

Decoding Agrarian Crisis: A Study of Production, Employment and Emerging Challenges in Rural Agriculture

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Dr. Shashi Bala



V.V. Giri National Labour Institute



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Preface

'Swavlamban', a Sanskrit word, means "self-sufficient." We found that agriculture is the only means for more than 80% of families to alter their live when working exclusively with vulnerable and underprivileged communities.

The COVID-19 pandemic has caused problems in all sectors of the economy. In the first 45 days of the lockdown, the agricultural sector, which employees 58 percent of the country's workers, took the brunt of the problem.

Bold steps announced for the sector in the third tranche of the Atmanirbhar Bharat Abhiyan, on the other hand, reaffirmed the Government's commitment to strengthening it. The future of Indian agriculture depends upon efficient conservation, sustainable utilization and efficient management of agricultural resources. A comprehensive approach is required for the development of the agricultural sector in the country.

Present research study focuses on the grass-root constraints and opportunities to strengthen the rural economy. In-depth research and awareness on latest technology utilization is must for creating decent jobs for the rural population.

We are hopeful that the present research will be beneficial for all the stakeholders in their endeavor to develop a meaningful strategy for a dynamic and sustainable development of Agriculture.

I congratulate Dr. Shashi Bala (Fellow) and her team for the endeavor in these directions.

Amit Nirmal
Director General
V.V. Giri National Labour Institute, Noida



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Dr. Shashi Bala
Fellow

V. V. Giri National Labour Institute





Executive Summary

In India the majority of workers are engaged in the activities related to agriculture. Today agriculture is going through a crisis called Agrarian Crisis. The crisis of agriculture is persisting in nature and it is reflected in declining production in Agriculture Sector, increased indebtedness of farmers, low profit from farm outputs and much more.

Agriculture is carried out by a section of society which comprises of the rural labours who are unable to bear the burden of this economy on their weak shoulders. They are unable to help themselves or change their occupations and still working hard to contribute their part in development of the nation. It is important to investigate how the agrarian crisis is affecting the farmers, especially the small and marginal farmers from different aspects in order to decode this crisis. As the Indian Agriculture Sector is mainly occupied by the small and marginal farmers whose contribution to the sector is of utmost important and over-whelmingly that can not be underestimated. The agrarian crisis is not a new phenomenon, and the urgency to decode this crisis is becoming more complex which is attracting the attention of the researchers and policymakers of the country as it can lead to a huge loss. The Government is searching for every possible way to help these farmer and revive the agriculture sector. There is a scope to decode this crisis and revive the most important sector and help the policymakers to address this long persistent problem.

The objective of this study is to examine the present agrarian crisis in India from different dimensions and to understand its underlying causes; so that a strategy can be conceptualized which can support the dynamic growth and sustainable development of agriculture in the country. The study specifically intends to investigate the existing production process, the pattern of employment, productivity and other emerging challenges in agriculture.

A. Field Area

The study was conducted in two districts of Uttar Pradesh, namely, Bareilly and Varanasi. Further, for an in-depth analysis, two sub-districts each in both the regions namely, Bareilly, Faridpur, Pindra and Varanasi were divided in 8 regions, each consisting of a village. Questionnaires were used to elicit information from different aspects of the sample villages.

B. Respondents

From the selected Districts, the responses were elicited from Agricultural labourers, farmers, extension workers, among others.

C. Major Findings

- 1) 44.58% females and 55.42% males are a part of this study.



- 2) Majority of the respondents are in the age group 41-50 years.
- 3) 58.17% respondents belong to Other Backward Class.
- 4) 58.03% respondents are employed.
- 5) Unemployment is the biggest concern among the respondents. They feel that new schemes of employment should be introduced to rural areas.
- 6) 29.08% respondents are into agriculture work and 15.92% are into non-farming employment.
- 7) 40.35% workers having permanent jobs.
- 8) 60.30% owned land, 3.37% has leased land
- 9) 63.67% respondents have availed benefits from schemes.

D. Suggestions

1. Rural Infrastructure should be strengthened.
2. The standard of rural education should be improved.
3. Investments should be made in Research and Development of agriculture.
4. Allied sectors of agriculture should encourage employment opportunities to reduce burden on agriculture.
5. Institutes providing training on agriculture and other allied activities should be established and it should also provide placement opportunities.
6. Respondents should be made aware of the policies and welfare schemes provided by different stakeholders.

E. Policy Recommendations

- The accessibility to internet connection in the rural areas of India should be strengthened.
- Local Administration/ Gram Panchayat should play active role in resolving problems of the residents of the village.



Chapter 1: Introduction

1.1 Overview

Agriculture has been the primary employment of people in Indian villages from the ancient period, as it provided them with a source of opportunities for livelihood. Throughout the year, individuals cultivate a variety of crops. Subsistence farming, organic farming, and industrial farming are all examples of farming practices that contribute significantly to Indian agriculture. For large crop yields, India relies heavily on its monsoon cycle. With agricultural reforms currently in the focus, the Government could pursue a huge village-level infrastructure project that includes measures such as improving crop storage and building gramme mandis or haats. Not only would this add value to the agricultural supply chain, but it would also empower rural units and the farmer community, resulting in a faster recovery for the Indian economy following the Covid disaster. In India, agriculture and related sectors contributed only 17% of GDP in 2012, but employed 51 percent of the entire workforce. Agriculture's contribution to GDP has decreased as the Indian economy has diversified. It remains the largest source of employment and a vital part of India's overall socio-economic development.

The Agrarian challenges such as inadequate investment, diminishing fertility of soil, water scarcity, low yield to farmers, exorbitant prices of seeds, inadequate ground water level, declining irrigation, less rainfall etc. have impacted the farmer from which they find quite to difficult to overcome, leading to Agrarian crisis.

1.2 Literature review

According to 2014 statistics, South Asia's almost half workforce is employed in Agriculture Sector and 42% of its landmass is under Agriculture operation. Agriculture, rural development and food security are some of the areas of cooperation of SAARC. In its 18th Summit it was agreed that for enhancing productivity to ensure food and nutritional security in the region, investment should be increased, there should be promotion of research and development, facilitation of technical cooperation and application of innovative, appropriate and reliable technologies in the Agricultural Sector. Also, the importance of sustainable Agriculture was emphasized.

ILO has passed various conventions to support the labour and agriculture activities worldwide. It aids to maintain a system of labour inspection in agricultural undertakings [**Labour Inspection (Agriculture) Convention, 1969**], ensures provisions by employer for the health and safety of workers in Agriculture (**Safety and Health in Agriculture Convention, 2001**) and India ratified the right of Association and combination of agricultural workers [**Right of Association (Agriculture) Convention, 1921**]

To improve the agricultural trade by making it fairer and competitive **World Trade Organization** has made an agreement on Agriculture in 1995 which focuses on reforming the Agriculture Sector to address the subsidies and high trade barriers that distort trade. The overall aim of this agreement is to improve the livelihoods



of farmers and to build a fairer trading system that will increase market access around the globe.

The current agrarian crisis of India can be summarized as diminishing soil fertility, sinking water table, rise in cost (all effects of green revolution), poor return to farmers, and unaffordable periodic spikes in key commodities and periodical excess production which are dumped on the roads ruining several farmers and placing a huge burden on the Government (V. Kumarswamy, 2019). All these factors have led to decline in the development of the Agriculture Sector. Some of the problems in the development of the agriculture are water supply uncertainty, lack of the productivity of the farmers, pre-dominance of tiny farmers, lower level of operations, unfair land ownerships, little commercial farming by the farmers as most of them produce for self-consumption only and not for the selling purpose thus there is vast underemployment (A.N Aggarwal (1981). The crisis of agriculture is responsible for suicides among the farmers. The reasons for suicide among the farmers are low remuneration, indebtedness, crop failure, addictions, behavioral changes, disputes with others, health care problems and death or suicide or illness in family (Mishra, 2008). Agrarian crisis can be tackled by making agriculture a profitable business and attract farmers to pursue the crop production activities. The policy investment in Agriculture and its allied sectors including communication, transport, irrigation, research, rural market, rural infrastructure and farm should be raised, and the integrated development of the rural areas should be the goal. The radical changes in the present economic policies related to agriculture is the solution to the problem (Dhas, 2009).

1.3 Objectives of the Research Study

The specific objectives to study:

1. To study the existing production process in Agriculture;
2. To study the employment pattern and productivity in Agriculture;
3. To study the effect of price and market mechanism; (Terms of Trade)
4. To study the risk management framework;
5. To study the Government policies and programmes along with the access and their impact.
6. To investigate the resource utilization process in Agriculture.

1.4 Methodology

The first stage involves selection of a particular region within the state of Uttar Pradesh. Western and eastern Uttar Pradesh were selected for this study, as these regions have been experiencing very high level of agricultural growth along with non-agricultural employment. This is a result of access to better irrigation facilities and introduction of new farm technology. Indicators, such as namely Literacy rate, main, marginal and non-workers, irrigated area, electricity accessibility, location of source of drinking water, households availing banking services along with households' either owning or not owning assets were selected for facilitating the selection of study area. The details of the districts identified for detailed research are given as below:

1. Western Uttar Pradesh -BAREILLY (lowest among indicators)
2. Eastern Uttar Pradesh-VARANSI (highest among indicators)

Bareilly Division is an administrative as well as a geographical unit situated in the western segment of Uttar Pradesh. Bareilly division consists of four districts namely Bareilly, Badaun, Pilibhit, and Shahjahanpur. It is known as a centre of production for cane furniture. Bareilly is assumed to have a very productive land (Tarai) which is very suitable for the production of sugarcane, rice, pulses and wheat. The Bareilly division recorded very low figures in terms of the variables selected for the study such as literacy rate, percentage of main workers, and accessibility to electricity, availing of banking services and households owning assets. Whereas it is also found that percentage of non-workers is very high in the districts of Bareilly division.

Varanasi district is situated in the eastern part of Uttar Pradesh. In Varanasi district, agriculture is at subsistence level and the major crops grown are paddy, wheat, jowar, bajra, maize etc. The Varanasi district recorded very high figures in relation to the variables selected for the study such as literacy rate, percentage of main workers, access to electricity and households owning assets. The percentage of marginal workers is found very low in this district.

Further, two sub-districts each in both of the regions, Bareilly and Varanasi were selected using the same indicators as above. In both of the regions, study area selected from each one of the sub-district represents high development among the indicators and the other one represents low development among the indicators. In Bareilly region, the selected sub-districts are Bareilly and Faridpur whereas in Varanasi region Sub District selected are Pindara and Varanasi. After this detail procedure, a village was selected from each Sub-district for the in-depth field level research (on the basis of the highest population for representative samples).

1.5 Sample Size

As per Census 2011, following sample villages have been selected (refer table: 1.1) Tisua and Undla Jagir have been chosen as towns in the Bareilly area, while Dhaurhara and Pindara have been chosen from the Varanasi region.

Table 1.1: Sample Selections

Rural (Village)	Sub-District	Population
	Undla Jagir	9,738
	Tisua	7,590
	Dhaurhara	15,736
	Pindara	15,257

Table 1.2: Details of Respondents

Village	District	Village	FEMALE	MALE	Total
	Bareilly	Tisua	434	509	943
		Undla Jagir	423	214	637
	Varanasi	Dhaurhara	340	480	820
		Pindara	408	792	1200
Total			1605	1995	3600



1.6 Data Sources

The study used both the qualitative and quantitative primary and secondary data.

1) Primary Data

The primary data was collected using techniques such as field surveys and interviews (both online and offline) by using standard structured and unstructured questionnaires to elicit necessary information related to the proposed study. The questionnaire was able to capture all aspects of the respondents' socio-economic background, their family constraints, their land and assets, demographic, educational, income details. Also, as the study was conducted during the period of Covid-19 pandemic, information regarding covid-19 was also gathered.

Google forms were used as a tool to collect data in order to follow physical and social distancing. This information was collected through Labour Force Investigators appointed in the field. Bilingual structured questionnaires were inserted in Google forms. Access of the same was provided to the team to gather timely data. Regular meetings were held through Google meet for sharing the information gathered and address the concern.

2) Secondary Data

Besides primary data, the secondary data was collected from the Census 2010, 2011, Agriculture Census 2015-16, books, articles and websites on related issues.

1.7 Data Analysis

The research team has used a combination of different tools and techniques to evaluate and scrutinize the data collected through the process of Field Investigation. Different questionnaires were used for the process of data collection (Annexure-2). The software used for analysis is SPSS (Statistical Package for Social Sciences) and Microsoft Office (Word and Excel).

1.8 Limitations of the Study

The study was limited to the specific state and districts. Due to time and resource constraint only 3600 samples were taken. As the field work was completed during COVID-19 period, it might have effected the data captured.

Chapter 2: Introduction to Districts and Respondents

The present chapter provides details regarding basic profile of respondents which include their gender, number of dependent family members, age, categories, educational qualification, and the types of educational institutes attended by them with their location in the districts.

Gender Profile

Table 2.1 depicts the district-wise gender distribution wherein 44.58% were females (23.80% women were from Bareilly and 20.78% women were from Varanasi) whereas 55.42% were males (20.08% males were from Bareilly and 35.34% males were from Varanasi).

Table 2.1: District wise Gender distribution

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Gender	FEMALE	12.05	11.75	9.46	11.32	44.58
	MALE	14.14	5.94	13.33	22.01	55.42
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Number of Dependents in family

Table 2.2 shows the Number of Dependents in the family and it was found that 2.75% villagers have 1-2 people as a dependents in the house, 37.47% villagers have 3-4 people as a dependents in the house, and 48.47% villagers have 5-6 people as a dependents in the house.

Table 2.2: Number of Dependents in family

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Number of dependents	1-2	0.39	0.17	0.97	1.22	2.75
	3-4	3.17	7.08	11.33	15.89	37.47
	5-6	15.39	9.58	10.36	13.14	48.47
	Above 6	7.24	0.86	0.13	3.08	11.31
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Age-wise Classification

Table 2.3 shows the age-wise distribution of respondents of the villages of Bareilly and Varanasi. It is found that 8.76% respondents were from the age bracket of

20-30 years, 29.09% respondents were from the age bracket of 31-40 years, 35.61% respondents were from the age bracket of 41-50 years, 17.36% respondents were from the age bracket of 51-60 years and the least were from above 60 years which is 9.18%.

Table 2.3: Age wise distribution of Respondents

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Age	20-30	2.08	1.56	2.01	3.11	8.76
	31-40	7.14	3.19	8.01	10.75	29.09
	41-50	9.42	6.75	8.69	10.75	35.61
	51-60	4.83	3.47	3.31	5.75	17.36
	Above 60	2.72	2.72	0.77	2.97	9.18
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Social Category

Table 2.4 shows the social category wise distribution of respondents and it is found that 15.97% were from general category, 58.17% from OBC category, 24.92% from SC category and 0.94% were from ST category.

Table 2.4: Social Category wise distribution of Respondents

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Category	GENERAL	4.83	2.78	4.17	4.19	15.97
	OBC	14.67	12.53	12.64	18.33	58.17
	SC	6.47	2.28	5.78	10.39	24.92
	ST	0.22	0.10	0.20	0.42	0.94
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey Other Backward Classes (OBC), Scheduled Castes (SC), Scheduled Tribes (ST)

Educational Qualification

Table 2.5 Shows the highest educational qualifications of respondents and it was found that 31.18% were uneducated, 28.68% did primary school, 18.59% completed the high school, 13.47% completed the higher secondary schools, 6.72% were graduated or diploma/certificate, and the least were 1.36% villages completed post graduation.

Table 2.5: Highest Educational Qualification of respondents

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Highest Educational Qualification	Primary level	7.03	6.31	5.51	9.83	28.68
	Matric / High School	5.08	2.81	5.03	5.67	18.59
	Higher Secondary	4.03	1.39	4.47	3.58	13.47
	Graduation/ Diploma/ Certificate	1.89	0.69	2.28	1.86	6.72
	Post-Graduation	0.5	0.14	0.44	0.28	1.36
	Uneducated	7.66	6.35	5.06	12.11	31.18
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Educational Institutions

Table 2.6 shows that 0.50% respondents attended deemed university, 65.31% respondents attended Government institute, 1.95% attended private institute, and 1.05% attended both Government and private Institutes.

Table 2.6: Types of Educational Institutions attended by the respondents

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Type of Educational Institutes	Deemed	0.14	0.06	0.19	0.11	0.50
	Government	17.58	11.03	16.42	20.28	65.31
	Private	0.31	0.17	0.89	0.58	1.95
	Government + Private	0.44	0.08	0.25	0.28	1.05
	NA (Uneducated)	7.72	6.35	5.04	12.07	31.18
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Not Applicable (N.A): Uneducated Respondents

Location of Educational Institutions

Table 2.7 shows the location of the educational institutions where the respondents took their education and it is found that 9.49% of the respondents got their primary education from other state, 12.74% from their own village and 6.45% from nearby towns. 7.08% respondents got secondary education from other state, 4.79% respondents from their own village and 6.72% respondents from nearby towns. 4.86% respondents got higher secondary education from other state, 3.8% respondents from their own village and 4.81% respondents from nearby towns. 3.81% respondents got their graduation/diploma/certificate education from other state, 1.31% respondents from their own village and 1.60% respondents from nearby towns.

Table 2.7: Location of educational Institutions attended by the respondents

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Primary Education	Other state	1.63	2.10	1.93	3.83	9.49
	Own village	4.32	3.11	1.45	3.86	12.74
	Town near village	1.08	1.10	2.13	2.14	6.45
Total		7.03	6.31	5.51	9.83	28.68
Secondary Education	Other state	1.58	1.64	2.33	1.53	7.08
	Own village	1.32	0.61	1.30	1.56	4.79
	Town near village	2.18	0.56	1.40	2.58	6.72
Total		5.08	2.81	5.03	5.67	18.59
Higher Secondary Education	Other state	1.46	0.56	1.56	1.28	4.86
	Own village	1.36	0.39	1.36	0.69	3.80
	Town near village	1.21	0.44	1.55	1.61	4.81
Total		4.03	1.39	4.47	3.58	13.47
Graduation Diploma Certificate	Other state	0.56	0.44	1.17	1.64	3.81
	Own village	0.32	0.00	0.77	0.22	1.31
	Town near village	1.01	0.25	0.34	0.00	1.60
Total		1.89	0.69	2.28	1.86	6.72

Source: Field Survey

Chapter 3: Employment and Agriculture

Employment Status

Table 3.1 shows the employment status of the respondents and found 58.03% villagers were employed and 41.97% villagers were unemployed.

Table 3.1: Employment Status of Respondents

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Employed	YES	14.03	8.28	13.72	22.00	58.03
	NO	12.16	9.41	9.07	11.33	41.97
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Activity Status

Table 3.2 depicts the activity status of the respondents. It was found that 7.30% villagers were seeking for employment and are currently unemployed, 26.43% villagers were self employed and 31.61% people are working and employed.

Table 3.2: Activity Status of Respondents

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Activity Status	Neither seeking nor available for work	10.69	9.22	5.81	8.94	34.66
	Seeking or Available for work/ Unemployed	1.47	0.19	3.25	2.39	7.30
	Self Employed	8.00	0.64	5.54	12.25	26.43
	Working / Employed	6.03	7.64	8.19	9.75	31.61
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Types of employment

Table 3.3 shows the types of employment status of respondents and it depicts that 29.08% people were working as agriculture labour, 6.27% were into construction, 15.92% were from non farming sector and 6.76% were from Anganwadi Worker, Asha worker, Beauty Parlour, Business, Clerk, driver etc.

Table 3.3: Types of employment of Respondent

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Type of Employment	Agricultural labour	5.28	5.50	10.08	8.22	29.08
	Construction	1.78	1.19	0.72	2.58	6.27
	Non-Farm Employment	5.86	1.03	1.36	7.67	15.92
	NA (Non Employment)	12.25	9.39	8.97	11.36	41.97
	Any Other	1.02	0.58	1.66	3.50	6.76
Total		26.19	17.69	22.79	33.33	100.00
Any Other	Anganwadi Worker	0.06	0.00	0.00	0.08	0.14
	Asha worker	0.03	0.06	0.03	0.06	0.18
	Beauty Parlour	0.06	0.00	0.00	0.03	0.09
	Business	0.03	0.08	0.03	0.08	0.22
	Clerk	0.06	0.08	0.08	0.22	0.44
	Driver	0.53	0.11	0.36	0.58	1.58
	Embroidery worker	0.00	0.00	0.00	0.03	0.03
	Helper	0.11	0.06	0.25	0.83	1.25
	Labour worker	0.00	0.07	0.02	0.17	0.26
	Professionals	0.03	0.05	0.61	0.55	1.24
	Salesman	0.05	0.00	0.00	0.06	0.11
	Shopkeeper	0.06	0.07	0.28	0.81	1.22
Total		1.02	0.58	1.66	3.50	6.76

Source: Field Survey

Duration of Employment & Wages earned

Table 3.5 shows the duration and wages earned of employment and it is found that 40.35% were permanent workers, 6.88% were on contract (marginal 0-3 months) workers, and 11.89% were on contract (marginal 3-6 months) workers. 22.44% villagers earned 100-200 INR is wages, 15.37% villagers earned 200-300 INR, and 19.41% villagers earned 300-400 INR and least 1.90% villagers earned 0-100 INR.

Table 3.4: Duration of Employment & Wages earned

S. no	Duration	District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	UrlaJagir	Dhaurhara	Pindra	
1	Main worker (Permanent)	11.24	4.14	9.36	15.61	40.35
2	Marginal worker (0-3 months)	0.37	1.67	3.51	1.33	6.88
3	Marginal worker (3-6 months)	2.39	2.52	1.95	5.03	11.89

S. no	Duration	District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	UrJaJagir	Dhaurhara	Pindara	
4	NA	12.19	9.36	7.97	11.36	41.97
Total		26.19	17.69	22.79	33.33	100.00
Wages earned of Employment						
1	0-100	0.41	0.00	0.53	0.96	1.90
2	100-200	6.19	3.89	4.75	7.61	22.44
3	200-300	3.25	2.67	5.86	3.59	15.37
4	300-400	4.15	1.77	3.68	9.81	19.41
Total		14.00	8.33	14.82	21.97	59.12

Source: Field Survey

Not Applicable (NA): Unemployed Respondents

Allied Activities

Table 3.5 shows the engagement of villagers in the various type of allied activities of agriculture. It is found that 69.39% villagers were engaged in allied activities in agriculture. The type of activities villagers were engaged in includes blacksmith, craftsman, cultivator, dairy farmer, embroidery worker, fisher person, helper, mechanic, poultry farming, shopkeeper and tailoring.

Table 3.5: Engagement in allied activities of Agriculture

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Engaged in allied activity of Agriculture	Yes	18.64	8.25	18.31	24.19	69.39
	No	7.55	9.44	4.48	9.14	30.61
Total		26.19	17.69	22.79	33.33	100.00
Types of allied activities of Agriculture	Blacksmith	0.03	0.08	0.06	0.05	0.22
	Craftsman	0.17	0.14	0.42	0.44	1.17
	Cultivator	7.92	5.14	9.94	12.28	35.28
	Dairy Farmer	0.47	0.37	1.14	0.75	2.73
	Embroidery worker	2.58	0.45	0.17	0.36	3.56
	Fisher Person	0.17	0.08	0.33	0.36	0.94
	Helper	0.97	0.17	0.39	0.92	2.45
	Mechanic	0.22	0.15	0.22	0.39	0.98
	Poultry farmer	0.15	0.23	0.19	0.19	0.76
	Shopkeeper	5.47	1.33	5.31	8.23	20.34
Tailor	0.49	0.11	0.14	0.22	0.96	
Total		18.64	8.25	18.31	24.19	69.39

Source: Field Survey

Chapter 4: Land Resources and Production System

The prosperity of agriculture largely depends on natural resources. Land plays principal role in the agriculture process. Poor utilization of land resource can result in low crop yield, low income and extensive degradation of soils. The Agricultural land is used for many different operations. The production system was also a centerpiece of agriculture. Land resource should be used in a sustainable way. The use and management of resource like land for agricultural purpose should be planned (J.L. Tersteeg, 1993)

Table 4.1 shows the types of crops and reason for producing those crops. It is found that cash crops including fruits, vegetables, sugarcane and oil seeds were grown by 33.59% villagers, food grain inclusive wheat, rice and pulses were grown by 40.73% villagers and both type of crops were grown by 25.68% of villagers. Respondents also reported the reason for the cultivation, like the easy availability of seeds at lower price etc.

Table 4.1: Types of crops produced and reason

		District				TOTAL
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Types of crops	Cash Crops (fruits, vegetables, sugarcane, oilseeds)	13.21	5.63	5.21	9.54	33.59
	Food Grain (wheat, rice, pulses)	10.56	5.14	13.72	11.31	40.73
	BOTH	13.23	2.32	5.32	4.81	25.68
Total		37.00	13.09	24.25	25.66	100.00
Reason for cultivation	Can be cultivated in a short time period	10.65	5.10	1.52	1.17	18.44
	Easy availability of seeds	14.04	10.06	11.58	14.11	49.79
	Low price	2.47	6.56	5.21	3.19	17.43
	All Reasons	2.47	6.25	3.56	2.06	14.34
Total		29.63	27.97	21.87	20.53	100.00

Source: Field Survey

Number of Crops cultivated

Table 4.2 shows the number of crops cultivated in a year and it was found that a majority of 40.68% villagers used to grow the crops 2-4 times in a year followed by 17.01% villagers grow crops nearly twice a year, 2.06% villagers cultivated crops upto 5 times a year and the least 0.06% villagers were growing 2-6 times a year.

Table 4.2: Number of Crops cultivated in a year

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Number of crops cultivated in a year	0-2	2.00	4.06	7.42	3.53	17.01
	2-4	17.19	1.36	6.69	15.44	40.68
	2-5	1.50	0.03	0.00	0.53	2.06
	2-6	0.00	0.00	0.00	0.06	0.06
	4-6	0.53	0.19	0.83	2.31	3.86
	NA	4.97	12.05	7.85	11.46	36.33
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non-Farmers

Technology used for cultivation

Table 4.3 reveals the type of technology used for cultivation and it was found that harvester & spring tooth cultivator were used by 11.11% villagers. Further, it was found that 16.75% villagers used sickle along with the aforementioned technologies. Lastly, sickle and spring tooth cultivator accounted for 35.81% villagers, and 36.35% have no land therefore not applicable.

Table 4.3: Technology used for cultivation

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Technology for cultivation	Harvester + Spring tooth cultivator	4.33	0.50	1.42	4.86	11.11
	Sickle + Harvester + Spring tooth cultivator	4.03	4.19	2.44	6.08	16.75
	Sickle + Spring tooth cultivator	12.86	0.94	11.08	10.92	35.81
	NA	4.97	12.06	7.85	11.47	36.35
Total		26.19	17.69	22.78	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non-Farmers

Purchase of seeds

Table 4.4 depicts the purchase of seeds and it was found that villagers are buying from Government, cultivators and growing by self were 18.25% of villagers, 11.06% were through Government and self, 34.36% were done by self and cultivators, and 36.33% have no land therefore not applicable.

Table 4.4: Purchase of seeds

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Purchase of seeds	From cultivators + Government + Self	9.42	0.19	0.67	7.97	18.25
	Government + Self	5.14	0.33	0.86	4.72	11.06
	Self + From cultivators	6.67	5.11	13.42	9.17	34.36
	NA	4.97	12.06	7.83	11.47	36.33
Total		26.19	17.69	22.78	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non-Farmers

Annual Income

Table 4.5 shows the annual income from crop production and it was found that 21.25% villagers were earning 50,000 to 1,00,000 INR, 23.45% were earning less than 50,000 INR and 18.98% villagers were earning more than 1,00,000 INR.

Table 4.5: Annual Income from crop production

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Earn from crop production annually	Less than 50,000	4.42	4.14	9.42	5.47	23.45
	50,000-1,00,000	8.08	0.56	4.19	8.42	21.25
	More than 1,00,000	8.72	0.94	1.35	7.97	18.98
	NA	4.97	12.05	7.83	11.47	36.32
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non-Farmers

Schemes for Transporting, Storing and Pricing the Crops

Table 4.6 shows the schemes for transporting, storing and pricing the crops and it was found that the villagers have taken benefits either self or through brokers of government schemes for pricing of crops; to buy the containers like jute bags, silos, granaries for the purpose of storage of crops, and conveyance like buses, government vehicles, lorries and own vehicle for transportation of crops.

Tables 4.6: Schemes for Transporting, Storing and Pricing the Crops

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Pricing the crops	Government	4.89	0.47	2.19	4.39	11.94
	Government + Self	2.53	4.39	4.61	2.11	13.64
	Only for Self consumption	0.39	0.08	0.08	2.61	3.16
	Self	11.47	0.36	5.25	8.5	25.58
	With the help of brokers	1.94	0.33	2.83	4.25	9.35
	NA	4.97	12.06	7.83	11.47	36.33
Total		26.19	17.69	22.79	33.33	100.00
Storing the crops	Containers/Jute bags	4.67	0.44	10.28	7.58	22.97
	Containers/Jute bags + Silos/Granaries	5.81	1.97	1.19	4.81	13.78
	Silos/Granaries + Cold storage	10.75	3.22	3.47	9.47	26.91
	NA	4.96	12.06	7.85	11.47	36.34
Total		26.19	17.69	22.79	33.33	100.00
Transporting the crops	Buses/Government vehicle + Lorries	15.75	1.25	7.53	10.31	34.84
	Buses/Government vehicle + Lorries + own vehicle	1.86	0.08	0.39	3.61	5.94
	Lorries + Buses/ Government vehicle	2.36	0.42	1.42	1.39	5.59
	Lorries + own vehicle	1.25	3.89	5.61	6.56	17.31
	NA	4.97	12.05	7.84	11.46	36.32
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non-Farmers

Strategies used for Risk Management

Table 4.7 shows the strategies used for risk management and it was found that credit schemes were taken by 17.85% of villagers, credit schemes of Government and insurance of crops were 13.28% villagers, 13% villagers getting the help by relatives, and 19.56% were into crops insurance.

Table 4.7: Strategies used for Risk Management

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Strategy for risk management	Credit schemes (of Government)	5.83	1.50	3.77	6.75	17.85
	Credit schemes (of Government) + Insurance of crops	2.72	0.61	5.44	4.50	13.28
	Helped by relatives	6.56	0.08	0.78	5.58	13.00
	Insurance of crops	6.11	3.44	4.97	5.03	19.56
	NA	4.97	12.06	7.83	11.47	36.33
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non-Farmers

Ownership and Sizes of Land Holding

Table 4.8 depicts the ownership size of land holding and it was found that 60.30% of the respondent have land, 3.37% villagers have leased land and 36.33% have no land, 36.36% villagers have 0-1-hectare size of land, 17.53% villagers have 1-2-hectare size of land and 6.41% villagers have 2-4-hectare size of land.

Table 4.8: Ownership and Sizes of Land Holding

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Land	Yes	21.14	5.64	12.83	20.69	60.30
	Leased Land	0.08	0.01	2.11	1.17	3.37
	No	4.97	12.04	7.85	11.47	36.33
Total		26.19	17.69	22.79	33.33	100.00
Size of land holding	0-1 hectare	8.72	4.03	9.39	14.22	36.36
	1-2 hectare	8.89	1.22	2.36	5.06	17.53
	2-4 hectare	3.53	0.39	1.08	1.41	6.41
Total		21.14	5.64	12.83	20.69	60.30

Source: Field Survey

Utilization of Land and Uses of Non-Cultivation land

Table 4.9 depicts the utilization of land and uses of non-cultivation land and it was found that 40.67% villagers use land for cultivation, 15.89% villagers used for non agriculture purposes, and 7.11% uses for non-cultivation and 36.33% villagers have no land. Non-agriculture purposes include graveyard, cattleyard, for living and for storage purposes.

Table 4.9: Utilization of Land and Uses of Non-Cultivation Land

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Utilization land	Cultivation land	7.92	5.61	14.67	12.47	40.67
	Non-Agricultural uses	12.94	0.03	0.11	2.81	15.89
	Non cultivation (Barren)	0.36	0.00	0.17	6.58	7.11
	NA	4.97	12.05	7.84	11.47	36.33
Total		26.19	17.69	22.79	33.33	100.00
Non-Cultivation barren land	For Graveyard	0.00	0.00	0.00	0.42	0.42
	For Cattle + For Graveyard + For Living	0.25	0.00	0.00	0.64	0.89
	For Living + For Cattle	0.00	0.00	0.03	4.96	4.99
	For Living + For Storage	0.11	0.00	0.14	0.56	0.81
Total		0.36	0.00	0.17	6.58	7.11

Source: Field Survey

Not Applicable (NA): Non owners of land

Awareness regarding type of soil

Table 4.10 shows the awareness regarding the type of soil and it was found that 63.66% respondents have the knowledge regarding soil and 36.34% have no land therefore no information about the soil and its type. The type of soil are alluvial soil, loamy soil, black soil and red soil.

Table 4.10: Awareness regarding Type of Soil

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Awareness regarding Type of Soil	Yes	21.22	5.64	14.94	21.86	63.66
	No	4.97	12.05	7.85	11.47	36.34
	Total	26.19	17.69	22.79	33.33	100.00
Type of soil	Alluvial soil	5.86	0.92	11.61	4.86	23.25
	Loamy loam soil	2.58	0.97	1.89	6.81	12.25
	Black soil	3.33	2.94	0.81	3.36	10.44
	Red soil	9.44	0.81	0.64	6.83	17.72
	NA	4.98	12.05	7.84	11.47	36.34
	Total	26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non- Farmers

Sources used for irrigation

Table 4.11 depicts the sources used for irrigation of land and it was found that 63.66% villagers were using various sources like canal and wells (14.64%), canals and tube-wells (21.14%) and just tube wells (27.88%).

Table 4.11: Sources used for irrigation

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Irrigation of land	Yes	21.22	5.64	14.94	21.86	63.66
	NA	4.97	12.05	7.85	11.47	36.34
Total		26.19	17.69	22.79	33.33	100.00
Sources used for irrigation	Canal + Wells	7.58	0.06	0.5	6.5	14.64
	Canal + Tube well (Govt./Private)	8.19	2.27	4.15	6.53	21.14
	Tube well (Govt./Private)	5.45	3.31	10.29	8.83	27.88
Total		21.22	5.64	14.94	21.86	63.66

Source: Field Survey

Not Applicable (NA): Non- Farmers

Pesticide in the crop

Table: 4.12 shows the number of respondents using pesticides in their crops and it was found 31.91% respondents use pesticides, 31.75% respondents do not use pesticides.

Table 4.12 No. of respondents using Pesticide in their crops

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhzara	Pindra	
Pesticides Crops	Yes	8.94	3.47	11.36	8.14	31.91
	No	12.28	2.17	3.58	13.72	31.75
	NA	4.97	12.05	7.85	11.47	36.34
	Total	26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Not Applicable (NA): Non- Farmers

Chapter 5: Infrastructure and Agriculture

Rural Infrastructure plays a significant role in improving the quality of human life and helps in the acceleration of agricultural development. There is a direct and strong relationship of rural infrastructure with farmer's access to the markets, financial institutions and increasing crop yields and hence promoting agricultural growth. The agricultural infrastructure can transform the traditional systems of agriculture into commercial, modern and dynamic farming systems of India (Amrit Patel, 2010).

Government Policies and their benefits

Table 5.1 shows the number of respondents availing benefit from Government programmes. It has been seen that 63.67% villagers are availing benefits. The type of schemes are Paramparagat Krishi Vikas Yojna (18.89%), Pradhan Mantri Fasal Bima Yojna (11.58%), Pradhan Mantri Krishi Sinchai Yojna (16.23%), Pradhan Mantri Krishi Sinchai Yojna and Krishi Vikas Yojna (12.83%). 30.59% villagers are receiving benefits from these schemes.

Table 5.1: Number of respondents availing Government Policies and their benefits

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Availed Government policy	Yes	21.22	5.65	14.94	21.86	63.67
	No	4.97	12.04	7.85	11.47	36.33
Total		26.19	17.69	22.79	33.33	100.00
Types of Schemes	Paramparagat Krishi Vikas Yojna (PKVY)	6.39	1.64	7.58	3.28	18.89
	Pradhan Mantri Fasal Bima Yojna (PMFBY)	0.83	2.31	2.61	5.83	11.58
	Pradhan Mantri Krishi Sinchai Yojna (PMKSY)	7.23	0.22	2.67	6.11	16.23
	Pradhan Mantri Krishi Sinchai Yojna (PMKSY) + Paramparagat Krishi Vikas Yojna (PKVY)	5.58	1.06	1.22	4.97	12.83
	PPMY	1.19	0.42	0.86	1.67	4.14
Total		21.22	5.65	14.94	21.86	63.67
Benefit	Yes	9.67	2.73	9.31	8.88	30.59
	No	11.55	2.92	5.63	12.98	33.08
Total		21.22	5.65	14.94	21.86	63.67

Source: Field Survey

Accessibility to Lok Adalat, Tehsil Division and its benefits

Table 5.2 shows the accessibility to lok adalat, tehsil division and its benefits. 37.07% respondents have the access to Lok Adalat, 48.83% respondents have the access to tehsils divisions and 29.64% respondents are receiving benefits from Tehsil accessibility for the purpose of help in land disputes, resolving all problems, and supporting in family disputes all cases.

Table 5.2: Accessibility to Lok Adalat, Tehsil Division and its benefits

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Access to Lok Adalat	Yes	0.61	1.33	22.11	13.02	37.07
	No	25.58	16.36	0.68	20.31	62.93
Total		26.19	17.69	22.79	33.33	100.00
Access to Tehsils Divisions	Yes	0.78	12.5	21.94	13.61	48.83
	No	25.41	5.19	0.85	19.72	51.17
Total		26.19	17.69	22.79	33.33	100.00
Beneficial	Yes	3.25	1.98	21.44	2.97	29.64
	No	32.54	11.06	1.17	11.5	56.27
Total		35.79	13.04	22.61	14.47	85.91
Benefits	Help in a land dispute	8.56	0.19	1.86	5.69	16.3
	Making Caste and Domicile Certificates & other documents	0.23	0.41	0.68	1.2	2.52
	Resolving all problems	5.23	0.35	0.21	0.83	6.62
	Support in family dispute all cases	1.65	0.03	2.33	0.19	4.2
	Total	15.67	0.98	5.08	7.91	29.64

Source: Field Survey

Beneficiary of MGNREGA

Table 5.3 depicts the beneficiaries of MGNREGA where 17.61% villagers are getting the benefits from this schemes of Government.

Table 5.3: Beneficiary of MGNREGA

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Beneficiary of MGNREGA	Yes	2.03	4.50	7.14	3.94	17.61
	No	24.16	13.19	15.65	29.39	82.39
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Problems faced by Respondents

Table 5.4 depicts the problems faced by respondents. Innumerable problems have been highlighted in this report which includes like unemployment (30.56%) Damaged Roads and Street Lights (21.42%), Diseases in Crops (2.31%), Handpump not working (2.72%), Lack of public toilets (3.92%), No facility for women (15.81%) and more.

Table 5.4: Problems faced by Respondents

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Problems	Damaged Roads and Street Lights	4.00	0.25	13.17	4.00	21.42
	Diseases in Crops	1.25	0.00	0.00	1.06	2.31
	Flood	0.33	0.00	0.06	0.28	0.67
	Handpump not working	1.14	0.06	0.28	1.25	2.72
	Insufficient Electricity	0.31	0.00	0.06	0.31	0.67
	Lack of public toilets	1.33	0.00	0.25	2.33	3.92
	Malfunctioned Solar Lights	0.00	0.00	0.67	0.00	0.67
	No Digital classes in schools	0.64	2.61	0.47	1.22	4.94
	No facility for women	2.06	8.36	0.50	4.89	15.81
	Poverty	0.25	6.22	0.44	1.00	7.92
	Problems with ration card	0.69	0.00	0.11	0.92	1.72
	Shortage of food	0.17	0.00	0.03	0.14	0.33
	Unavaialability of Educational Institutes	0.14	0.00	0.03	0.17	0.33
	Uncleaniness	0.64	0.00	2.67	0.61	3.92
	Unemployment	12.25	0.19	3.92	14.19	30.56
Wild Animals destroying crops	1.00	0.00	0.14	0.97	2.11	
Total	26.19	17.69	22.78	33.33	100.00	

Source: Field Survey

Suggestions by Respondents

Table 5.5 shows the suggestions given by the villagers. Majority of villagers have said to repair hand pump, tubewell and cleaning of canal (28.33%), following by launch of new schemes for employment (20.02%). Various other suggestions like construction of Government schools & Educational Institutions, Provide Digital



classes in Schools, all medicines should be available in Primary Health Centres, construct houses for Poor etc were given.

Table 5.5: Suggestions by respondents

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Suggestion	Construction of Government schools & Educational Institutions	0.08	2.03	0.07	0.99	3.17
	Provide Digital classes in Schools	0.06	0.00	0.11	0.06	0.23
	24/7 availability of Electricity	0.52	1.87	0.42	0.50	3.31
	All medicines should be available in Primary Health Centres	2.06	2.94	0.17	0.92	6.09
	Build Public toilets	1.00	0.36	0.56	0.97	2.89
	Construct houses for poors	0.00	3.72	0.11	0.78	4.61
	Generation of new ration card	0.42	0.53	0.08	3.42	4.45
	Introduction of Schemes for Women Agriculture workers	0.25	2.00	0.33	0.33	2.91
	Launch of new schemes for employment	7.94	0.81	1.94	9.33	20.02
	MGNREGA jobs should be increased	1.36	0.00	0.00	1.11	2.47
	New handpumps should be installed	0.58	2.31	0.17	1.61	4.67
	No suggestion	0.06	0.81	0.11	3.00	3.98
	Provision of Food and Employment	1.89	0.03	3.08	1.44	6.44
	Repair hand pump, Tubewell & cleaning of Canal	8.03	0.19	13.22	6.89	28.33
	Transparency in rural development	1.33	0.06	2.03	1.17	4.59
	Wild Animals harming crops should be controlled	0.61	0.03	0.39	0.81	1.84
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Acquired training in agriculture and its types

Table 5.6 shows the number of respondents who have acquired training in agriculture and its types. 30.67% villagers acquired training. The types of trainings like post-harvest technology management (9.15%), Seed village program (7.21%), Seed village program & post-harvest technology management (7.37%), and sub-mission on agriculture mechanism (SMAM) (6.94%).

Table 5.6: No. of respondents have acquired training in agriculture and its types

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Acquired training	Yes	8.48	7.98	8.01	6.20	30.67
	No	17.71	9.71	14.78	27.13	69.33
Total		26.19	17.69	22.79	33.33	100.00
Types of Training	Post-harvest technology management	2.42	1.67	3.06	2.00	9.15
	Seed village program	2.20	3.11	0.45	1.45	7.21
	Seed village program + Post-harvest technology management	2.78	1.09	1.94	1.56	7.37
	Sub-mission on agriculture mechanism (SMAM)	1.08	2.11	2.56	1.19	6.94
Total		8.48	7.98	8.01	6.20	30.67

Source: Field Survey

Banking and Communication facilities

Table 5.7 shows the banking and communication facilities available in village and it was found that 100% villagers have availed the communication services, and 91.22% villagers have availed banking services. The nature of services like Savings and Current account (89.83%), and Savings and Current account + Fixed deposits (1.39%).

Table 5.7: Banking and Communication facilities available in village

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Communication services	Mobile phone	20.5	13.69	17.19	24.89	76.28
	Mobile phone + Internet	5.69	4.00	5.58	8.44	23.72
Total		26.19	17.69	22.78	33.33	100.00
Banking services	Yes	25.06	13.33	21.97	30.86	91.22
	No	1.14	4.36	0.81	2.47	8.78
Total		26.19	17.69	22.78	33.33	100.00
Nature of the services	Savings and Current account	24.47	13.08	21.5	30.78	89.83
	Savings and Current account + Fixed deposits	0.58	0.25	0.47	0.09	1.39
Total		25.05	13.33	21.97	30.87	91.22

Source: Field Survey

Credit facilities

Table 5.8 shows the credit facilities available in village where 17.23% villagers have access to credit facilities from the sources like Co-operative credit societies (1.24%), Government/Banks (8.92%), Landlords (0.17%), Money lenders (4.32%) and Relatives/Friends (2.59%). The amount used in these facilities were starting from 50,000 INR to above 1,00,000 INR and 1.66% respondents used it for long term (more than 5 years), 5.58% respondents for medium term (is month to 5 years) and 10% respondents for shorter term (0-15 months).

Table 5.8: Credit facilities available in village

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Access credit facilities	Yes	5.38	0.47	6.88	4.50	17.23
	No	20.81	17.22	15.91	28.83	82.77
Total		26.19	17.69	22.79	33.33	100.00
Sources of credit facilities	Co-operative credit societies	0.08	0.00	0.69	0.47	1.24
	Government/Banks	4.92	0.47	1.69	1.83	8.91
	Landlords	0.00	0.00	0.14	0.03	0.17
	Money lenders	0.35	0.00	2.08	1.89	4.32
	Relatives/Friends	0.03	0.00	2.28	0.28	2.59
Total		5.38	0.47	6.88	4.50	17.23

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Amount (in INR)	0-50,000	2.85	0.13	3.33	2.19	8.50
	50,000-1,00,000	2.31	0.31	2.35	1.53	6.50
	50,000-1,00,001	0.03	0.00	0.03	0.00	0.06
	50,000-1,00,002	0.00	0.00	0.03	0.03	0.06
	Above 1,00,000	0.19	0.03	1.14	0.75	2.11
Total		5.38	0.47	6.88	4.50	17.23
Time Period	Long term (more than 5 years)	0.14	0.11	0.91	0.50	1.66
	Medium term (15 months -5 years)	0.58	0.08	3.05	1.86	5.57
	Short term (0-15 months)	4.66	0.28	2.92	2.14	10.00
	Total		5.38	0.47	6.88	4.50

Source: Field Survey

Debt status

Table 5.9 shows the indebtedness of the respondents and it was found that 14.28% villagers are indebted; the amount of debt ranges from less than 50,000 INR to above 1,00,000 INR and the period for the debt ranges from less than 6 months to more than one year. 13.19% villagers said, their problems have been resolved and 1.11% of the respondents could not get their problems resolved. For resolving the problems, the respondents got help from friends and family (8.09%), from the government (5.80%), and from both (0.14%).

Table 5.9: Debt status of a respondents

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Been Indebted	Yes	4.97	0.36	5.53	3.42	14.28
	No	21.22	17.33	17.26	29.91	85.72
Total		26.19	17.69	22.79	33.33	100.00
Amount (in INR)	0-50,000	2.72	0.11	3.03	1.75	7.61
	50,000-1,00,000	1.94	0.19	1.61	1.19	4.93
	Above 1,00,000	0.31	0.06	0.89	0.48	1.74
	Total		4.97	0.36	5.53	3.42
Period	0-6 months	0.50	0.00	2.17	0.75	3.42
	6-12 months	0.78	0.28	2.08	1.98	5.12
	More than a year	3.69	0.08	1.28	0.69	5.74
Total		4.97	0.36	5.53	3.42	14.28
Problem resolved	Yes	4.69	0.33	5.14	3.01	13.17
	No	0.28	0.03	0.39	0.41	1.11
Total		4.97	0.36	5.53	3.42	14.28

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Resolved	Help from friends/ family	2.72	0.03	2.75	1.76	7.26
	Help from Government	1.83	0.30	2.39	1.25	5.77
	Help from Government, Help from friends/ family	0.14	0.00	0.00	0.00	0.14
Total		4.69	0.33	5.14	3.01	13.17

Source: Field Survey

Land Collateral debt

Table 5.10 shows the debt status of land where 6.36% villagers have a land collateral debt out of which 5.50% villagers have received NOC.

Table 5.10: Debt status of land

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Land Collateral debt	Yes	1.75	0.28	2.44	1.89	6.36
	No	24.44	17.42	20.34	31.44	93.65
Total		26.19	17.69	22.79	33.33	100.00
Received NOC	Yes	1.69	0.11	2.00	1.69	5.50
	No	0.06	0.17	0.44	0.19	0.86
Total		1.75	0.28	2.44	1.89	6.36

Source: Field Survey

Types of roads

Table 5.11 shows the types of roads constructed in village, availability of adequate light on roads, nature of light, functionality of lights. 63.66% villagers said that the roads are concrete, 17.83% villagers earthen roads, and 18.51% villagers gravel roads. 69.59% villagers said roads are equipped with adequate lights. The nature of lights are solar light and LED. Out of which 70.28% lights are functioning and 29.72% were non-functioning.

Table 5.11: Types of roads constructed in village, availability of adequate light on roads, nature of light & functionality of lights

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Types of Road	Concrete roads	25.72	0.00	7.11	30.83	63.66
	Earthen roads	0.19	2.00	14.47	1.17	17.83
	Gravel roads	0.28	15.69	1.21	1.33	18.51
Total		26.19	17.69	22.79	33.33	100.00
availability of adequate light on roads	Yes	7.19	16.42	16.31	29.67	69.59
	No	19.00	1.27	6.48	3.66	30.41
Total		26.19	17.69	22.79	33.33	100.00
Nature of lights	LED	15.88	12.19	4.78	4.22	37.07
	Solar Light	10.31	5.50	18.01	29.11	62.93
Total		26.19	17.69	22.79	33.33	100.00
Functionality of Light	Yes	7.94	17.14	19.18	26.02	70.28
	No	18.25	0.55	3.61	7.31	29.72
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Connectivity of Roads and its nature

Table 5.12 shows the connectivity of roads and its nature. 100% villagers said the roads are connected to markets nearby. The quality of roads are concrete roads (63.66%), and earthen roads (17.83%) and gravel road (18.51%).

Table 5.12: Connectivity of Roads and its nature

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Connected to markets nearby	Yes	26.19	17.69	22.79	33.33	100.00
	Concrete Road	25.72	0.00	7.11	30.83	63.66
	Earthen road	0.19	2.00	14.47	1.17	17.83
	Gravel road	0.28	15.69	1.21	1.33	18.51
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Process of Land Consolidation

Table 5.13 shows the process of land consolidation in village which shows 12.83% village have the process of land consolidation (chakbandi) where majority of villagers having that process from 1972 (8.75%) under the Government authority (12.83%).

Table 5.13: Process of Land Consolidation in village

		District				Total
		Bareilly		Varanasi		
		Village		Village		
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Village have the process of land consolidation (Chakbandi)	Yes	0.58	0.44	1.06	10.75	12.83
	No	25.61	17.25	21.73	22.58	87.17
Total		26.19	17.69	22.79	33.33	100.00
Time period of land consolidation	1972	0.5	0.22	0.28	7.75	8.75
	1973	0	0.11	0.17	1.06	1.34
	1974	0.03	0.03	0.33	1.11	1.5
	1975	0.05	0.08	0.28	0.83	1.24
Total		0.58	0.58	0.44	1.06	10.75
Authority	Government	0.58	0.44	1.06	10.75	12.83
Total		0.58	0.44	1.06	10.75	12.83

Source: Field Survey

Chapter 6: Climate and Agriculture

Climate is an important factor for agriculture process. The climate influences the crops through changes in temperatures throughout the year and rainfalls. Many small farmers in India rely on rainfall to irrigate their crops. In this chapter it is intended to throw light on the industries operating near villages and pollution due to it, the effect of pollution on crops, natural calamities witnessed by farmers, the waterborne disease and the suicides that are related to agriculture.

Table 6.1 shows the number of respondents witnessing suicide in their friends and family and it was found that 2.94% villagers have witnessed and 97.04% have not witnessed the same. 2.34% villagers said that they have seen 0-2 number of suicides, 0.58% said 2-4 and 0.04% said 4-6. 1.25% villagers found unemployment the reason of it, 0.50% villagers the economic conditions, and 0.89% villagers family issues.

Witnessed a suicide

Table 6.1: No. of respondents witnessing a suicide in their friends and family

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Witnessed suicide in family/ friends	Yes	0.17	0.31	1.92	0.56	2.96
	No	26.03	17.39	20.86	32.76	97.04
Total		26.20	17.70	22.78	33.32	100.00
Number of Suicides	0-2	0.17	0.28	1.47	0.42	2.34
	2-4	0.00	0.03	0.44	0.11	0.58
	4-6	0.00	0.00	0.01	0.03	0.04
Total		0.17	0.31	1.92	0.56	2.96
Reason	Economic conditions	0.00	0.03	0.33	0.14	0.50
	Family problems	0.00	0.08	0.67	0.14	0.89
	Poison	0.00	0.11	0.06	0.14	0.31
	Unemployment	0.17	0.09	0.86	0.14	1.26
Total		0.17	0.31	1.92	0.56	2.96

Source: Field Survey

Nearby industry and pollution

Table 6.2 shows the industry nearby and pollution due to it and it is found that 35.67% villagers said yes due to the industries there is excess of pollution issues near vicinity.

Table 6.2: Industry nearby and pollution due to it

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Industry near by causing pollution or affecting crops	Yes	9.33	9.44	8.42	8.47	35.67
	No	16.86	8.25	14.37	24.86	64.34
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Table 6.3 shows the natural calamity witnessed in the village where 59.94% villagers witness the calamity like drought (1.75%) following with flood and storms (38.33%), storms (40.06%) and storms and drought (1.97%).

Table 6.3: Natural Calamity witnessed in the village

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Witnessed natural calamity	Yes	13.67	15.22	10.69	20.36	59.94
	No	12.52	2.47	12.10	12.97	40.06
Total		26.19	17.69	22.79	33.33	100.00
Types	Drought	0.42	0.56	0.33	0.44	1.75
	Flood + Storms	7.00	10.97	6.69	13.67	38.33
	Storms	5.72	3.00	3.48	5.69	17.89
	Storms + Drought	0.53	0.69	0.19	0.56	1.97
Total		13.67	15.22	10.69	20.36	59.94

Source: Field Survey

Waterborne diseases

Table 6.4 shows that 90.89% of villager's families were affected by waterborne diseases such as Cholera, Malaria & Dengue (10.47%), Cholera, Dengue & Typhoid (32.97%), and Chikengunia & Chikenpox (9.17%).

Table 6.4: Waterborne diseases in village

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Family member infected due to water borne disease	Yes	18.08	17.67	22.69	32.44	90.88
	No	8.11	0.02	0.1	0.89	9.12
Total		26.19	17.69	22.79	33.33	100.00

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Types	Cholera + Malaria + Dengue	2.17	6.08	0.44	1.78	10.47
	Cholera + Dengue + Typhoid	4.86	3.75	10.78	13.58	32.97
	Hepatitis + Malaria + Dengue	2.19	2.64	1.69	1.23	7.75
	Malaria + Dengue + Typhoid	6.14	4.42	9.39	10.91	30.86
	Chikengunia + Chikenpox	2.72	0.78	0.39	4.94	8.83
Total		18.08	17.67	22.69	32.44	90.88

Source: Field Survey

Effect of Air pollution

Table 6.5 shows the effects of air pollution on crops and it was found 55.80% crops were affected by air pollution.

Table 6.5: Effect of Air pollution on crops

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Air pollution affects crops	Yes	9.44	16.31	10.11	19.94	55.80
	No	16.75	1.38	12.68	13.39	44.20
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Chapter 7: Covid-19 and Agriculture

The pandemic of COVID-19 has affected the growth and management of Indian Agriculture system quite adversely. This chapter aims to understand the arrangement of medical facilities for COVID-19, role played by the higher authorities in these tough times, impact of COVID-19 on the cost of living of the respondents, lost of employment, migration due to it and the benefits received from the stakeholders in the study area.

Availability of Covid-19 medical facilities

Table 7.1 shows the Availability of Covid-19 medical facilities in village where 54.25% villagers agreed to it.

Table 7.1: Availability of Covid-19 medical facilities in village

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Medical facilities available in Village for COVID 19	Yes	0.64	0.53	21.61	31.47	54.25
	No	25.55	17.16	1.18	1.86	45.75
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Role of Sarpanch

Table 7.2 shows the role of Sarpanch during Covid-19. It was found that 24.74% villagers said Sarpanch helps in bringing awareness campaign for COVID-19, 13.19% distribute food & grains, 19.64% distributes mask and sanitizer to villagers, and 14.93% helps in solving various matters of villages.

Table 7.2: Role of Sarpanch during Covid-19

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Role Played by Sarpanch during COVID 19	Awareness campaign for Covid-19	8.19	13.69	0.92	1.94	24.74
	Distribute food and grains	1.53	0.69	0.47	10.50	13.19
	Distributes mask and sanitizer	1.67	0.97	15.14	1.86	19.64
	Helping in every matter	1.61	0.56	3.43	9.33	14.93
	Solve cleaning related matter	1.86	0.64	1.91	1.47	5.88
	Public Distribution	11.33	1.14	0.92	8.23	21.62
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Impact of Covid-19

Table 7.3 shows the Impact of Covid-19 on Cost of living. Due to this, there is an increase in price of commodities (10.25%), Increases in price of commodities with the unavailability of Commodities in the market (85.17%) and 4.58% people impacted due to Unavailability of Commodities in the market.

Table 7.3: Impact of Covid-19 on Cost of living

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Impacted cost of living	Increases in price of commodities	1.31	1.56	4.19	3.19	10.25
	Increases in price of commodities + Unavailability of Commodities in the market	24.58	15.92	14.78	29.89	85.17
	Unavailability of Commodities in the market	0.31	0.22	3.81	0.25	4.58
Total		26.19	17.69	22.78	33.33	100.00

Source: Field Survey

Loss of employment

Table 7.4 shows the loss of employment due to COVID-19. It was found that 48.53% villagers lost their jobs in pandemic.

Table 7.4: Loss of employment due to Covid-19

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisua	Undla Jagir	Dhaurhara	Pindra	
Loss of employment COVID-19	Yes	7.67	5.22	17.58	18.06	48.53
	No	18.53	12.47	5.19	15.28	51.47
Total		26.19	17.69	22.78	33.33	100.00

Source: Field Survey

Migration of Family/Friends/Self due to Covid-19

Table 7.5 depicts the migration of family and friends due to covid-19. It was found that 40.74% villagers faced the migration of Family/ Family / Friends / Self due to COVID-19.

Table 7.5: Migration of Family/Friends/Self due to Covid-19

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Migration of Family/ Family / Friends / Self due to COVID-19	Yes	1.58	0.53	17.88	20.75	40.74
	No	24.61	17.16	4.91	12.58	59.26
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Benefit received from Government for Covid-19

Table 7.6 shows the benefits received from the Government for COVID-19 and 69.58% villagers received the benefits from Government.

Table 7.6: Benefit received from Government for Covid-19

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Benefit received from Government for COVID-19	Yes	19.08	0.50	19.14	30.86	69.58
	No	7.11	17.19	3.65	2.47	30.42
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Friend/family/Self suffered from COVID-19

Table 7.7 shows the data of family and friends who have suffered from COVID-19. It was found that 9.03% villagers' family has suffered and 90.97% villagers have not suffered.

Table 7.7: Friend/family/Self suffered from COVID-19

		District				Total
		Bareilly		Varanasi		
		Village				
		Tisia	Undla Jagir	Dhaurhara	Pindra	
Friend /Family / Self Suffered from COVID-19	Yes	0.17	1.42	2.22	5.22	9.03
	No	26.02	16.27	20.57	28.11	90.97
Total		26.19	17.69	22.79	33.33	100.00

Source: Field Survey

Chapter 8 : Carpet Hand-Weavers



Uttar Pradesh is the hub of carpet weaving and exporting. Many artisans can be found in Varanasi and Bareilly who practice in this art. A traditional Bareilly carpet is made up of cotton yarn and cost around 300-500 rupees. In Bareilly, more than 5000 men and women are engaged in carpet weaving but the carpet industry of Bareilly is on the brink of extinction because the absence of institutional mechanism for marketing the finished products leads to inefficiency in selling by the poor weavers. The weavers are not able to manage two-time meals for their family.

Weaving carpets is one of the most tedious professions which requires long hours of static work. Carpet hand weavers have common skin problems such as hyperkeratotic nodules and hand & finger's plaques. Carpet weaving requires repetitive movement of wrist and fingers to use non-ergonomic tools (Knife, combs, scissors & other) which leads to injury. This continuous trauma plays a major role in this injury which the author has termed as "Carpet nodules" (Noorbala, et al., 2008).

Case studies were conducted in Varanasi and Bareilly to understand the problems and sufferings of the carpet weavers.



Carpet weaving is performed by both men and women workers. The workers reported that the impairments from weaving carpet are stretched till the future such as weakening of eyesight, headaches, etc. These impairments feet even are after leaving the job.

Source: Abhishek Pandey (Field Investigator)



Rustam, a 45 year old is working as a carpet weaver since 20 years in a home based factory of Kachwa Bazar, Varanasi. He and his fellow 10-12 weavers are paid 150-200 wages per day. These wages are insufficient to feed Rustam's family and the situation becomes worse when any of his family members falls ill. He mentioned that the weaving work is so exhausting that it creates continuous pain in his eyes and hands but he has to pursue this work due to lack of skills and education. He added that if he makes any mistake while designing the carpet, he is forced to lose his wages for that day as a part of compensation.

Ram Lal Bind, a 35 year old fellow worker of Rustam reported that weaving a single carpet takes around 1 month to complete and they have to work with a strict deadline as exceeding the deadline can cause delay in their payment of wages. These wages do not guarantee a good schooling for Ram's children. The tool used for weaving carpet is of shape of a moon which creates strain in the fingers while holding them for a long period of time.

Source: Ashish Kumar (Field Investigator)

Ajay Yadav, a 49 year old used to work in a factory of Delhi since 2010 but he lost his job in the times of Covid-19 and moved back to his hometown in Bareilly, then he started working in a carpet factory of Bareilly. He reported that he has lost his 2 fingers in an accident of 2015 in his Delhi's factory because of which it is difficult for him to work as a carpet weaver. Weaving causes strain in his hand but he has no other choice as he has to feed a family of 6 and pay 3500 monthly rent of his house which is also due since last 2 months. He has lost all his savings in his unemployment period but now he is desperately waiting to rejoin his Delhi's factory as Carpet weaving does not provide him sufficient wages and it is a difficult job to perform.

Source: Alok Kumar (Field Investigator)

The concerned stakeholders should take initiative to provide thread and loom to the weavers to support their work. It can also help them to export their finished products to other countries. There is a requirement of institutional mechanism for marketing the finished products of weavers like trade fairs in different parts of the country.

Note: Names of the respondents has been changed for the confidentiality of the data.



Chapter 9: Agrarian Crisis: Case Study

Preliminaries	Agriculture is the foundation of the economy of India. The history of Agriculture in India begins from the Indus Valley Civilization. In terms of the Agricultural production India stands on the second position worldwide.
Introduction and Background	Agriculture is the pillar of Indian economy and employment of the population of India. This sector is a great contributor in the development of the nation. Agriculture sector of India is undergoing a structural change which has created a situation of crisis. Hence, it is important to study the root cause of problems. It is this crisis in the sector of Agriculture which is reflected in the form of increase in price of outputs, decrease in the profit of farmers, seizing the land of small and marginal farmers by force, rise in unemployment, and reduction in wages of agricultural labourers and negligible investment in the sector. Hence, it is important to study the root cause of problems.
Methodology	An attempt has been made to look into these matters through the case studies, collected through in-depth participatory approach. The case studies were collected from different parts of Uttar Pradesh to understand various perspectives of the issue.
Case 1	In today's era it can be perceived that there is a lack of interest of farmers towards agricultural practices which has created a gap between the human kind and agriculture. In village Pindara of Varanasi, it is evident that there has been an increase in the population of the village but the size of land holdings is continuously decreasing. When a family expands the ancestral land is divided into various parts which results into numerous small and marginal land holdings. This gives birth to differences such as one family member illegally occupies the land of the other. These cases end up in district courts where the family spend most of end up in their life trying to win and sometimes the case stretches to next generations. This creates a barrier between Human kind and Agriculture. Due to the small and marginal sizes of divided ancestral farms the farmers are not able to irrigate, cultivate and sow their farms properly. Source: Dr Ravindra Kumar (Field Investigator)



Case 2

The agriculture is not the main source of income for the villagers of Pindara village anymore; they have opted for other sources of income due to the less-profit nature of Agriculture activities. Such as in the family of 5 if the father is working in the fields the sons will be working in the factory or running their own business (own General store, Barber shop, Pottery, Vegetable, cloth shop etc) or working as a labour on the construction site. Whereas, the women of the family are only allowed to do household chores and take care of the family. The farmers of Pindara village are also engaged in mixed farming to gain short term income.

Source: Ashish Kumar (Field Investigator)

Case 3

The process of Public Distribution System (Ration) has gone online in the recent times in India. It has created problem for the families in the village Tisua of the Bareilly district because of the technological gap present in the rural areas. They are not able to reap benefits of this programme in the times of need.

Source: Arvind Kumar (Field Investigator)

Case 4

Dhaurhara village of Varanasi is situated on the bank of Naad and Gomti rivers due to which the crops cultivated in the season of rice and paddies are destroyed by the high tides of the river. Also once in every year the fields are struck with flood water which causes great destruction to the crops and the villagers cannot even claim for insurance. Another problem arises as the villagers have to live in the mid of their fields to protect prevent wild animals from eating the crops. The new generation of village is migrating to towns in the search of education and employment which leaves less population to take of agricultural activities in village.

Source: Mithlesh Pandey (Field Investigator)

Case 5

Suresh pal, 48 year old of Bareilly's Undla Jagir village is a farmer by profession as his father is also a farmer and works with him in his field. He cultivates crops like wheat, rice and sugarcane. This year when he intended to cultivate a crop of rice, it was destroyed by the flood and he was left barehanded and credited. Now, he has seeded a new crop of wheat with the hope to earn good returns and payback his credits.

Source: Durgesh Kumar (Field Investigator)



Results	It is noticed from the above-mentioned cases that decade by decade the gap between the agriculture and human kind is widening, this is caused by disputes in families regarding land divisions and rights, migration of new generation to town in search of education & employment and less profitability of agricultural activities. Public distribution system has been a source of relief to people in the tough times of lockdown but some social classes were excluded from this benefit due to infrastructure and social reasons.
Summary and Evaluation	Attributing to COVID-19 spread in India the farmers and non – farmers had to face many difficulties such as loss of employment, inability to pay expenses, migration to hometowns, etc. The constraints in farming are evaluated as floods, wild animals, and lack of insurance of crops, credit and indebtedness of farmers.
Conclusion	Agriculture is not the main source of income for villagers anymore due to lack of agricultural activity's profitability, income, migration and employment, hence they have opted for other professions.
Recommendations for future	<ul style="list-style-type: none"> • Village officials such as Pradhan should play principal role in resolving matters pertaining to land holdings as soon as possible. • The village officials (Patwari) should ensure that the process of land consolidation is conducted by officials and in fair & right manner. • Public Distribution system should be more transparent, easy to enrol & update and benefits should get easily transferred to the beneficiaries irrespective of class and cast. • Encouragement of insurance of crops and other assets of farmers for better risk management might be strengthened. • Concerned Agriculture institutions are recommended to ease the process of providing credit to farmers.
End Matter	Concerned stakeholders should generate employment and construct schools & colleges in villages to end migration of population. Not only agricultural but non-farm employment opportunities should also be generated in rural areas to support the Agriculture Sector. Mixed farming and other short-term income sources should be introduced and promoted among the farmers. Skill training institutions might be established in the village.

Note: Names of the respondents has been changed for the confidentiality of the data.



Chapter 10: Conclusion and Recommendations

- Urban agriculture increases community access to nutritious, inexpensive, fresh produce while also providing chances for residents to learn about nutrition and food production.
- It encourages people to learn about where their food originates from, how it's grown, and how they may interact with the people who grow it.
- The number of male respondents is higher than female respondents in this study. The respondents belong from villages of the selected districts of Uttar Pradesh. The respondents of the village are mostly uneducated. The majority of the respondents said that they have attended private institutions of education.
- The majority of respondents of the study were employed and their work is permanent/ main in nature. The employment can be divided between agriculture, its allied activities and non-farm employment. The large part of employed respondents is engaged in agriculture as cultivator. Speaking of Non-farm employment, the majority of respondents who are engaged in it are pursuing profession as embroidery workers, selling vegetables a shopkeepers and other small professions. The allied activities of agriculture also attract numerous respondents from villages. The wages earned in villages on an average is between 200-400 INR.
- The majority of farmers own their land and remaining are using leased land to perform agricultural activities. The large portion of respondents is of small and marginal farmers, owing 0-1 hectare of land. These lands can be divided on the basis of their usage into cultivable land and non cultivable/ barren land. Cultivable land is used for Agriculture purposes and non cultivable land is used for own living and keeping cattles. The majority of farmers have knowledge regarding the type of soil their land has and reported that to be alluvial soil.
- In this study it was found that crops produced by majority of the farmers are food grains crops and it was found that the reason for harvesting such crops is easy availability of seeds to the farmers. The seeds were purchased from cultivators; and only very small number of respondents buy seeds from Government dedicated shops. The tools used by today's farmers were a combination of traditional methods and technology which includes sickle, harvester and spring tooth cultivator together for harvesting their crops.
- For irrigation of crops the tubewells are most used method whereas wells are of minimum use for a modern farmer. Most of the farmers cultivate 2-4 crops in a year and the annual income of these farmers is 50,000 INR. The farmers reported that they price their crops by themselves and use containers and jute bags to store them for their easy transportation using Government Vehicles to the markets. Talking about the risk management of the farmer's regarding their crops; it was found that farmers' uses techniques like insurance of crops and avail credit facilities to mitigate agricultural risks and uses pesticides to keep their crops safe from insects.



- It was witnessed that the Government welfare policies are not much availed in villages. It can be said that respondents belonging from villages are less aware of such policies and schemes and it might be difficult for them to access these facilities easily than respondents belonging from towns. The villagers access Lok Adalats and Tehsil Divisions have more respondents. The training for Agriculture is acquired by fewer farmers of the study.
- The emerging challenges reported in the studies can be seen as Unemployment at large and damaged infrastructure is also a topic for worry for the respondents. Banking services are very popular among the respondents of all the villages but the credit facilities have not received the same popularity.
- The respondents have explained that flood is the natural calamity which harms their agricultural produce almost every year and the industries nearby gives birth to air pollution which affects their crops.
- As the study took place in the Covid-19 time period it is important to discuss the effect of Covid-19 on the respondents and their life. The majority of facilities were available in the villages to battle Covid-19. The Sarpanches and Local Administration played a role in these tough times by distributing ration and sanitizing the villages. It is important to notice that Covid-19 has increased the cost of living as per the respondents. Some have reported that they have lost their employment due to it and many have migrated to their hometowns due to it.

RECOMMENDATIONS:

Advocates and officials are working to create policies that will help urban agriculture thrive. While some of these policies benefit low-income and minority communities, there is still room to campaign for policies that benefit the very people who will gain the most from urban farms in their neighbourhoods. Authorities and concerned stakeholders should aim at creating awareness regarding the welfare policies, schemes and agriculture training programmes available to the people. So that they can take benefit from it.

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Village Questionnaire

Your precious responses are required for this research study. Please tick at appropriate box in the given grid or circle the appropriate response. Some questions may have multiple responses. The data provided will be kept confidential and will be used solely for the purpose of research.

इस शोध अध्ययन के लिए आपकी बहुमूल्य प्रतिक्रियाएँ आवश्यक हैं। कृपया दिए गए उपयुक्त बॉक्स पर टिक करें या उचित प्रतिक्रिया पर गोला लगाएं। कुछ सवालों के कई जबाब हो सकते हैं। उपलब्ध कराए गए डाटा को गुप्त रखा जाएगा और इसका उपयोग केवल अनुसंधान के उद्देश्य से किया जाएगा।

1. Date / दिनांक	
2. Name of the Field Investigator / अन्वेषक का नाम	
3. District / जिला	EAST/WEST: पूर्वी/ पश्चिम
4. Village / गाँव	
5. Name of the Respondent / उत्तरदाता का नाम	
5.1 Number of dependent family members? Please specify the details. आश्रित परिवार के सदस्यों की संख्या? कृपया विवरण निर्दिष्ट करें।	1. 1-2 2. 3-4 3. 5-6 4. Any other, Please specify / अन्य कोई, कृपया उल्लिखित करें
6. Sex / लिंग	MALE पुरुष / FEMALE स्त्री / TRANSGENDER ट्रांसजेंडर Any other please specify / अन्य कोई, कृपया उल्लिखित करें
7. Age / आयु	
8. Category / वर्ग	GENERAL / सामान्य OBC/ अन्य पिछड़ा वर्ग SC/ अनुसूचित जाति ST/ अनुसूचित जनजाति
9. What is the highest educational qualification you have? आपकी उच्चतम शैक्षिक योग्यता क्या है ?	1. Primary level / प्राथमिक स्तर 2. Matric / High School / मैट्रिक / हाई स्कूल 3. Secondary and higher secondary/ माध्यमिक और उच्चतर माध्यमिक 4. Graduation/Diploma/Certificate स्नातक/डिप्लोमा/ प्रमाणपत्र 5. Any Other, please specify / अन्य कोई, कृपया उल्लिखित करें
9.1 From which type of institution you have obtained your qualifications? आपने अपनी शैक्षिक योग्यताएँ किस प्रकार की संस्था से प्राप्त की हैं ?	1. Government / सरकारी 2. Private / निजी 3. Deemed / डीम्ड 4. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
9.2 From where you have obtained your Primary qualifications? आपने प्राथमिक योग्यता कहाँ से प्राप्त की है ?	1. Own village / अपने गाँव से 2. Town near village / गाँव के पास के कस्बा से 3. Own state / अपने राज्य से 4. Other state / अन्य राज्य से Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
9.3 From where you have obtained your Secondary qualifications? आपने माध्यमिक योग्यता कहाँ से प्राप्त की है ?	1. Own village / अपने गाँव से 2. Town near village / गाँव के पास के कस्बा से 3. Own state / अपने राज्य से 4. Other state / अन्य राज्य से Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
9.4 From where you have obtained your Higher Secondary qualifications? आपने उच्चतर माध्यमिक योग्यता कहाँ से प्राप्त की है ?	1. Own village / अपने गाँव से 2. Town near village / गाँव के पास के कस्बा से 3. Own state / अपने राज्य से 4. Other state / अन्य राज्य से 5. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें

<p>9.5 From where you have obtained your Graduation/Diploma/Certificate qualifications? आपने अपना स्नातक / डिप्लोमा / प्रमाणपत्र योग्यता कहाँ से प्राप्त की है?</p>	<ol style="list-style-type: none"> 1. Own village / अपने गाँव से 2. Town near village / गाँव के पास के कस्बा से 3. Own state / अपने राज्य से 4. Other state / अन्य राज्य से 5. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
<p>10. Are you employed? क्या आप कहीं कार्यरत हैं?</p>	<p>Yes/No हाँ / नहीं</p>
<p>10.1 What is your Activity Status? आपकी गतिविधि की स्थिति क्या है?</p>	<ol style="list-style-type: none"> 1. Working /Employed / कार्यरत नियुक्ति 2. Seeking or Available for work/Unemployed / काम की तलाश में या काम के लिए उपलब्ध/ बेरोजगार 3. Neither seeking nor available for work / काम के लिए न तो मांग करना और न ही उपलब्ध होना 4. Any Other, Please Specify / कोई अन्य, कृपया उल्लिखित करें
<p>10.2 If yes, what is the type of your employment? यदि हाँ, तो आपके रोजगार का प्रकार क्या है ?</p>	<ol style="list-style-type: none"> 1. Agricultural labour / कृषि 2. Non-Farm employment / गैर-कृषि रोजगार Please specify 3. Construction / निर्माण कार्य 4. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
<p>10.3 If Non-Farm Employment, then please specify. यदि गैर-कृषि रोजगार है, तो कृपया निर्दिष्ट करें</p>	
<p>10.4 What is the duration of your employment? आपके रोजगार की अवधि क्या है ?</p>	<ol style="list-style-type: none"> 1. Main worker (Permanent) / मुख्य कर्मकार (स्थायी) 2. Marginal worker (0-3 months) / सीमांत कर्मकार (0-3 महीने) 3. Marginal worker (3-6 months) / सीमांत कर्मकार (3-6 महीने) 4. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
<p>10.5 How much wages do you receive per day (in INR)? आपको प्रतिदिन कितनी मजदूरी मिलती है (रुपए में)</p>	<ol style="list-style-type: none"> 1. 0-100 2. 100-200 3. 300-400 4. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
<p>11. Are you engaged in any allied activity of Agriculture? क्या आप कृषि की किसी भी संबद्ध गतिविधि में संलग्न हैं?</p>	<p>Yes/No हाँ / नहीं</p>
<p>11.1 If yes, then tick among the alternatives provided? यदि हाँ, तो दिए गए विकल्पों में से टिक करें?</p>	<ol style="list-style-type: none"> 1. Pottery/ मिट्टी के बर्तनों 2. Weaver / जुलाहा 3. Cattle rarer/ मवेशी चराने वाला 4. Cultivator / कृषक 5. Patwari / पटवारी 6. Mechanic / मैकेनिक 7. Dairy Farmer / डेयरी किसान 8. Shopkeeper / दुकानदार 9. Fisher Person / मछुआरा 10. Metal Worker / धातु कर्मी 11. Craftsman / शिल्पकार 12. Peddlers / फेरीवाला 13. Blacksmith / लोहार 14. Handicraft worker / हस्तकला कर्मी 15. Knitter / बुनकर 16. Cabinet maker /कैबिनेट बनाने वाला 17. Wood crafter/ बदर्ई 18. Silk painter /रेशम का चित्रकार 19. Embroidery worker / कढ़ाई कर्मी 20. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
<p>12. Do you own any land? क्या आपके पास कोई जमीन है ?</p>	<p>Yes/No हाँ / नहीं</p>



12.1 If yes, what is the size of land holding? यदि हाँ, तो भूमि जोत का आकार क्या है ?	1. 0-1 bigha / बीघा 2. 1-2 bigha / बीघा 3. 2-4 bigha / बीघा 4. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
12.2 Do you own documents pertaining to the land you own? क्या आपके पास स्वयं की भूमि से संबंधित दस्तावेज हैं ?	Yes/No हाँ / नहीं
12.3 If no, reason for the same? यदि नहीं, तो कारण बताएँ ?	
12.4 How do you utilize your land? आप अपनी भूमि का क्या उपयोग करते हैं ?	Cultivation land / खेती योग्य भूमि Non cultivation (barren) land / बंजर और अनुपजाऊ भूमि Non-Agricultural uses / गैर-कृषि उपयोग Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
12.5 If Non –Cultivation (barren) land, please specify the use? यदि गैर-कृषि (बंजर) भूमि, तो कृपया उपयोग निर्दिष्ट करें?	For Cattle/ मवेशी के लिए For Graveyard/ कब्रिस्तान के लिए For Storage/ भंडारण के लिए For Living/ रहने के लिए Any Other, please specify/ कोई अन्य, कृपया उल्लिखित करें
12.6 What types of crops are produced in your land? आपकी भूमि में किस प्रकार की फसलों की खेती होती है ?	Food Grain (wheat, rice, pulses) / खाद्यान्न (गेहूँ, चावल, दालें) Cash Crops (fruits, vegetables, sugarcane, oilseeds) / नकदी फसलें (फल, सब्जियाँ, गन्ना, तिलहन) Cattle field / चारागाह Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
12.7 Reason for cultivating above mentioned crops? इस प्रकार की फसलें उगाने का कारण बताएँ?	1. Easy availability of seeds / आसानी से बीज की उपलब्धता 2. Can be cultivated in a short time period / कम समय अवधि में खेती की जा सकती है। 3. Low cost / कम लागत 4. Any Other, please specify/ कोई अन्य, कृपया उल्लिखित करें
13. How many crops do you cultivate in a year? आप एक वर्ष में कितनी फसल उगाते हैं ?	0-2 2-4 4-6 Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
13.1 What Technology is used for cultivation? खेती के लिए किस तरह की तकनीक का प्रयोग किया जाता है ?	Sickle / हँसिया Harvester / हार्वेस्टर Spring tooth cultivator / स्प्रिंग टूथ हैरो Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
14. From where do you purchase seeds for production? आप उत्पादन के लिए बीज कहाँ से खरीदते हैं ?	From cultivators / खेती करने वालों से Government / सरकार से Self / स्वयं Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
15. Do you irrigate your land? क्या आप अपनी जमीन की सिंचाई करते हैं ?	Yes/No हाँ / नहीं
15.1 What are the sources that are used for irrigation? वे कौन से स्रोत हैं जिनका उपयोग करके सिंचाई की जाती है ?	1. Canal / नहर 2. Tube well (GOVT./PRIVATE) / ट्यूबवेल (सरकारी / निजी) 3. Wells / कुआँ 4. Tanks, lakes or ponds / टैंक, झील या तालाब 5. Any Other, please specify / कोई अन्य, कृपया उल्लिखित करें
16. Do you have any knowledge regarding the type of your soil? क्या आपको अपनी मिट्टी के प्रकार के बारे में कोई जानकारी है ?	Yes/No हाँ / नहीं
16.1 If yes, then what type of soil your land owns? यदि हाँ, तो आपकी भूमि की मिट्टी किस प्रकार की है ?	Alluvial soil / जलोढ़ मिट्टी Black soil / काली मिट्टी Red soil / लाल मिट्टी Any other, please specify/ कोई अन्य, कृपया उल्लिखित करें

<p>17. How much do you earn from your crop production annually? आप फसल उत्पादन से वर्ष में कितना कमाते हैं ?</p>	<p>Less than 50,000 / 50,000 से कम 50,000-1,00,000 / 50,000-1,00,000 तक More than 1,00,000 / 1,00,000 से अधिक 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>18. How do you price your crops? आप अपनी फसलों की कीमत कैसे लगाते हैं ?</p>	<p>1. With the help of brokers / दलालों की मदद से 2. Self / स्वयं 3. Government / सरकार की मदद से 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>19. How do you store your crops? आप अपनी फसलों को कैसे संग्रहीत करते हैं ?</p>	<p>1. Silos/Granaries / अनाज का भंडार 2. Cold storage / कोल्ड स्टोरेज 3. Containers/Jute bags / कंटेनर या जूट के बैग 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>20. How do you transport your crops? आप अपनी फसलों का परिवहन कैसे करते हैं ?</p>	<p>Lorries/लारियाँ Buses/Government vehicle /बस या सरकारी वाहन own vehicle/ स्वयं का वाहन Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>21. What strategy do you use for risk management? आप जोखिम प्रबंधन के लिए किस रणनीति का उपयोग करते हैं ?</p>	<p>1. Insurance of crops / फसलों का बीमा 2. Credit schemes (of Government) /सरकार की क्रेडिट योजनाएँ 3. Following Government guidelines/ सरकारी दिशानिर्देशों का पालन 4. If Government guidelines are followed please specify the nature. /यदि सरकारी दिशानिर्देशों का पालन किया जाता है तो प्रकृति निर्दिष्ट करें। 5. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>22. Have you ever availed any Government policy for Agriculture? क्या आपने कभी कृषि के लिए किसी सरकारी नीति का लाभ उठाया है ?</p>	<p>Yes/No हाँ / नहीं</p>
<p>22.1 If yes, then which one? यदि हाँ, तो कौन सी ?</p>	<p>1. Pradhan Mantri Fasal Bima Yojana (PMFBY) /प्रधानमंत्री फसल बीमा योजना 2. Pradhan Mantri Krishi Sinchai Yojana (PMKSY)/ प्रधानमंत्री कृषि सिंचाई योजना 3. Paramparagat Krishi Vikas Yojana (PKVY) / परंपरागत कृषि विकास योजना 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>22.2 Did it provide any benefit to you? क्या आपको इससे कोई लाभ हुआ ?</p>	<p>Yes/No हाँ / नहीं</p>
<p>23. Have you ever acquired any training for Agriculture? क्या आपने कभी कृषि के लिए कोई प्रशिक्षण प्राप्त किया ?</p>	<p>Yes/No हाँ / नहीं</p>
<p>23.1 If yes, then which one? यदि हाँ, तो कौन सा ?</p>	<p>1. Seed village program / गाँव बीज कार्यक्रम 2. Post-harvest technology management / पोस्ट-हार्वेस्ट तकनीकी प्रबंधन 3. Sub-mission on agriculture mechanism (SMAM) / कृषि तंत्र पर उप-मिशन 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>24. What communication services do you use? आप किन संचार सेवाओं का उपयोग करते हैं ?</p>	<p>1. Mobile phone /मोबाइल 2. Landline phone / लैंडलाइन फोन 3. Internet/ इंटरनेट 4. Telephone Booth / टेलीफोन बुथ 5. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें</p>
<p>25. Do you avail any banking services? क्या आप किसी बैंकिंग सेवा का लाभ उठाते हैं ?</p>	<p>Yes/No हाँ / नहीं</p>



25.1 If yes, then what is the nature of the services? यदि हाँ, तो कौन सी ?	1. Savings and Current account/ बचत और चालू खाता 2. Loan/Credit / ऋण / क्रेडिट 3. Fixed deposits/ सावधि जमा 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें
26. Do you access credit facilities? क्या आप ऋण सुविधाओं का उपयोग करते हैं ?	Yes/No हाँ / नहीं
26.1 What are the sources of credit facilities available in your village? आपके गाँव में ऋण सुविधा के क्या स्रोत उपलब्ध हैं ?	1. Money lenders/ साहूकार 2. Co-operative credit societies/ सहकारी ऋण समितियाँ 3. Government/Banks/ सरकारी / बैंक 4. Relatives/Friends/ रश्तेदार / दोस्त 5. Landlords / जमींदार 6. Any other, please specify/ कोई अन्य, कृपया उल्लिखित करें
26.2 How much (in INR)? कितना (में रुपए)?	1. 0-50,000 पचास हजार तक 2. 50,000-1,00,000 पचास हजार से एक लाख तक 3. Above 1,00,000 एक लाख से अधिक 4. Any other, please specify/ कोई अन्य, कृपया उल्लिखित करें
26.3 If yes, Have you ever availed any of the above facilities? State its duration? यदि हाँ, तो क्या अपने कभी उपरोक्त में से किसी सुविधा का लाभ उठाया है ? इसकी अवधि बताएं।	1. Short term (0-15 months)/ लघु अवधि (51-0)महीने 2. Medium term (15 months -5 years)/ मध्यम अवधि (51) महीने 5-साल () 3. Long term (more than 5 years)/ दीर्घकालिक (5 वर्ष से अधिक) 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें
27. Have you ever faced any difficulty in accessing credit facilities? क्या आपने कभी ऋण सुविधाओं तक पहुँचने में किसी कठिनाई का सामना किया है ?	Yes/No हाँ / नहीं
27.1 If Yes, please specify. यदि हाँ, तो कृपया निर्दिष्ट करें।	
28. Have you ever been indebted? क्या आपने कभी ऋण लिया है ?	Yes/No हाँ / नहीं
28.1 If yes to above, how much debt? यदि हाँ, तो कितना ऋण ?	1. 0-50,000 पचास हजार तक 2. 50,000-1,00,000 पचास हजार से एक लाख तक 3. Above 1,00,000 / एक लाख से अधिक 4. Any other, please specify / कोई अन्य, कृपया उल्लिखित करें
28.2 For how long period of time? कितने लंबे समय के लिए ?	1. 0-6 months /महीने 2. 6-12 months /महीने 3. More than a year/ एक वर्ष से अधिक 4. Any other, please specify/ कोई अन्य, कृपया उल्लिखित करें
28.3 Was the problem resolved? क्या समस्या का समाधान हुआ ?	Yes/No हाँ / नहीं
28.4 If yes, was it resolved? यदि हाँ, इसका समाधान कैसे हुआ ?	1. Help from Government / सरकार की सहायता से 2. Help from friends/family/ दोस्तों / परिवार की मदद से 3. Not resolved/ हल नहीं हुआ 4. Any other, please specify/ कोई अन्य, कृपया उल्लिखित करें
29 Have ever your land been in collateral/debt? क्या आपकी जमीन कभी आनुषंगिक ऋण में रही है ?	Yes/No हाँ / नहीं
29.1 If yes, after the debt was paid have you received your NOC for the same? यदि हाँ, कर्ज के भुगतान के बाद आपको उसके लिए एन.ओ. सी. प्राप्त हुआ ?	Yes/No हाँ / नहीं
30. Do you use pesticides in your crops? क्या आप अपनी फसलों में कीटनाशकों का इस्तेमाल करते हैं ?	Yes/No हाँ / नहीं
31. Have you ever witnessed any suicide in your family/friends? क्या आपके परिवार में कभी किसी ने आत्महत्या की है ?	Yes/No हाँ / नहीं

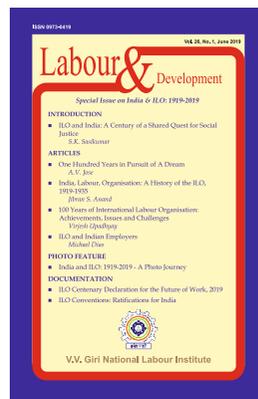
31.1 If yes, then how many? यदि हाँ, तो कितने लोगों ने ?	1. 0-2 2. 2-4 3. 4-6 4. Any Other, please specify/ कोई अन्य, कृपया उल्लिखित करें
31.2 What was the reason for the same? उसका कारण क्या था ?	
32. What are the types of roads constructed in your village? आपके गाँव में किस प्रकार की सड़कों का निर्माण किया गया है ?	1. Earthen roads/ मिट्टी की सड़कें 2. Gravel roads/ बजरी वाली सड़कें 3. Concrete roads/ कंक्रीट वाली सड़कें 4. Any Other, please specify/ कोई अन्य, कृपया उल्लिखित करें
32.1 Are these roads equipped with adequate lights? क्या सड़कों पर लाईट की पर्याप्त सुविधा है?	Yes/No हाँ / नहीं
32.2 If yes, then what is the nature of lights? यदि हाँ, तो लाईट की प्रकृति क्या है ?	
32.3 Are those lights functional? क्या ये लाईटें चालू हालत में हैं ?	Yes/No हाँ / नहीं
32.4 Are roads connected to the markets nearby? क्या सड़कें पास के बाज़ार से जुड़ी हैं ?	Yes/No हाँ / नहीं
32.5 If yes, what is the nature of the roads? यदि हाँ, तो सड़कों की प्रकृति क्या है ?	
33. Is there any industry nearby that is causing pollution or affecting your crops? क्या आसपास कोई उद्योग है जो प्रदूषण पैदा करता है अथवा आपकी फसलों को प्रभावित करता है ?	Yes/No हाँ / नहीं
34. Have you ever witnessed any natural calamity in your village ever? क्या आपने गाँव में कभी कोई प्राकृतिक आपदा देखी है ?	Yes/No हाँ / नहीं
34.1 If yes, then which one? यदि हाँ, तो कौन सी ?	1. Flood/ बाढ़ 2. Storms/ तूफान 3. Drought/ सूखा 4. Any Other, please specify/ कोई अन्य, कृपया उल्लिखित करें
35. Have you or any other member of your family fallen ill due to any waterborne disease? क्या आप या आपके परिवार का कोई अन्य सदस्य किसी जलजनित बीमारी के कारण रोगग्रस्त हुआ ?	Yes/No हाँ / नहीं
35.1 If yes, then which one? यदि हाँ, तो कौन से रोग से ?	1. Hepatitis/ हेपेटाइटिस 2. Cholera/ हैज़ा 3. Typhoid/ टाइफाइड 4. Malaria/ मलेरिया 5. Dengue/ डेंगू 6. Any Other, please specify/ कोई अन्य, कृपया उल्लिखित करें
36. Do you think that air pollution affects your crop? क्या आपको लगता है कि वायु प्रदूषण आपकी फसल को प्रभावित करता है ?	Yes/No हाँ / नहीं
37. Did your village have the process of land consolidation (chakbandi)? क्या आपके गाँव में भूमि चकबंदी की प्रक्रिया थी ?	Yes/No हाँ / नहीं
37.1 If yes, when? यदि हाँ, तो कब ?	
37.2 Who did the land consolidation? किसके द्वारा भूमि की चकबंदी की गई ?	
38. Do You have access to Lok Adalat? क्या आपके पास लोक अदालत तक पहुँच है?	Yes/No हाँ / नहीं



39. Do you have access to Tehsils Divisions? क्या आपके पास तहसील प्रभागों तक पहुंच है?	Yes/No हाँ / नहीं
39.1 If Yes, are they beneficial to you? यदि हाँ, तो क्या वे आपके लिए फायदेमंद हैं?	Yes/No हाँ / नहीं
39.2 If Yes, How? यदि हाँ, तो कैसे?	
40. Do you have any of the following documents? क्या आपके पास निम्नलिखित में से कोई दस्तावेज है?	1. Aadhaar Card / आधार कार्ड 2. Voter Card / वोटर कार्ड 3. Ration Card / राशन कार्ड 4. Any Other, Please Specify/ कोई अन्य, कृपया उल्लिखित करें
41. Have you or any one of your friend/family suffered from COVID-19? क्या आप या आपका कोई दोस्त / परिवार COVID -19 से पीड़ित है?	Yes/No हाँ / नहीं
42. Were necessary medical facilities available in your village for COVID-19? क्या COVID-19 के लिए आपके गाँव में आवश्यक चिकित्सा सुविधाएँ उपलब्ध थीं?	Yes/No हाँ / नहीं
42.1 What role was played by the Sarpanch during this period? इस दौरान सरपंच ने क्या भूमिका निभाई?	
43. How it impacted the cost of living in your Village? इसने आपके गाँव में जीवन यापन की लागत को कैसे प्रभावित किया ?	1. Increases in price of commodities / वस्तुओं के मूल्य में वृद्धि 2. Unavailability of Commodities in the market. / बाजार में वस्तुओं की अनुपलब्धता 3. Any Other, please specify/ कोई अन्य, कृपया उल्लिखित करें
44. Did you lost your employment because of COVID-19? क्या आपने COVID-19 के कारण अपना रोजगार खो दिया है?	Yes/No हाँ / नहीं
45. Have any one in your family/Friend migrated due to the spread of COVID-19? क्या आपके परिवार / मित्र में से किसी ने COVID-19 के प्रसार के कारण पलायन किया है?	Yes/No हाँ / नहीं
46. Did you receive any benefit from Government for COVID-19? क्या आपको COVID-19 के लिए सरकार से कोई लाभ मिला है?	Yes/No हाँ / नहीं
47. Are you a beneficiary of MGNREGA? क्या आप मनरेगा के लाभार्थी हैं?	Yes/No हाँ / नहीं
48. Any other problem? कोई अन्य समस्या	
49. Any suggestion? कोई सुझाव	

LABOUR & DEVELOPMENT

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V.V. Giri National Labour Institute is a premier institution involved in research, training, education, publication and consultancy on labour and related issues. Set up in 1974, the Institute is an autonomous body of the Ministry of Labour and Employment, Government of India. It is committed to establishing labour and labour relations as a central feature in the development agenda through :

- Disseminating knowledge, skills and attitudes to major social partners and stakeholders concerned with labour and employment;
- Addressing issues of transformations in the world of work;
- Undertaking research studies and training interventions of world class standards; and
- Building understanding and partnerships with globally respected institutions involved with labour.



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