutional toilets at Schools,			If, No, Then what Action has been taken by the

5	Anganwadis and Public places?	✓		Village Authorities
6	Is waste from restaurants, public places dumped into the river?		✓	If, Yes , Then what Action has been taken by the Village Authorities
7	Is there a prevalence of visitor/tourist OD?		✓	If, Yes , Then what Action has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?		No, action has been taken ✓	If, No, Then what Action has been taken by the Village Authorities
9	Are twin-pit toilets common in the Village?		✓	If, No, Then what Action has been taken by the Village Authorities
10	Are septic tank toilets (non-porous) common in your village?	✓		If, No, Then what Action has been taken by the Village Authorities
11	Is there a P-Trap in all toilets?		Some of them are P-trap toilets ✓	If, No, Then what Action has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in	✓		If, No, Then what Action has been taken by the Village Authorities



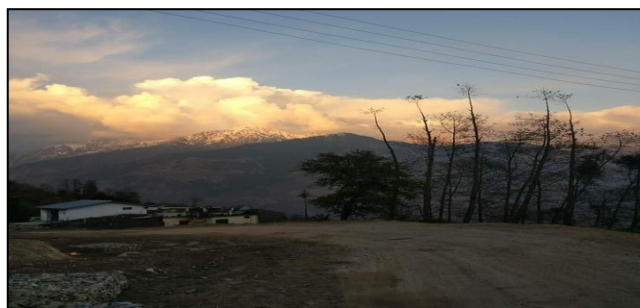
	/for the toilet?			
13	Are all toilets “fly-proof” – or Hygienic?	✓		If, No, Then what Action has been taken by the Village Authorities
14	Is the human waste disposed of in the Drain, g) Nallahs, h) Open pit; i) Ponds or river or streams or any water body etc.		✓	If, Yes , Then what Action has been taken by the Village Authorities
15	Is fecal sludge directly discharged to waterbodies ?		✓	If, Yes , Then what Action has been taken by the Village Authorities
16	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed		✓	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
17	Is there a practice to wash the hands with soap after using the toilet?	May be not all ✓		If, No, Then what Action has been taken by the Village Authorities
18	Is any visible feces found in the environment?		✓	If, Yes , Then what Action has been taken by the Village Authorities
	Is there any odour of urine or faeces in the location?			If, Yes , Then what Action has been taken

19			✓	by the Village Authorities
20	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		✓	If, Yes , Then what Action has been taken by the Village Authorities
21	Is child faeces disposed of in open area?		✓	If, Yes , Then what Action has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
22	Have Anganwadi have toilet in own premises ?		✓	If, No, Then what Action has been taken by the Village Authorities
23	Is water available in /for the toilet?		✓	If, No, Then what Action has been taken by the Village Authorities
24	Is toilet “fly-proof” – or Hygienic?		✓	If, No, Then what Action has been taken by the Village Authorities
25	Is the human waste disposed of in the Drain, <b>v)</b> Nallahs, <b>w)</b> Open pit; <b>x)</b> Ponds or river or streams or any water body etc.		✓	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
26	Are Anganwadi cleaners maintaining and cleaning			If, No, Then what Action has been taken by the

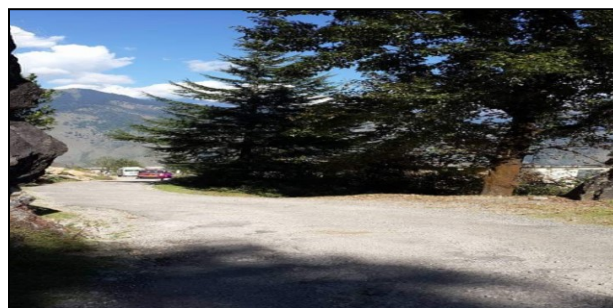
	public toilets?	✓		Village Authorities
<b>School Schedule</b>				
27	Are there separate functional toilets for boys and girls in the school?	✓		If, No, Then what Action has been taken by the Village Authorities
28	Is there water available for use in the school toilets?	✓		If, No, Then what Action has been taken by the Village Authorities
29	Is the human waste disposed of in the Drain, y) Nallahs, z) Open pit; aa) Ponds or river or streams or any water body etc.		✓	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
30	Is public toilet accessible to all (including Divyangs/physically challenged)		No, action has been taken  ✓	If, No, Then what Action has been taken by the Village Authorities
<b>Public Toilets Schedule</b>				
31	Is there a Public Toilet in the village?		Public toilet in Munsiyari  ✓	If, No, Then what Action has been taken by the Village Authorities

32	Are there separate sections for Men and Women?		Away from village 2-3km ✓	If, No, Then what Action has been taken by the Village Authorities
33	Is the human waste disposed of in the Drain, <b>bb)</b> Nallahs, <b>cc)</b> Open pit; <b>dd)</b> Ponds or river or streams or any water body etc.		✓	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
34	Is any sustainable water supply process/ method adopted for sustainability of ODF?		No, action has been taken ✓	If ,Yes Describe the process or method  If, No, Then what Action has been taken by the Village Authorities

**Annexure 3**  
**Village Sarmoli**



Landscape view of Sarmoli village



Roadway to Sarmoli village



Sarmoli village

**Maati Sangathan**



1-Founder of Maathi Sangathan (Malika Viridi)



2-Saras Market of SHGs



Old Lady doing Knitting for Carpet





Women of Maati cleaning Rajma



Primary School of Sarmoli



Farming done by villagers for their own use



Women is taking straw for animals



Construction of Bridge





Women breaking the stone for Road Construction



Museum in Sarmoli



Gori Ganga river is backside of Village, SARMOLI



Old age Time Home in Sarmoli Village

**The Study of Rural Immersion  
Programme in Jyoli Village**

**Bhawana Thapa  
Kumaun University, Nainital**

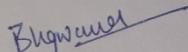


## DECLARATION

I hereby declare that the project work entitled "**The Study of Rural Immersion program on Jyoli Village**". Submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance **Mr. Pradeep Joshi , IPSDR, HERMITAGE COLLEGE**. The results embodied in this village report have not been submitted to any other Organization or University.

Date: 20/02/2020

Place: Nainital

  
Signature of Intern

(BHAWANA THAPA)

## ACKNOWLEDGEMENT

The success and final outcome of this MGNCRE internship programme required a lot of guidance and help from many people and I am extremely privileged to have got this all along the completion of MGNCRE report. All that I have done is only due to such supervision and guidance and I would not forget to thank them.

I respect and **thank DR. WG PRASANNA KUMAR, Chairman, MGNCRE**, Hyderabad for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance.

I respect and **thank DR. DEBENDRA NATH DASH-ASSISTANT DIRECTOR, MGNCRE**, Hyderabad for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance.

I respect and **thank DR. VIJAYA KUMARI N-SENIOR FACULTY, MGNCRE**, Hyderabad for providing me a golden opportunity.

I sincerely **thank MR.ATUL JOSHI AND K. K. PANDEY** for their guidance and encouragement in carrying out this project work. I also wish to express my gratitude to the officials and other staff members of JYOLI village who rendered their help during the period of my project work.

**Bhawana Thapa**

KUMAOUN UNIVERSITY, NAINITAL

<b>S No</b>	<b>Contents</b>
<b>1</b>	Introduction to the Village
<b>2</b>	Identification of Problem
<b>3</b>	Review of literature
<b>4</b>	Objectives of the Study
<b>5</b>	Hypothesis of the Study
<b>6</b>	Actions Planned to address the problem
<b>7</b>	Implementation of Action research Steps
<b>8</b>	Process of implementation of the study
<b>9</b>	Data Collection and Analysis
<b>10</b>	Findings
<b>11</b>	Conclusion
<b>12</b>	References
<b>13</b>	Annexures (Survey questionnaire/ photos/ any other supporting document)

## Introduction to the Village

**Village:** Jyoli

**District:** Nainital

**Tehsil:** Nainital

**Block:** Bhimatal

**Jyoli (Jeolikote)** is a hill station in the Nainital District of the state of Uttarakhand, India. Jeolikote is situated at an altitude of 1,219 meters. It is also known as the Gateway to Naini Lake. It is an ideal place for those who are interested in floral culture and butterfly catching.



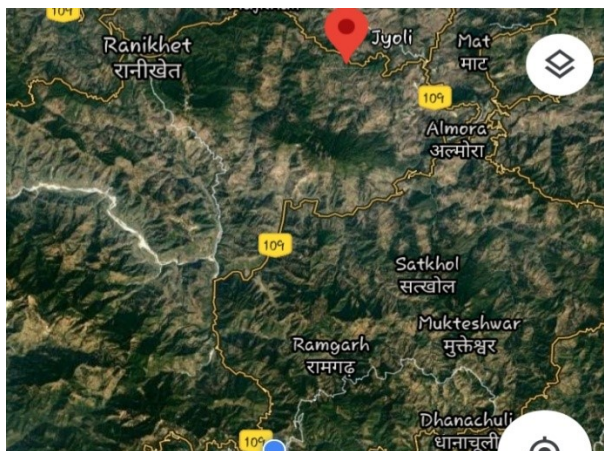
Jyoli village (Jeolikote) Map

It acts as a pit stop for not only the tourists en route to Nainital, but also for the daily commuters who travel back and forth between Haldwani and Nainital. A glass of tea with 'bread pakora' at the 'Verma Jalpan Grah' with the picturesque views of the mountains and the blistering sunshine, is the perfect trailer to the beauty which lies ahead (Nainital). In the pre-independence, it used to be halt

Point for british to acclimatize before moving to the summer capital Nainital. This place is very fertile for vegetable and fruits. You will find many old British structures in Jeolikot.

According to Census 2011 information the location code or village code of Jyoli village is 054828. Jyoli village is located in Nainital Tehsil of Nainital district in uttarakhand, Inadia. It is situated 20km away from Nainital, which is both district & sub-district headquarter of Jyoli village. As per 2009 stats, jyoli is the gram panchayat of Jeolikote .

The total geographical area of village is 22.26 hectares. Jyoli has a total population of 403 peoples. There are about 60 houses in Jyoli village. Nainital is nearest town to Jyoli (Jeolikote) which is approximately 20km away.



Satellite map of the village

<b>Jyoli (Jeolikote) – Village Overview</b>	
Country	India
State	Uttarakhand
District	Nainital
Tehsil	Nainital
Block	Bhimatal
Pin Code	263127
Language	Kumaoni, Hindi
Area	22.26 hectares

<b>Demographics</b>		
Population	403	
Gender Ratio	Female : 210	Male : 193
Age structure	0 to 90	
Religion	Hindu	
Caste	ST, SC, General	
Households in APL and BPL categories	APL: 47	BPL: 45

Village functionaries	
Block Pramukh	Geeta Bisht
Gram Pradhan	Shekhar chondra bhatt
Block development Officer	Santosh kumar Pant
Village Development Officer	Ramesh Kanwal
School Teachers	Jyoti Pandey
Primary Health Centre (PHC) Staff	5

Literacy and Education		
Literacy Rate	90%	
School enrolment	11	
School Dropouts	0	
Avenues for higher education	Nainital, Haldwani	
Avenues for technical and vocational education	Nainital: 34km	Haldwani: 26km
Opportunities for skill Enhancement	0	

Jyoli village has 5% enrolment in primary and middle stage and retention role of village education is about 10% and also 1 primary and 1 middle school in rural areas. And as well as 2 teachers in primary and 14 teachers. 1 principal in middle school. The colleges that are 30-40 km. away from the Jyoli village. The students have to face a lot of trouble going to college.

45% of the workforce in being educated at primary level where as 60% of the workforce in educated upto middle level. The people of Jyoli village are only 45% educated at the primary level because some children stopped going to school after 10<sup>th</sup> rather went out of the village to do private job but 60% are educated at middle level. Because 60% people have completed their middle level studies.



Primary School



High School

Rural health center is 4km away from Joyli village. People of Jyoli village have to walk to the rural health center or have to go to their personal vehicle, which does not have their own car, they have to walk to the health center. And primary health center has 3 ANM and 1 staff. There is only one doctor. And in the primary health center 8 ASHA workers work a 1 whose name is Deepa Adhikari and 0 is the infant mortality rate and as well as 0 is female mortality rate.



Jyoli village Health Center

### Geographical and Climate description:

There is subtropical highland climate the village climate is Influence by the elevation. The climate of Jeolikote is a bit dory in winter and very wet clawing summer due to south Asian monsoon system.

Popularly known as the gateway to Nainital, Jeolikot in Uttarakhand is located against the backdrop of kumaon hills and offers beautiful panoramic views of the Himalayan range. Scenic vistas, salubrious weather, serene environment make Jeolikote one of the popular summer destinations in Uttarakhand. Jeolikot is ideal for those who are interested in floriculture and butterfly watching. Tourists from all over the world visit Jeolikot to watch several hundred of species of butterflies.



Another important attraction of the hill station is the bee-keeping centre. It is a place where honeybees are bred and honey is extracted. One can see different beautiful flowers. Maintained by the horticulture department, every year visitors in large numbers come to the hill station to see flowers in bloom. One can also go on a nature walk, trekking and a jungle safari. The unexplored forest of Jeolikot offers exciting trails for trekking. The hill station is also an idyllic place for meditation. Swami Vivekananda and Sri Aurobindo, the well-known philosophers, spent a lot of time meditating in Jeolikot.

Jeolikot was a favourite haunt of the British during colonial era. There are many cottages and hotels in Jeolikot, which have been built as per colonial style of architecture. The house of Warwick Sahib, a retired major of the British army, is one of the main attractions. Another option for sightseeing in Jeolikot is the bungalow of woman, who is believed to be a direct descendant of napoleon Bonaparte.

Jeolikot is an all-weather destination. The Jeolikot weather in the summer enables unobstructed views of the mountain ranges. Tourists can also visit nearby village of Pangot, which is well-known for its Kilbury Bird Sanctuary. Other nearby areas to visit are Nainital, Sattal, Bhimtal and Ramgarh.

There are few accommodation options at Jeolikot. One can find budget and mid-range cottages. There are no restaurants or fast food outlets at Jeolikot. One can have food at the cottages or resorts. The best time to visit Jeolikot is between the months of March to June.



Jeolikot Hill Station

**Summer Season:** Summer in the village is moderate and lasts from April to June the average temperature at this of the year varies between 24 degree celsius and 30 degree celsius. During these months, wild flowers fill the fields and make the entire surrounding heavenly. Hence, this is the best time to visit Jeolikot. People can wear light, cotton clothes during this season.

**Monsoon Season:** From July to August the village witnessed rain during this rainy season mountains become mystery and the hills are covered with greenery making grandeur of the feature from really pleasant. The sunset time is the most mesmerizing. It is capable of making you lose the track of time and just relish that moment which you had never experienced before in your life.

**Winter Season:** Lasting from September to November, the winter here is crisp and cold. However, air is cool and fresh at this time, providing invigorating, pleasant and bracing experience to the people.

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safe, pleasurable, and an unforgettable part of your cherished memories Irrespective of the reason behind your visit, be it business or leisure, as one of the top Jeolikot travel agents, we have the ability to assist you in planning your itinerary or chart it out as per your requirements and wishes. We at allseasonsz.com providing the information of each and every thing related to Jeolikot climate, Jeolikot weather in summers, Jeolikot weather in winters, monsoon season in Jeolikot, snowfall season in Jeolikot to see by which travelers can get help to plan their Jeolikot yatra successfully.



Marigold garden

### Geographical and Climatic Description

Month	Climate	Details
Jan	Freezing Cold with snowfall	January has a chilling climate with high snowfall. The region is beautiful in snowclad regions.
Feb	Freezing Cold	February is snow bound with nature appears with eye catching white cover. Nights are really chilly.
Mar	Very Cold	March climate is very cool. Sun rays offers bit warm during the days, but nights are still chilly.
Apr	Very Cold	April is cool . the atmosphere starts to become warm and is ideal for tourists.
May	Moderately Cold	May is moderately cool. Days are warm and nights are pleasant. It is good for outdoor travels.
Jun	Moderately Cold	June is moderately cool with warm days and cool nights. The temperate climate makes the travels pleasant.
Jul	Moderately Cold	July is moderately cool. The nature looks attractive and suitable for tourist activities.

<b>Aug</b>	Moderately Cold	August is prtty good with moderately cool ambiance. Good for enjoying the picturesque nature.
<b>Sep</b>	Moderately Cold	September has beautiful mild showers in its store. The nature appears fresh.
<b>Oct</b>	Very Cold	October witness high pitch tourist activities with winters prepare to reach with all its majesty.
<b>Nov</b>	Very Cold	The climate is very cold. This months is ideal for travels.
<b>Dec</b>	Frezzing Cold	December is freezing with snowfalls and fog. The climate often makes the region looks in white snow clad.

### Specific / Distinct Features:

**Culture:** Culture of Jyoli is very different as compared to other cultures of Indian village, because it includes the names culture joint family, Fasting Culture, Holy cow worship. The science behind temple is very unique over here.

**Traditions:** Mostly there are Kumauni Hindu people living over here so the tradition is stightly different from other the arranged marriage system and Atithi Devo Bhava are example of the traditional aspects.



**Fairs and Festivals:** The common festivals in the village include Diwali. Holi. Makar Sankranti, Janmashtami, Dusshera, Basant Panchami, Shiv Ratri, Bhaiya Dooj.

Fairs also seems to be a center of attraction over here because there is fair which takes place in the memory of Ganesh Mahotsav every year in Jeolikote and Nanda Devi every year in Nainital.



## Identification of the Problem

**Migration Problem:** Migration is a very big problem in Jyoli village. Children In Jyoli village who have completed school and college. Due to lack of job facility, those children have to leave their Village and go out to the cities. People of this village are afraid to start their own business. That is why the children here do not get Job Facilities, which is why they have to leave their village and go out to the cities, for jobs.

**Transportation Problem:** There is a huge problem of transportation in Jyoli village, People of Jyoli village have to face a lot of difficulty in going to the market and school. If the people of this village have to take any of their goods to the market for sale then they do not have any transport facility, because that is the market where the village are selling their goods. That market is far away from that. In this village, those who have their own transportation facility, do not have any problem in selling their good to the market, but those who do not have their own transportation facility, they have to face many problems.



Roads of Jyoli village





Kuchha road in the village

**Market problem:** The people of Jyoli village do not have a market where they can sell their products according to their own price, and in the market where people of Jyoli Village sell their products, they are not able to get the right price for their products. People here do not have a good market, which is why these people sell their products at a lower price.

**Lack of knowledge about Apiculture:** The people of Jyoli village have less knowledge about Apiculture. People here can start a very good Business from Apiculture, and they Generate employment and also Generate income.



Apiculture



Worker in apiary

## Review of the Literature

- ❖ APICULTURE
- ❖ No one has done any research on Apiculture before in Jyoli.
- ❖ People there do not have any knowledge related to the apiculture as much knowledge is too low.
- ❖ Apiculture has a very good scope and can turn on good income.
- ❖ Establish a business related to Apiculture in Jyoli village.
- ❖ There is a need of a lot of bees to start a business.

## Objectives of the Study

The main objectives of the study have been:-

- ❖ **Identification to the Village:** Our first objective is to know about the village, how is the weather there? How is the culture there? How is the tradition there? And which culture and which tradition do people follow there? And how do the people of that village generate their income? What do those people do?  
  
how do the people live there? That is why our first objective is to know evrything about that village, what is that village like? What do the people there do? How to people live there? How is the culture of the people there?
- ❖ **Identification of problem:** Our second objective is that the village we are going to study. What is the problem there? Identify those problems. Ask thepeople there what their problem is? And to study the problem in detail and identify the problem.  
  
That is why our second objective is that the Village which we have taken for study. Identify the problems of that Village and study it will.
- ❖ **To search for opportunities in that village:** One of our objectives is to search for opportunities in that village. And to study well about the oppportunities which we have discovered. And to talk to the people there about those opportunities.  
  
Which we have identified opportunities in that village. To get full information about him from the people there, and to find out why there was no work in that opportunity.
- ❖ **For the development of the village:** Our main objective is how to develop that village? And what can we do to develop that village? Telling them how their income can be generated? And increase the standard of living of the people there.  
  
If standard of living of the people of this village will be good and they will be able to generate income well then the village development will be done well.
- ❖ **To know the reason of migration:** Our objective to study why migration is happening in that village. Why are people leaving that village? What is the problem in that Village that people are leaving that village and moving to another city? An indepth study about these things and find out the reason for migration from the village. And how to stop the migration, we also find out these things.

## Hypothesis of the Study

The study takes following as its hypotheses:

- ❖ Apiculture is a good opportunity.
- ❖ We develop Jyoli village with Apiculture.
- ❖ We grow our business in Apiculture
- ❖ Apiculture is a very good source of income in Jyoli village.

## Actions Planned to address the problem

- ❖ **Step 1:- Define the problem:** Will evaluate the situation. Have all possibilities been considered? In this phase, everyone will explore the possibilities, asking all involved or interested individuals to identify the problem for their input. Is there just one problem or are there more?
- ❖ **Step 2:- Implement Solutions – the Action plan:** Step five is to write an action plan that addresses the problems. An action plan is written so that any employee can do the task successfully alone and is followed much like a recipe. It converts the goal or plan into a people process. It has three essential parts:
  1. Based on the goal the action plan answers five questions – What? When? How? Where? Who?
  2. Lists Resources
  3. Lists potential Barriers
- ❖ **Step 3:- Collect and Analyze the data:** Now that we have identified the problem, we collect and analyze data to prove or disprove the assumption that our problem is a result of inconsistent ration. We analyze the situation by asking questions.
- ❖ **Step 4:- Clarify and Prioritize the problem:** If there is more than one problem, we will need to prioritize the problem so that we can focus on the most important problems. At the top of list, people will ask some questions to help solve problems with high priority issues.
- ❖ **Step 5:- Monitor and Evaluate:** Our next step in the problem solving process is to design a method for monitoring the outcome. The method selected should assess whether the goal and action, a well- designed monitoring method will help the team to determine when the action plan needs to be improved.

## Implementation of Action Research Steps

- ❖ **Step 1:- Clarifying Theories:** The second step involves identifying the values, belief, and theoretical perspectives the researchers hold relating to their focus. For example, if teachers are concerned about increasing responsible classroom behaviour, it will be helpful for them to begin by clarifying which approach-

using punishments and rewards, allowed students to experience the natural consequences of their behaviours, or some other strategy – they feel will work best in helping students acquire responsible classroom behaviour habits.

- ❖ **Step 2:- Collection Data:** Their actions are valid. To ensure responsible validity and reliability, action researchers should avoid relying on any single source of data. Most researchers use a process called triangulation to enhance the validity and reliability of their findings.
- ❖ **Step 3:- Analyzing Data:** A number of relatively user- friendly procedures can help a practitioner identify the trends and patterns in action research data. During this portion of the seven-step process, researchers will methodically sort, sift, rank, and examine their data to answer two generic questions:
- ❖ **Step 4:- Reporting Results:** It is often said that research is a lonely endeavor. It is doubly sad that so many researchers are left alone in their classrooms to reinvent the wheel on a daily basis. The loneliness of research is unfortunate not only because of its inefficiency, but also because when dealing with complex problems the wisdom of several minds is inevitably better than one.
- ❖ **Step 5:- Taking Informed Action:** Taking informed action, or “action planning” The last step in action research steps, is very familiar to most researchers. When researchers write lesson plans or develop academic programs, they are engaged in the action planning process.

### Process of Implementation of the Study

- ❖ **Getting our Strategy ready for Implementation:** Although the topic of implementation may not be the most exciting thing to talk about it's a fundamental business practice that's critical for any strategy to take hold. The strategic plan addresses that What and Why of activities, but implementation addresses the who, where, when and how. The fact is that both pieces are critical to success.
- ❖ **Covering all bases:** As a business owner, executive, or department manager, our job entails making sure our set up for a successful implementation. Before we start this process, evaluate our strategic plan and how we may implement it by answering a few questions to keep ourselves in check.
  - Are there sufficient people who have a buy-in to drive the plan forward?
  - How are we going to motivate our people?
  - Have we identified internal processes that are key to driving the plan forward?
- ❖ **Making sure we have the support:** Often overlooked are the five key components necessary to support implementation: people, resources, structure, system and culture. All components must be in place in order to move from creating the plan to activating the plan.

- ❖ **Determine our plan of Attack:** Implementing our plan includes several different pieces and can sometimes feel like it needs another plan of its own..
  - Produce the various versions of our plan for each group.
  - Roll out our plan to the whole village.
  - Set up annual strategic review dates, including new assessments and a large group meeting for an annual plan review.

## Data Collection and Analysis

### ❖ Data Collection:-

1. Quantitative data collection methods
2. Qualitative data collection methods

#### 1. Quantitative data collection methods:

- **Closed – ended Surveys and Online Quizzes:** Closed-ended surveys and online quizzes are based on questions that give respondents predefined answer options to opt for data.

#### 2. Qualitative data collection methods:

- **Open- Ended Surveys and Questionnaires** The main difference between the two is the fact the closed – ended surveys offer predefined answer options the respondent must choose from, whereas open-ended surveys allow the respondents much more freedom and flexibility when providing their answers.
- **Face-to Face Interviews:** Here, the interviewee. Due to it being a very personal approach, this data collection technique is perfect when we need to gather highly-personalized data.
- **Focus groups:** Whenever the resources for 1-on-1 interviews are limited or our need to recreate a particular social situation in order to gather data on people's attitudes and behaviors, focus group can come in very handy.

### ❖ Data Analysis:-

- **Data Collection:** The requirements may be communicated by analysis to custodians of the data. Such as information technology personnel within an village.
- **Data Requirements:** The data are necessary as input to the analysis, which is specified based upon the requirements of those directing the analysis. The general type of entity upon which the data will be collected is referred to as an experimental unit.
- **Data Processing:** For instance, these may involve placing data into rows and columns in a table format for further analysis, such as within a spreadsheet or statistical software.
- **Exploratory data analysis:** Once the data are cleaned. It can be analyzed. Analysts may apply a variety of techniques referred to as exploratory data analysis to being understanding the messages

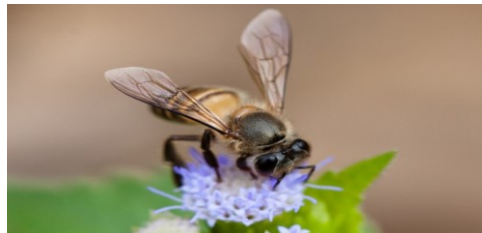


contained in the data. The process of exploration additional requests for data, so these activities may be iterative in nature

### **Apiculture:**

Beekeeping (or apiculture) is the maintenance of bee colonies, commonly in man-made hives, by humans. Most such bees are honey bees in the genus *Apis*, but other honey-producing bees such as *Melipona* (or apiarist) keeps bees in order to collect their honey and other products that the hive produce ( including beeswax, propolis, flower pollen, bee pollen, and royal jelly ), to pollinate crops, or to produce bees for sale to other beekeepers. A location where bee colonies are kept is called an apiary or “bee yard”.

The word ‘apiculture’ comes from the latin word ‘apis’ meaning bee. So, apiculture or beekeeping is the care and management of honey bee for the production of honey and the wax. In this method of apiculture , bees are bred commercially in apiaries, an area where a lot of beehives can be placed. Apiaries can be set up in areas where there are sufficient bee pastures – usually areas that have flowering plants.



Pollinator bee

### **History Of Beekeeping:**

- Apiculture is thought to have been practiced as early as 13,000 BC.
- The medicinal importance of honey is mentioned in QUARAN in SURAH NAHIL in chapter 16 verse no 68 and 69.
- Use of honey has also been mentioned in religious scriptures like vedas, puranas, Ramayana and mahabharata.
- Primitive man used to rob bee colonies found in the cavities of hollow trees or on rocks and in traditional mud houses and this is still being followed by some tribes.
- There was no development in beekeeping until 16<sup>th</sup> century.
- Proper beekeeping started only when man started giving protection to colonies found in the nature.
- Idea to keep bees in log hives has been reported to come from the fallen trees which were nested by the cavity nesting bees.
- Development of modern beekeeping has its origin between 1500 and 1851 when many attempts were not successful because bees attached their combs together as well as to the walls of hive and combs required had to be cut for honey.
- This discovery was followed by subsequent innovation like comb foundation mill, honey extractor, smoker, etc. which helped in the development of modern beekeeping we see today.



Apiary - Bees



BEES - APIARY

## Uttarakhand

The Uttarakhand government is setting up the state's first Himalayan honey testing lab at Jeolikot in Nainital district to check the purity of harvested honey said officials from the horticulture department.

State apiarist (state beekeeping officer) MC Tiwari said the state government first quality control lab will be set up at Jeolikot as it has legacy of bee rearing.



Honey bee centre

Tiwari said that the honey bee centre was established at Jeolikot as early as 1938. He said quality control testing lab will help standardise the quality of honey produced, help in branding and attract more buyers to Uttarakhand's Himalayan honey.

“The lab will be set up at a cost of around Rs 50 lakh. It will help check antibodies, sugar, trace elements like lead and other foreign materials that make their way into the honey during production,” He said.

Tiwari said that the presence of antibiotics in honey is not good for humans. “When bees suffer from a disease, the beekeepers mix antibiotics in sugar solutions and feed them to the bees and the antibiotics finally make their way into the honey,” he said.



Honey Bee Centre



The sale of honey has a direct correlation with its quality. “People, who want to buy honey, don’t mind spending extra money to ensure that the honey is pure. If the honey is tested, it increases its commercial value and it can even be exported or send to other states.

In 2010, traces of lead were found in consignments of honey that were sent from India to European Union. This emerged as a major concern for the quality of honey produced and sold,” he said.

There are 5,566 beekeepers in Uttarakhand who produce over 1400 metric tonnes of honey annually. Uttarakhand has a rich diversity of flowering plants which are good sources nectar and pollen for bees.

According to experts, there is a need to adopt modern beekeeping practices by traditional beekeepers in the state, especially in areas like bee management, better extraction, honey storage and quality control.

The main honey extraction months are April (Chait), May (Baisakh), July-August (ashaad) and in some areas October (kartik). The honey extracted in April-May is considered to be the sweetest, while that extracted in July is less sweet.



Honey extraction

### Species of Honey bees:

#### 1. *Apis dorsata* (The rock- bee )

- This is the largest honeybee.
- Builds single large open comb on high branches of trees and rocks.
- Produces large quantity of honey , but this bee is difficult to domesticate.



*Apis dorsata* (The Rock- Bee)

#### 2. *Apis cerana indica* (The Indian bee )

- Medium – sized
- Hive consists of several parallel combs in cavities of tree trunks, earthen pots, etc.
- This bee is not so ferocious and can be domesticated.





Apis cerana indica (The Indian Bee)

### 3. Apis forea ( The little bee )

- Small – sized.
- Builds single small combs in bushes, hedges, etc.
- Honey yield is poor.



Apis forea (The Little Bee )

#### HONEY BEE SPECIES



#### 4. *Apis mellifera* ( The European bee )

- Somewhat look likes the Indian bee (*Apis indica* ).
- This has been introduced in many parts of the world including India.
- It is easily domesticated.



*Apis mellifera* ( The European Bee)

#### Products of Apiculture

Honeybees provide a wide range of benefits to humans from honey, other bee products, pollination of food crops and ecological services. Beekeeping is practiced around the world, can provide a valuable source of income to people in developing regions with relatively little investment.

The best known primary products of beekeeping are honey and wax, but pollen, propolis, royal jelly, venom, queens, bees and their larvae are also marketable primary bee products. Most of these products can be consumed as they are produced by the bees. There are additional uses where bee products are an ingredient of another product. Due to the quality and sometimes almost mystical reputation and characteristics of bee products, the addition to other products usually enhances the perceived value or quality of these secondary products. This can increase the profitability of many beekeeping operations.

#### The main Products of Apiculture:-

- Honey:** honey bees suck the nectar from flowers and store it in a stomach-like organ called a honey crop. When the bee returns to the colony, another bee takes the nectar and spreads it over the wax honey comb to help water evaporate. The second bee also adds an enzyme called invertase to help break down the sugar molecules. Once it becomes thick it is sealed in cell with a wax cap. Bees produce honey from nectar of plants through enzymatic activity, regurgitation, and water evaporation.



Honey

➤ **Uses:**

- **Food** : Honey is a nutritious food, rich in energy and vitamins.
- **Medicines**: It is used to prevent cold, cough and fever.

**Composition of Honey:**

<b>Levulose</b>	38.9%
<b>Dextrose</b>	21.28%
<b>Maltose &amp; other sugars</b>	8.81%
<b>Enzymes and pigments</b>	2.21%
<b>water</b>	17.20%

**Beeswax:** Beeswax has long been used as a basis of many cosmetics and pharmaceutical preparations, mainly because it is stable and inert. It thus has few pharmacological properties of its own.

Beeswax is secreted by the wax glands located on the underside of the last four abdominal segments (4<sup>th</sup> to 7<sup>th</sup>) of the worker bee.

➤ **Uses:**

- Making of candles.
- Used in creams, lotions, lipstick.
- Formation of comb foundation (wax foundation in apiaries)



Beeswax



Bees

**Royal Jelly:** Royal jelly is a protein rich substance the is fed to larvae. Moreis given to the queen larva, causing her togrow larger than the other bees. It is made from digested pollen and honey and contains sugars, fats, amino acids, vitamins.minerals and proteins.

Royal jelly is the protien rich secretion of nurse bees which is fed to all honey bee larvae for the first few days, and those destined to become queens throughout their development. It induces signigicant developmental changeas in these queens. Royal jelly is widely used as a food supplement, and whilst there is some evidence that royal jelly may have some cholesterol-lowering, anti-inflammatory, wound-healing, and antibiotic effects, these are unlikely to be achieved through oral ingestion. Much more research is needed.

The glandular secretions of young orker bees (4-10 days old), produced by the hypopharyngeal gland in the head.



Royal Jelly





Bottled jelly

- **Uses:** Used in treatment of diabetes, osteoporosis etc. it also aids in healing wounds and boosts immunity.

**Bee Venom:** Bee venom consists of many components, the most important being the protein mellitin, which has a powerful anti-inflammatory action. Bee venom therapy is claimed to have effects on arthritis, bursitis, tendinitis and multiple sclerosis, but there have been few controlled studies. There is little standardisation of the method of application, and a serious risk of allergic reaction. Much more research is needed.

Bee venom is a bitter colourless liquid, containing proteins, which causes local inflammation.

- **Uses:** Bee venom is given as a shot for rheumatoid arthritis, nerve pain (neuralgia), multiple sclerosis (MS), desensitizing the people allergic to bee sting.



## Bee Venom

Component of bee venom	% (bee venom)
Melittin	30-50
Phospholipase A	10-20
Apamin	3
Hyaluronidase	2
Mast cell degranulating peptide	2
Histamine	<1

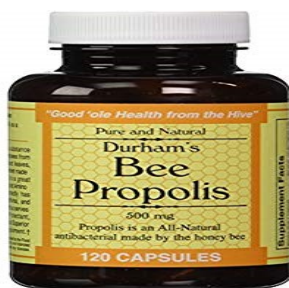
**Propolis:** Propolis, or bee glue, is a mixture of beeswax and resins collected from leaf bugs and twigs. It is used to line nest cavities and brood combs, seal cracks and reduce the size of the hive entrance. Propolis has antibacterial and antifungal proteins.

Propolis is a resinous mixture that honey bees collect from tree buds, sap flows, or other botanical sources.

Propolis, which consists of a range of plant resins collected by bees and used to seal holes in the hive, has been used for a variety of purposes. It is now known to have a diverse range of pharmacological properties, including anti-fungal, anti-tumour and some anti-viral properties. Its composition, however, is extremely variable, which has made standardisation difficult, and hindered its medicinal use. Much more research is needed.



Bee Propolis



### ➤ Uses:

- it is used by bees to seal unwanted spaces in hive.
- Used to treat cough and throat irritation.

### Production of Honey In Jyoli (Jeolikote)

2001-02	10
2002-03	10
2003-04	10
2004-05	10
2005-06	52
2006-07	51
2007-08	65
2008-09	65
2009-10	65
2010-11	65

#### Advantages of beekeeping:

- Beekeeping requires less time , money and infrastructure investments.
- Honey and beeswax can be produced from an area of little agriculture value.
- The honey bee does not compete for resoures with any other agricultural enterprise.
- Beekeeping has positive ecological consequences. Bees play an improtant role in the pollination of many flowering plans, thus increasing the yield of certain crops such sa sunflower and various fruits.
- Honey is delicious and highly nutritious food. By the traditional method of honey hunting many wild colonies of bees are destroyed. This can be prevented by raising bees in boxes and producing honey at home.
- Beekeeping can be initiated by individuals or groups.
- The market potential for honey and wax in high.

#### Weakness:

- People of Jyoli village do not have sufficient knowledge of apiculture. They make honey by beekeeping. They sell honey by going door to door and sometime they sell in market, tourist or city.
- They do not know the actual price of honey so they earn very less amount by selling.
- By not having sufficient knowledge of apiculture they are restricted in making only honey. If they will get complete knowledge of apiculture they can make other products too.
- For making honey they need fresh flowers that's why they take beekeeper at place where fresh flowers are located and over there they make honey.

## Findings

**Opportunity:** we made assumption that apiculture is a good opportunity at jyoli village and it is ,but due to some weakness it is not going in favour of jyoli village people.

**Transportation:** Transportation facilities has not been increased in that village either. We made the assumption that transportation would be increased in that village, but our assumption did not go well. People of jyoli village are migrating so we cannot say that our assumption of developing jyoli village goes well.

**Income:** In the village wher we went for research, there has not been incom increase. We made the assumption that income would be increased in that village, but our assumption did not go well.

**Market Facility :** Market facility has not been good.we made assumption that apiculture can grow business but due to some weakness and not having good market condition this assumption did not go well.

## Conclusion

Apiculture has a good opprtunity at jyoli village. We can grow our business and also we can develop jyoli village with the help of apiculture. But due to some weakness people of jyoli village are unaaable to give their 100 percent.

Employment can be generated from appiculture and increase the standard of living in that villlage. Jyoli village has a very good scope ofapiculture. Jyoli village is dependent on apiculture.

Not having sufficient knowledge of apiculture and not having proper technology people of jyoli villages are unable to produce product other than honey.If we can provide them advance technology and proper education about apiculture then they can producde products other tha honey, this will help in development of jyoli village as well as growing business of jyoli village.

Because of few weakness like transport facility , market facility, etc, product made by apiculture are not reaching in other places than jyoli village and because of it they are not generating good amount of income.

## References

- <https://en.Wikipedia>
- <https://www.slideshare.net>
- [www.Yourarticletibeary.com](http://www.Yourarticletibeary.com)
- [www.encyclopediaia.com](http://www.encyclopediaia.com)
- <https://byjus.com>
- <https://apicultural.wordpress.com>
- [www.fao.org](http://www.fao.org)
- [www.worldbeeday.ory](http://www.worldbeeday.ory)
- <https://www.india.com>

- <https://www.hindustantimes.com>
- <https://ruralmarking.in>
- [www.learupick.in](http://www.learupick.in)
- [www.homeomagnet.com](http://www.homeomagnet.com)
- [www.india.com](http://www.india.com)
- [www.encyclopedia.com](http://www.encyclopedia.com)
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## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

1	<b>Name of Village</b>	Jyoli
2	<b>Address of the Village</b>	Jyoli village , Jeolikote, ( Nainital)
3	<b>Name of Sarpanch / Contact Person</b>	Mr. Shekhar Chandara Bhatt
4	<b>Date of Visit</b>	11/02/2020

Demographics of the Village		
1	<b>Number of Men</b>	193
2	<b>Number of Women</b>	210
3	<b>Number of Children</b>	20
4	<b>Total Population</b>	403
5	<b>Number of Anganwadis</b>	1
6	<b>Number of Schools</b>	1
7	<b>Number of Primary Health Centres</b>	1

VILLAGE SCHEDULE				
S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
2	Does anyone go out and defecate in the open in village?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
3	Are these faeces from the toilet being disposed in the river?		No	If, Yes , Then what <b>Action</b> has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
5	Are there institutional toilets at Schools, Anganwadis and Public places?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
6	Is waste from restaurants, public places dumped into the river?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
7	Is there a prevalence Of visitor/tourist OD?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
9	Are twin-pit toilets common in the Village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
10	Are septic tank toilets (non-	Yes		If, No, Then what <b>Action</b> has

	porous) common In your village?			been taken by the Village Authorities
11	Is there a P-Trap in all toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in /for the toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
13	Are all toilets “fly-proof” – or Hygienic?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
14	Is the human waste disposed of in the Drain,  j) Nallahs,  k) Open pit;  l) Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
15	Is fecal sludge directly discharged to waterbodies ?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
16	Is there a practice to wash the hands with soap after using the toilet?		No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
17	Is any visible feces found in	Yes		If, Yes , Then what <b>Action</b> has been taken by the Village

	the environment?			Authorities
18	Is there any odour of urine or faeces in the location?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
20	Is child faeces disposed of in open area?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises ?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
22	Is water available in /for the toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
23	Is toilet “fly-proof” – or Hygienic?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
24	Is the human waste disposed of in the Drain, <b>ee)</b> Nallahs, <b>ff)</b> Open pit; <b>gg)</b> Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?



25	Are Anganwadi cleaners maintaining and cleaning public toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>School Schedule</b>				
26	Are there separate functional toilets for boys and girls in the school?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
27	Is there water available for use in the school toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
28	Is the human waste disposed of in the Drain, <b>hh)</b> Nallahs, <b>ii)</b> Open pit; <b>jj)</b> Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
29	Is public toilet accessible to all (including Divyangs/physically challenged)	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Public Toilets Schedule</b>				
30	Is there a Public Toilet in the village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
31	Are there separate sections for Men and Women?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
32	Is the human waste disposed of in the Drain, <b>kk)</b> Nallahs,		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities

	<p>ll) Open pit;</p> <p>mm) Ponds or river or streams or any water body etc.</p>			Have you taken GPS enabled photographs?
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
33	Is any sustainable water supply process/ method adopted for sustainability of ODF?	<p>Yes</p> <p>The jyoli village people take water from sroat and gadhere. And to clean this water, they add bleaching powder to it, which kills the bacteria that are in water.)</p>		<p>If ,Yes Describe the process or method</p> <p>If, No, Then what Action has been taken by the Village Authorities</p>
34	Is any sustainable process/method adopted for fecal sludge management?	<p>Yes</p> <p>(the people of jyoli village cover any sludge or fecal urine by making p pit inside it. After 5 and 6 they open it. And in the pit that the people there put mud and urine, it turns into</p>		<p>If ,Yes Describe the process or method</p> <p>If, No, Then what Action has been taken by the Village Authorities</p>

		<p>manure and the people there put that manure and the people there put that manure and the people there put that manure in their field. So that vegetables and fruits flower can be groen well.</p>		
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## Annexure 2

### Village Visit (Survey on Sanitation Management and ODF)



Every house has own toilets

### Annexure 3

#### Village Visit (General)



House hold



Hill station



Roadway

**The Study of Rural Immersion  
Programme in Pali Village**

**Ghanshyam Pande  
Kumaun University, Nainital**

## DECLARATION

I hereby declare that the project work entitled “Ragi Production” submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Mr. K.K.Pande. The results embodied in this village report have not been submitted to any other Organization or University.

Date: 22/2/2020

Ghanshyam Pande

Place: Bhimtal

( Name of Intern)

## ACKNOWLEDGEMENT

The success and the final outcome of this MGNCRE internship programme required a lot of guidance and help from people around me and I am extremely privileged to have got this all along the completion of MGNCRE report.

I respect and **thank DR. WG PRASANNA KUMAR, Chairman, MGNCRE**, Hyderabad for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance.

I respect and **thank DR. DEBENDRA NATH DASH-ASSISTANT DIRECTOR, MGNCRE**, Hyderabad for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance. I respect and **thank DR. VIJAYA KUMARI N-SENIOR FACULTY, MGNCRE**, Hyderabad for providing me a golden opportunity.

I would like to express my special thanks of gratitude to my teacher Mr K.K.Pande as well as our principal Dr Atul Joshi who gave me the golden opportunity to do this wonderful project which also helped me in doing a lot of Research and i came to know about so many aspects that are involved in rural field. I would also like to thank my batch mates who helped in all possible manner in completion of this project report. Special thanks to the Respected Pradhan, Block Development Officer and local people of the area without them this report would not have been possible

**GHANSHYAM PANDE**

KUMAUN UNIVERSITY, NAINITAL (UTTARAKHAND)

<b>S No</b>	<b>Contents</b>
<b>1.</b>	Introduction to the Village
<b>2.</b>	Identification of Problem
<b>3.</b>	Review of literature
<b>4.</b>	Objectives of the Study
<b>5.</b>	Actions Planned to address the problem
<b>6.</b>	Implementation of Action research Steps
<b>7.</b>	Process of implementation of the study
<b>8.</b>	Data Collection and Analysis
<b>9.</b>	Findings
<b>10.</b>	Conclusion
<b>11.</b>	References
<b>12.</b>	Annexure (Survey questionnaire/ photos/ any other supporting document)



## **ABSTRACT**

The present study is focused on the problems of the village and the challenges faced by the villages with respect to agriculture, youth, school and anganawadi and SHG. The detailed study was conducted to know the facility of school and Anganawadi. The primary data was collected from villages through observatory method and schedules and the collected data was analysed through descriptive statistics. The findings of the study showed that the major problems were with respect to agriculture, school, anganawadi along with these the next major problem faced by the villages was health centre. From the outcomes of the study it is recommended that villages need to be given proper counseling with respect to health, agriculture and education. The attention of the villagers can be oriented towards solving the problems.

**Keywords: Village, School, Anganwadi, SHG, Agriculture**



View from the Village

## Name of the Village and Brief Background of the Village

### Introduction to the Village

Village Name: Pali

Block Name: Bhikiyasain

District: Almora

State: Uttarakhand

Language: Hindi

Elevation/ Altitude: 345 meters, above sea level

Telephone Code: 05966

Assembly MLA: Karan Singh Mahar

Parliament MP: Ajay Tamta

Gram Pradhan: Daya Kishan Arya

Pali is a village in Bhikiyasain Block in Almora district of Uttarakhand state, India. It is located 43 km towards west from district head quarters Almora. 163km from state capital Dehradun.

Pali is surrounded by Sult Block towards west, Dwarahat Block towards east, Tarikhet Block towards east and Chaukhutiya Block towards north. Almora, Ramnagar, Nainital and Haldwani are the nearby cities to the village.

Local Language is hindi. Total population is 311 and number of houses are 80. Female population is 58.5%. Village literacy rate is 69.1% and the Female Literacy rate is 33.4%.

INC, BJP are the major political parties in this area.

Nearest statutory town is Ranikhet in 42km distance. Pali total area is 85.07 hectares, Forest area is 10.3 hectares, non-Agricultural area is 3.54 hectares.

**EDUCATION:**

Private Pre-Primary and Government Primary Schools are available in the village. Nearest government Engineering college is in Dwarahat. Nearest Private Disabled School, Private Medical College and Private MBA college are in Haldwani. Nearest Govt Pre Primary School and Government Secondary School are in Pant Sthali.

**HEALTH:** One Asha worker in practice.

**AGRICULTURE:** Wheat, Ragi and Padydy are agriculture commodities grown in this village.

**COMMUNICATION:** Landline is available. Mobile Coverage is available. Nearest Internet Centre is less than 5km. Nearest Private Courier Facility is less than 5km. distance.

**OTHER AMENITIES:** the village has power with 12 hour power supply in summer and 18 hour power supply in winter. Anganwadi Centre, Daily Newspaper and Polling station are the other amenities in the village.



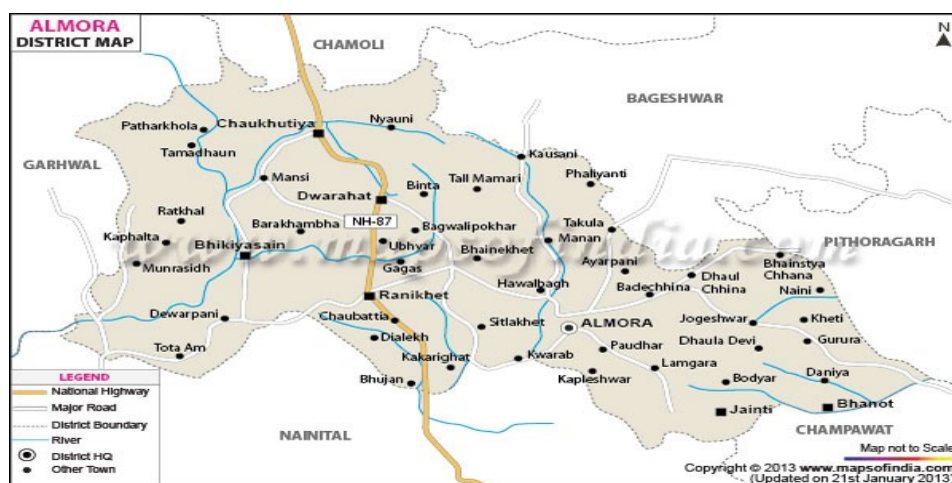
Schools Of Pali



Entrance To School



Toilets In School



Almora District Map

### Social Map

<b>Demographic Information</b>	<b>Total population of the village</b>			1023
<b>No. of Households</b>	Total	BPL	APL	
	80	85%	15%	
<b>Number of Men</b>	485			
<b>Number of Women</b>	547			
<b>Number of Children (0-6)</b>	Total	Male	Female	
	181	89	92	
<b>Total Population</b>	1023			
<b>Number of Anganawadi</b>	4			
<b>Number of Schools</b>	5			
<b>Number of Primary Health Centres</b>	0			
<b>Literacy</b>	Total	Male	Female	
	68%	74%	26%	

## Village Challenges and Responses with respect to Farmers

Like other villages agriculture is major source of income or we can say is the only source of income for the rural people. The entire population is directly or indirectly engaged in agriculture for their livelihood and survival. Land of the areas is very fertile and very good for cultivation when talked to rural people they told that almost all the major vegetables, pulses can be produced here and land here is so fertile that if weather favours on 1 nali land productivity comes which is equal to that of 10 nali. which clearly shows the fertility of the land. There is a major source of water from the river (Panar river). People use the water for irrigation and drinking purpose.

The village is known for Ragi cultivation. People here produce Ragi for themselves only some of them do marketing of them. Ragi is an extremely nutritious millet, that resembles mustard seeds in appearance. Finger millet is especially valuable as it contains the amino acid methionine, which is lacking in the diets of the poor who live on starchy staples such as cassava, plantain, polished rice or maize meal.



Ragi Grains



(Ragi) Madwa Ki Roti



## Identification Of The Problem

- 1) Survey of the living conditions of rural people.
- 2) Identifying the various economic indicators of the village Pali.
- 3) Finding out the village educational, banking, health infrastructure.
- 4) To find prospects of Ragi as an entrepreneurial venture.

## Review of the Literature

Ragi popularly known as Madua or Finger millet is grown in all the cropping seasons in different parts of the country. More than 90% of the area is under rain fed conditions, grown during Kharif season. It is a rich source of calcium, iron, protein, fiber and other minerals. The cereal has low fat content and contains mainly unsaturated fat. It is easy to digest and does not contain gluten.

It is considered one of the most nutritious cereals which helps in keeping weight in control, maintain bone health, lowering blood cholesterol, control anaemia and for diabetics because of lower glycemic responses i.e. lower ability to increase blood sugar level.

Ragi is rich in amino acids which are vital in normal functioning of body and are essential for repairing body tissues. If consumed regularly, it could help in keeping malnutrition, degenerative diseases and premature aging at bay. Green ragi is recommended for conditions of blood pressure, liver disorder, asthma, lactating mother and heart diseases. Its high intake could increase quality of oxalic acid in the body. Therefore it is not advised to patients having kidney stones.

In selected states of India, Karnataka is the one of the leading states in area under ragi; it is about 3611.9 (57.53 per cent) thousand hectares during 2001-05, followed by Uttarakhand 600.7 (9.57 per cent) thousand hectares, Maharashtra 588.7 (9.38 per cent) thousand hectares, Tamil Nadu 483.5 (7.70 per cent) thousand hectares, Odisha 301.9 (4.81 per cent) thousand hectares, Andhra Pradesh 299.7 (4.77 per cent) thousand hectares. The lowest is recorded by Puducherry 0.4 thousand hectares with 0.01 per cent in the same period. The percentage share of ragi production in total production, it is recorded the highest 63.23 per cent (5112 thousand tonnes) in Karnataka, followed by Tamil Nadu 800.4 thousand tonnes with 8.91 per cent, Uttarakhand 694 thousand tonnes with 7.73 per cent, Maharashtra 622.6 thousand tonnes with 6.93 per cent, and Andhra Pradesh 368.8 thousand tonnes with 4.11 per cent. The lowest share is recorded by Madhya Pradesh 0.5 thousand tonnes at 0.006 per cent. In productivity, Puducherry is the leading state in India, is highest 11000 kg/ha with 14.45 per cent, followed by Tamil Nadu 6505 kg/ha with 8.55 per cent, Karnataka 5614 kg/ha with 7.38 per cent, Dadra and Nagar Haveli 5309 kg/ ha with 6.98 per cent, Andhra Pradesh 4913 kg/ha with 6.46 per cent, Himachal Pradesh 4758 kg/ ha with 6.25 per cent, West Bengal 4686 kg/ha with 6.16 per cent. Lower Productivity of Ragi is about 933 kg/ ha with 1.23 per cent Madhya Pradesh during 2001- 02 to 2004-05, production and productivity of ragi crop in India during 2005-06 to 2009-10. Among the selected states, Karnataka is the one of the leading states in area under ragi, it is about 3983 (59.05 per cent) thousand hectares during 2005-06 to 2009-10,

followed by Uttarakhand 671 (9.95 per cent) thousand hectares, Maharashtra 646 (9.58 per cent) thousand hectares, Tamil Nadu 461.2 (6.84 per cent) thousand hectares, Odisha 322.8 (4.79 per cent) thousand hectares, Andhra Pradesh 275 (4.08 per cent) thousand hectares. As for Uttarakhand as a state, the best suited district for the production purpose is Almora from Kumaon Division. Thereby, laying more emphasis on the potential of ragi commercialization in the Pali village. Here marginal farmers grow ragi but just for their notional transactions only upon receiving proper training and knowledge they can get the real importance of it, and can use it for the purpose of commercialization and as a source of livelihood other than normal farming. If not possible to have the plunge individually, they can be made realize the strength of the combined efforts and cooperatives power.



Ex-Lady Pradhan Of Pali

### Objectives of The Study

1. To understand rural environment.
2. To study the scope of Madua as entrepreneurial venture.
3. To look for aspects of improving agricultural productivity.
4. To look for solutions of improving health care facilities.
5. To look for modern solutions in agriculture field to increase productivity.
6. To do something for the betterment.

### Actions Planned To Address The Problem

- 1) To check for the current production level of the ragi in the village.
- 2) To look onto the current marketing ways of the farmers for the yield.
- 3) Then to lay emphasis on what is the real reason behind the harvest going waste.
- 4) Attention to be laid towards the marketing channels of the harvest and how it could be improved.

5) Making the farmers aware about the by products that can be made and associated subsidies that they can benefit from.



Panchayat members

### Implementation Of Action Research Steps

The steps can be taken and addressed in various ways

- 1) Through village panchayat level
- 2) Through NGOs and SHGs
- 3) Through awareness programmes

NUTRIENTS	AMOUNT (100 g)
TOTAL PHENOL	102 mg
CARBOHYDRATES	72.6 g
TOTAL DIETARY FIBRE	19.1 g
COPPER	0.47 g
CALCIUM	344 mg
IRON	3.9 mg
MAGNESIUM	137 mg
PHOSPHOROUS	283 mg
POTASSIUM	408 mg
SODIUM	11 mg
ZINC	2.3 mg
MANGANESE	5.49 mg
THIAMINE	0.42 mg
RIBOFLAVIN	0.19 mg
NIACIN	1.1 mg

Nutritional Status



Nutritional Value Of Ragi



## Process of Implementation Of Action Research Steps

The steps in the process of implementation is

- 1) Seed selection
- 2) Nursery Bed preparation
- 3) Land preparation
- 4) Transplantation.
- 5) Weeding and Top dressing
- 6) Pest and disease

## Data Collection And Analysis

Horticulture department is supporting the farmers in getting the best fertilizer for the crop. Awareness campaigns are being held by various vendors for the farmers. Samples are also being provided. Government is providing fertilizer and good quality seed at

customized rate to encourage cultivation of Finger millets. With Commercialization and globalizations farmers are also enquiring about the export of millet to increase its market and earn good money. Efforts are being made at local levels to incorporate best promotional activities and increase tie ups so that the millet reaches to maximum people. From villages to nearby towns and therefore to big cities is being promoted tremendously.

For in the village where our study is aimed at the temperature required is appropriate for cultivation of the ragi, there are lot of small marginal farmers who can join in hands to take the form of cooperatives, by their collective efforts significant changes can be made in the standard of farmers out there. It is a cereal that is grown throughout the year and therefore providing harvest all way around to the farmers.



Step-Farming in Village

## Findings

The study conducted suggests that, the village temperature and other demographic conditions can promote ragi cultivation as a income generator but also due to this much abundance of all the requisites farmers are failing in their efforts drastically. Firstly they are apprehensive and those who even take up this subject for the action they fail to have complete knowledge regarding the by products or the process involved or other aspects and thereby causing failure. There needs to be proper channel of distribution for the harvest and farmers are to be made aware about the cooperatives initiative they can take and also about the by products which can be commercialized by them to have an additional income.

Nearby tourist places encounter tourist from every corner of the world all around the year tie ups are to be made with the hotels and resorts so as to provide the tourists with real taste of it and its authenticity.



Ragi Momos

## Conclusion

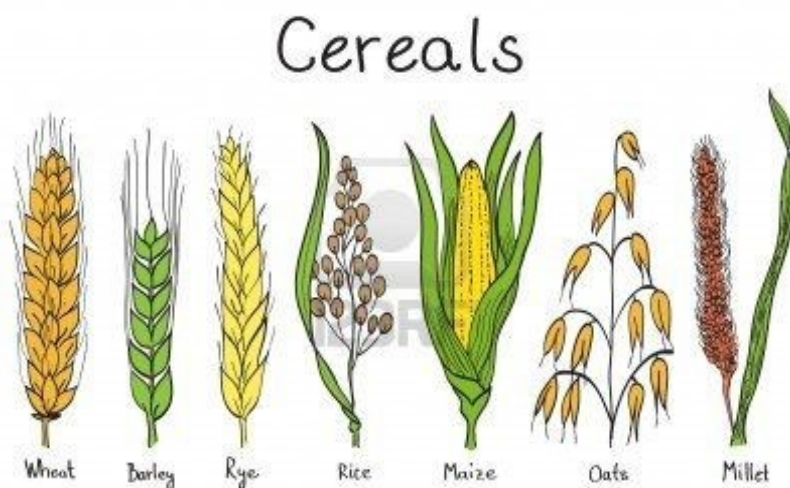
With the guidance of the Gram Pradhan and the NGO's the basic amenities are being improved. The efforts regarding the ragi production can change the image of the village completely and can also somewhere combat the problem of migration, the thing that is needed is proper knowledge and guidance to the farmers. It is through our collective effort that the table can be turned and the true wealth of the country will be defined by the facilities the rural people enjoy.



Ragi Crop

## References

- Gram Pradhan
- Bipin Chandra Bhatt (farmer)
- Economic Survey (2015-16), Economic Division, Department of Economic Affairs, Ministry of Finance, Government of India.
- <http://vegweightlossdiets.com/good-diet/ragi>
- <http://www.newhealthadvisor.com/finnger-millet-health-benefits>



## Annexures

### Annexure 1

#### Survey On Sanitation Management And Odf

#### Village Visit Report

1	Name of Village	Pali
2	Address of the Village	Pali , Bhanoli, Almora-053719
3	Name of Sarpanch / Contact Person	Daya Kishan Arya
4	Date of Visit	3/01/2020

#### Demographics of the Village

1	Number of Men	485
2	Number of Women	547
3	Number of Children	(0-6) 181
4	Total Population	1032
5	Number of Anganwadis	4
6	Number of Schools	5
7	Number of Primary Health Centres	N/A

Village Schedule				
S. No	Observations	Yes	No	Action By Village Authorities
1	Do all households have a toilet?	Yes		If, No, Then what Action has been taken by the Village Authorities
2	Does anyone go out and defecate in the open in village?		No	If, Yes , Then what Action has been taken by the Village Authorities
3	Are these faeces from the toilet being disposed in the river?		No	If, Yes , Then what Action has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?		No	If, Yes , Then what Action has been taken by the Village Authorities
5	Are there institutional toilets at Schools, Anganwadis and Public places?	Yes		If, No, Then what Action has been taken by the Village Authorities
6	Is waste from restaurants, public places dumped into the		No	If, Yes , Then what Action has been taken by the Village

	river?			Authorities
7	Is there a prevalence Of visitor/tourist OD?	Yes, because of the Jageshw ar Temple. No action has been taken yet		If, Yes , Then what Action has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?		No, no action has been taken yet	If, No, Then what Action has been taken by the Village Authorities
9	Are twin-pit toilets common in the Village?		No, no action has been taken yet	If, No, Then what Action has been taken by the Village Authorities
10	Are septic tank toilets (non- porous) common In your village?		No	If, No, Then what Action has been taken by the Village Authorities
11	Is there a P-Trap in all toilets?		No	If, No, Then what Action has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in /for the toilet?	Yes		If, No, Then what Action has been taken by the Village Authorities
13	Are all toilets “fly-proof” – or	Yes		If, No, Then what Action has been taken by the Village

	Hygienic?			Authorities
14	Is the human waste disposed of in the Drain,  Nallahs,  Openpit;  Ponds or river or streams or any water bodyetc.		No	If, Yes , Then what Action has been taken by the Village Authorities
15	Is fecal sludge directly discharged to waterbodies ?		No	If, Yes , Then what Action has been taken by the Village Authorities
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed			If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
16	Is there a practice to wash the hands with soap after using the toilet?	Yes		If, No, Then what Action has been taken by the Village Authorities
17	Is any visible feces found in the environment?		No	If, Yes , Then what Action has been taken by the Village Authorities
18	Is there any odour of urine or faeces in the location?		No	If, Yes , Then what Action has been taken by the Village Authorities
19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		No	If, Yes , Then what Action has been taken by the Village Authorities

20	Is child faeces disposed of in open area?		No	If, Yes , Then what Action has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises ?		No	If, No, Then what Action has been taken by the Village Authorities
22	Is water available in /for the toilet?	Yes		If, No, Then what Action has been taken by the Village Authorities
23	Is toilet “fly-proof” – or Hygienic?		No	If, No, Then what Action has been taken by the Village Authorities
24	Is the human waste disposed of in the Drain, Nallahs, Openpit; Ponds or river or streams or any water body etc.		No	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
25	Are Anganwadi cleaners maintaining and cleaning public toilets?		No	If, No, Then what Action has been taken by the Village Authorities
<b>School Schedule</b>				
26	Are there separate functional toilets for boys and girls in the school?		No	If, No, Then what Action has been taken by the Village Authorities
27	Is there water available for use in the school toilets?	Yes		If, No, Then what Action has been taken by the Village Authorities
28	Is the human waste disposed of in the Drain,		No	If, Yes , Then what Action has been taken by the Village

	Nallahs, Openpit; Ponds or river or streams or any water bodyetc.			Authorities  Have you taken GPS enabled photographs?
29	Is public toilet accessible to all (including Divyangs/physically challenged)	Yes		If, No, Then what Action has been taken by the Village Authorities
<b>Public Toilets Schedule</b>				
30	Is there a Public Toilet in the village?		No	If, No, Then what Action has been taken by the Village Authorities
31	Are there separate sections for Men and Women?		No	If, No, Then what Action has been taken by the Village Authorities
32	Is the human waste disposed of in the Drain,  Nallahs,  Openpit;  Ponds or river or streams or any water bodyetc.		No	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
33	Is any sustainable water supply process/ method adopted for sustainability of ODF?	Yes, Rain water harvesting		If ,Yes Describe the process or method  If, No, Then what Action has been taken by the Village Authorities



34	Is any sustainable process/method adopted for fecal sludge management?		No , no action has been taken yet	If ,Yes Describe the process or method  If, No, Then what Action has been taken by the Village Authorities
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## Annexure 2

### Village Visit



Ghost village of Pali



Scenic beauty of the village

**Rural Immersion and Engagement Project  
in “Mushroom Cultivation Making Money”  
in the Village – Pandey Gaon**

**Harshita Rawat  
Kumaun University, Nainital**

## DECLARATION

I hereby declare that the project work entitled “Mushroom Cultivation: Making money(title of project)”submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Mr. Vinod Joshi. The results embodied in this village report have not been submitted to any other Organization or University.

Date: 22/2/2020

Harshita Rawat

Place: Bhimtal

( Name of Intern)

## **ACKNOWLEDGEMENT**

The success and the final outcome of this MGNCRE internship programme required a lot of guidance and help from people around me and I am extremely privileged to have got this all along the completion of MGNCRE report. I would like to express my deepest appreciation to Dr. W. G. Prasanna Kumar, Chairman, Mahatma Gandhi National Council of Rural Education (MGNCRE), Government of India, Hyderabad for the valuable guidance and encouragement that he extended throughout the fieldwork. His experience as a social worker and his directions helped me a lot in completing the study and report

I would like to extend my sincere gratitude to Dr. Vijaya Kumari N, Senior faculty Mahatma Gandhi National Council of Rural Education (MGNCRE) for the guidance and persistent help she extended during the internship days. I would like to thank all the members and staff of Mahatma Gandhi National Council of Rural Education (MGNCRE

I sincerely thank Mr. Vinod Joshi and Mr. K.K.Pandey for their guidance and encouragement in carrying out this project work. I also wish to express my gratitude to the officials and other staff members of Pandey Gaon who rendered their help during the period of my project work.

I also thank the Mahatma Gandhi National Council of Rural Education, Hyderabad to provide me and my fellow mates for this fortunate chance to express the knowledge and all the hard work we have done to complete the project.

**Harshita Rawat**

**KUMAUN UNIVERSITY, NAINITAL**

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## Social Map

### Demographic Information

<b>Total population of the village</b>	1423		
<b>No. of Households</b>	Total	BPL	APL
	281	57%	43%
<b>Number of Men</b>	749		
<b>Number of Women</b>	674		
<b>Number of Children (0-6)</b>	Total	Male	Female
	181		
<b>Total Population</b>	1423		
<b>Number of Anganawadi</b>	0		
<b>Number of Schools</b>	4		
<b>Number of Primary Health Centres</b>	0		
<b>Literacy</b>	Total	Male	Female
	74.4	57%	33%
<b>Sex Ratio</b>			

## Name of the Village and Brief Background of the Village

### Introduction to the Village:

**Village:** Pandey Gaon

**District:** Nainital

**Tehsil:** Nainital

**Block:** Bhimtal

**Geographical:** Latitude (29.38), Longitude (79.46)

**Pin code:** 263136

**Elevation/ Altitude:** 520 meters, above sea level

**Assembly MLA:** Sanjiv Arya

**Parliament MP:** Ajay Bhatt



Location of Pandey gaon

Pandey Gaon is village in Bhimtal Block in Nainital District of Uttarakhand State, India. It is located 22km towards east from District head quarters Nainital and 200 km from State capital Dehradun. Pandey Gaon is surrounded by Nainital Block towards West, Dhari Block towards East, Haldwani Block towards South, Ramgarh Block towards North. Nainital, Haldwani, Almora, Nagla are the near by cities to Pandey Gaon.

There is subtropical highland climate the village climate is influenced by the elevation. The climate of Pandey Gaon is a bit dory in winter. Only this is the place in nearby area of Bhimtal Block that actually experiences snowfall.

Paragliding is the currently going on very frequent adventure sports that is making the village and the villagers to act as a source for raising life standards and identity as well collectively. Sky Bird Adventures is one the leading Paragliding and Adventure Sport Company based in Bhimtal, Pandey Gaon. It provides paragliding tandem flights that are suited to satisfy thrill seekers and even the adventure enthusiast who want to experience the thrill. Pandey Gaon Pin code is 263136, and postal head office is Bhimtal. Local language is hindi. Its total population is 1423 and number of houses are 281. Female population is 47.4%. Village literacy rate is 74.4% and the Female Literacy rate is 33.0%.

BJP, UKKD, INC are the major political parties in this area. Kathgodam Railway Station is the nearby Railway Station to the village.

Karkotak temple perched atop the highest mountain in the Bhimtal Block is an ancient temple devoted to Naga Devata. A fair is held there on auspicious occasion of Nag Panchmi is the source of devotees from local as well as from far away places. It also serves as mountain climb full of thrill and adventure attracting tourists from all over. The view from atop is incomparable and majestic as offers a 360 degree view of all the places around. Currently the concerned authorities have also passed onto a bill for its beautifying of all the path and putting on railing around the temple so as to get it protected up to some extend.

**Location and Administration:** Pandey Gaon village Gram Panchayat name is Pandey Gaon. It is 25km distance from District Headquarter Nainital. Nearest Statutory Town is Bhimtal in 1 km distance. The total area is 30.14 hectares and total irrigated area is 4.37 hectares.

**Education:** Government Primary and Government Middle School are present in this village. 3 Primary Schools are there and 1 Middle School in total.

**Health:** No Public Health Centre are there and the nearest one is in Bhimtal. The village has 1 MBBS Doctor who is in practice and 3 ASHA workers and 1 nurse officially posted by the government in the village.

**Agriculture:** Maize, barley and ginger are agriculture commodities grown in this village. 22 hours agricultural power supply in summer and 20 hours agricultural power supply in winter is available in this village. Total irrigated area in this village is 4.37 hectares from canals 4.37 hectares is the source of irrigation.

**Drinking Water and Sanitation:** Untreated tap water is available all round the year. Hand Pump is the other source of drinking water.

**Communication:** Sub-Post office is available in this village. Landline and mobile coverage is available. Nearest internet centre is less than 5km. Nearest private courier facility is at less than 5km.

**Transportation:** Public Bus Service is available in the village. Whole of village is interconnected with cc roads under act of MGNREGA. Pucca road, Kuccha road, Macadam road and Foot road are other transportation within the village.

**Other amenities:** The village has a power supply of 22 hours in summers and 20 hours in winters. Birth and Death Registration Office, Gas Godam, Polling Station and ASHA are other amenities of the village.

### Village Challenges and Problems

Generally the villages suffer from various problem like sanitation, transportation, communication, education, basic amenities and various other related to social evils prevailing as our Indian caste system is classic example of closed stratification model and thereby is the main cause of disparities in the villages.

Advancement of time modernization and by increased literacy rate has somewhat helped to overcome these evils up to significant extend but the rate of unemployment specially in villages is the other biggest issue that has to be taken care of.

Our country is the country of villages and mostly people of the villages are involved in agricultural activities but still they are below poverty line. Then now there are 2 approaches to this problem.



Firstly, we can provide people involved in agriculture with other options to earn their livelihood as agriculture is main source of livelihood, this for study here can be Mushroom Cultivation. Secondly, if people want to practice agriculture only then there has to be a systematic and direct approach for carrying on agriculture practices so as to increase their productivity and to improve their efficiency.

So basically here we want to have not laid our emphasis on the problem but to lay attention on the solutions of the problems so as to eradicate these problems from roots only.

The village is rich in plantations and has a huge scope and growth rates of medicinal plants that could be exploited for the benefit of the mankind and can be used for the purpose of commercialization.

The climate in village is very conducive to their growth. The mushroom industry in the state has witnessed a windfall in production in the last four years with its output almost doubling in the time span. The cultivation of mushroom is an enterprise with less investment and high returns and in the village is full of labor that are an essential element of the process and there is no requirement for highly skilled labor and women that are engaged in the agricultural activity can play a vital role in the process. Apart from being a profitable venture, mushrooms are very rich in digestible proteins.

## Review of Literature

Mushrooms are the fleshy, spore-bearing fruiting body of a fungus, typically produced above ground on soil or on its food source. They contain numerous spores, functionally similar to seeds of the higher plants for propagation of fungi. The economic importance of mushroom lies primarily in their use as food for human consumption. The exotic flavor, taste and fleshiness of mushroom have made it an important delicacy in human diet. Mushroom is considered to be a complete, healthy food and suitable for all age groups. Though, the nutritional value is determined by the type, stage of development and other environmental conditions, mushrooms are rich in proteins, dietary fiber, vitamins and minerals. They have insignificant lipid level and high proportion of polyunsaturated fatty acids resulting in low calorific value. The protein content, though varies greatly in different mushrooms, is usually high. Mushrooms are an excellent source of vitamins especially C and B (Folic acid, Riboflavin, Niacin and Thiamine) and minerals like potassium, sodium and phosphorus. It also contains other essential minerals like Cu, Zn and Mg in traces. 2.3. Mushrooms are also known to have medicinal values as these have been shown to promote immune function, boost health, lower risk of cancer inhibiting tumour growth and support body's detoxification mechanism. Fresh mushrooms have very limited life hence processing is recommended to enhance the shelf life. Mushroom, thus has great potential for the production as quality food. 2.4. Considering the potential market opportunity of such units, the present detail project report has been developed. The main objective of such initiative is to productively utilize the abundantly available resources of the local area and to enable uninterrupted supply of the products to market throughout the year

Mushroom growing is extremely simple and anybody can do it. There are three types commonly grown by farmers, oyster, button and under construction. Mushrooms can be grown throughout the year when the temperature is not above 40 degree you can grow oysters and when temperature is on higher side you can grow milk type.

India produces about 600 million tonnes of agricultural waste per annum and a major part of it is left out to decompose naturally or burnt in situ. This can effectively be utilized to produce highly nutritive food such as mushrooms and spent mushroom substrate can be converted into organic manure/ vermi-compost. Mushrooms are grown seasonally as well as in state-of-art environment controlled cropping rooms all the year round in the commercial units. Mushroom growing is a highly labour-oriented venture and labour availability is no constraint in the country and two factors, that is, availabilities of raw materials and labour make mushroom growing economically profitable in India. Moreover, scope for intense diversification by cultivation of other edible mushrooms like oyster, shiitake, milky and medicinal mushrooms are additional opportunities for Indian growers. In spite of predominantly tropical and subtropical climates in India, it is the temperate button mushroom that has ruled and is still dominant in the mushroom scenario of the country. Taking a clue from China" it is the tropical and sub-tropical mushrooms, which should be promoted in a big way, both with the producers and consumers. A beginning has already been made with the popularization of the oyster and milky mushrooms in South India. People do develop the taste as per the available commodity it is a universal phenomenon. But mushroom scenario in India is not that rosy.

The cultivation of white button mushroom - *Agaricus bisporus* has come a long way of evolution and advancement in technology. Still all stages of evolution of cultivation technology can be seen. There are farmers still growing mushroom on compost prepared by long method and there are commercial units that have shifted to bunkers or almost indoor composting technology. In younger mushrooms the pileus and stipe are connected by a membranous structure known as veil or velum. It is broken at maturity. In younger stages, the fruiting body of *Agaricus* resembles a button. Hence this stage is referred as Button stage. Usually its basidiocarps are harvested at this button stage. The other fleshy fungus of Ascomycotina known as *Morchella* produces spores inside a sac like structure. I

In spite of some articles that say mushrooms can be grown in any dark hole or building, successful commercial mushroom growing requires special houses equipped with ventilation systems. While mushrooms are usually grown in the absence of light, darkness is not a requirement. Mushrooms have been grown in unused coal and limestone mines, old breweries, basements of apartment houses, natural and man-made caves, rhubarb sheds, and many other unusual structures. Mushrooms were reportedly grown in an old dairy barn, which was so damp that cows living there had died of pneumonia.

Mushroom cultivators in Uttarakhand have literally had a golden harvest in Uttarakhand. The mushroom industry in the state has witnessed a windfall in production in the last four years with its output almost doubling in this time span. The state today produces 10,000 tonnes of mushrooms annually and also registers cultivation of all the three commercially viable mushrooms like the button mushroom, dhingri mushroom and milky mushroom.

Highest grown is the button mushroom (80%) followed by dhingri (12-13%) and milky (7-8%). The production of mushroom is higher in the Garhwal region (7,000 tonnes annually) as compared to Kumaon with Dehradun and Haridwar evolving as the hub of mushroom production with many units exporting their mushrooms to as far as Europe.

Incidentally, women are playing a major role in boosting mushroom production in the state. Hresha Verma, who experiments with various kind of mushrooms, specially medicinal mushrooms, says that she chose to be a part

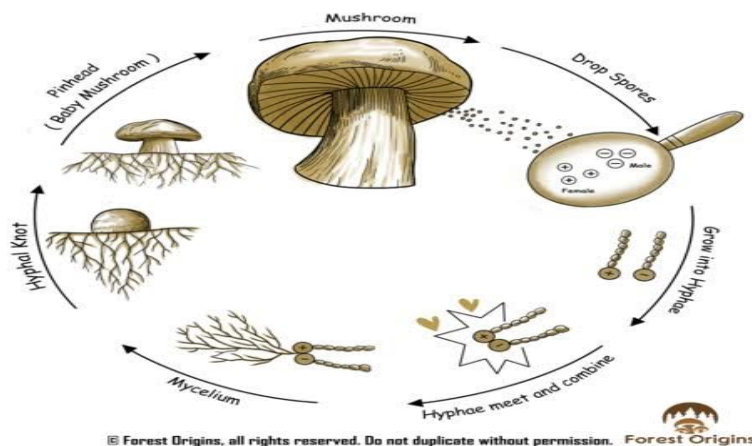
of the mushroom business because it has “multifarious benefits.” “apart from being a profitable ventures, mushrooms are very rich in digestible proteins. They have zero carbohydrates and fats making it a perfect diet food for people who are health conscious,” says the lady who grows mushrooms.

Uttarakhand sees cultivation of mushrooms in both controlled as well as seasonal environment of which 6-7 big units cultivates mushrooms in a controlled environment whereas around 200 farmers are doing seasonal cultivation as per the Department of Horticulture. Button Mushrooms cost anywhere between Rs185 – Rs200/kg, whereas milky mushrooms are priced around Rs 170/kg while Dhingri sells at Rs150/kg.

The climate in Uttarakhand is very conducive to their growth. Initially, women were a bit apprehensive, however, Amrita Sarv Health Worker Subhadra Joshi convinced the 11 women surkanda SHG in Dunda and 13 women from Amrita SHG in Udalka of economic viability of mushroom cultivation and sparked their enthusiasm. Mushroom growing is extremely simple and anybody can do it. There are three types commonly grown by farmers, oyster, button and dhingri. The Ghost Villages in the state are to be converted into the mushrooms villages by the government because at total 300 villages of the state have been abandoned. To overcome migration the initiative is being undertaken by the state government.

Divya Rawat is using mushroom cultivation as a way of curbing migration and providing livelihoods to people in Uttarakhand. This is also helping repopulate many ghost villages in the state. In Dehradun, Nainital, Merut, Kanpur, Lucknow, Varanasi, Allahabad and Ghazipur, numbers of farmers have adopted mushroom cultivation as a source of additional employment and income. Some of the small growers have their own facilities for milk pasteurization of compost. Some of the marginal and small growers particularly in Kumaon region directly purchase pasteurized compost from “Indo-Dutch Mushroom Project” located at Jyolikot in Nainital. There are big entrepreneurs in this venture also. Flex Food Dehradun, Baba Agrotech, Aligarh, S.R. Cannery, Allahabad. Moon Mushroom farm Rampur, Sahas Agro, Meerut, Baba Agrotech etc. are some of the big units doing successfully mushroom cultivation.

In Bhimtal currently 2 mushroom units are in working and as per for the Pandey Gaon there is immense prospects for the starting of the unit in terms of land labour and other pre requisites.



Mushroom Life Cycle

## Objectives of the study

1. To look into the climatic conditions of the village suitable for mushroom culture.
2. To determine the field that can be utilized for commercialization purpose so as to raise the standard of the village.
3. To look up to mushroom cultivation as source of livelihood for people of village.
4. To find the subsequent problems and to look for solution for those.
5. To look onto feasibility of mushroom culture in the village.

## Hypothesis Formulation

If there is more rain, then there will be more species and a higher number of mushrooms. When there is optimum humidity ranging from 60-90% mushroom growth will be more and if it is not maintained up to the level then mushroom growth is lower is higher.

## Actions planned to address the problem

A mushroom farming business can be mean big profits in just a few weeks. Starting own business growing mushrooms for profit is fairly easy. Starting a small business like this requires some specific business plan.

Step1. Choose variety for mushroom farming- Different types of mushrooms have different production cost and it is important to decide on a budget depending on the amount of money available and the long term investment benefit. A good variety to start the culture with is the oyster mushroom.

Step2. Environment for Mushroom Farming- In mushroom farming business consider the environment for mushroom production. Different varieties require a different kind of environment.

Step3. Get spawn for mushroom farming- One will need to have spawns to start the culture. One can produce the spawn by using a sterile culture or can be bought from suppliers.

Step4. Pack the Bags/ boxes/ trays for the farming- The bag making process normally involves composting the substrate, filling the bags with composted material, spawning and then incubation till maturity stage.

## Implementation of action research step

1. Huge boulders had to be cleared by the tractors.
2. Then small stones were taken off with the help of labour.
3. Couple of pick-ups of mud was brought in.

4. Spawn is to be created and mixed with substrate.
5. Pack the spawns mixed with substrate into bags or boxes or trays according to the convenience
6. Fruiting period is to be anticipated.
7. Protection measures to be taken for protecting the yield.
8. Mushroom is to be harvested upon reaching particular size and shape and needs to be done at time as it is highly perishable.
9. One can go for local market penetration by making product available to the retailer and vegetable seller.

### Process of implementation of the study

1. Identifying and cleaning a dedicated room or building in which temperature, moisture and sanitary conditions can be controlled to grow mushrooms in.
2. Choosing a growing medium and storing the raw ingredients in a clean place under cover and protected from rain.
3. Pasteurizing or sterilizing the medium and bags in which, or tables on which, mushrooms will be grown (to exclude other fungi that would compete for the same space - once the selected fungi has colonized the substrate it can fight off the competition).
4. Seeding the beds with spawn (spores from mature mushrooms grown on sterile media).
5. Maintaining optimal temperature, moisture, hygiene and other conditions for mycelium growth and fruiting, which is the most challenging step, adding water to the substrate to raise the moisture content since it helps ensure efficient sterilization.
6. Harvesting and eating or processing, packaging and selling the mushrooms
7. Cleaning the facility and beginning again.



Mushroom storage room

Packed mushrooms

## Data Collection and Analysis

In Uttarakhand the proper list of registered mushroom growers is not available. However, 50 growers benefited by Government in any form have been selected for the study. The districts of Nainital and Dehradun that have better performance in mushroom cultivation have been purposely selected. The better cultivation regions of the districts in consultation with the horticulture officer of Mushroom Department have been selected from both the districts. Indo-Dutch project was established for development of mushroom in Jyolikote of Nainital district. Since its establishment it has been doing commendable work. It is engaged in span and compost production and distribution to the mushroom cultivators. It also imparts training, undertake research and registers mushroom growers.

Mushroom cultivation can directly improve livelihoods through economic, nutritional and medicinal contributions. However, it is essential to note that some mushrooms are poisonous and may even be lethal, thus the need for extra caution in identifying those species that can be consumed as food. Nutritional value Mushrooms both add flavor to bland staple foods and are a valuable food in their own right: they are often considered to provide a fair substitute for meat, with at least a comparable nutritional value to many vegetables. Temperature of Pandey Gaon is most suitable for the development of mushroom culture

### Nutritional Value:

The consumption of mushrooms can make a valuable addition to the often unbalanced diets of people in developing countries. Fresh mushrooms have a high water content, around 90 percent, so drying them is an effective way to both prolonged their shelf-life and preserve their flavor and nutrients. Mushrooms are a good source of vitamin B, C and D, including niacin, riboflavin, thiamine, and folate, and various minerals including potassium, phosphorus, calcium, magnesium, iron and copper. They provide carbohydrates, but are low in fat and fiber, and contain no starch. Furthermore, edible mushrooms are an excellent source of high quality protein (reportedly between 19 percent and 35 percent), and white button mushrooms contain more protein than kidney beans. In addition to all the essential amino acids, some mushrooms have medicinal benefits of certain polysaccharides, which are known to boost the immune system.

Nutritional value per 100 g (3.5 oz)	
Energy	113 kJ (27 kcal)
Carbohydrates	4.1 g
Fat	0.1 g
Protein	2.5 g
Thiamine (vit. B <sub>1</sub> )	0.1 mg (9%)
Riboflavin (vit. B <sub>2</sub> )	0.5 mg (42%)
Niacin (vit. B <sub>3</sub> )	3.8 mg (25%)
Pantothenic acid (B5)	1.5 mg (30%)
Vitamin C	0 mg (0%)
Calcium	18 mg (2%)
Phosphorus	120 mg (17%)
Potassium	448 mg (10%)
Sodium	6 mg (0%)
Zinc	1.1 mg (12%)
Percentages are relative to US recommendations for adults. Source: USDA Nutrient Database	

Nutritional value of mushroom

**Medicinal value:** Recently, there has been a spectacular growth in, and commercial activity associated with, dietary supplements, functional foods and other products that are 'more than just food'. Medicinal fungi have routinely been used in traditional Chinese medicine. Today, an estimated six percent of edible mushrooms are known to have medicinal properties and can be found in health tonics, tinctures, teas, soups and herbal formulas. *Lentinula edodes* (shiitake) and *Volvariella volvacea* (Chinese or straw mushroom) are edible fungi with medicinal properties widely diffused and cultivated.

**Income benefits:** Mushroom cultivation activities can play an important role in supporting the local economy by contributing to subsistence food security, nutrition, and medicine; generating additional employment and income through local, regional and national trade; and offering opportunities for processing enterprises (such as pickling and drying).

Following are some of the common categories of Mushrooms generally found in Uttarakhand:

**Agaricus bisporus:** The white button mushroom is the most cultivated mushroom in the world, of particular importance in temperate regions. It is grown in composted substrate and is commonly cultivated in higher technology systems, requiring a low temperature of between 14 to 18C to provide optimal fruiting conditions for the mushroom.

**Pleurotus ostreatus:** Oyster mushrooms are a good choice for inexperienced cultivators because they are easier to grow than many other species. In addition, they can become an integral part of a sustainable agriculture system utilizing organic waste, can be grown on a small-scale with a moderate initial investment, and convert high amounts of substrate to fruiting bodies thereby increasing potential profitability.

**Lentinus edodes:** Shiitake mushrooms are well suited as a low-input alternative enterprise because they can also be grown on a small-scale with a moderate initial investment. Shiitake are grown outside on logs, or inside and outside on compressed sawdust or in bottles or bags.

Keeping in mind the above information the study is aimed at taking Pandey Gaon into consideration for Mushroom Farming in terms of following most important factors:

- **LAND:** Interaction with three marginal farmers from the village viz Mr. Jeevan Paladiya, Mr. Amit Patwal, Mr. Tara Dutt Pandey. They had land holdings ranging from somewhere 1-2 hectares. When asked about their income annually, disappointment was that they had only as they were not getting the farm produce of required productivity level moreover more and more smaller land holdings and creating more pressure on land and animal menace are the root causes for it. When asked about their interest in Mushroom Cultivation at first they were apprehensive but with guidance they realized how they can take a collective initiative by having a cooperative made as land holdings individually are very small. Mushroom cultivation can also be done vertically and no specialized buildings or equipments are required for the farm products and its waste can be used to make the compost and sheds required for the farming can be made with low costs and no other cost for water and irrigation system is required because alike agriculture it does not possess high level of water intakes
- **WEATHER CONDITIONS:** Nainital is considered to be the best district for the mushroom cultivation after Dehradun for Kumaun Region. As for Bhimtal Block there are already two mushrooms plant running and



third soon to be started in the Pandey Gaon. As the village has appropriate temperature required for cultivation and seasonal farming can also be done as for winters farmers can opt for Button mushrooms and for winters they can switch onto Milky mushrooms. The temperature regulation is the most important aspect and is quite favourable in village atmosphere.

- **MARKET:** Mushrooms are a fungi and they have to be harvested on exact time if not done so some over powerful fungi will take over them and the yield is gone just like that and they have to be harvested on exact time with proper temperature regulations. They have to be harvested, upon their maturity once they reach exact shape and size and of highly perishable nature they have to be consumed and marketed as fast as possible as they are very much sensitive to the external environment as for Pandey Gaon the daily produce can be sold directly in main market of Bhimtal Block that is less than 5 km from the village and is connected well with road . This nearness to market, can assure a daily base sales and less chances of getting waste. Bhimtal is a tourist hub and many hotels are their welcoming guests all over the year and thus requires mushroom on daily base as part of the staple diet.
- **TRANSPORTATION:** The village is well connected with Dath, Bhimtal Block with help of road for 2-wheelers and upto some extend for 4-wheelers also but not for heavy duty vehicles therefore the yield and the harvest can easily be taken to the market at time and on a daily base quite easily.
- **RAW MATERIAL:** The straw required for making compost can be easily available as the other farmers and villagers involved in farming can get the farm waste utilized. Spawn, or the seeds can be made in sterile culture or can be bought from supplier, as the area of the village is covered under Indo Dutch Scheme which is currently operating in Jyolikote, Nainital. It can use spawn and get spawns from them at highly subsidized rates and interested farmers can also get the required trainings who are willing to start this culture. Sheds can be made with minimal cost and there is scope for vertical expansion as well, the use of racks or wooden sheds or poly bags or boxes is completely in hands of the farmers.



Types of mushrooms



## Findings

Seasonal cultivation of mushroom is done by creating small sheds over a specified area. In the village mushrooms can play an important role contributing to the livelihoods, through food security and income generation. Mushrooms can make a valuable dietary addition through protein and various micronutrients and, coupled with their medicinal properties, mushroom cultivation can represent a valuable small-scale enterprise option. Mushrooms can be successfully grown without access to land, and can provide a regular income throughout the year. Growing mushrooms also helps avoid some of the challenges facing collectors of wild fungi, including species identification, obtaining access and permits for collecting, and practicing sustainable harvest. Cultivation is also independent of weather, and can recycle agricultural by-products as composted substrate which, in turn, can be used as organic mulch in growing other horticultural crops, including vegetables.

Mushroom cultivation is highly combinable with a variety of other traditional agricultural and domestic activities, and can make a particularly important contribution to the livelihoods of the disabled, of women and the landless poor who, with appropriate training and access to inputs, can increase their independence and self-esteem through income generation. Its waste can also be used in for making manure rich in nutrients for agriculture. Cooperatives and community groups can collaborate in set-up and production costs, harvesting and marketing. Working in joint ventures or partnerships with regional agro industries, universities or wholesalers can help reduce vulnerability and risk for small-scale producers, and provide access to training and other forms of support.

However, with all this much amount of opportunities in the village in this field, some important aspects act as limitations for the Mushroom Cultivation that have to be looked upon before taking plunge. Lack of training for the farmers, and without knowledge and training they take upon the interventions and fails drastically. Temperature regulation is to be done on a regular basis if not it can get infected and yield can be harmed, along with potential spawns as well.

## Conclusion

**Hypothesis 1:** If there is more rain, then there will be more species and a higher number of mushrooms.

- It is incorrect because for mushroom cultivation is to be done in rooms so there is no say for rainfall to intervene.

**Hypothesis 2:** When there is optimum humidity ranging from 60-90% mushroom growth will be more and if it is not maintained up to the level then mushroom growth is lower.

- This hypothesis was supported in all the area of the village.
- This suggests that the humidity is very important aspect of the farming because mushroom contains mycelium in vegetative which requires CO<sub>2</sub> for its propagation for however for fruiting body cultivation O<sub>2</sub> is required by the fungi for its optimal growth and for these the temperature and humidity is to be

maintained between 60-90% because if there is no regulation in temperature then the harvest is gone as it is of highly perishable nature.

Following interventions need to be made in the concerned field and for this following steps can be taken.

1. Wide publicity should be done for producing mushrooms by marginal, small and landless persons as its cultivation creates gainful employment to them.
2. Private entrepreneurs should be encouraged for production of spawn and compost.
3. No. of beneficiaries for training should be increased. Their Daily-allowance should be increased.
4. The nos. of demonstrations should be increased so that the producers may follow the same.
5. Frequent and cheap raw materials should be made available to the producers.
6. Transport subsidy should be provided.
7. Proper marketing information should be made available to the producers.
8. Bank-credit should be provided.
9. Mushroom cultivation should be considered at par with other agricultural food grains.
10. All facilities available to the producers of other crops and vegetables should also be provided to the mushroom growers.

## References

1. Mrs Prema Paladiya (former Gram Pradhan)
2. Mr. Amit Patwal (farmer)
3. Mr. Jeevan Paladiya
4. Problems, potential and Economics of Mushroom Cultivation- A study.
5. Hanko J 2001 Mushroom Cultivation for people with disabilities- A Trading Manual.
6. FAO 1985 Manual on mushroom cultivation.
7. <https://www.agrifarming.in/mushroom-farming-project-report-cost-and-profit-analysis>.
8. <http://www.fao.org/3/a-i0522e.pdf>.

**The Study of Rural Immersion  
Programme in Busgaon Village**

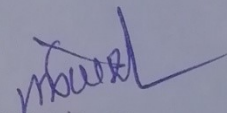
**Shiwani Jalal**  
**Kumaun University, Nainital**

## CERTIFICATE

This is to certify that **Shiwani Jalal** student of **IPSDR, HERMITAGE COLLEGE Nainital** has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date: 20/02/2020

Place: Nainital

  
Signature

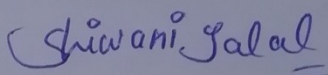
(Name of Principal)  
Institute of Professional Studies  
(College Seal/Stamp)  
'The Hermitage' Kumaun University  
Nainital (Uttarakhand)

## DECLARATION

I hereby declare that the project work entitled “**The Study of Rural Immersion program on Busgaon Village**”. Submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance **Mrs.Vaishali Bisht , IPSDR, HERMITAGE COLLEGE.** The results embodied in this village report have not been submitted to any other Organization or University.

Date: 20/02/2020

Place: Nainital

  
Signature of Intern

(SHIWANI JALAL)

## ACKNOWLEDGEMENT

The success and final outcome of this MGNCRE internship programme required a lot of guidance and help from many people and I am extremely privileged to have got this all along the completion of MGNCRE report. All that I have done is only due to such supervision and guidance and I would not forget to thank them.

I respect and **thank DR. WG PRASANNA KUMAR, Chairman, MGNCRE**, Hyderabad for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance.

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## Introduction to the Village

**Village:** Busgaon

**District:** Nainital

**Tehsil:** Kosia Katoli

The climate is warm and temperate in Khairna. In winter, there is much less rainfall than in summer. The climate here is classified as CWA by the KOPPEN –Geiger system. In Khairna, the average annual temperature is 19.2 C. About 1768 mm of precipitation falls annually. Simalkha (Simalkhan as in land records with tehsil Koshiyan kutoli) is a village in Betalghat mandal in Nainital district in Uttarakhand state in India. It has 67.63700 hectare and Simalkha is 23.9km distance from its District main city Nainital and 153km distance from its State Main city Dehradun.

Simalkha is situated on a link road 16km away from NH-87. Geographical coordinates are 29.510452, 79.426163. Betalghat, Amel, Bejedi, Bargal, Basgon and bhawaligon are the villages along with this village in the same Betalghat Development block. Simalkha Pin code is 263135 and other villages near Simalkha are Dhiniakot, Dolkot and Gairkhav. Places to visit Simalkha, Busgaon and Nainital.





<b>Busgaon (Khairna) – Village Overview</b>	
Country	India
State	Uttarakhand
District	Nainital
Tehsil	Kosia Katoli
Block	Betalghat
Pin Code	263135
Language	Kumaoni, Hindi
Area	70% hectares

<b>Demographics</b>		
Population	284	
Gender Ratio	Female : 167	Male : 117
Age structure	0 to 90	
Religion	Hindu	
Caste	ST, SC, General	
Households in APL and BPL categories	APL: 36	BPL: 21



Rural education infrastructure in Busgaon is quite good at the level as there are 13 teachers for 240 students and the rate of students is 0. The school has also been converted into modern school which results in impairing the quality of education. But at primary level the education infrastructure is not satisfactory as these are 1 primary school with 11, 4, 8 students and 1 teacher in each school.



School



Classroom

Rural health infrastructure in Shimlkha satisfactory as is 284 people with 1 doctor, 1 ASHA worker, ANM-0 and the 2 staff. The rural infant mortality rate is 0% and the rural female infant mortality rate is 0%. But the conditions was much better in past whereas CHS was running in private partnership made with the hospital and the hospital also had plethora of facilities like blood test x-rays etc.



Primary Health Center

**Geographical and climate description:** Busgaon is located on the confluence of kosi and khairna river, around the Busgaon Bridge. It is located at a distance of 47km from Nainital, Almora and Ranikhet, The Busgaon Bridge marks the function of the NH109 with the Bhowali, Ranikhet road. The River Bed at Busgaon is abundant in ironstone and quartz.



Location map of Khairna village

**Climate khairna January:** It is maximum  $21^{\circ}$  in January in Khairna and at least around  $8^{\circ}$  degrees. In January there are 5 days of rainfall with a total of 33 mm and the it will be dry 26 days this month in Khairna.

**Climate khairna February:** it is maximum  $23^{\circ}$  in February in khairna and at least around  $10^{\circ}$  degrees. In February there are 9 days of rainfall with a total of 94 mm and the it will be dry 19 days this month in Khairna.

**Climate khairna March:** it is maximum  $29^{\circ}$  in march in khairna and at least around  $14^{\circ}$  degrees. In march there are 9 days of rainfall with a total of 66 mm and the it will be dry 22 days this month in Khairna.

**Climate khairna April:** it is maximum  $35^{\circ}$  in april in khairna and at least around  $19^{\circ}$  degrees. In april there are 10 days of rainfall with a total of 32 mm and the it will be dry 20 days this month in Khairna.

**Climate khairna May:** it is maximum  $40^{\circ}$  in May in khairna and at least around  $23^{\circ}$  degrees. In april there are 7 days of rainfall with a total of 18 mm and the it will be dry 24 days this month in Khairna.

**Climate khairna June:** it is maximum  $41^{\circ}$  in june in khairna and at least around  $26^{\circ}$  degrees. In june there are 9 days of rainfall with a total of 31 mm and the it will be dry 21 days this month in Khairna.

**Climate khairna July:** it is maximum  $39^{\circ}$  in july in khairna and at least around  $26^{\circ}$  degrees. In july there are 20 days of rainfall with a total of 153 mm and the it will be dry 10 days this month in Khairna.

**Climate khairna August:** it is maximum  $36^{\circ}$  in August in khairna and at least around  $24^{\circ}$  degrees. In August there are 22 days of rainfall with a total of 201 mm and the It will be dry 9 days this month in Khairna.

**Climate khairna September:** it is maximum  $35^{\circ}$  in September in khairna and at least around  $22^{\circ}$  degrees. In September there are 9 days of rainfall with a total of 110 mm and the It will be dry 21 days this month in Khairna.

**Climate khairna October:** it is maximum  $33^{\circ}$  in September in khairna and at least around

18<sup>0</sup> degrees. In October there are 3 days of rainfall with a total of 6 mm and it will be dry 28 days this month in Khairna.

**Climate khairna November:** it is maximum 28<sup>0</sup> in November in khairna and at least around 13<sup>0</sup> degrees. In November there are 2 days of rainfall with a total of 12 mm and it will be dry 28 days this month in Khairna.

**Climate khairna December:** it is maximum 23<sup>0</sup> in December in khairna and at least around 9<sup>0</sup> degrees. In December there are 3 days of rainfall with a total of 31 mm and it will be dry 28 days this month in Khairna.



Landscape view

#### **Specific / Distinct Features:**

**Culture:** Culture of Busgaon is very different as compared to other cultures of Indian village, because it includes the names culture joint family, fasting culture, holy cow worship. The science behind temple is very antique over here.

**Traditions:** Mostly there are Kumauni Hindu people living over here so the tradition is slightly different from other the arranged marriage system and Atithi Devo Bhavah are examples of the traditional aspects.

**Fairs and Festivals:** The common festivals in the village include Diwali, Holi, Makar Sankranti, Janmashtami, Dusshera, Basant Panchami, Shiv Ratri, Bhaiya Dooj.

Fairs also seem to be a center of attraction over here because there is a fair which takes place in the memory of Ganesh Mahotsav every year in Busgaon and Nanda Devi every year in Nainital.





Temple

## Identification of the Problem

**Migration Problem:** Migration is a very big problem in our Busgaon Village. Children at Busgaon Village who have completed their School and college. Due to lack of job facility, those children have to leave their Village and go out to the cities. People of this village are afraid to start their own business. That is why the children here do not get Job Facilities, which is why they have to leave their village and go out to the cities, for jobs.

**Transportation Problem:** There is a huge problem of transportation in Busgaon village, People of Busgaon village have to face a lot of difficulty in going to the market and school. If the people of this village have to take any of their goods to the market for sale then they do not have any transport facility, because that is the market where the village are selling their goods. That market is far away from that. In this village, those who have their own transportation facility, do not have any problem in selling their good to the market, but those who do not have their own transportation facility, they have to face many problems.

**Market problem:** The people of Busgaon village do not have a market where they can sell their products according to their own price, and in the market where people of Busgaon Village sell their products, they are not able to get the right price for their products People here do not have a good market, which is why these people sell their products at a lower price.

**Lack of knowledge about agriculture:** The people of Busgaon village have less knowledge about agriculture. People here can start a very good business from agriculture, and generate employment and also income.



Busgaon village

## Review of the Literature

- Review of the Literature view of Literature on Smart Village Agriculture.
- No one has done any research on agriculture before us in Busgaon.
- We are the first one doing research on agriculture. And this is the reason why people there do not have any knowledge related to the agriculture as much knowledge is too low.
- Agriculture has a very good scope. With this we can turn on good income.
- That is why we will establish a business related to agriculture in Busgaon village.
- That is why we will need a lot of bees to start a business.

## Objectives of the Study

- ❖ **Identification of the village:** Our first objective is to know about the village, that how is the weather there? How is the culture there? How is the tradition there? What culture and which tradition do people follow there? And how do the people of that village generate their income? What do those people do?  
  
And how do the people live there? That is why our first objective is to know evrything about that village, what is that village like? What do the people there do? How to people live there? How is the culture of the people there?
- ❖ **Identification of problem:** Our second objective is that the Village we are going to study. What is the problem there? Identify those problems. Ask thepeople there what their problem is? And to study the problem in detail and identify the problem. That is why our second objective is that the village which we have taken for study. Identify the problems of that village.
- ❖ **To search for opportunities in the village:** One of the objectives is to search for opportunities in that Village. And to study well about the oppotunities which we have discovered. And to talk to the people there about those oppotunities. Which we have identified oppotunities in that village. To get full information about him from the people there, and to find out why there was no work in that oppotunity.
- ❖ **For the development of the village:** Our main objective is how to develop that village? And what can we do to develop that village? Telling them how their income can be generated? And increase the standard of living of the people there.  
If standard of living of the people of this village will be good and they will be able to generate income well then the village development will be done well.
- ❖ **To know the reason of migration:** Our objective to study why migration is happening in that village. Why are people leaving that village? What is the problem in that Village that people are leaving that village and moving to another city? We study in depth about these things here. And find out the region of migration from the village. how to stop the migration.

## Hypothesis of the Study

- ❖ Agriculture is a good opportunity.
- ❖ We develop Busgaon village with Agriculture.
- ❖ We grow business in Agriculture.
- ❖ Agriculture is a very good source of income in Busgaon village.

## Actions Planned to address the problem

- ❖ **Step 1:- Define the problem:** Will evaluate the situation. Have all possibilities been considered? In this phase, everyone will explore the possibilities, asking all involved or interested individuals to identify the problem for their input. Is there just one problem or are there more?
- ❖ **Step 2:- Implement solutions – the Action plan:** Step five is to write an action plan that addresses the problems. An action plan is written so that any employee can do the task successfully alone and is followed much like a recipe. It converts the goal or plan into a people process. It has three essential parts:
  4. Based on the goal the action plan answers five questions – What? When? How? Where? Who?
  5. Lists Resources
  6. Lists potential Barriers
- ❖ **Step 3:- Collect and analyze the data:** Now that we have identified the problem, we collect and analyze data to prove or disprove the assumption that our problem is a result of inconsistent ration. We analyze the situation by asking questions.
- ❖ **Step 4:- Clarify and Prioritize the problem:** If there is more than one problem, we will need to prioritize the problem so that we can focus on the most important problems. At the top of list, people will ask some questions to help solve problems with high priority issues.
- ❖ **Step 5:- Monitor and Evaluate:** Our next step in the problem solving process is to design a method for monitoring the outcome. The method we select should assess whether the goal and action, a well- designed monitoring method will help the team to determine when the action plan needs to be improved.

## Implementation of Action Research Steps

- ❖ **Step 1:- Clarifying Theories:** The second step involves identifying the values, belief, and theoretical perspectives the researchers hold relating to their focus. For example, if teachers are concerned about increasing responsible classroom behaviour, it will be helpful for them to begin by clarifying which approach—using punishments and rewards, allowed students to experience the natural consequences of their behaviours, or some other strategy – they feel will work best in helping students acquire responsible classroom behaviour habits.

- ❖ **Step 2:- Collection Data:** their actions are valid. To ensure responsible validity and reliability, action researchers should avoid relying on any single source of data. Most researchers use a process called triangulation to enhance the validity and reliability of their findings.
- ❖ **Step 3:- Analyzing Data:** A number of relatively user- friendly procedures can help a practitioner identify the trends and patterns in action research data. During this portion of the seven- step process, researchers will methodically sort,sift,rank,and examine their data to answer two generic questions:
- ❖ **Step 4:- Reporting Results:** It is often said that researcher is a lonely endeavor. It is doubly sad that so many researchers are left alone in their classrooms to reinvent the wheel on a daily basis. The loneliness of researcher is unfortunate not only because of its inefficiency, but also because when dealing with complex problems the wisdom of several minds is inevitably better than one.
- ❖ **Step 5:- Taking Informed Action:** Taking informed action, or “action planning” The last step in action research steps, is very familiar to most researcher. When researcher write lesson plans or developed academic progra,s, they are engaged in the action planning process.

### Process of Implementation of the Study

- ❖ **Getting our Strategy ready for Implementation:** Although the topic of implementation may not be the most exciting thing to talk about it’s a fundamental business practice that’s critical for any strategy to take hold.

The strategic plan addresses that What and Why of activities, but implementation addresses the who, where,whenand how. The fact is that both pieces and critical to success.

- ❖ **Covering all our bases:** As a business owner, executive, or department manager, our job entails making sure our set up for a successful implementation. Before we start this process, evaluate our strategic plan and how we may implement it by answering a few questions to keep ourself in check.

- Are there sufficient people who have a buy-in to drive the plan forward?
- How are we going to motivate our people?
- Have we identified internal processes that are key to driving the plan forward?

- ❖ **Making sure we have the support:** Often overlooked are they five key components necessary to support implementation: people, resources,structure,system and culture. All components must be in place in order to move from creating the plan to activating the plan.

- ❖ **Determine our plan of attack:** Implementing our plan includes several different pieces and can sometimes feel like it needs another plan of it own..
  - Produce the various versions of our plan for each group.



- Roll out our plan to the whole village.
- Set up annual strategic review dates, including new assessments and a large group meeting for an annual plan review.

## Data Collection and Analysis

### Data Collection:-

1. Quantitative data collection methods
2. Qualitative data collection methods

#### Quantitative data collection methods:

- **Closed – ended Surveys and Online Quizzes:** Closed-ended surveys and online quizzes are based on questions that give respondents predefined answer options to opt for data.

#### Qualitative data collection methods:

- **Open- End Surveys and Questionnaires** The main difference between the two is the fact the closed – ended surveys offer predefined answer options the respondent must choose from, whereas open-ended surveys allow the respondents much more freedom and flexibility when providing their answers.
- **Face-to Face Interviews:** Here, the interviewee. Due to it being a very personal approach, this data collection technique is perfect when we need to gather highly-personalized data.
- **Focus groups:** Whenever the resources for 1-on-1 interviews are limited or our need to recreate a particular social situation in order to gather data on people's attitudes and behaviors, focus group can come in very handy.

### Data Analysis:-

- **Data Collection:** The requirements may be communicated by analysis to custodians of the data. Such as information technology personnel within an village.
- **Data Requirements:** The data are necessary as input to the analysis, which is specified based upon the requirements of those directing the analysis. The general type of entity upon which the data will be collected is referred to as an experimental unit.
- **Data Processing:** For instance, these may involve placing data into rows and columns in a table format for further analysis, such as within a spreadsheet or statistical software.
- **Exploratory data analysis:** Once the data are cleaned. It can be analyzed. Analysts may apply a variety of techniques referred to as exploratory data analysis to being understanding the messages

contained in the data. The process of exploration additional requests for data, so these activities may be iterative in nature

### **Agriculture:**

Agriculture is the science and art of cultivating plants and livestock. Agriculture was the key development in the rise of sedentary human civilization, whereby farming of domesticated species create food surpluses that enabled people to live in cities. Agriculture is the process of producing food, feed, fiber and many other desired products by the cultivation of certain plants and the raising of domesticated animals (livestock). The practice of agriculture is also known as “**Farming**”, while scientists, inventors and other devoted to improving farming methods and implements are also said to be engaged in agriculture. Subsistence farming, who farms a small area with limited resource inputs, and produces only enough food to meet the needs of his/her family. At the other end is commercial intensive agriculture, including industrial agriculture. Such farming Involves large fields and number if animals, large resource inputs (pesticides, fertilizers, etc), and a high level of mechanization. These operations generally attempt to maximize financial income from grain, produce, or livestock. Modern agriculture extends well beyond the traditional production of food for humans and animal feeds.

Other agriculture production goods include timber, fertilizers, animal hides, leather, industrial chemicals ( starch, sugar, alcohols and resins), fibers ( cotton, wool, hemp, silk and flax) , fuels ( methane from biomass, ethanol, biodiesel), cut flowers, ornamental and nursery plants, tropical fish and birds for the pet trade, and both legal and illegal drugs (biopharmaceuticals, tobacco, marijuana, opium, cocaine).



Agriculture field

The history of agriculture began thousands of years ago. After gathering wild grains beginning at least 1050,000 years ago, nascent farmers began to plant them around 11,500 years ago. Pigs, sheep and cattle were domesticated over 10,000 years ago. Plants were independently cultivated in at least 11 regions of the world. Industrial agriculture based on large-scale monoculture in the twentieth century came to dominate agricultural output, though about 2 billion people still depended on subsistence agriculture into the twenty-first.

Modern agronomy, plant breeding, agrochemicals such as pesticides and fertilizers, and technological developments have sharply increased yields, while causing widespread ecological and environmental damage. Environmental issues include contributions to global warming, depletion of aquifers, deforestation, antibiotic

resistance, and growth hormones in industrial meat production. Genetically modified organisms are widely used, although some are banned in certain countries.

Food classes include vegetables, fruits, oils, meat, milk etc.

Uttarakhand being a hill state offers great opportunity in agriculture and animal husbandry, about 75% of the people living in Uttarakhand are dependent on agriculture for their livelihood. While those residing in the vulnerable parts are untouched by modernization so they lack knowledge about the new agriculture techniques which results in less produce. However, educating the agro-based communities about hybrid seeds, machinery, bio – techniques, organic farming, haphazard of insecticides and pesticides etc. can help them in raising their productivity.



Farm fields

### **Agriculture in Uttarakhand:**

Agriculture in India still engages about 52 per cent of the work force and contributes 17.6 percent of the GDP. A very large majority of the farmers belongs to the category of small and marginal holders. In India average size of land holdings was 2.30 hectares in 1950-51 which reduced to 1.52 hectares in 2008-09. Small farms produce 41 percent of India's total grain (49per cent of wheat, 29 per cent of coarse cereals and 27 per cent of pulses), and over half of total fruits and vegetables despite being resource constrained.

Uttarakhand state with diverse agro-climatic endowments, the plains and hills present differing scenarios for agriculture while commercial agriculture is practiced in the plains. The hill farmers mainly practice subsistence farming. The hill practices mixed cropping, while in the plains in gives single crops are grown mostly.

In Uttarakhand more than 75 percent of the population depends on agriculture for their livelihood. The average size of holding in the state is around 0.98 hectare. Another feature typical of hill farming is the small and scattered land holdings. Out of the total cultivated area, about 50 per cent of landholdings (in number) are sub marginal, and 21 per cent of landholding measure between 0.5 -1 hectares. Over 27 per cent of the area under cultivation consists of plots less than 1 hectare in size. Another 26 per cent of land holdings are between 1 and 4 hectares in size, and account for 51 per cent of the total cultivated area. 22 per cent of the cultivated land consists of plots over 4 hectares in size, and these account for 3 percent of the land holdings in number. The

productivity of various crops is also low the Uttarakhand is promoting the cultivation of some selected crops like basmati rice, aromatic and medicinal plants, vegetables cultivation, flower cultivation, Litchi production and milk production. Major crops grown in Uttarakhand are rice, wheat, sugarcane, maize, soybean, pulses and oilseeds. Fruits grown in Uttarakhand are mango, litchi, guava, apricot etc while vegetables grown in Uttarakhand are potato, tomato, green pea, cauliflower and capsicum etc. farmers or primary producers face many challenges, of both technical and economic nature.

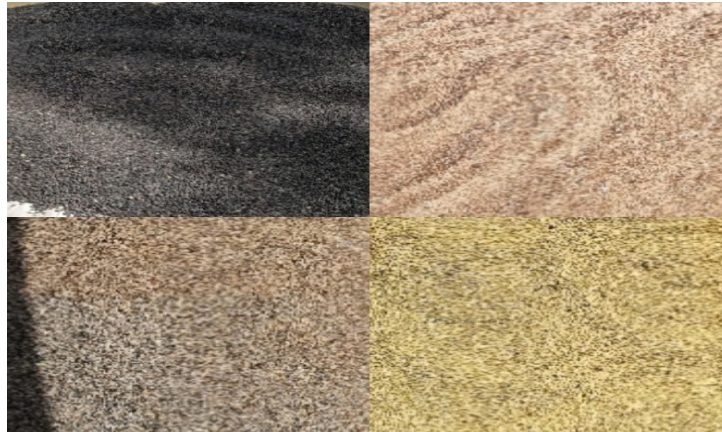


Goat rearing

#### **Production of Agriculture:**

##### **Crop:**

- Staten Jowar ( Dana) barsim,maize,cowpea.
- Makze (Dana ), Barsim, Maize, Cowpea
- Jowar, Barsim, Maize, Cowpea
- Jowar, Barsim, Oats/ Lahi, Maize, cowpea
- Pddy(Dana ), Barsim, Mecca, Lobia
- Jute – Barsim
- Maize ( Dana), Barsim, Moong / Urad (Dana)
- Soyabean , wheat
- Lahi, Lentil// Gram
- Soybean, Maize , Lahi, Wheat/ Lentil with papler
- Wheat, Lentil, Gram, Pea and potato with sugarcane for three years
- Rice, fruits, vegetables etc.



Food grains

## Findings

**Opportunity:** we made assumption that apiculture is a good opportunity at Busgaon village and it is ,but due to some weakness it is not going in favour of Busgaon village people.

**Transportation:** Transportation facilities has not been increased in that village either. We made the assumption that transportation would be increased in that village, but our assumption did not go well. People of Busgaon village are migrating.

**Income:** In the village wher we went for research, there has not been incom increase. We made the assumption that income would be increased in that village, but our assumption did not go well.

**Market Facility :** Market facility has not been good.we made assumption that apiculture can grow business but due to some weakness and not having good market condition this assumption did not go well.

## Conclusion

Agriculture is a good opprtunity at Busgaon village. We can grow our business and also we can develop Busgaon village with the help of Agriculture . But due to some weakness people of Busgaon village are unable to give their 100 percent.

We can generate employment from Agriculture and increase the standard of living in that villlage. Busgoan village has a very good scope of Agriculture. Busgaon village is dependent on Agriculture.

Not having sufficient knowledge of agriculture and not having proper technology people of Busgoan villages are unable to produce product other than .If we can provide them advance technology and proper education about agriculture then they can producde products other, this will help in development of Busgaon village as well as growing business of Busgaon village.

Because of few weakness like transport facility , market facility, etc. product made by Agriculture are not reaching in other places than Busgaon village and because of it they are not generating good amount of income.

## References

This is the primary data that we have collected and all the information that we have collected by going to that village. In this research, we have personally identified the problems by going to that village and talking to the people there and find the opportunities there. That is why it is a primary data. Because it has been taken through us. No secondary resources have been used in this research. We have collected it by going personally. In this we have not taken help of any book or social media.

## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

1	<b>Name of Village</b>	Busgaon village
2	<b>Address of the Village</b>	Busgoan village, Khairna, (Nainital)
3	<b>Name of Sarpanch / Contact Person</b>	Mrs. Parvati devi
4	<b>Date of Visit</b>	10/02/2020

<b>Demographics of the Village</b>		
1	<b>Number of Men</b>	117
2	<b>Number of Women</b>	167
3	<b>Number of Children</b>	15
4	<b>Total Population</b>	284
5	<b>Number of Anganwadis</b>	1
6	<b>Number of Schools</b>	2
7	<b>Number of Primary Health</b>	1

	<b>Centres</b>	
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<b>VILLAGE SCHEDULE</b>				
<b>S. No</b>	<b>Observations</b>	<b>Yes</b>	<b>No</b>	<b>Action By Village Authorities</b>
1	Do all households have a toilet?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
2	Does anyone go out and defecate in the open in village?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
3	Are these faeces from the toilet being disposed in the river?		No	If, Yes , Then what <b>Action</b> has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
5	Are there institutional toilets at Schools, Anganwadis and Public places?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
6	Is waste from restaurants, public places dumped into the river?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
7	Is there a prevalence Of visitor/tourist OD?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
9	Are twin-pit toilets common in the	Yes		If, No, Then what <b>Action</b> has been taken by the Village



	Village?			Authorities
10	Are septic tank toilets (non-porous) common In your village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
11	Is there a P-Trap in all toilets?		No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in /for the toilet?		No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
13	Are all toilets “fly-proof” – or Hygienic?		No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
14	Is the human waste disposed of in the Drain,  m) Nallahs,  n) Open pit;  o) Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
15	Is fecal sludge directly discharged to waterbodies ?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?
16	Is there a practice to wash the hands with soap after	Yes		If, No, Then what <b>Action</b> has been taken by the Village



	using the toilet?			Authorities
17	Is any visible feces found in the environment?	Yes		If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
18	Is there any odour of urine or faeces in the location?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
19	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
20	Is child faeces disposed of in open area?		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
21	Have Anganwadi have toilet in own premises ?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
22	Is water available in /for the toilet?		No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
23	Is toilet “fly-proof” – or Hygienic?		No	If, No, Then what <b>Action</b> has been taken by the Village Authorities
24	Is the human waste disposed of in the Drain, <b>nn)</b> Nallahs, <b>oo)</b> Open pit; <b>pp)</b> Ponds or river or streams or any		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities  Have you taken GPS enabled photographs?

	water body etc.			
25	Are Anganwadi cleaners maintaining and cleaning public toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>School Schedule</b>				
26	Are there separate functional toilets for boys and girls in the school?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
27	Is there water available for use in the school toilets?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
28	Is the human waste disposed of in the Drain,  <b>qq)</b> Nallahs,  <b>rr)</b> Open pit;  <b>ss)</b> Ponds or river or streams or any water body etc.		No	If, Yes , Then what <b>Action</b> has been taken by the Village Authorities     Have you taken GPS enabled photographs?
29	Is public toilet accessible to all (including Divyangs/physically challenged)	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
<b>Public Toilets Schedule</b>				
30	Is there a Public Toilet in the village?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
31	Are there separate sections for Men and Women?	Yes		If, No, Then what <b>Action</b> has been taken by the Village Authorities
32	Is the human waste disposed		No	If, Yes , Then what <b>Action</b> has been taken by the Village

	<p>of in the Drain,</p> <p><b>tt)</b> Nallahs,</p> <p><b>uu)</b> Open pit;</p> <p><b>vv)</b> Ponds or river or streams or any water body etc.</p>			<p>Authorities</p> <p>Have you taken GPS enabled photographs?</p>
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
33	Is any sustainable water supply process/ method adopted for sustainability of ODF?	Yes		<p>If ,Yes Describe the process or method</p> <p>If, No, Then what Action has been taken by the Village Authorities</p>
34	Is any sustainable process/method adopted for fecal sludge management?		No	<p>If ,Yes Describe the process or method</p> <p>If, No, Then what Action has been taken by the Village Authorities</p>

**Annexure 2**  
**Village Visit**  
**(Survey on Sanitation Management and ODF)**



Elder lady



Village bridge

### Annexure 3 Village Visit (General)



Gardens



Livelihood options



Education in the village





Snowy season

**The Study of Rural Immersion  
Programme in Sarmoli Village**

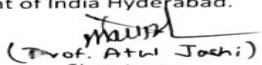
**Pankaj Negi**  
**Kumaun University, Nainital**

## CERTIFICATE


**CERTIFICATE**

This is to certify that **Pankaj Negi** student of **IPSDR Hermitage Collage Nainital** has successfully completed the two month "Rural Internship Programme" conducted by Mahatma Gandhi Council of Rural Education, Government of India Hyderabad.

Date: 24/02/2020  
Place: Nainital

  
(Prof. Atul Joshi)  
Signature

(College Seal /Stamp)  
Director  
Institute of Professional Studies  
and Development Research  
"The Hermitage" Kumaun University  
Nainital (Uttarakhand)






## DECLARATION

### DECLARATION

I hereby declare that the project work entitled "The Study of Rural Immersion Programme on Sarmoli Village" submitted to Mahatma Gandhi National Council of Rural Education, Hyderabad is a record of the original work done by me under the guidance of Prof. Vinod Joshi, faculty of IPSDR MBA (RMED), Kumaoun University. The results embodied in this village report have not been submitted to any other Organization or University.

Date: 24/Feb/2020

Place: Nainital

  
Signature of Intern

(PANKAJ NEGI)

## ACKNOWLEDGEMENT

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I consider myself as a very lucky individual as I was provided an opportunity to be a part of MGNCRE internship programme. I am also grateful for having a chance to meet so many wonderful people who led me through this internship period.

Bearing in mind previous I am using opportunity to express my deepest gratitude and special thanks to the Programme organizer to have given such an opportunity that we raise the village ahead and go about it. I am also thankful to all along the completion of MGNCRE report. All that I have done is only due to such supervision and guidance and I would not forget to thank them.

I am great thankful to **DR. WG PRASANNA KUMAR, Chairman, MGNCRE, Hyderabad** for providing me a golden opportunity to do internship under MGNCRE and giving us all support and guidance.

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**Pankaj Negi**

**(RMED)Hermitage College, Kumaon University, Nainital, Uttarakhand**

<b>S.NO.</b>	<b>Contents</b>
1	Introduction to the Village
2	Identification of Problem
3	Review of literature
4	Objectives of the Study
5	Hypothesis of the Study
6	Actions Planned to address the problem
7	Implementation of Action research Steps
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## **ABSTRACT**

This project report deals with the study and development of village as a smart village. In this there is detailed study of the village. There is a SWOT analysis to recognize village in a well mannered way. In this report we focus on Agriculture i.e. their problems, challenges, opportunities, strengths, weakness. Through this process of Research Methodology we lighten the hilly area village Sarmoli, agriculture. i.e. How it is and it would be? We are making a common village in smart village using smart technologies and services and through awareness in people.

**Keywords: Sarmoli village, Development, Smart Village, Agriculture, Rural management**

## Introduction to the Village

### Village Description

S.NO	DESCRIPTION	CENSUS 2019	
1	Village	Sarmoli	
2	State	Uttarakhand	
3	District	Pithoragarh	
4	Tehsil	Munsiyari	
5	Block	Munsiyari	
6	Gram Panchayat	Sarmoli	
7	Total Village in Sarmoli	2	Sarmoli
			Shankh Dhura
8	Pincode	262554	
9	Parliament Constituency	Almora	
10	Assembly Constituency	Dharchula	
11	Geographical Area	122.75 (hect)	

➤ **Climate Description-** Munsiyari is a Hill Station arranged in Pithoragarh area of Uttarakhand State of North India in the midst of snow bound Kumaon Himalayas. This is a famous tourist destinations. Munsiyari has charming atmosphere.

- ✓ **Summer Season** - Summer starts from March and is stretched out till June. [Max./ Min. 16°C/ 26°C]
- ✓ **Monsoon Season-** Monsoon starts in June and is extended till September. [Max./Min. 13°C/20°C]

- ✓ **Winter Season** - Winter season starts from November and it last through midMarch. The temperature in winter seasons drop down to below zero. During this season the whole area is covered with the sheet of snow. [Max./Min.-12°C/20°C]

SARMOLI is a small village situated above Munsiyari in Uttrakhand that shares its boarder with Nepal and Tibet. Sarmoli is nestled in Kumaon region with the PANCHACHULI RANGE in the background and GORI GANGA RIVER flows right next to it. Sarmoli has gained quite a lot of popularity for its rural tourism and scenic beauty. Almost 15 homestays are available in Sarmoli which are hosted mostly by the women. Sarmoli is quite famous for having unseasonal rainfall even during the summer time. Villagers host a week- long annual summer ritual called HIMAL KALASUTRA festival. 3 Trekking Spot from Sarmoil MESAR KUND,DHANADHAR RIDGE and KHALIYA TOP. ORGANIC FOOD and AGRICULTURE practices that pluck some fresh cucumbers, lemons, corns, carrots and taste them. MAATHI SANGATHAN in that the women interact with the workers to know about the functioning of the enterprises. Shops of handcrafted woolenfabric including Pashmina and Angora and local grown organic food products. As per the government register, the village number of Sarmoli is 4848922. The village has 246 homes.

#### Village Functionaries

1	<b>Block Pramukh</b>	Mr. Narendra Singh Rawat
2	<b>Gram Pradhan</b>	Mr. Inder Singh
3	<b>Block Development Officer</b>	Mr. Asit Anand
4	<b>Village Development Officer</b>	Mr. Narendra Ram
5	<b>Primary Health Centers</b>	None
6	<b>School Teacher</b>	Mr. Tilak Singh

#### Economic Profile

1	<b>Occupation &amp; Profession</b>	(40%) in government job, transport, homestay, and handcrafting, agriculture.
		1. Total Cultivable Area (in hectare) 78.337
		2. Net sown Area (in hectare) 23.792

2	Size of Land Holding	3. Kharif (in hectare) 23.792
		4. Rabi (in hectare) 21.198
3	Village Market	1-2 km (munsiyari)
4	Entrepreneurial Initiatives	None
5	Role of NGO's and SHG's	Only SHG's (MAATHI SANGATHAN)

### Demographic Profile

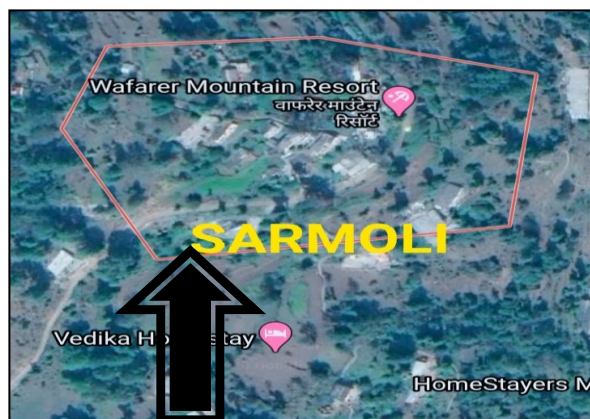
1	Population of Village	15. Total	1190
		▶ Male	580
		▶ Female	610
2	Number of Households	246	
3	Number of Anganwadi	2	
4	Number of School	1- Primary School	
5	Literacy Rate	90.5%	
6	Religion	Hindu	Kumaoni
			Tibetan
7	Avenues for Higher Education	G.G.I.C (munsiyari 2-3 km)	
8	Avenues for Higher Education	None	
9	Avenues for Higher Education	None	

Sarmoli Village, with population of 1190 is Munsiyari sub district's the 8<sup>th</sup> most populous village, located in Munsiyari sub district of Pithoragarh district in the state Uttarakhand in India. Sarmoli is the 108<sup>th</sup> biggest village by area in the sub district.

Munsiyari is the sub district head quarter and the distance from the village is 3 km. 9% of total village's area is covered by forest. The village is the home of 1190 people, among them 51.26% are female and 48.74% are male of the whole population are from general caste, 8% are from schedule caste and 70% are schedule tribes. There is 246 households in the village and an average 4 persons live in every family. Population of village has increased by 71.26% in the last 10 years. Total 1120 people in the village are literate. Literate rate is 90.5% . Overall literacy rate is increased by 54.20% . Sarmoli has 46% population engaged in either main or marginal works.

**Other Profile**

1	<b>Agriculture</b>	Potatoes, Barley, Rajma and other pulses.
2	<b>Handi Craft</b>	Carpets and woollen clothes.
3	<b>Drinking –water and Sanitation</b>	No system to collect garbage, 24x7 hr. Water
4	<b>Communication</b>	Landline, mobile coverage ,internet facility available
5	<b>Transportation</b>	Bus service available in 3km. No Railway Station.
6	<b>Commerce</b>	No ATM, commercial bank available. Cooperative banks is in less than 5km.
7	<b>Power Supply</b>	18 hours in summer and 17 hours in winter



Map Of Village Sarmoli



Map of Munsiyari



From Munsiyari To Village  
Sarmoli

From Haldwani (My Home) To Munsiyari

#### DISTANCE MAP



#### Identification of the Problem

##### Problem of Whole Village Sarmoli

- ✓ Safety of crops from wild animals like pig, monkeys, mongoose etc.
- ✓ Transportation of raw material.
- ✓ No Capital Improvement Program to Plan & Budget.
- ✓ No proper market for expansion and no plan related to business.
- ✓ No proper sale outside the village for handicraft items or in the agriculture production.
- ✓ No new techniques used and innovative ideas.
- ✓ No road facility (Kacchi Sadak)
- ✓ People don't want to do any work because of laziness.
- ✓ Migrated people.
- ✓ Electricity problem.
- ✓ Seasons of winter and rainy during heavy rainfall an snowfall the crops destroyed.
- ✓ We can't set up plant and machinery for the industry.
- ✓ Banks and A.T.M Facilities.

- ✓ Doctor And Hospital or Clinic facilities
- ✓ Low Investment In Land Conservation.
- ✓ Large Commercial Development
- ✓ School facility.

#### **PROBLEMS IN AGRICULTURE**

- Mechanisation-
- Small Land holding/size.
- Knowledge transfer/Sharing.
- Market Reach.
- Transportation & connectivity.
- Productivity.
- Technology & Techniques.
- Security.
- Lasy people.
- Industry.
- Households.
- Cultivated Land.
- Seeds.
- Manures, Fertilizers and Biocides.
- Soil erosion.

Direct transfer of capital by the government to the farmers which has already got initiated by our PM NaMo under the Jan Dhan Yojna. Agricultural Marketing through means of modern technology like mobile phones will be another step forward. farmers about techniques to avoid soil erosion and increasing harvests through means of using suitable fertilizers by reaching out to them through means of advanced technology will also be a big step forward.

#### **Review of the Literature**

Review of literature is an essential part of any investigation as it not only gives an idea of the work completed in the past, but also provides the basis for interpretation and discussion of the findings. Following Studies investigating employment and income on individual farms have following results:-

## **Maati Sangathan (SHGs)**

Maati started as a small group of women who came together in the mid 1990s to protest against rampant alcoholism. In 1994, within one month there were two cases in which husbands in their drunkenness had burnt their wives to death, but there was a conspiracy of silence around these shocking incidents with nobody willing to speak up. Malika, Basanti and a few others got together, held meetings in several villages and mobilised women, writing post cards to people's representatives in villages all around. 1000 women came forward for a meeting in Munsiyari where they put forth a memorandum to the SDM asking for the sale of alcohol to be stopped. This protest became a seed from which the sangathan grew into a space for women to meet, talk, express themselves, and share their joys and sorrows.

Over the years, Maati has continued its work in opposing alcoholism (Anti Liquor Protest 2011) and in crisis intervention. People from around 50 surrounding villages know of them and victims of rape, harassment and domestic violence come to them regularly for help and support. The sangathan has also been involved in rallies and agitations demanding qualified staff and proper infrastructure in the local schools, college and hospital.

### **Livelihood Support**

Recognising that women cannot step out of their homes and participate in the collective process unless there are efforts to provide livelihood support, Maati has been finding various means by which women can earn. This includes offering marketing support for woollen products like carpets, rugs, blankets, sweaters, etc. which the women have been weaving/knitting traditionally. In 2010, the Maati Workshop was started to take the production and sale to a slightly larger, yet manageable scale. Maati organises a fortnightly Mahila Haat where women can come and sell their produce from the fields, home made snacks and woollen products. This is also an opportunity for the sangathan to interact and connect with the wider community, especially the women.

- **Van Panchayat**

In 2003, Malika was elected the Sarpanch of the Sarmoli-Jainti Van Pachayat (Village Forest Council). She along with the women of the sangathan initiated a process in which the community enthusiastically took up the responsibility of regulating use of their forest's products (grass, wood and leaves), regenerating the Mesar Kund (a pond) and regular afforestation. An innovative way to link conservation to livelihoods was started in 2004 through the home stay and Guide/porter programmes (Tourism, Livelihoods and Conservation). A ground breaking achievement of her tenure was extending membership of the van panchayat to women, including single women and resident daughters, thereby recognising them as right holders. Another was the formation of a sangathan of 40 van panchayats to discuss and take up shared concerns.

- **Environmentally Sustainable Development**

Maati has vociferously supported environmentally sustainable development and has been encouraging the use of solar lanterns and organic seeds. They have also raised their voice against the large hydroelectric projects in the region that are riding roughshod over environmental and livelihood concerns. NTPC undertook a 261 MW hydro electric project by the name of Rupsiabagar-Khasiyabara on the Goriganga river that required 218 hectares of forest land and 60 hectares of private land. The sangathan in conjunction with many other groups raised serious procedural questions on land acquisition, compensation, rehabilitation and the ecological impact

of the project. In July 2010, MoEF denied permission for the project to be implemented. (Opposing Destruction in the name of Development)

### ➤ Structure of the Sangathan

The dedicated membership of Maati comes from the villages of Sarmoli, Shankadura and Naya Basti. There are about 7-8 members who meet everyday, have discussions, and keep a regular record of their activities and accounts. Each person is given a well defined area for which she is responsible. The strength of the sangathan lies in the diversity of the skills that the different members bring to it. The sangathan has small groups of 10-12 women working in different fields like seed conservation, forests, woollen products, cattle etc. Maati often works under the banner of larger groups like the Uttarakhand Mahila Manch, Van Panchayat Sangathan etc. and networks closely with the Nadi Bachao Abhiyan and the Kisan Mahasabha.

In a society where women dared not move out of the house to participate in public meetings and speak their minds, Maati has succeeded in opening up a new world for them by offering them space to explore their political and creative potential, develop a deeper and wider understanding of issues and given them the confidence to take on leadership roles in the community.

A kilometer from Munsiyari is the tiny village of Sarmoli. Maati in Sarmoli is a collective of about 20 women that first came together as a response to domestic violence. Maati Sangathan started its village Homestay program in 2004 where the locals rented out extra rooms in houses to tourists / paying guests. Maati in Sarmoli, Uttarakhand is a collective of about 20 women that first came together as a response to domestic violence. They have since grown into a living example of direct democracy, through participation in local politics, in management of their forest and water resources, in agriculture based on seed diversity and in complementing their livelihoods with low-impact tourism based on homestays. At the other end of the scale is Kudumbashree, a mammoth state-led initiative in Kerala that attempts to empower women through a decentralized governance structure from the bottom up (self, neighbourhood, district); and training, networking and marketing for micro-enterprise set-ups that produce goods locally. While the programme has been exemplary in empowering women, challenges remain in ensuring local sourcing of raw materials and local consumption of products.

In a society in which women's independence and rights are diminished by patriarchy and the predominance of arranged marriages, Malika's background and efforts with the Maathi collective have established her as an influential member of the community. The non- governmental organization focuses on opposing the liquor lobby and the lack of female independence and abolishing domestic violence from the lives of village women. Malika is the epitome of urban Indian intellectualism, standing in stark contrast to the mostly uneducated rural women with whom she works. Sarmoli is a small village with seemingly tight-knit community. Rural life posed unique issues for Indian women. Traditional and conservative lifestyles in villages are growing increasingly different from modern and western culture of India's large cities. Maati is a collective of mountain women committed to working together on everyday issues and struggles: striving for a life free from violence, food sovereignty and live hood security, and strong empowered and informed voice in our democratic self governance, and foraging alliances with other such communities locally and globally. Maati is founded by local women along with Malika

Virdi, Maati spoke up against the growing violence on women and came out to protest against liquor sales and its rampant use. Maati has laid stress on livelihood support for women in order to empower them. They have found out means to earn, through selling their agricultural produce like Rajma and homemade snacks, starting homestays and tour guide programmes, and creating a market for their handicrafts including carpets, rugs, blankets, sweaters, etc. all the Maati members are farmers themselves and they grow local produce on their farms.

At Original Indian Table, we produce a variety of products from them, especially the different kinds of Rajma and Himalayan herbs, which taste delightful owing to the efforts these women have put in and also due to the agro-climatic conditions at high altitudes. In 2003, after being elected as the Sarpanch of the village Van Panchayat (Forest Commons), Malika along with the women of Sangathan started taking up the responsibility of their forests by regular afforestation and structured the use of the forest's produce like grass, wood and leaves. Maati has set a benchmark for women development in the hills where women were earlier not involved in any public matters. They have made a lot of achievements and right on the road to development, in pace with nature.

## Objectives of the Study

### Objective Study in Agriculture

#### 1. What to produce?

Let us consider the first question, **Which commodities are to be produced and in what quantities?**

The farmers should grow such crops which yield more output in less amount of capital. High Yielding crops should be grown by the farmers as they will yield more at a low cost of production. Therefore, the introduction of High Yielding Variety seeds in village Sarmoli, can be profitable. These seeds have a shorter life cycle which enables the farmer to practice multiple cropping.

#### 2. How to Produce?

**Another question that arises is how to produce? Which techniques are to be adopted?**

There are two types of techniques which are -:

1. **Labour**– Intensive Technique which employs relatively more labour and less capital.
2. **Capital**– Intensive Technique which requires more capital and less labour.

The choice of technique depends on the cost of the factors of production. That is, if labour is cheap and capital is expensive then a labour-intensive technique should be considered and vice-versa.

#### 3. For Whom to Produce?

The solution of this problem is very simple only those commodities should be produced which can target poor, middle and high-class people as well.

#### **4. How new technologies can play an important role in raising agricultural productivity?**

Introduction of modern machines at low cost can help in replacing traditional farming equipment.

Firstly we have to understand the rural life of village, Sarmoli people that how they work, what they produce, how they produce and for whom they are producing? We can bridge the gap between farmers struggling to market traditional and sustainable food ingredients and customers looking for healthier, more nutritious and local alternatives. As we study of village Sarmoli in agriculture is about Rajma and the potatoes are very famous. So for that it should get to familiarize with the socio- economic conditions of the farmers & their problems with reference to agricultural development. They (the farmers) should get the market exposure so that they increase their business i.e farming in different levels. It should be in state or in the national levels also. They can expand their market in most of the cities thorough online marketing. Farmers get many benefits in online marketing. But for online marketing they have knowledge about the cyber and e-commerce facilities. They need to get the training programmers about that cyber sides. All Indian people know about the quality of Munsiyari, Uttrakhand Rajma/ Kidney Beans by online marketing. A farmer has to maintain their quality in their product so that demand will increase.

If the demand increase, supply increase also. Demand increase by quality of their product maintains. Government should provide schemes to the farmers for their agriculture so that they will get benefits and feel save for their agriculture. Through online marketing a farmers get benefits as mediators will go away and directly money will comes to the farmers. They should provide the new technologies i.e. machines and equipments so that their work go in a easy way. They do not do work hard. Government should provides farmers machines i.e. tractors etc. To protect crops from natural calamities like heavy rainfall, snowfall etc. and from the wild animals, there should be preparation of contingency plan according to the circumstances, to provide farmers the information about right crops cycle and arrangement of necessary farm inputs accordingly.

Resetting, PRESERVING AND ENHANCING ECOSYSTEMS dependent on agriculture and forestry. Improving the organization of the FOOD SUPPLY CHAIN AND MANAGEMENT RISK in the agricultural sector. Promoting social inclusion, poverty reduction and ECONOMIC DEVELOPMENT IN RURAL AREAS. Promoting KNOWLEDGE TRANSFER AND INNOVATION in agriculture and forestry and rural sector. Increased profitability of farms and purchasing power of farmers. Expand export opportunities and new markets. Improve the conditions of farmers in the Food Chain (to minimize imbalances and disadvantage of farmers with intermediate distributors and other agents in the food and agriculture). Providing comprehensiveness to the crop insurance schemes implemented in the state to compensate the damages caused by natural calamities, insects/ diseases in agricultural production. We have to improve the competitiveness of the farm and forestry sector through support of restructuring, modernization/ innovation and quality production in Rajma. agriculture we can give many people employment through farming, and if we do online marketing from that also many people get employment on that in making websites and app for selling product.

## 5. Comparative analysis of cost and profit of organic and conventional

- I. Comparative analysis of the use of fertilizers on organic and conventional.
- II. Farming in selected areas by taking selected farmers.
- III. Analysis of organic and conventional farming on water, land and
- IV. Farming on health and environment

### Hypothesis of the Study

There is no difference in profitability of organic and conventional. Standardization, marketing and trade of the products of organic and Farming. Soil science is not included in this study. Conventional family is treated equivalent.

Qualitative research is not really designed for hypothesis testing. It is designed to explore an area that can later be hypothesis tested with quantitative approach (or alternately, it can be used to explore the meanings of quantitative answers in more detail). We need to convert our qualitative data into categorical data that can be quantified (usually through coding), then use hypothesis test the categorical data.

**H1 (Null H0)** - Entrepreneurial opportunities evolving high technology are possible in the village.

**H1 (Alternative)** - Entrepreneurial opportunities evolving high technology is not possible in village.

**H2 (Null H0)** – Specialized skills are not available in village and in villagers.

**H2 (Alternative)**- Specialized skills are available in village and in the villagers.

**H3 (Null H0)** – There is possibility of big investments in entrepreneurial ventures.

**H3 (Alternative)** – There is no possibilities of big investment in entrepreneurial ventures.

**H4 (Null H0)** – Good marketing channels and communications are available in rural areas.

**H4 (Alternative)** – There is not good marketing and communications are available in rural areas.

**H5 (Null H0)** –Village people hardworking and knowledge of new technologies.

**H5 (Alternative)** – Village people are not hardworking as well they don't have much knowledge of new technology. They are lazy.

Since, the village has facilities only for basic formal education of a non- technical nature, establishment of ventures requiring high levels of technology would be inappropriate.

As mentioned earlier, due to the ensuring educational system prevalent in the villages. The villagers do not possess a satisfactory level of technical skills.

The residence belong mainly two middle income group with a significant proportion at the BPL level large investments would not be possible. This is the case for both owned & loaned funds. The quantum of loaned funds through governmental agencies & banks depends to a large extent on the level of present income as it represents the repaying capacity of the borrowers.

Marketing and transport network is not very well developed in village and for market operation the middle man play a dominant role which is very often runs opposite to the interest of the farmers. Moreover, there are market fluctuations especially with respect to perishable agricultural crops for this reason there should be cash crops should be grown. And from this price will also fluctuate in an amount.

Many things which we predict they get wrong or we can say null hypothesis is rejected and sometimes it got accepted. And wise e versa for alternative hypothesis also.

### Actions Planned to address the problem

#### Solution in Agriculture

- ✓ **Smart water Management** – If we work in a systematic way it means using drop by drop or sprinkler irrigation system if we use tha it can increase crop yields up to 50%.
- ✓ **Farm management software** – We can manage our farm without tracking things like we do i.e. driving, etc. Farm management software helps us to take complete control over farming activities and analyze usage of all inputs and expense, so we could indentify our weak points and make improvements.
- ✓ **Protection** – We have to protect our crops from wild animals and unconditional weather by providing them protection. From wild animals we can protect crops by implementing fencing and from unconditional weather it should be the forecasting so that we can prepare us for the future.
- ✓ **Increasing sales** – We can increase regional sales by enabling local procedures to reach out to the other states in India (Domestic Market).
- ✓ **Small Farmers** – We can direct access of small farmers to the market.

#### New approaches can help in promoting agriculture and in providing a healthy lifestyle to the peasants:

1. **Encouraging Organic Farming:** Organic farming should be encouraged as organic produce is sold at high prices in the market. There is a huge demand for organic produce as it is good for health and has a limited supply.
2. **Relief Measures:** To sustain a healthy lifestyle and ensure a safe future the farmers can avail benefits of relief measures proposed by Department of Agriculture & Cooperation which provides relief in case of drought, hailstorm, and pest attacks. Therefore, the crops will be insured and the farmers will not have to sleep with empty stomachs.



3. **Village Seed Banks and Nurseries should be opened:** Village seed banks and nurseries should be opened for preserving regional seeds. This will help in increasing local varieties of millets, maize, mustard, beans etc. Nurseries should also be opened for promoting cash crops.
4. **Soil and Moisture Conservation:** Soil is the main component of farming if the soil is infertile then it will not yield good crops. Therefore, soil conservation techniques should be adopted by the farmers. Trenches should be dug which can be filled with rain water.
5. **Practices such as Slash and Burn should be abolished:** Slash and burn is an agricultural technique in which farmers cut down trees and burn forests to create fields. It is subsistence agriculture which is practised by the tribal people as it uses little technology. The major drawback of using this technique is that it degrades the environment. The tribal relate this practice to the organic agricultural approach which is famous for millet cultivation.
6. **Chemical Insecticides and Pesticides should not be used in farming:** Chemical insecticides and pesticides are detrimental to the environment. Insecticides and pesticides destroy the natural composition of air, water and soil. Pesticides affect biodiversity by reducing nitrogen fixation, contribute to the disappearance of pollinators, threaten fish and cause severe damage to animal habitats. They are also harmful to humans as they cause neurological and psychiatric disorders, brain tumours, cancers, spontaneous abortions, stillbirths and birth defects. Pesticide exposure is damaging to the immune system. Many pesticides are endocrine disrupters which when exposed to humans can have a detrimental effect which can cause hormonal imbalance.
7. **Testing of Farm Machines and Equipment:** For increasing the output and reducing the cost of production new and improved technology should be introduced in agriculture. Subsidy should be given to the poor farmers on agricultural equipment such as hand tools, planting, reaping, harvesting and threshing equipment, tractors, power-tillers and other specialized agricultural machines which are used in farming.
8. **Developing Mandis:** Mandis should be developed in order to create a link between the producers and buyers. Mandis will help in providing good quality produce at reasonable prices which will help in raising the sales. Separate markets can be set up for unique organic products. India is the largest agricultural powerhouse worldwide and the leading producer of spices, pulses, and milk. Not only that, our country has the largest area that is used to cultivate cotton, wheat and rice. Agriculture held almost 75% share in India's GDP a few decades ago. To this day, the share has gone down to around 14%. However, agriculture continues to be the source of livelihood for about 50% of the working population, three-quarters of which is based in the rural parts of India.

In a nutshell, agriculture is a vast industry and has an impact on every citizen of the country, either directly or indirectly. Like any other sectors, agriculture too has its own set of challenges, some of which are very critical and impeding. If we talk about the possible solution then it depends on the government and with the villagers. Urban people are dependant upon the villagers i.e. farmers because they only protect us from starvation. Without food we can't survive so we have to protect village and the villagers. We have to motivate them to do work regularly and government should provide them facilities and give them some training so that they can grow vegetables, fruits etc.

Farmers are our backbone. So for them all types of facilities should be given to them i.e. machines, equipments and any other things which they want to use in doing agriculture. To know the farmers about the schemes started by the government for the farmers. There should be a low interest rate for the farmers in taking loans. They should provide a training to know about new techniques or technologies in farming. There is automation in farming in which the work of farmers or we can say burden will be less after getting automation techniques to the farmers.

### Implementation of Action Research Steps

- ✓ Firstly we have to decide what enterprises, programmed or project we want to investigate i.e. it's our potatoes Munsiyari production in Sarmoli village.
- ✓ Then we have to give brief background of the crop i.e. in this we can go for the samples of our crops.
- ✓ Then we have to state the problem i.e. related to the technology which is not so advance in planting a seeds, no automation is their or no transportation facilities provided by the government or others.
- ✓ Main objective for growing potatoes that:-
  - a) To assess farmers' knowledge of key recommendations in potatoes production.
  - b) To assess farmers application of key recommendations.
  - c) To identify factors affecting application of recommendations.
- ✓ We have to identify the key recommendations for a successful enterprise, programmed or project is that what do farmers need to know and do for them to be successful in enterprise project? Etc.
- ✓ We have to set questionnaire to assess farmer's knowledge i.e. the varieties of potatoes in the area?

Construct a checklist for assessing farmer application (questionnaire) i.e. why do we grow these varieties? What is our plant spacing? Etc.

- ✓ Then we have to decide which farmers, and how many farmers, we will test (interview) i.e. we can take growers and non-growers of potatoes or in men and women farmers or will interested in small-scale grower or it may be large scale grower. Etc.
- ✓ Deciding on the sampling strategy and technique i.e. it may be probability or non-probability sampling methods.
- ✓ Then selecting the sample by which we selected above and avoid bias.
- ✓ Then we have to construct our research design table so that we can collect data in a systematic way. i.e. in a primary or in a secondary data bases.
- ✓ Administer the test so that respondent in our sample answers all the questions in test.
- ✓ Then analyze the result through findings that is overall performance by farmers etc.
- ✓ At last identify opportunities for improvement. That is if we think the farmers have less knowledge then we have to give them training. But if the farmers have much better knowledge then we have to explore ways of dealing with the constraints through their suggestions.

## Process of Implementation of the Study

### ➤ Steps of planting seeds of potatoes-

Potatoes can be started 0 to 2 weeks after your last spring frost. You may plant earlier, as soon as soil can be worked, but be aware that some crops may be ruined by a frost or wet soil. Find your local frost dates here. Potatoes prefer cool weather. In warmer climates, potatoes can even be grown as a winter crop. Even if you have a longer-than-normal winter, it's not too late to plant potatoes through mid-spring (depending on where you're located). Some folks even plant through early summer, especially in containers or potato towers.

### ➤ Caring

Do the hilling in the morning, when plants are at their tallest. During the heat of the day, plants start drooping.

Maintain even moisture, especially from the time when sprouts appear until several weeks after they blossom. The plants need 1 to 2 inches of water per week. If you water too much right after planting and not enough as the potatoes begin to form, the tubers can become misshapen.

The last hilling should be done before the potato plants bloom, when the aboveground part of the plant is at least a foot tall. Hoe the dirt up around the base of the plant in order to cover the tubers as well as to support the plant.

Practice yearly crop rotation with potatoes.

### ➤ Harvesting and Storing

- New potatoes," which are potatoes that are purposefully harvested early for their smaller size and tender skin, will be ready for harvest 2 to 3 weeks after the plants stop flowering. New potatoes should not be cured and should be eaten within a few days of harvest, as they will not keep for much longer than that.
- For mature potatoes, wait 2 to 3 weeks after the plant's foliage has died back. The tops of the plants need to have completely died before you begin harvesting. Cut browning foliage to the ground and wait 10 to 14 days before harvesting to allow the potatoes to develop a thick enough skin. Don't wait too long, though, or the potatoes may rot (especially in moisture-laden soil).
- Toughen up potatoes for storage before harvest by not watering them much after mid-August.
- Dig up a test hill to see how mature the potatoes are. The skins of mature potatoes are thick and firmly attached to the flesh. If the skins are thin and rub off easily, your potatoes are still too new and should be left in the ground for a few more days.
- Potatoes can tolerate light frost, but when the first hard frost is expected, it's time to get out the shovels and start digging potatoes.

### ➤ Storage Tips

- Allow freshly dug potatoes to sit in a dry, cool place (45-60°F / 7-15°C) for up to two weeks. This allows their skins to cure, which will help them keep for longer.
- After curing, make sure you brush off any soil clinging to the potatoes, then store potatoes in a cool, dark place, preferably 45° to 50°F (7° to 10°C), with good ventilation. When properly stored, potatoes will remain fresh for up to a month. Throw away potatoes that are shriveled, green, or have many sprouts.
- Do not store potatoes with apples; the apples' ethylene gas will cause potatoes to spoil.
- Never store potatoes in the refrigerator.
- Whether you dig your own potatoes or buy them at a store, don't wash them until right before you use them. Washing potatoes shortens their storage life.

### ▶ How to grow potatoes-Steps

Preparations-In each trench, place a seed potato piece (cut side down) every 12 to 14 inches and cover with 3 to 4 inches of soil.

If your garden soil is very rocky, put the seed potato pieces directly on the ground. Sprinkle with a mix of soil and compost. Cover them with straw or leaves, hilling the material up as the potatoes grow.

The best starters are seed potatoes from which eyes (buds) protrude. (Do not confuse seed potatoes with potato seeds or grocery produce!) Use a clean, sharp paring knife to cut large potatoes into pieces that are roughly the size of a golf ball, making sure that there are at least 2 eyes on each piece.

If you are cutting up potato pieces yourself, do so 1 to 2 days ahead of planting. This will give them the chance to "heal" and form a protective layer over the cut surface, improving both moisture retention and rot resistance.

12 to 16 days after planting, when sprouts appear, use a hoe to gently fill in the trench with another 3 to 4 inches of soil, leaving a few inches of the plants exposed. Repeat in several weeks, leaving the soil mounded up 4 to 5 inches above ground level.

After the potato plants have emerged, add organic mulch between the rows to conserve moisture, help with weed control, and cool the soil.

### ➤ Harvest and Storage

Dig potatoes up on a dry day. Dig up gently, being careful not to damage the tubers. Avoid cutting or bruising potato skin. Damaged potatoes will rot during storage and should be used as soon as possible. The soil should not be compact, so digging should be easy.

If the soil is very wet, let the potatoes air-dry as much as possible before putting them in bags or baskets.

Don't leave the potatoes that you have dug in the sun for long after they have been dug up from your garden, otherwise your potatoes may turn green. Green potatoes have a bitter taste due to the presence of solanine, and if enough is eaten, can cause vomiting and diarrhea. Small spots can be trimmed off, but if there is significant greening, throw the potato out.

#### HOW TO STORE POTATOES

Allow freshly dug potatoes to sit in a dry, cool place (45-60°F / 7-15°C) for up to two weeks. This allows their skins to cure, which will help them keep for longer.

After curing, make sure you brush off any soil clinging to the potatoes, then store potatoes in a cool, dark place, preferably 45° to 50°F (7° to 10°C), with good ventilation. When properly stored, potatoes will remain fresh for up to a month. Throw away potatoes that are shriveled, green, or have many sprouts.

Do not store potatoes with apples; the apples' ethylene gas will cause potatoes to spoil.

Never store potatoes in the refrigerator. Whether you dig your own potatoes or buy them at a store, don't wash them until right before you use them. Washing potatoes shortens their storage life.

## Data Collection and Analysis

### Source of Data:-

The required data were collected from both primary source and as well secondary source.

#### Primary Data :-

The primary data were collected from direct interaction with villagers during households surveys (through questionnaire), informal interviews, SHGs meeting, non- participatory observations, and other village meetings.

This data is very accurate because we observe the things by our own experience and b personal interaction with the people and the nature.

#### Secondary Data :-

The secondary data were collected from government employees (Patwari, VDO, VPDO etc.) , Bankers ( managers, employees) Gram Panchayat Office, Anganwadi, primary schools, Sarpanch, Internet, websites, etc.

The secondary data is collect in a correct way if the information is right given by others i.e. through internet or people. It is very easy and fastest way to do the work quickly.

But sometimes the information is not correct and accurate. The information will be the past years sometimes it is not a recent matter or the information related to the research that we were doing in present.

Data related to the investment or for the land and the raw material this information it may comes from primary or from secondary data also.

The secondary data were collected from government employees (Patwari, VDO, VPDO etc.) , Bankers ( managers, employees) Gram Panchayat Office, Anganwadi, primary schools, Sarpanch, Internet, websites, etc.

#### **Sample Design :-**

For questionnaire survey systematic random sampling was done. 32 households selected randomly, efforts were made to collect different information regarding social and economical status of villagers from all caste, economic group.

#### **Data Analysis :-**

Statistical tools like tables, percentages were used to analyze the data collected on various things like, caste, sex ratio, different occupations, livestock, assets, land holding, literacy level and different infrastructure like road electrification etc.

#### **Limitation of Data Collection :-**

- People hesitate to tell about the details regarding income and assets.
- People are not correct in there data.
- Many people migrated, they come on their holidays only.

## **Findings**

### **About Village Sarmoli (ENTREPRENEURIAL)**

#### **SWOT Analysis**

##### **Strength**

1. Small Town , Quiet Rural Lifestyle
2. Rural Character
3. Natural Resources
4. Low Investment In Land Conservation
5. Undeveloped Slopes (Scenic Value )
6. Fertile Land For Crops / Agriculture
7. Strong Identity And Have Insta Page
8. Women's were very supportive.

In village Sarmoli, there is a fertile land for crops i.e. agriculture, farming. Farmer grows Potatoes, Pulses like, Rajma etc., Yellow Chillies, and Cabbage etc. There is an Instagram page also that shows a strong identity of village Sarmoli. In village there is very supportive women's who helps their husbands in agriculture and other work. Women do handicraft like carpets work as well as making woolen clothes etc for survival. Many things to do in village Sarmoli, it is good in tourism field also. Agriculture, Tourism, Home stays, Hotels, handicraft work etc done by the villagers especially a women. There is SHGs where women works and earn money. As we can say villages is the backbone of India because most of the food crops are in villages. So, literally, villages are feeding everyone. In village people there is more unity, helping nature, hardworking nature is shown.

Well Village Sarmoli is also known for their traditional & cultural values. Festivals and traditional ceremonies are celebrated in this village. Festival is celebrated in Naina devi temple and it is known as Naina devi fair.

Ecological balance is maintained by village Sarmoli, because of the environment of village. There is more trees. Eco- friendly habits helps to keep village pollution free. Village Sarmoli, promoting small scale industries like, Handloom Industry, Dairy Farm, Poultry Farm.

The villagers lived over there in very good conditions, well maintained; they have that much facility in which they can live in a good way. Toilets in every villagers home are available no one go outside from their home. They do all types of work such as agriculture, handloom work, etc. mostly women works in every field. Because men were gone outside of villages (cities) for work or we can say for employment. Village women grow vegetables for their own use. Women's work as a labor also, they do not have any hesitation of doing any kind of work.

### **Weaknesses**

- ✓ Crops Safety (Wild Animals) Which Decrease Agriculture In Sarmoli.
- ✓ No Capital Improvement Program To Plan & Budget
- ✓ No Proper Market For Expansion
- ✓ Transportation of raw material
- ✓ No proper sale outside the village.
- ✓ No plan related to business.
- ✓ No plan in planting the crop.

In village Sarmoli, agriculture is resulting in loss due to increase in cost of agriculture. And many people of village is very lazy in their work they don't want to do work (Especially men). Men of village only need alcohol for the survival from this there wife and children suffer. Some of them are getting attracted to luxurious life in cities and migrated. They come only in holidays or for other reason only. There is no employment in village so the villagers want to go in cities to earn money for their family and for own. There is no proper market for expansion to get benefits or no profits. This is the main reason from which the villagers do not want to live in village.

If we talk about in Agriculture, in this there is no profit for the farmers. If they grow or plant crops, it will destroyed by the wild animals like pigs, monkeys, etc. there is no protection facilities for the crops so that it

should be protected by the farmers. This is not only one reason the second reason is of unconditional weather that affects crops i.e. due to heavy rainfall and snowfall.

There is the problem of transportation also because there is no road facility to transport finished goods to another place. As there is no capital improvement program to plan & budget. No plans related to business or for other things.

### **Opportunities**

- ✓ Potential To Access Small –Scale
- ✓ Product Sales in Market to Increase Their Income like agriculture in rajma, potatoes etc.
- ✓ Provide Market Facility Areas
- ✓ SHG'S like Saras market in sarmoli village.

Main opportunities are in agriculture, homestays, hotels, and in handlooms. If we talk about agriculture there is an income increased if there is less mediators between farmers and their customers. If there is an warehousing for the farmers to protect their crops then also there is an increment in the income of farmers because it occurs less loss in damage of their crops in unconditional weather and from the wild animals. There should be boundaries of fencing so that crops will be protected from animals; they are not able to destroy our crops.

There is an SHGs in village Sarmoli, named Maati Sangathan started by 20 women's having Saras Market in Munsiyari, distance is about 2-3km. We can start business and to extend it we have a market (Saras) in this market we can sell our product and if business make profits then we will go further outside the village.

### **Challenges**

- Limited Public Transportation Option and with Road Facilities.
- Large Commercial Development
- Agriculture Production
- Training and programmes related to the agriculture.
- New techniques and innovative ideas.
- Provide knowledge to the labour and the farmers
- Less mediators
- Online selling of products
- Organic farming
- To protect crops from wild animals.
- Provide land facility
- Provide loans to farmers to purchase raw materials.
- Provide schemes by the government to the farmers.



We can organize a program or by the government related to development of villagers by their business. In this we can tell how they can plan for their business i.e. agriculture, handlooms etc. and how they can grow up their business in a profitable manner. Government should aware about their schemes to farmers.

Schemes are:-

1. Soil Health Card Scheme
2. Pradhan Mantri Fasal Bima Yojna
3. Pradhan Mantri Krishi Sinchai Yojna
4. National Agriculture Market (e-NAM)
5. Micro Irrigation Fund (MIF) etc. schemes

We have to do fewer mediators by selling farmers product by online. It is very profitable for farmers. Farmers and the laborer should provide knowledge of new technologies like how to start machines etc. for this they should provide programmes and training so that they know about the new technology. And loan facilities should also available for farmers without any burden of loan.

They should provide a road facility for transportation of product from village to another place. Farmer is done with organic farming as customer liked it. They should maintain their quality of their product which is farmers planting in their land.

Most of the farmers sell their final produce to village merchant because they have taken loan from him on condition of selling crops. There is awkward situation for the farmers, “No Crops without Loan and No Loan without Crops”.

There is no motivation in Agriculture since many farmers do not earn more than one lakh in a year. Young and educated people are least interested in Agriculture Employment. Benefits of subsidized fertilizers and quality seeds are confined to certain influential people. There is lack of scientific quality checking system of seeds; Standardization and grading facility at Panachayat/Tehsil Level, due to this; farmers are unable to leverage the better quality crops.

Farmers in India have teamed up with scientists to find new ways to produce more food, improve the quality of their farmland and earn more money. With the help of nuclear techniques, they now have a method for producing high quality livestock and more crops while protecting the health of their soil for a future of more fertile farming.

Approximately 70% of people in India rely on agriculture as a source of income. Many conventional farming methods involve inorganic fertilizers and using only one crop type each season, which puts a strain on farmers soil and water resources. This often leads to less productive crop yield, which in turn means less food and lowered incomes. As the already strained situation gets worse due to climate change, farmers are now in need of more efficient modes of production.

## Conclusion

- ✓ Generate employment to unemployed people.
- ✓ Increases standard of living in the village
- ✓ Scope in production of Rajma
- ✓ Need a market to expand our product.
- ✓ Need new ideas and technologies.
- ✓ Needed for the new generation students.
- ✓ From marketing of a product it increases the economy of Uttarakhand.
- ✓ Stops migration through employment
- ✓ Provides protection from the wild animals.
- ✓ Creates Organic farming
- ✓ Provide training programmes
- ✓ SHG'S helps in marketing our product also.
- ✓ Exporting a product
- ✓ Provide machines for packaging, labeling, and branding the product.
- ✓ Can do work in a partnership.
- ✓ Business name
- ✓ Government schemes work
- ✓ Purchasing a raw material from which areas, cities of their own.
- ✓ Providing Land for plantation of crops.
- ✓ Capital investment
- ✓ Advertising a product for the exposure

During my stay in the village I found that giving right information can help people to make right decision. I observed that the people of the village have the potential and skill to come up from poverty and misery but the most important thing they lack is information and knowledge about what is happening around the world. I saw that mere distribution of money by government and SHGs has degraded the community's value and generated a feeling of dependency. I learned the importance of life skills & functional literacy which will help them to operate & manage their enterprise. The households have very small amount of savings which is not enough for their risk mitigation.

The village study enabled me in studying the various aspects of the village life. I came to know various things knowing which perhaps were not possible without staying in the village among the rural population. We can say that providing subsidies will not help but what the villagers actually needed is the information and knowledge about their products, their value and their demand in outside market, so that they could get appropriate return for their hard work. And second hand experience is how they cope up with the expenditure when there is no job.

Government should focus on dealing with challenges created by globalization, volatility in prices, shrinking farm size, dry land farming challenges and environmental stress. Any upcoming Government policy or economic policy reforms should address:-

- The issues created by highly restrictive and complex labor laws.
- High inflation
- Corruption and graft as well as
- Lack of political consensus and will.

It can be concluded that the design implemented in the present work provide portability, flexibility and data transmission is also done with low power consumption.

Agriculture has to focus on developing institutions for better delivery systems. Agriculture can be ignored at our peril. If we want inclusive growth, both Central and State Government have to focus on agriculture sector. Let us hope that government has the political will to implement the policies effectively and helps the farmers without testing their patience.

Based on the above discussion it may be concluded that a number of promising technical, social and institutional approaches with potential to contribute to low impact aquaculture have been identified and to some degree tested, however, strategies are required that promote and support their uptake and where necessary adaptation. Awareness of promising approaches to low impact of agriculture and aquaculture should be promoted amongst target institutions including national and local government authorities, extension agents, development practitioners, educational establishments and communities that stand to benefits.

This study has investigated the importance of small farms and specifically small traditional farming and how it can be revived and become sustainable in this new dispensation. It has demonstrated that, despite the many challenges faced by the sub- sectors, especially over the last twenty five years, its revitalization and sustainability is not only attainable but is also critical.

Small farmers are not getting much benefit from chicken through current market. No market intermediation mechanism is made to help small farmers. No interaction between producers and consumers through many local people support the product. Limited implementation of government policies and regulations on food safety and slaughterhouse management.

The vast majority of small and marginal farmers in India lack an effective voice in influencing research and extension priorities. The public and private sectors should identify the existing farmers associations and support them to develop their organization.

Women farmers now own land for leading to economic empowerment, decision making powers. The distribution of tractors from area to area should be normalized so that the custom hiring is increased. Technical know-how should be provided to the farmers with respect to appropriateness of farm machinery for the situation and for its proper use.

## References

This is the primary as well as secondary data we have collected.

Firstly Primary Data is based on the personally interaction with the villagers and asked questions to them about the village culture, style, food, agriculture etc. We personally identify the problems of the villagers and after that we find out the problems solutions and find out the opportunities to the people.

Secondary Data is based on the internet, news, magazines, and the other secondary matters.

❑ **Websites :-**

- [www.amazon.in](http://www.amazon.in)
- <http://www.scu.edu.au/schools/gcm/ar/aro/aandr.html>
- [homeburps.com](http://homeburps.com)
- <http://www.istage.ist.go.jp/browser/idsa/>
- <http://www.roysfarm.com>
- <http://www.yourarticallibrary.com/agriculturemajor-agriculture-problems-of-india-and-their-possible-sollutions/20988/>
- <https://www.greenbook.net/>

❑ **Author :-**

- Dick,B.(2002). Action research
- Farm Chemicals Handbook (serial). 2000

An agricultural chemicals reference source. Product information is prepared by participating manufacturers. Includes ingredients, precautionary statements, application instructions, workers protection requirements, and more. Also includes indexes for brand and company names, product category, and pest use, a table of state registrations, and a list of state pesticide control officials.

Impartial reference work “on the active ingredients in products for the control of crops pest and diseases, weeds, animals ectoparasites, and pests in public health.” Coverage includes beneficial microbial and invertebrate agents. Entries include chemical structure, physic- chemical properties, applications/ uses, environmental and toxicological data. Also has a Latin- English glossary of target species. For professionals.

## Annexures

### Annexure 1

#### Survey on Sanitation Management and ODF

#### Village Visit Report

<b>1</b>	<b>Name of Village</b>	Sarmoli
<b>2</b>	<b>Address of the Village</b>	Sarmoli, at distance of 2-3km away from Munsiyari
<b>3</b>	<b>Name of Sarpanch / Contact Person</b>	Malika Virdi (Founder of SHGs also)/ +919411194041
<b>4</b>	<b>Date of Visit</b>	10/Jan 2020

Demographics of the Village		
<b>1</b>	<b>Number of Men</b>	580
<b>2</b>	<b>Number of Women</b>	610
<b>3</b>	<b>Number of Children</b>	112
<b>4</b>	<b>Total Population</b>	1190
<b>5</b>	<b>Number of Anganwadis</b>	2
<b>6</b>	<b>Number of Schools</b>	1 (Primary)
<b>7</b>	<b>Number of Primary Health Centres</b>	0 (in Munsiyari 2-3km nearest)

VILLAGESCHEDULE				
S. No	Observations	Yes	No	Action By Village Authorities

1	Do all households have a toilet?	✓		If, No, Then what Action has been taken by the Village Authorities
2	Does anyone go out and defecate in the open in village?		✓	If, Yes , Then what Action has been taken by the Village Authorities
3	Are these faeces from the toilet being disposed in the river?		✓	If, Yes , Then what Action has been taken by the village authorities
4	Is there any OD spot / excreta in an open place?		✓	If, Yes , Then what Action has been taken by the Village Authorities
5	Are there institutional toilets at Schools, Anganwadis and Public places?	✓		If, No, Then what Action has been taken by the Village Authorities
6	Is waste from restaurants, public places dumped into the river?		✓	If, Yes , Then what Action has been taken by the Village Authorities
7	Is there a prevalence of visitor/tourist OD?		✓	If, Yes , Then what Action has been taken by the Village Authorities
8	Is there an institutional mechanism to check OD by insiders/outsideers?		No, action has been taken ✓	If, No, Then what Action has been taken by the Village Authorities
9	Are twin-pit toilets common in the Village?		✓	If, No, Then what Action has been taken by the Village Authorities

10	Are septic tank toilets (non-porous) common In your village?	✓		If, No, Then what Action has been taken by the Village Authorities
11	Is there a P-Trap in all toilets?		Some of them are P-trap toilets ✓	If, No, Then what Action has been taken by the Village Authorities
<b>Household Schedule</b>				
12	Is water available in /for the toilet?	✓		If, No, Then what Action has been taken by the Village Authorities
13	Are all toilets “fly-proof” – or Hygienic?	✓		If, No, Then what Action has been taken by the Village Authorities
14	Is the human waste disposed of in the Drain, a. Nallahs, b. Openpit; c. Ponds or river or streams or any water bodyetc.		✓	If, Yes , Then what Action has been taken by the Village Authorities
15	Is fecal sludge directly discharged to water bodies?		✓	If, Yes , Then what Action has been taken by the Village Authorities
16	Is there any garbage or litter piled up or dumped within 10 feet perimeter of the house, outside the premises of the household being canvassed		✓	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?

17	Is there a practice to wash the hands with soap after using the toilet?	May be not all ✓		If, No, Then what Action has been taken by the Village Authorities
18	Is any visible feces found in the environment?		✓	If, Yes , Then what Action has been taken by the Village Authorities
19	Is there any odour of urine or faeces in the location?		✓	If, Yes , Then what Action has been taken by the Village Authorities
20	Did any member of the household defecate in the open in the last three months or after gaining access to toilet?		✓	If, Yes , Then what Action has been taken by the Village Authorities
21	Is child faeces disposed of in open area?		✓	If, Yes , Then what Action has been taken by the Village Authorities
<b>Anganwadi Schedule</b>				
22	Have Anganwadi have toilet in own premises?	✓		If, No, Then what Action has been taken by the Village Authorities
23	Is water available in /for the toilet?	✓		If, No, Then what Action has been taken by the Village Authorities
24	Is toilet “fly-proof” – or Hygienic?	✓		If, No, Then what Action has been taken by the Village Authorities
25	Is the human waste disposed of in the Drain,			If, Yes , Then what Action has been taken



	<p>a) Nallahs,</p> <p>b) Openpit;</p> <p>c) Ponds or river or streams or any water bodyetc.</p>		✓	<p>by the Village Authorities</p> <p>Have you taken GPS enabled photographs?</p>
26	Are Anganwadi cleaners maintaining and cleaning public toilets?	✓		If, No, Then what Action has been taken by the Village Authorities
<b>School Schedule</b>				
27	Are there separate functional toilets for boys and girls in the school?	✓		If, No, Then what Action has been taken by the Village Authorities
28	Is there water available for use in the school toilets?	✓		If, No, Then what Action has been taken by the Village Authorities
29	<p>Is the human waste disposed of in the Drain,</p> <p>d) Nallahs,</p> <p>e) Openpit;</p> <p>f) Ponds or river or streams or any water bodyetc.</p>		✓	<p>If, Yes , Then what Action has been taken by the Village Authorities</p> <p>Have you taken GPS enabled photographs?</p>
30	Is public toilet accessible to all (including Divyangs/physically challenged)		<p>No, action has been taken</p> <p>✓</p>	If, No, Then what Action has been taken by the Village Authorities
<b>Public Toilets Schedule</b>				
31	Is there a Public Toilet in the village?		<p>Public toilet in Munsiyari</p> <p>✓</p>	If, No, Then what Action has been taken by the Village Authorities

32	Are there separate sections for Men and Women?		Away from village 2-3km ✓	If, No, Then what Action has been taken by the Village Authorities
33	Is the human waste disposed of in the Drain, <b>g)</b> Nallahs, <b>h)</b> Openpit; <b>i)</b> Ponds or river or streams or any water bodyetc.		✓	If, Yes , Then what Action has been taken by the Village Authorities  Have you taken GPS enabled photographs?
<b>TECHNOLOGY/METHODOLOGY FOR ENSURING SUSTAINABILITY OF ODF</b>				
34	Is any sustainable water supply process/ method adopted for sustainability of ODF?		No, action has been taken ✓	If ,Yes Describe the process or method  If, No, Then what Action has been taken by the Village Authorities

## Annexure 2

### Photographs of Village Sarmoli

Visiting Village, Sarmoli





Old Lady Knitting for Carpet



MAATI SANGATHAN  
Saras Market of SHGs

Old age Time Home in Sarmoli Village



Small Kids of Sarmoli



Farming done by villagers for their own use



View from Sarmoli of Munsiyari GGIC School







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