# **DEVELOPMENT RESEARCH COMMUNICATION AND SERVICES CENTRE**

# **KOLKATA**







# **IMPACT OF ENVIRONMENTAL AND CLIMATIC CHANGES**

ON

FOOD PRODUCTION AND LIVELIHOOD

# **BASELINE STUDY REPORT**

ECONOMIC INFORMATION TECHNOLOGY

CZ-33, METROPOLITAN CO-OPERATIVE HOUSING SOCIETY LTD.

KOLKATA-700105

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#### 1.0 PREAMBLE

- 1.1 West Bengal is a multi-hazard state with the following agro-ecological Zones.
  - Hill region- covering the districts of Darjeeling, Coochbehar and Jalpaiguri.
  - Old Alluvial Zone- Comprising Uttar Dinajpur, Dakshin Dinajpur and Maldah
  - New Alluvial zone- Covering Murshidabad, Nadia, Parts of Uttar 24-Parganas, Hugli and Barddhaman
  - Read and Laterite Zone- Covering the districts of Burbhum, Bankura, Purila and Paschim Medinipur
  - Saline costal region- Covering Purba Medinipur, Parts of Hugli, Uttar 24-Parganas ,Dakshin 24
     Parganas, Kolkata
- 1.2 Each of the Zones has its own ecological vulnerability (details in the map in the next page).
- 1.3 The Project focuses on the districts of Bankura and Purila to strengthen the capacity of small and marginal farmers to build the resilient livelihood models in line with SAPCC of West Bengal.
- 1.4 The observed climatic changes with focus on Laterictic Zone(Comprising, inter alia, the districts of Bankura and Purulia) are:
  - Deposition of dew is decreasing,
  - Erratic nature in weather behavior is increasing
  - Typical session character of weather is disappearing,
  - Exceptional incidences are becoming the usual ones,
  - Winter is becoming brief and mild with frequent warm spells in between,
  - Summer is becoming longer
  - Variability of Monsoon rain is on the rise with incidences of partial break in one region and heavy rainfall in the other, causing partial droughts and floods,
  - Post –monsoon weather is becoming too uncertain and variable
- 1.5 Based on the PRA conducted by Development Research Communication and services Centre(DRCSC), the following areas of concerns relating to climate change have been identified as 'community perspective of climate change and associated vulnerability':
  - Rainfall is Intermittently scanty and is declining further, especially during last 5-6 years
  - > Temperature, both maximum and minimum, rising
  - Agriculture is mainly rain-fed. Soil is poor in nutrient content.
  - > The forest cover is vanishing gradually. The collected food items are no longer grown in the forest. This zone is dominated by tribal, who are generally more dependent on non-timber forest products (NTFT).
  - ➤ Lack of fodder and degradation of grazing land.
  - Wells are gating dried quickly during summer
- 1.6 Project Programme Goals and Objectives are listed below:

**OVERALL GOAL:** Developing climate adoptive and resilient livelihood systems through diversification, technology adoption and natural resources management for rural small and marginal farmers associated with agriculture and allied sector in the Lateritic Zone of West Bengal.

SPECIFIC OBJECTIVES: To enhance adaptive capacity of vulnerable farm families in semiarid regions of Bankura and Purilia districts by introducing measures to tide over the adverse impacts of climate change on there food and livelihood security.

#### **OPERATIONAL OBJECTIVES:**

- 1. To conduct services of exercises with the stakeholders and analyse climate data / GIS maps to workout communities planning exercises for land and water use master plan with the aim of developing protocol for collective management of natural resources.
- 2. To establish local climate centres, linking with technical institutions and sending crop-weather advisories relevant to the livelihood to the small and marginal farmers associated with agriculture and allied sector.
- 3. To develop, demonstrate, document and promote climate resistant livelihood models.
- 1.7 Before launching the Project with full vigour, DRCSC have decided to conduct a BASE LINE SURVEY of a few residents of a few selected villages in the districts of Bankura and Purila to know the actual ground situation.
- 1.8 The job of conducting the Base Line Study has been entrusted to Economic Information Technology , Kolkata.

#### 2.0 THE STUDY

#### **OBJECTIVE**

- 2.1 The objectives of the study are as follows:
  - Individual / Household Level -prepare a profile of the 'socio-agricultural-economic-vulnerability to climate change' profile of the households.
  - Community level: Through the conduct of group discussions with residences of the villages, gate an overall picture of 'community perspective of climate change an associated vulnerability'.

Compare this knowledge with the results of PRA conducted by DRCSC given in para 1.5 in the last sections.

#### **COVERAGE**

- 2.2 It was decided to cover selected areas in both Bankura and Purila districts.
- 2.3 It was, ex-ante, decided to cover the following blocks and G.Ps (Gram Panchayats) in the above two districts:

SI. No.	Districts	Name of the Block to be covered	Names of G.Ps to be covered		
1	Bankura	Chatna	<ol> <li>Gpshergram</li> </ol>		
			2. Jhuka		
2.	Purulia	Kashipur	<ol> <li>Rangamati Ranjandi</li> </ol>		
			2. Agardi Chitra		
			<ol><li>Soinathali</li></ol>		

- 2.4 Thus, it was decided to cover a total of 5 G.Ps in 2 blocks in the two districts.
- 2.5 The next issue was the selection of villages in these G.P.s and blocks
- 2.6 It was, ex-ante, decided by DRCSC that 18 villages in Bankura and 22 villages in Purulia (as named by them) were to be covered. Brake up of these 40 villages are given below:

SI. No.	District	Block	GP	Number of villages to be covered
1.	Bankura	Chatna	1. Goshergram	7
		Do	2. Jhunka	15
		Sub total		22
2.	Purulia	Kashipur	1. Rangamati Ranjandi	5
		Do	2. Agardi Chitra	9
		Do	3. Sonathali	4
		Subtotal		18
		Grand Total		40

2.7 The total number of households in these villages (total) are:

Bankura (2GPs)	4200
Purulia (3GPs)	2375
Total	6575

- 2.8 It was, ex-ante, decided by DRCSC that the total number of households to be covered will be 500 in the 40 villages.
- 2.9 The question then arises is the 'allocation of the sample size of 500 to the 40 villages'.
- 2.10 With the help of data from 2011 census, village-wise, required information were collected for each of the 40 villages.
- 2.11 Allocation of the sample size of 500 was done in proportion to the number of households in each village. Accordingly, the following total number of households were selected:

Bankura 315 Purulia 187 Total 502

# 2.12 Village-wise break-up is given below:

DISTRICT: PURULIA						
GP	SI No	Village Name	ST family	Others	Total	Selected
Rangamati Ranjandi	1	Jorthol	38	163	201	15
Purulia	2	Bodma	25	158	183	13
Block -Kashipur	3	Ranjandi	71	187	258	19
	4	Tilabani	34	0	34	2
	5	Lajna	19	184	203	15
Agardi Chitra	6	Cakadi	22	0	22	2
	7	Bongora	26	3	29	2
	8	Janumdi	33	0	33	2
	9	Beldi	10	50	60	4
	10	Kasidi	90	12	102	7
	11	Sura	68	0	68	5
	12	Seja	160	120	280	20
	13	Echamari	160	0	160	12
Sonatholi	14	Jaganathdi	100	58	158	11
	15	Balarampur	22	22	44	3
	16	Lara	189	335	524	38
	17	Jamkiri	46	98	144	10
	18	Jibanpur	63	2	65	7
						187

	DISTRICT : BANKURA					
Goshergram	1	Khardona	272	20		
Bankura	2	Dumdume	241	17		
Block- Chatna	3	Ghosergram	327	24		
	4	Khasapahari	201	15		
	5	Suara Bakara	357	26		
	6	Anari	37	3		
	7	Beniygora	204	15		
Jhuka	8	Majidi	190	14		
	9	Hausibaid	130	9		
	10	Kalipur	170	12		
	11	Sipuria	217	16		
	12	Saloni	421	30		
	13	Jhuka	343	25		
	14	Pencasimul	134	10		
	15	Ekani	197	14		
	16	Ghirrakeli	214	15		
	17	Dumurkali	200	14		
	18	Besara	200	14		
	19	Kendua	140	10		
	20	Gopalpur	36	3		
	21	Banjura	56	4		
	22	Jaynagar	70	5		
				315		
	GRAND					
	TOTAL		6925	502		

- 2.13 It is observed from the above table that there are 14villages with the 'total number of households being less than 10'. This creates the following problems:
  - 1. Covering villages having total households to be covered less than 10 by sending supervisor/field investigator are time consuming and costly.
  - 2. Statistically, they may not be representative
- 2.14 It was, therefore, decided to club (depending on the distance from the other selected villages) these 14 villages with the next neighbouring selected villages (without missing any of the villages per se).
- 2.15 The information about the clubbed villages in Bankura and Purulia districts are given below:

# District-Bankura

G.P –GOSHERGRAM					
SI.	VILLAGE	Number of Households to be			
No.		covered			
1	Khardona	20			
2	Dumdume	17			
3	Ghoshergram	24			
4	Khasapahari +Anari	16 +2=18			
5	Suara Bakara	26			
6	Beniygora	15			
	Sub Total	120			
<b>G.</b> P – .	IHUKA				
7	Sipuria	16			
8	Saloni	30			
9	Jhuka	25			
10	Besara+ Gopalpur	15 +2=17			
11	Kalipur	12			
12	Majidi	14			
13	Hausibad+Banjura	9 +4=13			
14	Pencasimul	10			
15	EKani	14			
16	Ghirrakeli+ Jaynagar	15 +5 =20			
17	Dumurkali	14			
18	Kendua	10			
	Sub Total	195			
	Total (Bankura)	315			

# **DISTRICT PURULIA**

SI.	VILLAGE	Number of Households to be		
No.		covered		
1	Jorthol	15		
2	Bodma	13		
3	Ranjandi	19		
4	Lajna+ Tilamabani	15 +2=17		
	Subtotal	64		
G.P- A	GARDI CHITRA			
5	Sura+	5		
	Cakadi+	2		
	Bongora+	2 > 22		
	Janumdi+	2		
	Beldi+	4		
	Kasidi+	7 )		
6	Seja	20		
7	Echamari	12		
8	Jaganathdi	11		
Sub to	otal	65		
G.P-S	ONATHALI			
9	Jamkiri+ Balarampur	10+3 =13		
10	Lara+ Jibanpur	38+7=45		
	Subtotal	58		
	Total (Purulia)	187		
	Grand Total Bankura+Purulia	502		

#### METHODOLOGY

#### I. QUANTITATIVES STUDY

- 2.16 We have discussed about the total number of households to be covered in each the village- groups/ villages.
- 2.17 For each village/ village group, the following procedure has been adopted for the selection of households:
  - After reaching the village it was ascertained from a few knowledgeable persons about the total number of households in that village(2011 census figures of number of households in that village has already being given to the field staff to get an idea of the expected number of households in that village. Let the number of households in that village is 'N'.
  - > We use the Systematic Random Sampling for the further study
  - First, we need to calculate the 'interval' which is defined as:

- Then, we use the Random Number table to select a random number less than 'X'. (say 'Y')
- Next, the households selected are:

First	-	Υ
Second	-	Y+X
Third	-	Y+2X
n <sup>th</sup>		Y+ (n-1)X
11		1 1 (II-T/A

'n' will be the required member of households to be selected in that village.

- 2.18 **Method of data collection** Personal Interview Method.
- 2.19 **Survey Instrument** A well designed Households Questionnaire developed by DRCSC was used to elicit the required information from the selected households. Copy of the Questionnaire is annexed as Annexure-1
- 2.20 A total of 15 Field staff were deployed

Supervisors - 5

Field Investigators-10

Annexure-2 gives the names of field staff deployed.

- 2.21 **Movement plan** The entire first completed the work in Bankura district and then moved to Purulia district.
- 2.22 **Training Programme** A 2-day training programme in Kolkata to acquaint the field staff with the objective of the project, methodology being used, and survey instrument.
  - Dr.A.K.Roy, Chief Executive, Economic Information Technology, Kolkata acted as the Main Faculty member.
  - Shri Sujit Mitra Coordinator, DRCSC clarified the issues and problems raised.
- 2.23 **Data Entry** Data Entry was done by using CSPRO Software.

Tabulation was done using SPSS-15

2.24 **Report writing** — Report writing was done by Dr. A.K Roy Chief Executive, Economic Information Technology, Kolkata

#### **II. QUALITATIVE STUDY**

Key informants interview was conducted by Dr. A.K. Roy Chef Executive, Economic Information Technology, Kolkata with the following officials/KIs:

- 1. Shri Sahdev Murmu Farmer and social Activist
- 2. Shri Prasanta Mandal-DRCSC,

A Group Discussion was organized on 02.05.2014 in one of the selected villages (comprising people from the neighbouring selected villages).

A total of 41 individuals (females-19 and males-22) attended the meeting and took part in the deliberations. The age of the participants ranged between 13 and 75 years.

A copy of the names (together with their age, Occupation and signature) is given in Annexre-3. In the meeting, the following officials of Economic Information Technology, Kolkata were present:

- 1. Dr. A.K.Roy Chief Executive
- 2. Shri B.K.Mazumder, Senior Executive

# 3.0 RESULTS (BANKURA)

## I. QUANTITATIVE STUDY

#### **A.HOUSEHOLD PARTICULARS**

#### **BACKGROUND OF HOUSEHOLDS**

- 3.1 Background of households are presented in tables 1 and 2
- 3.2 The total number of households surveyed in the study in Bankura district is 315. The total numbers of members in these 315 households are 1792. Age-group-wise break-up is shown below:

SI. No.	Number of Members	Number of members		Average number of members par household			
	Age group etc.	Male	Female	Total	Male	Female	Total
	(years)						
1	0-6	126	98	224	0.40	0.31	0.71
2	7-18	188	157	345	0.60	0.50	1010
3	19-30	236	193	429	0.75	0.61	1.36
4	31-50	234	231	465	0.74	0.73	1.47
5	51-70	138	137	275	0.44	0.43	0.87
6	Above 70	37	17	54	0.12	0.05	0.17
	Total	959	9833	1792	3.07	2.67	5.68

- 3.3 The average household size works out to 5.68.
- 3.4 The sex-ratios for each age group are as follows:

Age-group(years)	Sex-ratio
0-6	778
7-18	835
19-30	818
31-50	987
51-70	993
Above 70	459

- 3.5 Sex-rate, especially for the age-group 0-6 years is really a cause for concern.
- 3.6 Number of persons /members able to work is 1258 (70 percent). For the main working age-groups ,the number and percentage are:

Age-group(years)	ge-group(years) Total number of members able to work	
19-30	415	97
31-50	456	98

3.7 Total number and percentage of earning members for the above two age-groups are:

Age-group/(years)	Members	Percentage
19-30	275	64
31-50	338	80

3.8 3.1 Sex-wise percentages of education (literates) works out as:

Male - 73 Female - 58 Total - 66

#### **EDUCATION OF CHILDREN**

- 3.9 A total of 304 households have replied to the question of 'whether they have school going children'. Figures of percentage of households having school going children are presented in table 2a.
- 3.10 Among 304 households , 167 households (58percent) have school going children while this percentage for female children is 45 percent.
- 3.11 Seventy five percent of children are studying either in primary class or in middle class.
- 3.12 There are 24 households having 'College going children'.
- 3.13 Six households have 'dropout children'. Reasons for drop-out mentioned are table 2b:

Reasons	Number	Percentages
Not interested	2	33.33
Got. Married	1	16.67
Illness	1	16.67
Repeated failures	1	16.67
Do not remember	1	16.67
Total	6	100

3.14 Half of the six drop-out children are presently 'doing nothing' one each is working as 'Labour' or engaged in 'cooking' or 'household work' (Table 2c)

#### **RATION CARD**

- 3.15 Detailed figures are presented in table 3a. No household has 'Annapurna' ration cards while 10-48 percent of households have 'Antyoday' cards. 46 persons having 'ration cards' belong to BPL.
- 3.16 Most of households (56 percent) have to travel a distance of more than 1km. to their ration shops.(Table 3b
- 3.17 About half of the households (48 percent) have categorized the services of ration shops as 'fair , bad or very bad'.

#### OCCUPATION OF HOUSEHOLDS

- 3.18 Both information on primary and secondary occupations were recorded for each of the households
- 3.19 Occupation have been broadly classified as:
  - Service (Government or PVE)
  - Farming
  - Labour (including agricultural labour)
  - Self Employed
  - MGNREGS
  - Others
- 3.20 Month-wise percentage of households having different types of occupations are presented in table 4( separately for primary and secondary occupations)

3.21 First three ranked occupations are:

Rank	Primary	Secondary	
1	Labour(51 percent)	Labour (40 percent)	
II	Farming (33 percent)	Self Employment (19.48 percent)	
III	Service (5 percent)	MGNREGS (19.12 percent)	

3.22 If one analyses the month-wise variation, this following picture arises:

Primary occupation	Variation	
Labour	Minimum of 7-8.2 percent in Chaitra to 9.08 percent in Poush.	
Farming	Minimum of 1.38 percent in Baisakh to 13.69 percent Shravan.	
	Month –wise variation in farming as an occupation is much higher	
	than other occupations	

#### **HOUSING**

- 3.23 As far as type of houses in which the households are living, most of them (72 percent) have 'Permanent katcha structured houses'. Only 19 percent of the households stay in pucca houses (Table5).
- 3.24 Only 7 households (2.22 percent) have received 'Government assistance' for building houses. Most of the households (57 percent) received 'Rs. 30.000'. The average amount received works out to Rs. 36333/-

#### TOILETS

- 3.25 Information of types of toilets used and whether government assistance have been recorded are presented in Table6. Out of 315 households surveyed, 288 households (91.43 percent) belong to 'No TOILET' category.
- 3.26 There –fourth of the households (76 Percent) are 'using permanent toilet'.
- 3.27 Only 1household has 'recorded government assistance' for constructing toilets. They had received Rs. 2000/-(Table 6)

# LIGHTING, FUEL

3.28.1 Half of the households (49.84 percent) use 'Electricity' as the sources of lighting followed by 'Kerosene' (29 percent). Around 21 percent of the households were covered by Rajiv Gandhi Electrification programme (Table 7).

3.28.2 It is observed from the following table that 'General chullah/traditional chullah' is the most Important chullah /cooking stove used by households (94 percent):

Sl. No.	Cooking Stove	Household using	
		Number	Percentage
1	General /Traditional chullah	295	93.65
2	Smokeless Chullah	8	2.54
3	Bio-gas	4	1.27
4	Electric Heater	1	0.32
5	LPG	12	3.81
6	Kerosene stove	1	0.32
7	Others	1	0.32
		322	102.22

(Note: Percentage is more than 100 because of multiple number of cooking stoves being used)

3.28.3 Different types of fuels used, monthly quarterly used and prices are shown below:

SI. No.	Type of Fuel	Number & percentage of households using	Monthly Quantity used	Price (Rs.)
1	Wood (kg)	300(54%)	167.03	721.74
2	Cow dung(pieces)	108(19%)	395.46	172.53
3		49(9%)	-	420.10
4	Coal (kg)	16(3%)	127.94	354.80
5	Kerosene (Lt.)	46(8%)	4.11	76.98
6	Other	27((5%)	-	203.92
7	LPG (kg)	11(2%)	12.82	399.09
	Total	557(100%)	-	-

(Total number of households are more than 315 because of multiple answers)

- 3.28.4 Fuels used can be from:
  - Collection (may be from nature)
  - Own
  - Purchased

3.28.5 It is observed from the following table that 'purchase' is the least priority used by only 109 out of 532 households (note: the number of households is more than 315 because multiple answer). (20percent):

SI.	Type of Fuel	Mode of getting fuel				
No.		Collection	Own	Purchase	Total	
1	Wood	226	104	36	366	
2	Cow dung	9	91	7	107	
3	Crop residence	3	46	0	49	
4	Coal	1	0	15	16	
5	Kerosene	0	3	42	45	
6	Other	15	3	1	19	
7	LPG	1	0	8	9	
Total		255	247	109	611	
	%	42	40	18	100	

## **WATER**

- 3.29 Sources of water are divided in to the following two purposes for which water is used by households:
  - Drinking water
  - Water for other purposes
- 3.30 The first three ranked sources of water for these two purposes, as observed from figures given in Table 8a, are:

Rank	Drinking water	Water for other purposes	
I Tube well (84 percent)		Pond (53 percent)	
II Tap water (9 percent)		Tube well (27 percent)	
III Well (7 percent)		Well (17 percent)	

- 3.31 Average distance of source of water for both the sources are 0.02-0.03kms.
- 3.32 Out of 315 households, 116 households (37 percent) have faced 'scarcity of drinking water '. Most of the (82 percent) have faced this problem 'between 2-3 months' during the year followed by 'more than 3 months' (9 percent). Average months of scarcity of drinking water works out to 2.44. During the scarcity months, the average distance travelled to fetch drinking water increases from 0.03kms. to 0.76 kms.
- 3.33 Nearly one-fifth (18 percent) of the households face scarcity of water for domesticated animals. This scarcity is faced for an average period of 2.08 months. During scarcity months households have to travel to a distance of 0.74 kms to fetch water for domesticated animals.
- 3.34 Only one household has reported 'using harvested rain water".
- An attempts has been made in the study to find out whether households do any purification for drinking water. Results are presented in table 8b. Only 16 households (5 percent) have reported 'drinking water in purified'. The main method of purification is 'strain through a cloth' (69 percent) followed by 'boil' (25 percent) and 'bleaching' (12 percent) (Not: Total percentages are more than 100 because of multiple answers).

# CROPS GROWN, PRODUCTION, MARKETING, FARTILIZER USE, TREES LAND HOLDING

- 3.36 Majority of respondents (63 percent) either do not give the figures or did not know. Out of 315 households, 63 households (20 percent) are 'pattadars' (55 registered and 8 not registered) while 53 households (17 percents) are 'bargadars' (41 registered and 12 not registered). Only one household has 'Forest PLOT'. (Table 9a)
- 3.37 Details of homestead land, kitchen garden land and own land are given below:

SI.	Land Number of Total land		Per household land	
No.		households having	(Acre)	(acre)
1	Homestead land	313 (99%)	30.101	0.096
2	Kitchen garden land	210 (23%)	4.888	0.023
3	Own land	305 (97%)	503.497	1.651

3.38 Medium high and upland constitute the maximum of the type of land of the households as can be seen from the figures presented below:

SI.	Type of land	Number of households having			
No.					
1	Upland	81			
2	Medium high	240			
3	Medium low	85			
4	Low	107			
	Total 513				
(Note	(Note: Total of households is more than 315 because any household may have different type				
of land)					
5 Households having any one type of land 289					

3.38 The following table presents the figures of total number of plots, total land averages etc. for each type of land:

Type of land	Total number of Plots	Total Area in acres	Mono cropped Area in	Multiple cropped area in	Area under Pond in Acre	P Fallow in Acres
			Acres	Acres		
Upland	270	58.01	46.87	0.34	0.03	10.77
Medium	922	289.98	257.24	22.20	1.50	9.04
High						
Medium	237	70.20	58.12	4.78	1.53	5.77
Low						
Low	294	83.87	74.36	3.18	5.42	0.91
Total	1723	502.06	436.59	30.50	8.48	26.49

3.39 Total number of households having' share cropped in' land is 82 while those who give 'share cropped out' are 19.

3.40 Total land under share cropping arrangement is shown below:

	SI. Type of share cropping		Number of households	Total land (acre)	Per household land (acre)	
ſ	1	Share Cropped in	82	76.575	0.934	
	2	Share Cropped out	19	15.957	0.840	

3.41 Type of land –wise number of households under share cropping are presented below:

SI.	Type of land	ber of households un	der		
No.		Share Cropped in	Share Cropped out	Total	
1	Upland	10	1	11	
2	Medium high	51	9	60	
3	Medium Low	10	4	14	
4 Low		11	5	16	
Total			19	101	

3.42 Season-wise number of households under share cropping are:

SI.	Season	Number of Household under				
No.		Share Cropping in	Share Cropping out	Total		
1	Kharif	72	15	87		
2	Rabi	9	0	9		
3 Pre—kharif		1	4	5		
Total		82	19	101		

- 3.43 General types of share cropping arrangements are:
  - If owner of land bears 50 percent of total cost, the tenant (household share cropping) has to give the landowner 50 percent of product.
  - If land owner does not share any cost, he/she will get either:
    - a)  $^{1}$  th production
    - b) 1/3<sup>rd</sup> of production
  - Fixed rent basis
  - Fixed quantity of production basis

3.44 Generally, the following vegetables are grown in kitchen gardens of the households:

Vegetables grown in kitchen garden			
Season	Vegetables grown		
Kharif &Pre-Kharif	1. Beans		
	2. Jhinga		
	3. Bitter gourd		
	4. Sweet gourd		
	5. Brinjal		
	6. Pumpkin		
	7. Cucumber		
	8. ladies finger		
	9. Onion		
	10. Radish		
Rabi	1. Potato		
	2. Brinjal		
	3. Cauliflower		
	4. Cabbage		
	5. Beans		
	6. Palang		
	7. Cucumber		
	8. Ladies finger		
	9. Onion		
	10. Radish		
	11. Gourd(Sweet)		
	12. Pumpkin		
	13. Bitter gourd		
	14.Tomato		

3.45 Number of households and value of production for each of the seasons for the kitchen gardens are presented below:

SI. No.	Season	Number of households	Value of production (Rs.) (Baishak- Chaitra1420)	Average value of production per household (Rs.)
1	Kharif	39	20973	537.77
2	Rabi	29	10554	363.93
3	Pre-Kharif	13	6660	512.31
Total		81	38187	471.44

3.46 The main source of water for kitchen garden is 'Well' (50 percent) followed by 'Pond' (25 percent). Source –wise details are presented in the following table:

Source of water for kitchen garden				
Source	Number of	Percentage of		
	households using	households		
Well	18	50.0		
Pond	9	25.0		
Tub well	5	13.8		
Rain water harvest	2	5.6		
River	2	5.6		
Total	36	100.0		

3.47 More than half (52 percent) of the households have 'No Irrigation' for their agricultural land. The main source of irrigation is 'Pond' (22 percent). Details, source –wise irrigation, are given in the following table:

Source of water for agriculture land				
Source	Number of	Percentage of		
	households using	households		
No irrigation	164	52.1		
Pond	71	22.5		
Rain water harvest	46	14.6		
River	21	6.7		
Well	7	2.2		
Canal	6	1.9		
Total	315	100.0		

The following table presents the figures of season-wise, land type-wise area, production and yield of different crops for all the households taken together:

SI.	Season	Type of land	Crops	Number	Area	Total	Yield
No.				of	(acre)	production	(Quintal
				farmers		(Quintal)	/Acre)
				cultivated			
1.	Kharif	Up land	Paddy	61	49.58	540.30	10.90
			Vegetables	2	0.67	47.00	70.15
		Medium High	Paddy	258	354.10	2903.65	8.21
			Jute	1	0.10	31.50	315.00
			Vegetables	10	0.95	215.90	227.96
		Medium Low	Paddy	93	77.96	702.90	9.02
			Vegetables	8	1.12	70.00	62.50
		Low	Paddy	112	87.27	1178.55	13.50

SI. No.	Season	Type of land	Crops	Number of farmers cultivated	Area (acre)	Total production (Quintal)	Yield (Quintal /Acre)
2	Rabi	Up Land	Mustard	5	1.41	5.10	3.62
			Onion	4	0.32	5.50	17.19
			Potato	3	0.30	6.50	21.67
			Vegetables	7	0.83	46.20	55.66
		Medium High	Mustard	19	11.83	32.60	2.76
			Onion	3	0.19	2.30	12.11
			Potato	9	1.08	47.00	43.50
			Vegetables	13	2.25	167.45	74.42
		Medium Low	Mustard	7	3.42	11.60	3.39
			Onion	2	0.11	2.30	20.91
			Potato	4	0.75	32.00	42.67
			Vegetables	21	2.63	69.10	26.27
		Low	Mustard	1	0.33	1.50	4.55
			Potato	1	0.08	4.00	50.00
			Vegetables	9	1.68	33.05	19.67
3	Pre - Kharif	Up land	Vegetables	3	0.52	3.40	6.54
		Medium High	Vegetables	2	0.33	7.15	21.67
		Medium Low	Vegetables	3	0.55	7.80	14.18

(Note: Vegetables grown are beans, gourd, tomato, brinjal, cucumber, pumpkin, ladies finger etc.)

It is observed from the above table that the major crops grown are:

Kharif - Paddy Rabi - Mustard

- Vegetable

- Potato

Pre-Kharif - Vegetable

What kind of problems do the households face in cultivation of crops? Responses from them are listed below:

- 1. Pest attack due to heavy rain
- Rain was not properly distributed (Less in early part of monsoon and heavy in latter part)
- 2. Less production due to heavy rain
- 4. Too much dependence on rain water

- 5. Damage of crop by cattle
- 7. High cost of fertilizer
- 9. Damage of crop by cyclone
- 11. Land is not so fertile

- 6. Financial problem
- 8. Labour problem
- 10. No irrigation facility

What kind of risks do the households take in cultivation of crops? Responses from them are listed below:

- Cultivation under uncertainty of water (either rainfall and / irrigation)
- Not adopting Integrated Pest Management method
- Investigating more on inputs ( say, fertilizer ) based on expectation of output rather than information on result
- Risk of cultivation under uncertainty by taking loan (either from money lenders or Banks)
- Cultivation under uncertainty of labour supply (because of high cost and also non availability) at crucial stages of production

It is important to know the cost of cultivation. For the field crops the following table shows that the cost of cultivation for 'own inputs' (i.e. the inputs provided by the households from their own resources) works out to Rs. 4096.29 per acre while the 'purchased inputs' (i.e. inputs the households have to purchase by paying cost) works out to Rs.4788.81 per acre totaling to Rs. 885.10 per acre as the cost of cultivation for the field crops. The table below presents the details of cost of cultivation for field crops:

Cost of cultivation for all field crops together					
Source	Items	Total cost	Cost per acre		
		(Rs.)	(Rs.)		
Own	Fertilizer	4650	9.95		
	Field preparation	227750	487.59		
	Irrigation	12760	27.32		
	Labour	1357240	2905.74		
	Organic Manure	163890	350.87		
	Other	9650	20.66		
	Pesticide	700	1.50		
	Seed	136698	292.66		
	Total	1913338	4096.29		

Purchase	Fertilizer	595396	1274.69
	Field preparation	404161	865.27
	Irrigation	46875	100.36
	Labour	907830	1943.59
	Organic Manure	36533	78.21
	Other	11991	25.67
	Pesticide	889415	190.41
	Seed	145077	310.60
	Total	2236805	4788.81
Total	Fertilizer	600046	1284.64
	Field preparation	631911	1352.86
	Irrigation	59635	127.68
	Labour	2265070	4849.33
	Organic Manure	200423	429.08
	Other	21641	46.33
	Pesticide	896415	191.91
	Seed	281775	603.26
	Total	4150143	8885.10
	Gross cropped area	467.09 ad	cre

Do the respondents market their products? It so, when? Results show that 157 households (50 percent) had sold some of their crops:

SI.	Season	Number of households selling				
No.		Mustard	Onion	Paddy	Vegetables	
1. Kharif		2	0	139	28	
2.	Rabi	9	5	0	66	
3.	Pre -Kharif	0	1	1	19	
Total		11	6	140	113	
Perc	entage of farmers selling	7.0	3.8	89.2	72.0	

When do they sell their crops? The first few ranked month of selling of crops in different seasons are shown below:

Crop	Season	Rank	Month	Number of households
Mustard	Kharif	I	Baishakh	1
		II	Jaisthya	1
	Rabi	ı	Chaitra	4
		II	Falgun	4
	Pre-Kharif	I	Chaitra	1
Onion	Rabi	I	Chaitra	2
		II	Baishakh	1
		III	Jaisthya	1
		IV	As soon as the crop is harvested	1
	Pre -Kharif	ı	Chaitra	1
Paddy	Kharif	I	Falgun	29
		II	Magh	29
		III	Poush	22
		IV	Chaitra	14
		V	Baishakh	12
	Rabi		NIL	
	Pre -Kharif	ı	Baishikh	1
Vegetables	Kharif	ı	As soon as the crop is harvested	7
		II	Ashad	6
		III	Bhadra	4
		IV	Shravan	3
	Rabi	I	Magh	14
		Ш	Chaitra	12
		III	Falgun& Chaitra	11
	Pre-Kharif	I	Chitra	6
		II	Jaisthya	2
		Ш	Magh	2

What kind of quantities do they sell and what kind of prices do they get for these crops? The following figures give the answers :

SI. No.	Crop	Season	Number of Households	Total quantities	Price per Rs Per Kg.	Distance of place of sell
				(Kg)		(km)
1.	Mustard	Kharif	2	130.00	25.00	
		Rabi	9	995.00	36.44	
		Total	11	1125.00	34.36	3
2.	Onion	Rabi	5	480.00	13.60	
		Pre-kharif	1	10.00	20.00	
		Total	6	490.00	14.67	5
3.	Paddy	Kharif	139	196693.00	12.55	
		Pre-Kharif	1	2500.00	12.00	
		Total	140	199193.00	12.54	2.17
4.	Vegetable	Kharif	28	19740.00	11.96	
		Rabi	66	26275.00	8.92	
		Pre-Kharif	19	10260.00	11.47	
		Total	113	56275.00	10.11	4.94

Where do the households sell their products? The following table shows that the major places of sales are 'taken from home' and 'outside the village to the market':

		Place of sales		
Crop	From home	Within village	Outside market	Total
Mustard	4 (36%)	2 (18%)	5(46%)	11(100%)
Onion	2 (33%)	1 (17%)	3(50%)	6 (100%)
Paddy	81 (58%)	19 (14%)	40(28%)	140
				(100%)
Vegetable	33 (29%)	13 (12%)	67(59%)	113
				(100%)

At what cost have the households transported their products? Most of the households have their products at a cost of transportation of less than Rs. 500/- as revealed from the following table:

SI.	Crop	Cost of transportation (Rs.) Number of households					
No.		Up to Rs. 499	500-999	1000-1499	1500 and above	Total	
1.	Mustard	11	-	-	-	11	
2.	Onion	6	-	-	-	6	
3.	Paddy	135	2	2	-	139	
4.	Vegetables	107	4	-	2	113	

It is observed from the following table that 29 households had 'no problem'. Among those of faced problems (137-29=108),86 households (80 percent) through 'Non remunerative price' was a major problem:

SI.	Problems	Number of persons
No.		
1.	No problem	29
2.	Non remunerative price	86
3.	More supply in the market	7
4.	Market far away	4
5.	Price fluctuation	3
6.	Bumper production last year	2
7.	Other	6
	Total	137

## **FERTILIZER USE**

- 3.48 Majority of farmers (276 out of 315-88 percent) use chemical fertilizers. They generally use DAP, Urea, 10:26:26.
- 3.49 Organic manures are being used by 230 households (73 percent). Use rate of organic manure works out to 29 kg/ bigha or 87 kg/acre.

# **TREES**

3.50 Number of trees around dwelling area are shown below:

SI.	Number of	Number of percentage of households				
No.	trees	Fruits and other	Fruits and other trees used as		er uses	
		fo	food			
		Number	%	Number	%	
1	<10	175	55.56	86	27.30	
2	10-20	22	6.98	25	7.94	
3	21-30	6	1.90	7	2.22	
4	31-50	3	0.95	6	1.90	
5	51-100	3	0.95	5	1.59	
6	>100	-	-	9	2.86	
	Total	209	66.35	138	43.81	

# 3.51 Average number of trees around the dwelling areas are shown below:

SI. No.	Type of tree		Number of households having them		Average number of trees
1	Fruits &other trees used is food	-	209	-	3.15
2	Trees of the uses	-	138	-	11.38

#### LIVESTOCK

- Table 12 presents the figures of the following items relating to live stock owned by the households for both types –big &small:
  - Number of households owning different types of live stock
  - > Total number of animals
  - ➤ Animal income from live stock
- 3.53 Salient points arising out of the above table are:
  - More than ten percent of the households own the following animals:

Rank	Big	Small
I	Bull (51 percent)	Cow (37 percent)
II	Chicken(49 percent)	Chicken (30 percent)
III	Cow (46 percent)	Goat (17 percent)
IV	Goat (37 Percent)	
V	(18 percent)	

Average number of animals per households (owning them) are:

Big animals - Min. 2.03 (cow)

Max. 5.65 (Chicken)

Small animals - Min 1.68 (cow)

• Average annual income per household(those owning live stock) from live stock are:

Big animals - Min Rs 529/- (Duck)

Max. Rs. 8750/- (Buffalo)

Small animals - ONLY chicken (Rs. 217/-)

#### **B. INCOME EXPENDITURE**

- 3.54 Information on occupation –wise, annual income (for both primary and secondary occupation) are given in Table 14.
- 3.55 It is observed from the table that the major occupation-wise (primary+ secondary) annual income are:

Occupation	Number of households	Average annual income
Daily Labour	241	28379
Agriculture	215	14741
Animal husbandry	129	7084

- 3.56 Income –slab wise annual income of households figures are presented in Table 14a.
- 3.57 The average annual income per household works out to Rs. 72,768/- i.e. monthly average income of Rs. 6064/-.
- 3.58 Table 14b presents the figures of, item-wise, monthly expenses (average) of households.
- 3.59 The average monthly expenses of households is observed to be Rs. 4946/-.

3.60 The average monthly expenses of households of Rs.4946 /- is well within the average monthly income of households of Rs.6064/-.

#### **C.ASSETS**

- 3.61 Information on number of percentage of households having different types of durables /assets are given in Table 15.
- 3.62 The first five ranked durables /assets with the households are listed below:

Rank	Durables /Assets	Number of households
		(percentages)
I	Sickle	308(98)
II	Spade	307(97)
III	Pick-axe	285(90)
IV	Cycle	284(90)
V	Mobile	257(82)

3.63 Around One –third of the households have TV (31 percent) and animal drawn cart (32 percent). More than half of the households (57 percent) have 'plough'.

#### D. DISEASES IN THE HOUSEHOLDS

3.64 Out of 315 households, the total number of households who have reported 'any diseases between BAISAKH -CHAITRA in 1420 is 270 (86 percent).

The first 10 ranked diseases (in terms of number of households reporting that disease) are:

Rank	Disease	Number of Households
I	Fever	45 (13 percent)
II	Couch and cold	29 (8 percent)
III	Fever & cold	25 (7 percent)
IV	Pain in Abdomen	23 (7 percent)
V	Diarrhoea	17 (5 percent)
VI	Jaundice	11 (3 percent)
VII	Asthma	8 (2 percent)
VIII	High pressure	7 2 percent)
IX	Anemia	7 (2 percent)
X	Chest pain	7 (2 percent)
Other( ranging from 1-6 households, reporting		162 (49 percent)
different dise	ease other than I-X)	
Total	·	341 (100 percent)

(Note: The total is 341 which is more than 315 households interviewed because each households may have One or more members suffering from different diseases)

3.65 What is the time of the year when they fall ill? Different respondent have given different type of answers. The first 10 ranked responses are tabulated below:

Rank	Period Response	Number of Households
I	Chaitra	51
II	Falgun	38
III	Magh	38
IV	Ashad	29
V	Baisakh	23
VI	Bhadra	23
VII	Ashwin	18
VIII	Agrahayan	16
IX	Kartik	15
X	Poush	15
	Others(households ranging I-X	71
	Total	337

(Note: Number are more because of multiple responses )

3.66 What have been the expenses of households on health /illness during the period Baisakh –Chaitra 1420? The average per household expenditure works out to Rs. 2107/-:

Detailed break-up in given below:

SI.	Expenditure on illness during Baisakh-Chatra1420(Rs)	Number of Households
No.		
1	Less than 1000	191(57%)
2	1000-4999	103 (30%)
3	5000-9999	28 (8%)
4	10000-29999	14 (4%)
5	30000&above	2 (1%)
	Total	338 (100%)

It is observed that more than half (57 percent) have spent 'less than Rs. 1000/-' for one year period followed by 'Rs. 1000-4999'(30%).

#### **E. PERCEIVED DEFICIENCIES**

## I. SCARCITY OF FOOD

3.67 Out of a total of 315 households, 85 households (27 percent) have said that they had faced scarcity of food. As far as the time when they faced the scarcity of food during the year, it is almost throughout the year. However, major periods when they faced this scarcity are:

SI.	Period of Scarcity	Number of households	%
No.			
1	Bhadra, Aswin	15	18
2	Bhadra	14	16
3	Bhadra, Aswin, Kartik	13	15
4	Aswin, Kartik	7	8
5	Others	36	43
	Total	85	100

For how many days have they faced this scarcity? Results are presented below which show that the main number of days when food scarcity is faced is '50-99' days (64 percent) followed by '20-49' days (22 percent).

How did the households manage these scarcity situations? Results are presented below:

Loan taken from	Total number of households	Average amount (Rs.)	Rate of interest
A. Mahajan/ Money lender	4(5percent)	1425	5%- 1
			10%-3
B. Relative	3(4 percent)	5000	10%-2
			11%-1
C. Group	2(2 percent)	1500	3%-1
			10%-1
D. Shop	64 (75 percent)	NA	NA
E. Missing Values	12 (14 percent)		
Total	85 (100 percent)		

## **II. SCARCITY OF CATTLE FEED**

3.68 Only 22 households (7 percent) have faced cattle feed scarcity. The month(s) of the year when the scarcity was faced were:

SI.	Scarcity Month (s)	Number of households	
No.			
1	Bhadra, Aswin	5 (23%)	
2	Bhadra to Aghrahayan	2 (9%)	
3	Aswin , Kartik	2 (9%)	
4	Others month(s)	13 (59%)	
	Total	22	

The number of days faced the cattle feed scarcity was:

SI.	Number of days	Number of households	
No.			
1	Less than 20	1 (4percent)	
2	20-49	2 (9percent)	
3	50-99	12 (55 percent)	
4	100-149	3 (14 percent)	
5	150 &above	4 (18 percent)	
	Total	22 (100 percent)	

How did the households cope the scarcity? Mainly by 'buying' (55 percent) as the following data shows:

SI.	Method of Recovery	Number of households	
No.			
1	Buying	12 (56 percent)	
2	Collecting from outside	2 (9 percent)	
3	Depending on grass in fields	1 (4 percent)	
4	Loan	5 (23 percent)	
5	Storing when p were low	1 (4 percent)	
6	Other	1 (4 percent)	
	Total	100 (percent)	

# **III. NEED TO WORK OUTSIDE**

3.69 A total of 66 households (21 percent) had said that they needed to work outside to meet shortages.

A total of 98 members (77 Male members 21 female members) worked outside. The month (s) when households worked outside during last year is (are):

SI.	Month(s)	Number of households
No.		
1	Baisakh, Jaistha	6 (9%)
2	Poush, Magh	4 (6%)
3	Agrahayan, falgun	2 (3%)
4	Agrahayan, Poush	2 (3%)
5	Baisakh	2 (3%)
6	Bhadra, Aswin	2 (3%)
7	Magh	2 (3%)
8	Other months	46 (70%)
	Total	66 (100%)

The number of days worked by majority of the households outside is '50-99' days (45 percent) followed by '20-49' days (15 percent) as the date presented in the following table suggest:

SI.	Number of days	Number of households	
No.			
1	Less than 20	2 (3%)	
2	20-49	10 (15%)	
3	50-99	30 (45%)	
4	100-149	9 (14%0	
5	150& above	15 (23%)	
	Total	66 (100%)	

Which type of work members of the households did when they worked outside? Majority of them (64 percent) had worked as 'daily labour' as the data given in the following table shows:

SI. No.	Type of work	Number of households	
1	Agriculture Labour	19 (29%)	
2	Daily Labour	42 (63%)	
3	Construction Labour	1 (2%)	
4	Raj Mistri	3 (4%)	
5	Missing	1 (2%)	
	Total	66 (100%)	

How much money did they earn? Information could be collected from 63 out of 98 members who worked. The average amount earned works out as Rs. 9729/-. Figures of money earned, group-wise, are presented below:

SI.	Money Earned (Rs)	Number of households	Percentage
No.			
1	Less than 4000	4	6
2	4000-7999	17	27
3	8000-11999	8	13
4	12000-15999	10	16
5	16000-19999	8	13
6	20000-24999	7	11
7	25000 and above	9	14
	Total	63	100

# IV. SAVINGS

# **A.GROUP SAVINGS**

3.70 The following table shows the names of different groups and the number of households in each group:

SI. No.	Name of group	Name of households
1.	12 JANER DAL	1
2.	ASANGHATITA SHRAMIK SANGHA	3
3.	ASTHAYEE SHRAMIK SANGATHAN	1
4.	BASORA KALIMATA SGSY	1
5.	BESRA ANNA LAXMI YOJANA	1
6.	BIDUCHANDAN GOSTI	1
7.	FARMERS CLUB	1
8.	GIRI GOBARDHAN FARMER GROUP	1
9.	HAUBAD NISAN SGSY GROUP	1
10.	IWMP	3
11.	JOY MAA GROUP	1
12.	KALIMATA SHG	7
13.	MAA TARA	1
14.	MAHILA SAMITI	4
15.	MANSA MATA	2
16.	MILON MANDOYA	1
17.	RAJGORA MARANGKURU GAWANTA	8
18.	RAJYA SARKARER VHABISYANIDHI PRAKALPA	1
19.	SAMABAY SAMITI	2
20.	SANKAT MOCHAN	1
21.	SARIDHARAM GOSTI	1
22.	SGSY	2
23.	SHG	7
24.	SWANIRBHAR GOSTHI	6
	Total	58

Figures of monthly savings are presented below. Most of the households (85 percent) saved 'Less than Rs. 50/-' a month:

SI.	Monthly Savings (Rs.)	Members of households	Percentage
No.			
1	Less than 50	52	85
2	50-99	3	5
3	100-299	3	5
4	300-499	0	0
5	500 & above	3	5
	Total	61	100

## **B. INDIVIDUAL SAVINGS**

3.71 Most of the households (88 percent) have saved money in 'Banks' as the figures given below reveal:

SI.	Where saved	Number of Households	Percentage
No.			
1	Bank	112	88
2	BDEO	1	1
3	Post Office	15	11
Total		128	100

How much money have they saved now? Results are tabulated below:

SI.	Amount of money saved(Rs.)	Number of households	Percentage
No.			
1	Less than 10000	67	56
2	10000-24999	29	24
3	25000-49999	10	8
4	50000-99999	8	7
5	100000 & above	6	5
Total		120	100

The following 3 (three) numbers of households have taken loan:

SI.	Loan amount (Rs.)	Number of Households	
No.			
1	5000	1	
2	10000	1	
3	25000	1	
	Total	3	

Purposes for which the above loans were taken are:

For payment to Mahajan / Money Lender - 1
 For daughters marriage - 1
 Others - 1

### LOANS

- 3.72 It is observed from table 16 that 114 households (36 percent) have taken loans. Out of 114, 68 households (60 percent) had taken loans for "agriculture" followed by 25 households (22 percent) who had taken loans for "health/illness"
- 3.73 "Society" (including cooperative societies) is the main source of loan. It had been used by 61 households (54 percent) followed by "private" by 46 households (40percent). (Table 17)
- 3.74 For all the loans taken together, the total amount of loan works out to Rs 13,663/- per household taking loan varying between Rs 4,333/- per household taking loan for "dwelling" and Rs 75,000/- per household taking loan for "animal husbandry" the average loan taken for "Agriculture" works out to Rs 15,212/-
- 3.75 A total of 87 households out of 114 households taking loan (76 percent) had to deposit /give some "mortgage" out of 87 households, 57 households (66 percent) have given "mortgage" for taking loan for "agriculture" followed by 16 households (18 percent) for taking loan for "health illness".
- 3.76 Table 18 Presents the figures of "rate of interest" paid / being paid by 114 residents, the average rates of interest changed are :

Bank - 5.1 percent Private - 4.5 percent Societies - 6.7 percent

#### F. INSURANCE

- 3.77 More than half (166) of the households (53 percent) have some form of insurance.
- 3.78 Type of insurance –wise break-up of those having insurance are:

SI.	Type of Insurance	Number of households (percentage)
No.		
1	Life Insurance	51(31)
2	Health Insurance	113(68)
3	Agriculture Insurance	9(5)
4	Other	3(2)
	Total	176(106)

(Note: Percentage of total is more than hundred because of multiple answers).

3.79 Annual premium being paid by the households for the above insurances are:

Life Insurance	Less than Rs.1000/-	2
	Rs.1000/Rs3000/-	22
	Rs.3001/Rs 5000/-	13
	Rs. 5001/10,000/-	7
	Rs. 10,001/Rs. 20,000/-	2
	Rs.20,000/&above	4
	Sub-Total	50
	Missing value	1
	Total	51
Health Insurance	Rs. 30/- annually each for 113	
	households	
Agriculture Insurance	Less than Rs. 1000/-	3
	Rs. 1000-Rs. 3000/-	4
	Rs.3001/- & above	2
	Total	9
Other Insurances	10,000	1
	21,000	1
	25,000	1
	Total	3

# **G. DEPENDENTS ON NATURAL RESOURCES**

- 3.80 We have made an attempt to figure out the dependents of the rural households on natural resources (viz., forest, rivers etc.)
- 3.81 The following table shows the level of dependence (in percentage) of households on natural resources:-

SI. No.	Percentage of dependence	Food	Fuel	Cattle feed	Income	Others
1	Up to 24	8	9	11	8	1
2	25-49	10	29	45	1	1
3	50-74	5	70	40	2	-
4	75-19	1	38	21	-	1
5	100	2	93	12	-	1
	Total	26 (8.25%)	239 (75.87%)	129 (40.95%)	11 (3.49%)	4 (1.27%)

3.82 The WEIGHTED AVERAGE OF DEPENDENCE works out to :-

Sl.No	Resource on which dependent	Weighted average
•		of dependence
1	Food	39.23
2	Fuel	74.71
3	Cattle feed	54.52
4	Income	17.45
5	Other	57.5

3.83 Level of dependence on natural resources can be further classified as :-

Dependence level	Resources	Weight average of	Percentage of
		dependence	household dependent
High (50 percent	1. Fuel	75	76
or more)	2. Other	54	41
	<ol><li>Cattle feed</li></ol>	58	1
Medium (25-49	1. Food	39	8
percent)			
Low (Less than 25 percent)	1. Income	17	3

3.84 "FUEL" stands out as the MOST important item on which largest percentage of households with the highest weighted average of dependents depend on natural resources.

### H. LINKAGE WITH GRAM PANCHAYAT

- 3.85 Gram Panchyat are playing increasing roles in the development of the rural sector of the state. It is therefore, necessary to know the level of linkage of the households with PR structure (Gram Panchyat)
- 3.86 Table 19 presents the figures of number of households having communication with Gram Panchyat. It is observed that 278 households out of a total of 313 ( 2 households did not answer this question) had (88 percent) communication with Gram Panchyat
- 3.87 Out of 313 households, 212 households (67 percent) do participate in Gram Sabha meetings. If we take the participation rate of those who have communication with Gram Panchyat (i.e., 212 households out of 278 households) the percentage increases to 76. (Table 20)
- 3.88 Number of households who received any Government scheme /Yojona works out to 161 (51 percent)

3.89 It is observed from the table that a total of 222 households (70 percent) have received any benefits from any scheme. The maximum benefits (in terms of number) have been received in the field of "education" (35 percent) followed by "Social security" (13.33 percent) and "Health "(13.02 percent). Only 3 respondents (0.95 percent) received benefits from any "agriculture" scheme.

## I. MEMBERSHIP OF GOVERNMENT PROJECT

3.90 A large number of Central and State Government Development / poverty alleviation project programs are running in the state. We were interested to find out the participation /beneficiary status of the households in the study in these projects results are presented in Table 21

# J. SPECIFIC SKILLS IN THE HOUSEHOLDS

Only 12 households (3.81 percent) have expressed some specific skills. These are tabulated below:

	Number	%
Preparation of Herbal Medicine	1	0.32
Wood Work	2	0.64
Laundry	1	0.32
Fishing	1	0.32
Pottery	2	0.64
Nursery	1	0.32
Preparation of items from dry leaves	1	0.32
Masonry	1	0.32
Cooking	1	0.32
Painter	1	0.32
Total	12	3.81

### **K. CLIMATE CHANGE**

Respondents of all the 315 households surveys were asked to give their assessment of the occurrence /impact of the following climate changes during the last ten years:

- Quantum of rainfall
- Rainy season
- Cold
- Winter season
- Summer
- Temperature during summer
- Lightening
- Fogging
- Fog
- Storm
- Hailstorm
- Cloudy sky
- Drought
- 3.91 Although we wanted to collect the information for last ten years, memory lapses because a hindrance of the respondents could go back beyond 4 years (i.e., they could answer questions for the years 2013, 2012 and 2010)
- 3.92. Results for 4 years taken together are presented in table 22 salient points are given below:

Quantum of rainfall	-	Normal or more – 56 percent
Rainy season	-	In time – 28 percent
	-	Before time – 18 percent
	-	After time – 22 percent
	-	Erratic time – 4 percent
	-	
Cold	-	Normal or more – 64 percent
	-	
Winter season	-	In time – 33 percent
	-	Before time – 18 percent
	-	After time – 18 percent
	-	Erratic time – 2 percent
	-	
Summer	-	In time – 27 percent
	-	Before time – 21 percent
	-	After time – 12 percent
	-	Erratic time – 1 percent
	_	

**Lighting** - "Normal or more" – 55 percent

\_

Fogging - In time – 23 percent

Before time – 17 percent
After time – 14 percent
Erratic time – 9 percent

\_

Fog - "Normal or more" – 58 percent

-

Storm - "Normal or more" – 51 percent

\_

**Hailstorm** - "Normal or more" –38 percent

Less – 37 percent

Cloudy sky - Normal or more" –48 percent

Less – 29 percent

**Drought** - - one -fourth (24 percent of the

respondents said that there had

been a drought in 2010

Table	Table 22 : Climate change effects										
SI.	Description	Normal	More	Less	In time	Before time	After time	Erratic	On time	Occurred	
No.											
1	Quantum of Rainfall	230(18.3%)	469(37.2%)	339(26.9)	4(Neg.)	4(Neg.)	1(Neg.)	1(Neg.)	4(Neg.)		
2	Rainy season	56(4.4%)	31(2.5%)	36(2.8%)	306(24.3%)	222(17.7%)	279(22.27%)	52(4.1%)	58(4.6%)		
3	Cold	312(24.8%)	500(39.7%)	221(17.5%)	5(Neg.)	14(1.1%)	1(Neg.)	1(Neg.)	1(Neg.)		
4	Winter season	163(12.9%)	60(4.8%)	39(3%)	375(29.8%)	226(17.9%)	231(18.4%)	19(1.5%)	38(3%)		
5	Summer	76(6.3%)	170(13.5%)	24(1.9%)	286(22.7%)	268(21.3%)	152(12.1%)	17(1.3%)	55(4.4%)	1(Neg.)	
6	Temperature	188(14.9%)	682(54.1)	138(10.9%)	18(1.4%)	29(2.3%)	15(1.1%)	14(1.1%)	0		
7	Lighting	276(21.9%)	414(32.8%)	296(23.5%)	4(Neg.)	10(Neg.)	9(Neg.)	9(Neg.)	3(Neg.)		
8	Fogging	81(6.5%)	81(6.5%)	63(4.9%)	244(19.3%)	219(17.4%)	170(13.5%)	110(8.7%)	44(3.5%)		
9	Fog	255(20.3%)	475(37.7%)	248(19.7%)	12(Neg.)	14(1.1%)	5(Neg.)	9 (Neg.)	1 (Neg.)		
10	Storm	198(15.7%)	439(37.9%)	364(28.8%)	7(Neg.)	5(Neg.)	1(Neg.)	3(Neg.)	0	1(Neg.)	
11	Hailstorm	266(21.1%)	218(17.3%)	464(36.8%)	4(Neg.)	1(Neg.)	1(Neg.)	15(1.2%)	0		
12	Cloudy sky	232(18.5%)	370(29.4%)	370(29.4%)	9(Neg.)	5(Neg.)	3(Neg.)	7(Neg.)	7(Neg.)		
13	Drought	0	0	0	0	0	0	0	0	302(23.9%)	

#### L. NATURAL DISASTERS

During the last 10 years (of which memory is upto 4-5 years), WORST DISASTER YEAR has been 2010.

Effects of the disasters are:

Could not cultivate land 358.33acres

Quantity of products damaged
For all farmers, it was around 100 percent.

Effects of animals
Eighty (80 percent) of households who had animals

lost the animals due to drought.

Effects on human health
Almost all households suffered from Diarrhea, Fever

and skin diseases.

Effects of Nature Almost 100 percent of the households said that they

'lost trees'

During last three years, following have been effects of natural disasters:

- Around 13 percent of the total households lost about 40 percent of 'quantity of

products'.

- Around 1 acre of land could not be cultivated.

2012 - Around 30 percent of all households faced 'damage of quality of products' at an

average rate of 30 percent.

- Around 1.33 acres of land could not be cultivated.

2011 - Around 6 acres of land could not be cultivated.

# **QUALITATIVE STUDY**

Salient points arising out of the key Informants' Interviews and Group Discussions are presented below:

GENERAL	❖ Onset of KALBISAKHI is getting delayed every year affecting the expected climate
	with its own effect on weather. This year, KALBAISAKHI has not come till date.
	❖ Earlier all the 6(six) seasons (GRISHA, BARSHA, SARAT, HEMANTA, SEET, BASANTA)
	was clearly useable and discernable.
	Now, there seems to be the following three seasons:
	1. GRISHA (Summer)
	2. BARSHA (Monsoon)
	3. SEET (Winter)
	Duration of summer is getting prolonged every year (in last 5-6 Years).
RAINFALL	❖ Major problem is 'UNCERTAINITY'. It is very difficult for farmers (specially) to
	anticipate the rains by Calendar days /months (which earlier they could do).
	Earlier, for each seed variety, the farmers knew the dates of sowing, transplanting
	etc. Now, this has become a 'Total Guessing game' affecting output.
	❖ Frequency distribution of quantum rain over the rainfall period has undergone
	major changes. Earlier ASHAR (mid- June, July) and SRABAN (mid –July to August)
	would get the maximum rains. Now, it is unpredictable. You may get good rains in
	BHADRA (mid -August to September) or even in ASWIN (mid-September to
	October).
	Quantum of rain in a particular period also has undergone changes. Some periods
	get unusually hearing rains (when is unpredictable) While some periods get scanty
	rains. Quantum of rain, in most cases, is either more or less than expected/ desired.
FOG	❖ Both total time period and intensity of fog have increased creating lot of damage to
	different Crops (mainly vegetables).
	❖ We have never seen or even heard of 'fog in summer'. Now, it is becoming a reality.
WIND	Earlier, one could anticipate the wind (both timing and velocity –roughly) along with
	its ferocity. Now, it has become 'sudden. It is also not possible to anticipate the
	intensity which has also gone up.
LIGHTNING	Periodicity has gone up much more in last 3-4 Years.
	Searlier, one would not hear about death / accidents due to lightening (may be one
	or two in one-two years). Now,
	one hears a number of cases of death in an area every year.
TEMPERATURE	Summer temperature and duration has gone up in last 5-6 years.
	Winter period has shortened.
	During winter, we may have a few days of extreme cold followed by a few days of
	'very little Cold' followed again by 'very cold' etc.

AGRICULTURE	<ul> <li>Major crops in this area is Paddy. Most households, who produce paddy, do not sell paddy. Those who want to sell their paddy; they wait for the next cop of paddy. If there is a good weather etc. and they expect good yield of paddy, then only they sell their paddy.</li> <li>Vegetables are produced mainly sales.</li> <li>Farmers have adopted/ introduced a new technological innovation after the DRCSC has started funding here (viz. water harvesting, choice of verities for different zone).</li> </ul>
HEALTH	<ul> <li>Climate changes and its unpredictability have bought new type of illness/aggravated the old types by sudden increase / decrease in temperature, weather etc.</li> <li>Incidence of Cancer has gone up.</li> <li>Climate changes are not only affecting health of human beings, it is also adversely affecting health of livestock (viz. chicken etc.)</li> </ul>

The deliberations of both KIIs and Group Discussion seem to confirm 'the area of concern relating to climate change' based on the PRA conducted by DRCSC (ref. Para 1.5).

Table														
Table 1 : Background of Household														
	Age Group (years)													
Parti culars	0 -	6	7 - 18		19 - 30		31 - 50		51	-70	Above 70		Total	
	М	F	М	F	М	F	M	F	M	F	M	F	М	F
1. Number of members	126	98	188	157	236	193	234	231	138	137	37	17	959	833
2. Number of members able to work	0	0	85	74	228	187	232	224	118	100	8	2	671	587
3. Number of earning members	0	0	18	3	196	79	220	118	86	32	2	0	522	232
4. Number of members holding MGNREGA job card	0	0	4	3	123	79	185	169	98	86	2	4	412	341
5. Number of literate persons	3	4	171	141	213	155	200	143	99	38	10	1	696	482

Table 1A.: Background of Household														
	Age Group (years)													
Parti culars	0 - 6		7 -	7 - 18		19 - 30		31 - 50		-70	Above 70		Total	
	М	F	М	F	М	F	М	F	М	F	М	F	М	F
1. Number of members	126	98	188	157	236	193	234	231	138	137	37	17	959	833
2. Percentage of members able to work	0.00	0.00	45.21	47.13	96.61	96.89	99.15	96.97	85.51	72.99	21.62	11.76	69.97	70.47
3. Percentage of earning members	0.00	0.00	9.57	1.91	83.05	40.93	94.02	51.08	62.32	23.36	5.41	0.00	54.43	27.85
4. Percentage of members holding MGNREGA job card	0.00	0.00	2.13	1.91	52.12	40.93	79.06	73.16	71.01	62.77	5.41	23.53	42.96	40.94
5. Percentage of literate persons	2.38	4.08	90.96	89.81	90.25	80.31	85.47	61.90	71.74	27.74	27.03	5.88	72.58	57.86

	Age Group (years)													
Parti culars	0 - 6		7 -	7 - 18		- 30	31 - 50		51 -70		Abov	ve 70	То	tal
	М	F	М	F	М	F	М	F	М	F	М	F	М	F
1. Average Number of members per HH	0.40	0.31	0.60	0.50	0.75	0.61	0.74	0.73	0.44	0.43	0.12	0.05	3.04	2.64
2. Average Number of members able to work per HH	0.00	0.00	0.27	0.23	0.72	0.59	0.74	0.71	0.37	0.32	0.03	0.01	2.13	1.86
3. Average Number of earning members per HH	0.00	0.00	0.06	0.01	0.62	0.25	0.70	0.37	0.27	0.10	0.01	0.00	1.66	0.74
4. Average Number of members holding MGNREGA job card per HH	0.00	0.00	0.01	0.01	0.39	0.25	0.59	0.54	0.31	0.27	0.01	0.01	1.31	1.08
5. Average Number of literate persons per HH	0.01	0.01	0.54	0.45	0.68	0.49	0.63	0.45	0.31	0.12	0.03	0.00	2.21	1.53
6. Average number of days of work received under MGNREGA during last financial year (2013-14) among those households received work under MGNREGA								14)	25.62					
7. Average number of days of work received under MGNREGA during last financial year (April 2014- May 2014) among those households received work under MGNREGA								8.00						

			Pe	ercentag	e of I	Househo	lds ha	ving scho	ool goi	ng childre	n		College going children  College		Dropped out children	
Sex of child		p to mary	М	iddle	Sec	ondary		igher ondary	Sul	Total	Missing Value	Total			Dropped out	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Male	73	24.01	47	15.46	31	10.20	16	5.26	167	54.93	-	-	18	75.00	3	50.00
Female	65	21.38	42	13.82	21	6.91	9	2.96	137	45.07	-	-	6	25.00	3	50.00
Total	138	45.39	89	29.28	52	17.11	25	8.22	304	100.00	11	3.49	24	100.00	6	100.00

Table 2b: Reasons for dropping out fro	m Sc	chool/Colle	ge							
Reasons for dropping out	Percentage of households saying for									
Reasons for dropping out		Male		Female	Total					
	N	%	N	%	N	%				
Don't remember	0	0.00	1	33.33	1	16.67				
Got married	0	0.00	1	33.33	1	16.67				
Illness	1	33.33	0	0.00	1	16.67				
Not interested	1	33.33	1	33.33	2	33.33				
Repeated failures	1	33.33	0	0.00	1	16.67				
Total	3	100.00	3	100.00	6	100.00				

Table 2c : Occupation of School/College	dro	pped out o	hild	ren						
Occupation	Percentage of dropped out children									
Occupation	Male			Female	Total					
	N	%	N	%	N	%				
Cooking	0	0.00	1	33.33	1	16.67				
Household work	0	0.00	1	33.33	1	16.67				
Labour	1	33.33	0	0.00	1	16.67				
Nothing	2	66.67	1	33.33	3	50.00				
Total	3	100.00	3	100.00	6	100.00				

Table 3a : Ration Card		Table 3a : Ration Card								
Type of Pation Card	Percentage of HHs having									
Type of Ration Card	N	%								
APL	137	43.49								
BPL	145	46.03								
Antyoydays	33	10.48								
Annapurna	0	0.00								
Total	315	100.00								

Table 3b : Ration Shop		
Particulars	Percenta	ge of HHs
Particulars	N	%
1. Distance of Ration Shop		
i. Within 1 Km	139	44.13
ii. Beyond 1 Km	176	55.87
Total	315	100.00
2. Service of Ration Shop		
i. Very Good	28	8.89
ii. Good	136	43.17
iii. Fair	138	43.81
iv. Bad	11	3.49
v. Very Bad	2	0.63
Total	315	100.00

					Perce	ntage of H	IHs hav	ing				
Month						Main						
WOITH	Se	Service		Farming		Labour		Self employed		NREGS	0	thers
	N		N	%	N	%	N		Ν		N	
Baisakh	19	6.03	19	6.03	185	58.73	32	10.16	1	0.32	3	0.95
Jaisthya	19	6.03	40	12.70	189	60.00	33	10.48	1	0.32	3	0.95
Ashad	19	6.03	166	52.70	169	53.65	33	10.48	1	0.32	3	0.95
Shravan	18	5.71	189	60.00	172	54.60	33	10.48	0	0.00	3	0.95
Bhadra	19	6.03	185	58.73	173	54.92	32	10.16	0	0.00	3	0.95
Aashwin	19	6.03	178	56.51	172	54.60	30	9.52	0	0.00	3	0.95
Kartick	19	6.03	167	53.02	173	54.92	34	10.79	0	0.00	3	0.95
Agrahayan	19	6.03	168	53.33	183	58.10	32	10.16	0	0.00	3	0.95
Poush	19	6.03	125	39.68	195	61.90	31	9.84	0	0.00	3	0.95
Magh	19	6.03	67	21.27	186	59.05	34	10.79	1	0.32	3	0.95
Falgun	19	6.03	47	14.92	183	58.10	34	10.79	1	0.32	3	0.95
Chaitra	19	6.03	30	9.52	168	53.33	32	10.16	1	0.32	2	0.63

						Percentag	ge of HH	Is having				
Manth						Se	condar	У				
Month	Se	Service Farming			La	Labour		Self employed		INREGS	Others	
	N	%	N	%	N	%	N	%	N	%	N	%
Baisakh	0	0.00	3	0.95	59	18.73	26	8.25	29	9.21	3	0.95
Jaisthya	0	0.00	3	0.95	61	19.37	24	7.62	29	9.21	3	0.95
Ashad	0	0.00	34	10.79	43	13.65	21	6.67	1	0.32	3	0.95
Shravan	0	0.00	43	13.65	38	12.06	20	6.35	2	0.63	3	0.95
Bhadra	0	0.00	37	11.75	36	11.43	20	6.35	5	1.59	3	0.95
Aashwin	0	0.00	31	9.84	38	12.06	20	6.35	6	1.90	3	0.95
Kartick	0	0.00	36	11.43	41	13.02	20	6.35	10	3.17	3	0.95
Agrahayan	0	0.00	40	12.70	41	13.02	21	6.67	23	7.30	3	0.95
Poush	0	0.00	27	8.57	52	16.51	23	7.30	46	14.60	3	0.95
Magh	0	0.00	7	2.22	54	17.14	26	8.25	61	19.37	3	0.95
Falgun	0	0.00	4	1.27	55	17.46	29	9.21	39	12.38	3	0.95
Chaitra	0	0.00	1	0.32	50	15.87	26	8.25	20	6.35	3	0.95

Table 5 : Type of house and receipt of Govt. assistance	•	
		age of HHs
Particulars	having,	received/
	N	%
A. Type of House		
1. Katcha		
a. Permanent Structure	228	72.38
b. Temporary Structure	1	0.32
2. Pucca	60	19.05
3. Semi Pucca	25	7.94
4. Other	1	0.32
B. Received Govt. Assistance	7	2.22
C. Amount of Assistance		
i. Below Rs. 10000/-	0	0.00
ii. Rs. 10000 - 20000/-	1	14.29
iii. Rs. 20001 - 30000/-	1	14.29
iv. Above Rs. 30000/-	4	57.14
v. Missing	1	14.29
D. Average amount received(Rs)	36333.33	-

Table 6: Type of Toilets and receipt of Govt. assis	tance	
Particulars		age of HHs /received
	N	%
A. Type of Toilet		
i. Permanent	21	6.67
ii. Temporary	6	1.90
iii. No Toilet	288	91.43
B. Using permanent toilet	16	76.19
C. Received Govt. Assistance	1	-
D. Amount of Assistance		
i. Below Rs. 1000/-	0	
ii. Rs. 1001 - 2000/-	1	100.00
iii. Rs. 2001 - 5000/-	0	
iv. Above Rs. 5000/-	0	
v. Missing	0	
E. Average amount received	2000	-

Table 7 : Source of Lighting					
Source	Percentage of Households				
	N	%			
1. Kerosene	90	28.57			
2. Solar Panel	0	0.00			
3. Electricity	157	49.84			
4. Rajiv Gandhi Rural Electrification	66	20.95			
5. No Source	0	0.00			
6. Missing	2	0.63			

Table 8a : Source of Water				
		Percent	age of Househ	nolds
Particulars	Drinkin	g Water	Water for	Other purpose
	N	%	N	%
A. Source of Water				
1. Tap Water	28	8.89	1	0.32
2. Tube Well	264	83.81	85	26.98
3. Well	22	6.98	54	17.14
4. River	0	0.00	9	2.86
5. Pond	0	0.00	166	52.70
6. Other	1	0.32	4	1.27
B. Average distance of source	0.03		0.02	-
C1. Scarcity of drinking water faced	116	36.83		
C2. Number of months of scarcity				
i. 1 Month	8	6.90		
ii. 2 - 3 Months	95	81.90		
iii. More than 3 Months	10	8.62		
iv. Missing	3	2.59		
v. Average number months of scarcity	2.44	-		
C3. Average distance travelled during scarcity months	0.76	-		
C4. i. Scarcity of water for domesticated animals faced	57	18.10		
C4. ii. Average number of months faced	2.58	-		
C4. iii. Average distance travelled during scarcity	0.74	-		
C5. Harvested rain water is used by	1	-		

Table 8B : Purification of drinking water				
Particulars	Percentage of Households			
Particulars	N	%		
1. Drinking water is purified	16			
2. Method of purification				
i. Boil	4	25.00		
ii. Bleaching	2	12.50		
iii. Filter	1	6.25		
iv. Electronic Purifier	1	6.25		
v. Strain through a cloth	11	68.75		
vi. Use alum	1	6.25		

Table 9a : Land holding								
	Percentage of Households							
Particulars	Registere	Not registered		Total				
	N		Ν		Ν	%		
Does Not know	-		1		198	62.86		
Bargadar	41	42.71	12	57.14	53	16.83		
Pattadar	55	56.04	8	38.09	63	20.00		
Forest plot	0	0	1	4.76	1	0.32		
Total	96	100	21	100	315	100.00		

Table 12 : Ownership of livestock of Income theory												
		Big					Small					
Animal		seholds own		l number of animal	Annual	l Income		seholds own		ll number of animals	Annı	ual Income
	N	%	Sum	Average	Sum	Average	N	%	N	Average	Sum	Average
Cow	145	46.03	294	2.03	405900	8456.25	118	37.46	198	1.68	0	0.00
Bull	162	51.43	338	2.09	85000	2656.25	10	3.17	18	1.80	0	0.00
Buffalo	20	6.35	43	2.15	35000	8750.00	5	1.59	11	2.20	0	0.00
Chicken	155	49.21	876	5.65	48270	832.24	95	30.16	705	7.42	1300	216.67
Duck	58	18.41	178	3.07	8990	528.82	13	4.13	66	5.08	0	0.00
Goat	116	36.83	439	3.78	133600	2619.61	55	17.46	143	2.60	0	0.00
Sheep	24	7.62	100	4.17	15700	1962.50	11	3.49	21	1.91	0	0.00
Pig	10	3.17	24	2.40	5000	2500.00	2	0.63	12	6.00	0	0.00
Hare	1	0.32	1	1.00	0	0.00	0	0.00	0	0.00	0	0.00

Table 14 : Occupation -wise Annual income						
	Average					
Name of occupation	Income (Rs)	Number of HHs				
Main C	occupation					
Agriculture	19307.1	155				
Animal husbandry	7447.65	115				
Daily labour	28524.3	239				
Service	114305	27				
Business	56913.8	29				
Migration	14916.7	54				
Other	15513.2	157				
Total	24026	776				
Secondary Occupation						
Agriculture	2943.93	60				
Animal husbandry	4097.14	14				
Daily labour	11000	2				
Service	3000	1				
Business	7400	9				
Migration	14700	5				
Other	6033.33	6				
Total	4487.59	97				
T	otal					
Agriculture	14740.6	215				
Animal husbandry	7084.03	129				
Daily labour	28378.9	241				
Service	110329	28				
Business	45186.8	38				
Migration	14898.3	59				
Other	15164.2	163				
Total	21855.1	873				

Table 14a: Annual Income of household					
	Number of				
Income Slab(Rs)	households	Percent			
<=30000	63	20.00			
30001 to 50000	128	40.63			
50001 to 75000	69	21.90			
75001 to 100000	23	7.30			
100001 to 150000	10	3.17			
150001 to 200000	9	2.86			
>200000	13	4.13			
Total	315	100.00			

Table14b:Avearge Monthly expenses of HHs				
	Average			
	Expenditure			
Item of expenditure	(Rs)			
Agriculture	725			
Food	1804			
Dwelling	109			
Dress	407			
Cattle feed	143			
Fuel	109			
Health	234			
Education	249			
Entertainment	69			
Rituals	128			
Social functions	130			
Other	848			
Total	4946			

Table 15 : Ownership of durables					
	Number				
	of HHs				
	owning	Percent			
Power tiller	5	1.59			
Plough	181	57.46			
Sprayer	119	37.78			
Thresher	128	40.63			
Pump set	97	30.79			
Spade	305	96.83			
Sickle	308	97.78			
Pick-axe	285	90.48			
Cycle	284	90.16			
Motorcycle	32	10.16			
Animal drawn cart	102	32.38			
T.V.	98	31.11			
Radio	8	2.54			
VCD	13	4.13			
Mobile	257	81.59			
Other	1	0.32			

Table 16:.Purpose of taking loan					
	No of HHs	Percent			
Agriculture	68	21.59			
Animal husbandry	3	0.95			
Dwelling	3	0.95			
Health/illness	25	7.94			
Education	4	1.27			
Social Functions	6	1.90			
Other	5	1.59			

Table 17: Sources of Loan taken with purpose and average amount of loan taken							
	Number of HHs			Average Amount		Percentage of	
	Fr	om whom			of loan	given	HHs
	BANK	PRIVATE	SOCIETY	Total	(Rs)	No. of HHs	
Agriculture	4	9	55	68	15212	57	83.82
Animal husbandry	2	0	1	3	75000	2	66.67
Dwelling	0	3	0	3	4333	2	66.67
Health/illness	0	23	2	25	7728	16	64.00
Education	0	4	0	4	4500	2	50.00
Social Function	1	4	1	6	7250	6	100.00
Other	0	3	2	5	6168	2	40.00
Total	7	46	61	114	13666	87	76.32

Table 18: Rate of interest paid on loan						
			No of			
	Source	Rate	HHs			
Agriculture	BANK	4.3	4			
	PRIVATE	4.2	9			
	SOCIETY	6.5	55			
	Total	6.1	68			
Animal husbandry	BANK	4.1	2			
	SOCIETY	12.0	1			
	Total	6.7	3			
Dwelling	PRIVATE	0.0	3			
	Total	0.0	3			
Health/illness	PRIVATE	3.8	23			
	SOCIETY	5.0	2			
	Total	3.9	25			
Education	PRIVATE	3.8	4			
	Total	3.8	4			
Social Function	BANK	10.0	1			
	PRIVATE	10.0	5			
	Total	10.0	6			
Other	PRIVATE	8.7	3			
	SOCIETY	8.5	2			
	Total	8.6	5			
Total	BANK	5.1	7			
	PRIVATE	4.5	44			
	SOCIETY	6.7	60			
	Total	5.7	114			

Table 19: Communication with Grampanchayet						
N %						
Yes	278	88.25				
No	35	11.11				
Total	313	99.37				

Table 20: Participation in Gramsabha					
	N	%			
Yes	212	67.30			
No	101	32.06			
Total	313	99.37			

Table 21: Households receiving benefits from any Govt.				
scheme				
	N	%		
Agriculture	3	0.95		
Animal Husbandry	1	0.32		
Education	109	34.60		
Health	41	13.02		
Social security	42	13.33		
Food Security	23	7.30		
Other	3	0.95		
Total	222	70.48		

# **ANNEXURE -I**

HOUSEHOLD QUESTIONNAIRE ON "EFFECT OF CLIMATIC CHANGE ON FOOD AND LIVELIHOOD"

# **ANNEXURE-2**

# **PROJECT TEAM**

PROJECT DIRECTOR	- Dr. A.K.Roy			
PROJECT LEADERS	-Bankura-Shri B.K.Mazumder			
	Purulia-Dr. J.P.Chattopaddhyay			
SYSTEM ANYLYST	Shri Subham Duttagupta			
FIELD SUPERVISORS	1. Debasish Mitra -			
	2. Sukhendu Sarkar			
	3. Manas Samanta			
	4. Biswajit Samanta			
	5. Bulbul Bose			
FIELD INVESTIGATORS	1. Nitis Barman			
	2. Asim Gayen			
	3. Sukumar Hazra			
	4. Shirsendu Pramanik			
	5. Nitin Barman			
	6. Ramprasad Mandal			
	7. Ujjwal Mandal			
	8. Ashoke Mandal			
	9. Prabir Ghosh			
	10. Asish Bera			

ACCOUNTS INCHARGE- Shri Amit Samaddar Chowdhury.

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Date: / /

Name	Age	Occupation	
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# **RESULT (PURULIA)**

# **4.0 QUANTITATIVE STUDY**

## A. HOUSEHOLD PARTICULARS

#### I. BACKGROUND OF HOUSEHOLDS

- 4.01 Information with background of households are given in the tables:
  - Table 22- Age-group-wise total numbers in the households for different categories.
  - Table 23- Age-group-wise average numbers in the households for different categories.
  - Table 24- Age-group-wise percentage of numbers of households for different categories.
- 4.02 The total number of households covered in the study in Purulia in 187.
- 4.03 Summarized information are given below:

SI.	Particulars	Total number		Average number		Percentage		2		
No.		Male	Female	Total	Male	Female	Total	Male	Female	Total
1.	Members	520	519	1039	2.78	2.78	5.56	520	519	1039
2.	Members able to work	365	342	704	1.95	1.83	3.76	70.19	65.90	69.76
3.	Earning members	320	186	506	1.71	0.99	2.70	61.54	35.84	48.70
4.	Members holding MGNREGA	247	206	453	1.32	1.10	2.42	47.50	39.69	43.60
	job card									
	-Number of days worked									
	under MGNREGA during last									
	financial year(2013-14)among									
	those households who									
	received work	-	-	-	-	-	44.25	-	-	-
	-Number of days worked									
	under MGNREGA during this									
	financial year(April2014-									
	May2014) among those									
	households who received									
	work	-					7.08			
5.	Literate persons	395	316	711	2.11	1.69	3.80	75.96	60.89	68.93

- 4.04 Salient points are arising out of the above table are:
  - Sex ratio 998 (sex ratios are not alarming at any age group)
  - > Average size of a household is:

Male - 2.78
 Female - 2.78
 Total - 5.56

Percentage of members in the household able to work are:

Male - 70.19
 Female - 65.90
 Total - 67.76

Percentage of earning members in the household are:

Male - 61.54Female - 35.84Total - 48.70

> Percentage of members holding MGNREGA job card in the household are:

Male - 47.50Female - 39.69Total - 43.60

Percentage of literate persons in the household are:

Male - 75.96
 Female - 60.89
 Total - 68.93

### **EDUCATION OF CHILDREN**

4.05 There are 210 school going children (105 each -50 percent each are males & Females ). Number of school going children, sex-wise for different classes are presented below(for details refer to Table 25):

SI.	Sex	Number of school going children				
No.		Up to Middle Secondary Higher Tota				
		primary			Secondary	
1.	Male	38	32	20	15	105
2.	Female	48	25	22	10	105
	Total	86	57	42	25	210

4.06 Higher the class, lessor is the number of children in that class.

4.07 Per household dropout rate works out to 2.67 percent varying between 1.07 percent for males to 1.60 percent for females

4.08 Major reasons for 'drop out' for boys (2) is 'In attentive in study'. For the three girls who have dropped out, reasons for each of them is (Table 26):

Illness - 1Not interested - 1

School too far - 1

4.09 For the 2 boys who have dropped out, one of them is doing 'nothing' while the other is doing the work of a 'labourer'. For 3 girls, 2 are doing 'nothing' while the 3<sup>rd</sup> is doing 'household work(Table 27)

### **RATION CARD**

4.10 Households having BPL ration card constitute 57 percent as is revealed by the following table:

SI. No.	Type of ration card	Number of households	Percentage
1.	No ration card	1	0.53
2.	APL	63	33.69
3.	BPL	107	57.22
4.	Antyoydaya	16	8.56
5.	Annapurna	0	-
	Total	187	100.00

4.11 Out of 186households who have some ration card, 95 households have to travel a distance of more than 1 km (51 percent) to the ration shop while the rest 91 households are happy that their ration shops are at a distance of less than 1km.

4.12 Rating of ration shops by the respondents are given below:

SI. No.	Rating	Total number of households	Percentage
1.	Very good	14	7.53
2.	Good	87	46.77
3.	Fair	76	40.86
4.	Bad	9	4.84
5.	Very bad	0	-
	Total	186	100.00

#### **OCCUPATION OF HOUSEHOLDS**

4.13 Detailed information of occupation of households are given in the following tales:

Table 28 - Primary Occupation
Table 29 - Secondary Occupation

The figures are given month- wise starting from Baisak up to Chaitra.

4.14 Majority of households (78 percent) have 'Labour' as the main occupation followed by "farming (68 percent)" and 'Self employed' (13 percent). Month-wise 'labour occupation' varies from 6.21 percent in Chaitra to 9.86 percent in shravan. There is not much of a variation, month-wise, if one is having 'self employed' as an occupation. Only 5 percent of the households have 'service' as an occupation.

4.15 MGNREGA is the major 'Secondary occupation' (49 percent) followed by 'Labour' (37 percent) and "farming (14 percent)"

## **HOUSING**

4.16 Type of houses where households live are:

SI.	Type of House	Number of Households	Percentage	
No.				
1.	Katcha			
	a. Permanent Structure	153	81.82	
	b. Temporary Structure	1	0.53	
2.	Pucca	24	12.83	
3.	Semi –pucca	9	4.81	
4.	Others	0	-	
	Total	187	100.00	

- 4.17 Most of the households (82 percent) have 'permanent structured katcha' houses.
- 4.18 Four (4) households have received Government assistance for construction of houses. Level of assistance received are:

Level	N	umber of households
Rs.10,000-20,000	-	1
Above Rs 30,000	-	3
Total	-	4

Average amount received -Rs. 34,000/-

# **TOILET**

- 4.19 Most of the households (176 out of 187-94 percent) have 'No toilet'. Ten households (5 percent) have 'permanent toilet' while 1 household has 'temporary toilet'.
- 4.20 Three households have received Government assistance for construction of toilets. Beak-up is:

Level of assistance(Rs.)

Above 5000

Number of households

Average amount received=Rs.6, 700/-

# LIGHTING, FUEL

# 4.21 Major sources of lighting are:

SI. No.	Source of lighting	Number of households	Percentage
1.	Kerosene	24	12.83
2.	Solar Panel	0	-
3.	Electricity	84	44.92
4.	Rajiv Gandhi Rural Electrification	76	40.65
5.	No source	2	1.07
6.	Missing	1	0.53
	Total	187	100.00

# **FUELS**

4.22 Almost all the households (97 percent use the 'General/Traditional chullah) as can be observed the following figures:

SI.	Type of Cooking Stove used	Number of Households	Percentage
No.			
1.	General/Traditional chullah	182	97.33
2.	Smokeless chullah	1	0.53
3.	Bio-gas	2	1.07
4.	Electric heater	1	0.53
5.	LPG	6	3.21
6.	Kerosene stove	3	1.60
	Total	95	104.28

(Note:Both number and percentages are more because of multiple answers).

# 4.23 'Wood' is the main fuel used (96 percent of all households) as is evident from the following figures:

SI.	Type of fuel used	Number of Households	Average monthly
No.		using	quantity used
1.	Wood	180	160.11kg
2.	Cow dung	39	234.1 pieces
3.	Crop residence	14	
4.	Coal	1	10.00kg
5.	Kerosene	25	2.52 litre
6.	LPG	8	10.75kg.
7.	Others	43	-
	Total	310	-

(Note: Total number of households is more than 187 because of multiple use of fuels).

# 4.24 The prices of the different fuels are presented below:

SI.	Type of fuel Price		
No.		Unit (Per household)	Rate
1.	Wood		652.85
2.	Cow dung		94.87
3.	Crop residence		925.71
4.	Coal		15.00
5.	Kerosene		44.32
6.	LPG		346.25
7.	Others		125.71
	Total		

# 4.25 It is observed from the following table that 'Wood' is generally collected' (90 percent):

SI.	Type of fuel	Source- number of households				
No.		Collected	Own	Purchase	Total	
1.	Wood	156	65	8	174	
2.	Cow dung	1	35	1	37	
3.	Crop residence	0	13	1	14	
4.	Coal	0	0	1	1	
5.	Kerosene	3	0	19	22	
6.	LPG	1	0	5	6	
7.	Others	39	4	1	41	
	Total	200	117	36	295	

#### WATER

- 4.26 Water demand has been classified separately as:
  - Drinking water
  - ➤ Water for the other household purposes
- 4.27 Number and percentage of households using different sources of drinking water are indicated below:

SI.	Sources of water	Purpose			
No.		Drinking Water			r the other d purposes
		Number	percentage	Number	Percentage
1.	Tap water	0	0	0	0
2.	Tube well	176	94.12	45	24.06
3.	Well	16	8.56	29	15.51
4.	River	0	-	4	2.14
5.	Pond	0	-	109	58.29
6.	Others	0	-	0	-
	Total	192	102.67	187	100.00

(Note: Number and percentage are more than 187 and 100 respectively because of multiple answer).

#### 4.28 Most important sources are:

Drinking water	ı	Tube well	-	94 percent
Water for other				
household purposes	-	Pond	-	58 percent

- 4.29 Average distance for source is 0.01km.
- 4.30 Scarcity of drinking water has been faced by 48 (26 percent) of the households. Average month of scarcity of water faced is 2.15 (90 percent of 48 households faced water scarcity between 2-3 months). During the scarcity months, the households had to travel an average distance of 0.70 km.
- 4.31 Scarcity of water for domestic animals have also been faced by 26 households. Average number of months of scarcity of water for animals worked out to 2.42. At the time of scarcity, households had to travel an average distance of 0.62 km. to fetch water for domestic animals.
- 4.32 'Stain through a cloth' is the most important method for purification of drinking water used by 4(57 percent) households out of a total of 7 households who had reported purifying drinking water followed by 'filter' used by 2 households (29 percent).

# CROPS GROWN, PRODUCTION, MARKETING, FERTILIZ VSE, TREES

4.33 Following figures show the type of land holding of the households:

Sl.No.	Type of land holding	Number percentage of household		
1	Does not know	-	-	136(73%)
2	Bargadar	25	1	26(14%)
3	Pattadar	23	2	25(13%)
4	Forest plot	0	0	0(-)
	Total	48	3	187(100%)

4.34 Availability of households' land and kitchen garden of the households are:

Sl.No.	Туре	Number of households	Average Land (acare)
1	Homestead Land	183	0.088
2	Kitchen Garden	109	0.035
3	Own land	185	1.671

4.35 Results of the study show that there are 27 households (14percent) who had land "share crop in against 3 households (1.6 percent) who had land share cropped out"

4.36 Type of land "share cropped in/out are:

SI.	Type of land	Number of households in				
No.		Upland	Medium high	Medium low	Low	Total
1	Share cropped in	4	10	6	7	27
2	Share cropped out	0	0	2	1	3
	Total	4	10	8	8	30

4.37 The seasons when land is "share cropped in/out are:

Sl.No.	Type of land	Number of households			
		Kharif Rabi Pre-Kharif Total			Total
1	Share cropped in	26	1	0	27
2	Share cropped out	3	0	0	3
	Total	29	1	0	30

4.38 Average land "share cropped in/out are:

- $\triangleright$  Share cropped in (27) 0.589 acre
- > Share cropped out (3) 0.889 acre

4.39 Number of households under different types of share cropping are:

SI.No.	Sharing arrangement (of crop	Number of households	
	production	Share cropped in	Share cropped out
1	3:1 (75:25)	1	0
2	50:50	26	3
	Total	27	3

- 4.40 Types of vegetables etc. produced in the orchard land are many. Some of them are listed below
  - Sak
  - Begun
  - Sim
  - Tomato
  - Lau
  - Dhonepata
  - Onion
  - Vindi
  - Ucheha /Karala
- 4.41 The number of households growing vegetable etc. in orchards in different seasons is

Kharif 14 Rabi 26 Pre-Kharif 9 Total 49

4.42 Average value of production in different seasons from orchards is

Seasons Value of Production (Rs)

Kharif 581.20 Rabi 468.45 Pre-Kharif 99.86 Total 431.21

4.43 Major source of water for orchards is "Pond" as can be seen from the following figures:

Source of Water	Number of			
	Households			
Pond	6			
Pump set	3			
River	1			
Well	5			
Total	15			

4.44 "Pond" is also the major source of water for agriculture followed by "River water" as can be observed from the figures given below:

Sl.No.	Source of water for agricultural land	Number of households
1	Canal	6
2	Pond	29
3	Pump set	14
4	Rain water	12
5	River Water	18
6	Well	3
7	Nothing	1
	Total	83

#### **CROPS GROWN AND PRODUCTION**

4.45 Crop-wise, seasons —wise, type of land-wise details of land in acre (total and per household) and production details are presented in Table 30

Summarized figures for all the households cultivating in different land situations are presented below:

SI.	Type of land	Land in acre			Production (kg)			
No.		Total Total area Per		Total	Total	Per		
		households		household	households	production	household	
				land			production	
1	Up land	85	53.623	0.631	84	65400	778.57	
2	Medium High	315	370.828	1.177	313	336525	1075.16	
3	Medium Low	136	86.545	0.636	138	84440	611.88	
4	Low	123	89.365	0.727	122	121575	996.52	
Total		659	600.361	0.911	657	607940	925.33	

(Note: Total of households is more than double of the total number of households covered of 187 because many households have land in different types of land).

4.46 It is observed from the above table that cent percent of households have land which are 'medium type' (with an average land in area of 1.177 acres per household) followed by households having 'medium low' land (an average of 0.636 acres per household). Only about one fourth (27 percent) of the households have 'upland'.

4.47 Per household production is highest (1075kg) for those households having 'medium low' land followed by those having 'low' lands (997kg).

# **CROPS GROWN**

4.48 Summarized figures of type of land-wise, crop-wise number of households, area, production and yield are presented below (details are presented in table 31)

SI. No.	Type of land	Crop	Number of households	Area(acre)	Production quintal	Yield (Qtl./acre)
1.	Upland	Mustard	2	0.87	10.36	11.95
		Onion	1	0.08	0.6	7.20
		Paddy	22	23.07	535.4	23.21
		Potato	3	0.45	3.6	8.00
		Vegetable	11	1.15	19.05	16.57
		Total	39	25.62	569.01	22.21
2.	Medium High	Mustard	15	6.81	24.02	3.53
	5 5 5	Onion	2	0.18	3.12	17.66
		Paddy	163	184.89	2181.92	11.80
		Potato	8	0.64	18.4	28.75
		Vegetable	25	3.79	66.12	17.45
		Total	213	196.31	2293.64	11.68
3.	Medium Low	Mustard	2	1.17	5.6	4.80
		Paddy	66	54.02	707.31	13.09
		Vegetable	2	0.54	22.70	41.78
		Total	70	55.73	735.61	13.20
4.	Low	Paddy	43	35.57	593.2	16.68
		Potato	1	0.10	2.0	20.00
		Vegetable	6	0.78	13.7	17.49
		Total	50	36.45	608.9	16.71
	Total	Mustard	19	8.85	39.98	4.52
		Onion	3	0.26	3.72	14.31
		Paddy	294	297.54	4017.89	13.50
		Potato	12	1.19	24.00	20.17
		Vegetable	44	6.27	121.57	19.40
		Total	372	314.11	4207.16	13.39

<sup>4.49</sup> The above table shows that paddy and vegetables are the dominant crops.

#### **TOTAL LAND**

4.50 Land details of households are presented below:

SI.	Particulars of land	Type of land						
No.		Upland	Medium high	Medium Low	Low	Total		
1	Number of plots	173	756	211	115	1255		
2	Total land (acre)	43.48	188.65	51.72	29.67	313.51		
3	Monocropped area (acre)	23.30	170.70	49.38	28.27	271.66		
4	Multi cropped area (acre)	1.25	9.59	1.50	1.39	13.73		
5	Land under pond (acre)	0.75	2.68	0.17	1	3.60		
6	Permanent fallow land (acre)	18.18	5.67	0.67	-	24.51		

- 4.51 Out of a total number of plots of 1255 -756 plots (60 percent) are in 'medium high' land. Total land under 'medium high' is (60 percent) of the total land. 'Medium High' also have the highest percentage (70) of 'multicropped area'.
- 4.52 The households have listed the following as the major PROLEMS/ RISKS faced by them in cultivation of different crops (details in Table 32)

Rank	Risks /problems for cultivation	Number of households
1	Depends upon rain water	79
II	Joler samosya (Water problem)	51
III	Pokar samosya (problem of insects)	14
IV	No problem	7
V	Poka nasta kereche (Insects have destroyed the	4
	crop)	

- 4.53 Cost of cultivation for FIELD CROPS are presented in Table 33. It is further divided in to 'purchase inputs' and 'inputs from own stock'.
- 4.54 Summarized figures for both 'purchase' and 'own stock" taken together are presented below:

SI.	Inputs	Cost of cultivation				
No.		Field crop	Percentage			
		(Rs. /acre)				
1.	Fertilizer	1003.74	11.70			
2.	Field preparation	1307.34	15.24			
3.	Irrigation	126.54	1.47			
4.	Labour	4437.24	51.75			
5.	Organic manure	742.19	8.66			
6.	Other	49.58	0.58			
7.	Pesticides	241.38 2.8				
8.	Seed	667.27	7.78			
	Total	8575.29	100.00			

#### **MARKETING**

4.55 Of the 164 of the households (88 percent of the total number of households of 187) have sold some or other crops grown by them (details figure are presented in Table 34.).

4.56 Percentage of households selling different crops are shown below:

SI.	Crop	Number of households selling	Percentage
No.			
1.	Jute	2	1
2.	Mustard	4	2
3.	Paddy	89	54
4.	Vegetables	70	43
	Total	165	100

4.57 Season-wise the total quantity of sales, total amount of money and prices are presented below:

SI. No.	Season	Number of households	Total quantity (kg)	Total amount of money (Rs.)	Price (Rs. /kg)
1.	Kharif	96	105104	1368062	13.02
2.	Rabi	53	10847	147034	13.56
3.	Pre-Kharif 16		3873	33100	8.55
	Total	165	119824	1548196	12.92

4.58 Season-wise per household total amount (Rs.) of sales shows that it is highest in kharif season as the data given below shows:

SI.	Season Per household total amount of sales					
No.		(Rs.)				
1.	Kharif	14251				
2.	Rabi	2774				
3.	Pre -Kharif	2069				
	Total	9383				

# 4.59 Major periods of sales of these crops are:

SI. No.	Crop	Season/Period when sold maximum	Number of households
1.	Jute	Agrahayan(Rabi)	1
1.	Jute	Chaitra(Rabi)	1
2.	Mustard	Chaitra(Rabi)	3
	IVIGSTATA	Falgun(Rabi)	1
3.	Paddy	Magh (Rabi)	24
	,	Falgun (Rabi)	18
		Poush(Rabi)	14
		Chaitra(Rabi	11
		Baisak(Pre-Kharif)	8
		Agrahayan(Rabi)	7
		Other	7
4.	Vegetables	Poush	15
		Falgun	11
		Agrahayan	6
		Baisak	6
		Chaitra	5
		Other	27

4.60 Average distance where households sell their crops work out to 4.5 kms.

# 4.61'Places of sales' details are presented below:

SI.	Crop					Nur	nber of h	ouseholds	1				
No.			Season										
			Kharif			Rabi		Р	re-Khari	f		Total	
		Outsid e the village	From home	Inside village	Outside the village	From home	Inside village	Outsid e the village	From hom e	Inside villag e	Outsid e the village	From hom e	Inside village
1.	Jute	-	-	-	1	-	-	1	-	-	2	-	-
2.	Mustard	-	-	-	4	-	-	-	-	-	4	-	-
3.	Paddy	30	40	19	-	-	-	-	-	-	30	40	19
4.	Vegetab les	7	-	-	40	4	4	6	7	2	53	11	6

4.62 Most of the sales are done 'from home' (40 out of 89-45 percent) followed by 'outside the village' (34 percent).

4.63.1 The first five ranked problems mentioned by the households for selling their products are:

SI.	Problem of sales	Number of Households
No.		
1	Damkom(price are low)	40
II	Sathik dam paine (do not get the correct	10
	price)	
Ш	No problem	9
IV	Damthik paine(do not get the right price)	7
V	Kachakachi bazaar nei (No market nearby)	5

- 4.63.2 Field investigator have mentioned the following risk factors for cultivation of crops
  - Entire water management sequences go hay -ware because of uncertainty, (either because of non – timely rain or problems relating to timing or quantity of irrigation
  - Puruliya is basically a dry land area. Cultivators take lot of risks in farming in non fertile lands
  - Farmers need money for investing in farming by borrowing from either landlords or banks or from both. Because of uncertainty introduce by climatic changes, investment may not yield desired return. This is a big risk
  - Labour supply at the crucial stages of production being uncertain (resulting from high cost of labour and also non availability due to migration out) forces farmers to take risks
  - Investigating in high cost of input creates risks for farmers because of low benefit cost ratios
  - Non- adoption Integrated Pest Management method invites pest and insect attacks at crucial stages of production

4.64 As per as transport costs for selling their products are concerned, almost all the households (163 out of 165-99 percent) incurr costs less than Rs. 500/-. Only 2 households have reported selling their products by paying transport cost of more than Rs. 1500/-.

#### **FERTILIZER USE**

4.65 Fertilizer use (kg/acre) for paddy has been observed as:

Chemical fertilizers - 11.26 Organic manure - 121.69

#### **TREES**

4.66 Households owning trees around dwelling area are:

Fruits and other trees used as food

- 118 households(63.10 percent)

• Trees of other uses

- 105 households(56.15 percent)

4.67 Total number of trees around the dwelling area are:

SI.	Number of trees	Number of trees per household			
No.		Fruits & other trees used as food		Tre	es of other uses
		Number	Per Household	Number	Per Household
1.	<10	211	1.13	149	0.80
2.	10-20	4	0.02	12	0.06
3.	21-30	0	-	2	0.01
4.	31-50	0	-	15	0.08
5.	51-100	0	-	4	0.02
6.	Above 100	0	-	0	-
	Total	215	1.15	182	0.97

# **LIVESTOCK**

# **OWNERSHIP OF LIVESTOCK**

4.68 Table 35 Presents the figures of ownership of livestock, total number, annual income for both 'big' and 'small' livestock .

4.69 First five ranked 'big' livestock (as per number of households owning them) are:

Rank	Animal	Number of Households	Total number of	Annual income
		owning	animals	(Rs.)
I	Chicken	129	704	50,250
II	Bull	122	259	47,400
III	Goat	92	291	1,37,800
IV	Cow	83	144	70,400
V	Duck	25	90	1800

#### **B. INCOME - EXPENDITURE**

4.70 Average monthly income of all households works out to Rs. 5784/-. Occupation-wise break-up given below:

SI.	Occupation	Average monthly Income	Percentage
No.		(Rs.)	
1.	Agriculture	1207.27	20.87
2.	Animal husbandry	347.27	6.00
3.	Daily labour	1788.90	30.93
4.	Service	1045.99	18.08
5.	Business	333.78	5.77
6.	Migration	300.49	5.20
7.	Others	760.26	13.15
	Total	5783.97	100.00

- 4.71 It is interesting to note that, the households who are engaged in daily labour constitute the highest percentage (31) as far as monthly income is concerned followed by those who are engaged in 'agriculture' (20 percent).
- 4.72 Figures of monthly expenditures of all the households are presented in the following table. The table shows that 'food' is the biggest contributor(36 percent) of household to the total kitty of 'average monthly expenditure' followed by 'expenses on agriculture' (12 percent) (Note: We are not mentioning 'others'(14 percent) because it has a fairly large number of items.
- 4.73 Item-wise monthly expenditure of all households are presented below (it may be mentioned here that for some annual types of expenditures like 'Entertainment', Rituals, annual figures have been converted into 'monthly expenditure'):

SI.	Item	Average monthly	Percentages
No.		expenditure (Rs.)	
1.	Agriculture	547.93	12.16
2.	Food	1638.24	36.35
3.	Dwelling	298.66	6.62
4.	Dress	357.38	7.93
5.	Cattle feed	107.89	2.39
6.	Fuel	71.02	1.58
7.	Health	252.34	5.60
8.	Education	301.84	6.70
9.	Entertainment	61.31	1.36
10.	Rituals	134.04	2.97
11.	Social Work	86.21	1.91
12.	Others	650.59	14.43
Total		4507.45	100.00

4.74 The average monthly expenditure of Rs. 4507.44 is much below the average month income of households of Rs.5783.97.

# C. ASSETS/OWNERSHIP OF DURABLES

4.75 Table presents the figures of ownership of durables/assets of households.

4.76 First five ranked assets are:

Rank	Asset	Number of Households
I	Spade 184 (98 percent)	
II	Sickle	184 (98percent)
Ш	Pick-axe	181 (97 percent)
IV	Cycle	176 (94 percent)
V	Mobiles	156 (83 percent)

# D. DISEASES IN THE HOUSEHOLDS

4.77 Almost 90 percent (167) of the total households have reported that their households had suffered from any disease during Baisak –Chaitra 1420.

4.78 The month in which these diseases have taken place are shown in Table 36 . The first five ranked months/period are:

Rank	Month/period	Number of households	%
I	Chaitra	39	18
II	Magh	32	15
III	Falgun	19	9
IV	Bhadra	17	8
V	Ashad	16	7
Total of all households who had		214	100
suffered any	<sup>,</sup> disease		

(Note: Total exceeds 167 households because there may be multiple diseases in some households)

4.79 Expenditure-level –wise number of households shown below, tells us that majority (58 percent) have spent 'less than Rs. 1000/- on illness:

SI.	Expenditure on illness during Baisak-	Number of Households	Percentage
No.	Chaitra 1420 (Rs.)		
1.	Less than 1000	124	58
2.	1000-4999	54	25
3.	5000-9999	22	10
4.	10,000-29,999	12	6
5.	30,000 & above	2	1
	Total	214	100

4.80 Figures of types of diseases are presented in Table37. The first five ranked types of diseases and the number of households who suffered during the period Baisak –Chaitra 1420 are:

Rank	Disease	Number of Households suffered during Baisak-Chaitra 1420	Percentage
- 1	Fever	29	14
II	Diarrhoea	20	9
III	Cold and Fever	17	8
IV	Abdoment pain	10	5
V	Mental problem	9	4
	Others	129	60
	Total	214	100

4.81 Where were the treatments taken when household members fell ill? Results are tabulated and presented in Table 38 .The first five ranked sources of treatment are:

Rank	Source of treatment	Number of household	Percentage
1	Quack	64	30
II	Govt. Hospital	52	24
III	Private Doctor	32	15
IV	ВРНС	14	6
٧	Private Hospital	10	5
	Others	43	20
	Total	215	100

#### **E. PERCEIVED DEFICIENCIES**

#### I. IN FOOD SUPPLIES

4.82 Scarcity of food has been felt by 30 households (16 percent).

4.83 Period of scarcity felt by these 30 households are:

SI.	Period of scarcity	Number of households	Percentage
No.			
1.	Bhadra, Aswin	7	23
2.	Aswin, Kartick	7	23
3.	Bhadra, Aswin, Kartick	4	14
4.	Others	12	40
	Total	30	100

4.84 Average days of scarcity felt by these 30 households is 77.4. Details are given below:

SI. No.	Number of days	Number of households	Percentage
1.	Less than 20	3	10
2.	20-49	3	10
3.	50-99	20	67
4.	100 -149	1	3
5.	150 and above	3	10
	Total	30	100
Aver	age number of days -	77.4	

4.85 To overcome the scarcity, households had resorted to taking money from different sources.

·	Amount	Number of households
<ul><li>Loan from money lender</li></ul>	Rs.800	1
	Rs.1000	1
	Rs.3000	1
	Rs.21000	1
	Not mentioned	4
	Total	8
Rate of Interest	5%	2
	6%	1
	8%	1
	10%	216

•	ı	Number of Households	ı	4
Loan from relative		Amount Rs.4000	ı	1
		Rate of interest	1	Nil

Loan from Shop

- Number of households
- 22 (73 Percent)

4.86 Most of the households depend upon 'SHOP' to tide over the scarcity period.

# **II. SCARCITY OF CATTLEFEED**

- 4.87 Scarcity of cattle feed had been felt by only 3 households (4 percent).
- 4.88 Months of scarcity of cattle feed are:

Month of scarcity	Number of households	%
Bhadra, Aswin	3	43
Other months	4	57
Total	7	100

#### 4.89 Number of days scarcity faced are:

SI. No.	Number of days of scarcity of cattlefeeds	Number of households	Percentage
1.	Less than 20	0	-
2.	20-49	1	14.29
3.	50-99	5	7142
4.	100-149	0	-
5.	150 and above	1	14.29
	Total	7	100.00

- 4.90 Each of these 7 households have given slightly different/different reasons to the question on 'how to recover from this scarcity?' Reason given by each is:
  - Anyer kach theke khar kinte hai(had to buy cattlefeed from others)
  - Dur theke ghass kattha hai (had to cut grass from long distance)
  - Mahajonder kach theke taka niya Kena hoyecha (Buying cattlefeed by taking money from money lenders).
  - Ghass katte hai (had to cut grass)
  - ❖ Jami theke ghas kete anen (by cutting grass in the field and bringing it)
  - ❖ Kajer binimoy sodh koren (by exchange of given extra work)
  - Kinte hoi ba dhar korte hoi (either borrow or purchase)

#### **III. WHETHER NEEDS TO GO OUT FOR EMPLOYMENT**

- 4.91 Little more than one-forth (25.67 percent) of the households had to go out for employment.
- 4.92 Total number of members who had gone out for employment was 48 consisting of 43 males and 5 females.
- 4.93 Types of work which the members had to do were:

SI.	Type of work	Number of Households	%
No.			
1.	Agriculture Labour	17	35.42
2.	Construction labour	11	22.92
3.	Daily labour	16	33.35
4.	Driver	1	2.08
5.	Rajmistri	3	6.25
	Total	48	100.00

4.94 Out of 48, 14 members (29 percent) had to go out for a period of '150 days and above' as can be seen from the following data:

SI. No.	Number of days	Number of members	%
1.	<20	3	6.25
2.	20-49	9	18.75
3.	50-99	15	31.25
4.	100-149	7	14.58
5.	150& above	14	29.17
	Total	48	100.00

4.95 One-fourth of the members had earned 'Rs. 25,000 and above' as can be seen from the following figures:

SI.	Money earned(Rs)	Number of members	%
No.			
1.	Less than 4000	7	14.58
2.	4000-7999	7	14.58
3.	8000—11999	6	12.50
4.	12000-15999	5	1042
5.	16000-19999	6	12.50
6.	20,000-24999	5	10.42
7.	25,000 &above	12	25.00
	Total	48	100.00

4.96 Which time did they go out for work during Baisak to Chaitra 1420? A first few ranked months/period together with the total number of households are:

SI.	Period/Month	Number of Households
No.		
1.	Baisak	3
2.	Kartik	3
3.	Agrahayan, Kartik	2
4.	Baisak,jaistha	2
5.	Magh, Chaitra, Baisak	2
6.	Magh, Phalgun	2
7.	Poush magh	2

#### **IV. SAVINGS**

#### **A. COMMUNITY SAVINGS**

4.97 Figures of members' savings in different groups are presented below (only the first few ranked are):

SI.	Group	Number of households
No.		
1.	SHG	26
2.	Mahila samiti	7
3.	Swanirvar dal	6
4.	Sisusadan	2
5.	Khdirambasu SHG	2

4.98 Most of them (92 percent) saved 'less than Rs. 50' monthly. Only 5(8%) Saved 'more than Rs.50/-' monthly.

# **B. INDIVIDUAL SAVINGS**

# 4.99 The first few ranked places where individuals saved money are:

SI.	Place	Number of households
No.		
1.	Bank	49
2.	Pos Office	8
3.	Gramin Bank	2
4.	LAMP	2
5.	Tantubye samiti	2
6.	Others	8
	Total	71

# 4.100 Present levels of savings are presented below:

SI.	Savings at present (Rs.)	Number of households
No.		
1.	Less than 10000	25
2.	10000-24999	22
3.	25000-49999	7
4.	50000-99999	7
5.	100000 & above	2
	Total	63

4.101 The individuals, if they had taken loan, how many of them? There are 7, each of which has taken loan of the following amount:

>Rs.2000

>Rs.4000

>Rs.5000

>Rs.6000

>Rs.10000

>Rs.15000

>Rs.25000

#### V. LOAN

4.102 Figures of sources of taking loan with purpose, average amount of loan taken, whether mortgage given are tabulated and presented in Table 39

4.103 There are two major purposes for which loan been taken:

- Agriculture -31 (48 percent)
- Health/Illness-23 (35 percent)

4.104 Mortgages had to be mainly for loan for agriculture.

4.105Rates of interest paid on loan are presented in Table 40

4.106 Summarized figures are presented below:

SI.	Source of loan	Rate of interest (%)	Number of households
No.			
1.	Bank	5.50	4
2.	Private	3.46	26
3.	Society	9.12	26
	Total/Average	6.23	56

#### F. INSURANCE

4.107 Out of 187 households, 129 households (69 percent) have some from of insurance.

4.108 Most of the households have 'Health Insurance' as can be seen from the figures presented below:

SI.	Type of Insurance	Number of households	Percentage
No.			
1.	Life	23	18
2.	Health	109	84
3.	Agriculture	2	2
4.	Others	1	1
Total		135	105

(Note: Both the number and percentage are more because some households have multiple insurances)

# 4.109 Annual premiums being paid are:

			Annual Premium (Rs.)	Nun	nber of Households
$\triangleright$	Life Insurance	-	Less than equal to 1000	-	1
			1001-3000	-	9
			3001-5000	-	4
			5001-10,000	-	4
			10,001-20,000	-	5
			20,001 &above	-	0
			Total	-	23
$\triangleright$	Health Insurance	-	All the 109households pay a	n annual premiu	ım of Rs.30/-each
>	Agriculture Insurance	-	Both (2) the households pay Rs.1000'.	an annual prem	ium of 'Less than
>	Other Insurance	_	One household is there and	pays Rs. 5000/-	annually

# **G. DEPENDENCE ON NATURAL RESOURCES**

4.110 Percentage of dependence on natural resources is the highest (94 percent) for "fuel" as can be observed from the figures presented in the following table:

SI.	Percentage of	Number of households dependent on natural resources									
No.	dependence	Food	Fuel	Cattle Feed	Income	Others					
1.	Up to 24	9	4	10	3	0					
2.	25-49	5	22	27	0	0					
3.	50-74	3	50	32	0	0					
4.	75-99	1	40	28	0	0					
5.	100	0	60	15	0	0					
	Total	18	176	112	3	0					
	Percentage	(10)	(94)	(60)	(2)	(0)					

4.111 Next to fuel, major dependence of households on natural resources is for 'Cattle feed' (60 percent). Even for 'food' 14households are dependent for 50 percent of their food.

#### H. LINKAGE WITH GRAM PANCHAYAT

- 4.112 Most of the households (155 out of 187-83 percent) had linkages with their gram panchayat .
- 4.113 Majority of the households (122 out of 187-65 percent) participated in gramsabha.

#### I. MEMBERSHIP OF GOVERNMENT PROJECT

- 4.114 It is observed from the following table that 177 households (95 percent) are included (beneficiaries of any Government Projects/schemes.
- 4.115 Households receiving benefits from different Government Projects/Schemes are as follows:

SI.	Sector	Number of households	Percentage
No.			
1.	Agriculture	11	5.88
2.	Animal husbandry	0	-
3.	Education	101	54.01
4.	Health	18	9.63
5.	Social Security	36	19.25
6.	Food Security	10	5.35
7.	Other	1	0.53
	Total	177	94.65

4.116 The first three ranked sectors from where households have received maximum benefits from Government Projects are:

Rank	Sector	Percentage of households benefitting
I	Education	54.01
II	Social Security	19.25
III	Health	9.63

4.117 A total of 129 households (69 percent) are members of some Government Yojana.

4.118 For each of the sectors, two most important Government Yojona where houseolds are members are indicated below:

SI.	Sector	Name of Project	Number of Households
No.			
1.	Agriculture	ISOPOM	9 out of 11
			(82 percen)
2.	Education	1. School Dress/Book	88 out of 177
			(50 percent)
		2. Midday meal	75 out of 177
			(42 percent)
3.	Health	1. Rashtriya Health Bima	14 out of 21
		Yojana	(67 pecent)
		2. Janani Suraksha Yojana	7 out of 21
			(33 percent)
4.	Social Security	1. Bardhakya Bhata	25 out of 39
			(64 Percent)
		2. Widow pension	5 out of 39
			(13 percent)
5.	Food Security	1. Antyodaya Anno Yojana	10 out of 10
			(100 percent)
6.	Others	1. Kanyashree	1out of 1
			(100 percent)

4.119 Details of all projects are given in Table 41

# J. SPECIFIC SKILLS IN THE HOUSEHOLDS

4.120 Only 5 households had reported having any specific skills- 3 for 'Matir kaj', 1 each for 'Rajmistri' and 'Veterinary'.

#### **K. CLIMATE CHANGE**

4.121We have been witnessing climate change all over the place (Nationally, globally). What has been the climate changes with the villages covered in the district of Purulia Results are presented in Table 42

4.122 Summarized results are presented below:

	Effect	Percentage of households
Quantum of rainfall	1. Normal/Same	10.02
	2. More	21.31
	3. Less	19.23
	4. In time	0.24
	5. Before time	0.24
	6. After time	0.08

Rainy season	1. Normal/Same	0.80
	2. More	0.48
	3. Less	0.32
	4. In time	16.91
	5. Before time	9.94
	6. After time	16.11
> Cold	1. Normal/Same	10.18
	2. More	26.52
	3. Less	13.94
	4. In time	0.08
	5. Before time	0.48
	6. After time	0.48
> Winter session	1. Normal/Same	1.20
	2. More	1.60
	3. Less	1.60
	4. In time	12.98
	5. Before time	11.14
	6. After time	17.79
> Summer	1. Normal/Same	0.56
	2. More	5.69
	3. Less	0.96
	4. In time	15.71
	5. Before time	23.24
	6. After time	6.01

	Effect	Percentage of households
> Temperature	1. Normal/Same	6.73
	2. More	38.46
	3. Less	7.21
	4. In time	1.04
	5. Before time	0.64
	6. After time	0.16
Lightning	1. Normal/Same	10.18
	2. More	25.00
	3. Less	13.78
	4. In time	0.16
	5. Before time	0.24
	6. After time	0.48

Fogging	1. Normal/Same	1.92
	2. More	1.68
	3. Less	1.20
	4. In time	10.66
	5. Before time	7.69
	6. After time	16.51
> Fog	1. Normal/Same	9.13
	2. More	23.32
	3. Less	16.75
	4. In time	0.32
	5. Before time	0.40
	6. After time	0.48
> Storm	1. Normal/Same	8.65
	2. More	22.92
	3. Less	18.11
	4. In time	0.48
	5. Before time	0.24
	6. After time	016
> Hail Storm	1. Normal/Same	8.73
	2. More	13.86
	3. Less	26.20
	4. In time	0.16
	5. Before time	0.64
	6. After time	0.08
	Effect	Percentage of households
Cloudy Sky	1. Normal/Same	9.86
	2. More	18.27
	3. Less	19.63
	4. In time	0.40
	5. Before time	0.48
	6. After time	0.24

<sup>&</sup>gt; Drought- a total of 180 households have reported that they had been affected by Drought. One Household reported that the 'Drought' was more than earlier.

- 4.123 'Climate Change Effects' had been 'more in the following cases':
  - > Quantum of rain fall
  - > Cold
  - > Temperature
  - Lightning
  - ➤ Fog
  - > Storm
  - ➤ Health Storm
  - Cloudy sky
- 4.124 For the other changes, majority of households have reported:

Rainy season
 Winter season
 Summer
 Fogging
 Aftertime
 Before Time
 Aftertime

#### L. NATURAL DISASTER

4.125 We tried to collect information/data on natural disaster and their effect for the last 10 years. However, the respondents could answer only for last 4 years. It is observed from the data, given below, that 2010 had been the worst year:

SI.	Particular	2013	2012	2011	2010
No.					
1.	Could not cultivate(acre)	-	-	2	236
2.	Damage to products	-	-	-	Almost 100%
					for all farmers
3.	Effect on animals	-	-	-	90% of
					households
					having lost
					animals due to
					drought
4.	Effect on human health	30% of	-	-	Almost 100%
		households			of households
		suffered from			suffered from
		diarrhoea and			diarrhoea,
		fever			fever & skin
					disease
5.	Effect on nature	-	-	-	cent percent
					households
					lost trees

Table 22 : Background of Household														
						Age	e Grou	p (yea	rs)					
Particulars	0 -	- 6	7 - 18		19 - 30		31 - 50		51 -70		Above 70		Total	
	М	F	М	F	М	F	М	F	М	F	М	F	М	F
1. Number of members	66	77	100	111	135	122	119	126	88	72	12	11	520	519
2. Number of members able to work	0	0	35	48	133	121	118	125	75	47	4	1	365	342
3. Number of earning members	0	0	9	9	118	75	118	83	72	19	3	0	320	186
4. Number of members holding MGNREGA job card	0	0	1	2	87	62	98	101	58	40	3	1	247	206
5. Number of literate persons	2	2	95	106	129	109	104	74	60	24	5	1	395	316

Table 23 : Background of Household	ī													
			1		1	Age	Group	(years)			,		•	
Particulars	0 -	- 6	7 -	18	19	- 30	31	- 50	51	-70	Abov	/e 70	То	tal
	М	F	М	F	M	F	М	F	М	F	M	F	M	F
1. Average Number of members per HH	0.35	0.41	0.53	0.59	0.72	0.65	0.64	0.67	0.47	0.39	0.06	0.06	2.78	2.78
2. Average Number of members able to work per HH	0.00	0.00	0.19	0.26	0.71	0.65	0.63	0.67	0.40	0.25	0.02	0.01	1.95	1.83
3. Average Number of earning members per HH	0.00	0.00	0.05	0.05	0.63	0.40	0.63	0.44	0.39	0.10	0.02	0.00	1.71	0.99
4. Average Number of members holding MGNREGA job card per HH	0.00	0.00	0.01	0.01	0.47	0.33	0.52	0.54	0.31	0.21	0.02	0.01	1.32	1.10
5. Average Number of literate persons per HH	0.01	0.01	0.51	0.57	0.69	0.58	0.56	0.40	0.32	0.13	0.03	0.01	2.11	1.69
6. Average number of days of work received under MGNREGA during last financial year (2013-14)  among those households received work under MGNREGA  44.25														
	7. Average number of days of work received under MGNREGA during last financial year (April 2014-7.08													

Table 24 : Background of Household	l													
	Age Group (years)													
Parti culars	0 - 6		7 - 18		19 - 30		31 - 50		51 -70		Above 70		Total	
	Μ	F	М	F	М	F	М	F	М	F	М	F	М	F
1. Number of members	66	77	100	111	135	122	119	126	88	72	12	11	520	519
2. Percentage of members able to work	0.00	0.00	35.00	43.24	98.52	99.18	99.16	99.21	85.23	65.28	33.33	9.09	70.19	65.90
3. Percentage of earning members	0.00	0.00	9.00	8.11	87.41	61.48	99.16	65.87	81.82	26.39	25.00	0.00	61.54	35.84
4. Percentage of members holding MGNREGA job card	0.00	0.00	1.00	1.80	64.44	50.82	82.35	80.16	65.91	55.56	25.00	9.09	47.50	39.69
5. Percentage of literate persons	3.03	2.60	95.00	95.50	95.56	89.34	87.39	58.73	68.18	33.33	41.67	9.09	75.96	60.89

	Nur	mber &Per	rcenta	ige of me	embei	rs House	holds ha	aving school	going o	children	,	College going children	D	ropped out children
Sex of child	Up to	Primary	M	iddle	Sec	ondary	Highei	Secondary	Т	otal	College			Dropped out
	N	%	N	%	N	%	N	%	N	%	N	Percentage(%)	N	Per household(%)
Male	38	18.10	32	15.24	20	9.52	15	7.14	105	50.00	9	4.81	2	1.07
Female	48	22.86	25	11.90	22	10.48	10	4.76	105	50.00	4	2.14	3	1.60
Total	86	40.95	57	27.14	42	20.00	25	11.90	210	100.00	13	6.95	5	2.67

Table 26 : Reasons for dropping out from School/College  Percentage of households saying for											
Reasons for dropping out		Male		Female		Total					
	N	%	N	%	N	%					
ILLNESS	0	0.00	1	33.33	1	20.00					
INATTENTATIVE IN STUDY	2	100.00	0	0.00	2	40.00					
NOT INTERESTED	0	0.00	1	33.33	1	20.00					
SCHOOL TOO FAR	0	0.00	1	33.33	1	20.00					
Total	2	100.00	3	100.00	5	100.00					

Table 27 : Occupation of School/College	dro	pped out c	hild							
Occupation	Percentage of dropped out children									
Cocapation	Male			Female	Total					
	N	%	N	%	N	%				
HOUSEHOLD WORK	0	0.00	1	33.33	1	20				
LABOUR	1	50.00	0	0.00	1	20				
NOTHING	1	50.00	2	66.67	3	60				
Total	2	100.00	3	100.00	5	100				

Table 28 : Occupation of Ho	useholds											
						Percenta	age of HHs h	aving				
Month	Main/Primary											
IVIOITUI	Service	e Farm	Farming		Labour		Self employed		MGNREGS		thers	Total
	N	N	%	N	%	N		N		N		
Baisakh	9	0		119	6.90	25	9.03	0	0.00	7	8.54	160
Jaisthya	9	0		117	6.79	25	9.03	0	0.00	7	8.54	158
Ashad	9	0		167	9.69	23	8.30	0	0.00	7	8.54	206
Shravan	9	0		170	9.86	22	7.94	0	0.00	6	7.32	207
Bhadra	9	0		165	9.57	21	7.58	2	18.18	6	7.32	203
Aashwin	9	0		161	9.34	20	7.22	2	18.18	7	8.54	199
Kartick	9	0		160	9.28	21	7.58	0	0.00	7	8.54	197
Agrahayan	9	0		164	9.51	22	7.94	1	9.09	7	8.54	203
Poush	9	0		144	8.35	24	8.66	1	9.09	7	8.54	185
Magh	9	0		130	7.54	25	9.03	2	18.18	7	8.54	173
Falgun	9	0		120	6.96	24	8.66	2	18.18	7	8.54	162
Chaitra	9	0		107	6.21	25	9.03	1	9.09	7	8.54	149
Total Number	108	0		1724	100.00	277	100.00	11	100.00	82	100.00	2202
Percentage	4.90	0.00		78.29		12.58		0.50		3.72		100.00

Table 29 : Occupation of Ho	ouseholds													
					Percer	ntage of HHs	having							
Month		Secondary												
IVIONIN	Service	Farming	g La	bour	Self ei	Self employed		MGNREGS		thers				
	N	N	N		N		N		N		Total			
Baisakh	0	0	18	6.62	9	9.47	37	10.16	1	8.33	65			
Jaisthya	0	0	19	6.99	8	8.42	33	9.07	1	8.33	61			
Ashad	0	0	24	8.82	6	6.32	6	1.65	1	8.33	37			
Shravan	0	0	25	9.19	6	6.32	1	0.27	1	8.33	33			
Bhadra	0	0	23	8.46	7	7.37	19	5.22	1	8.33	50			
Aashwin	0	0	25	9.19	7	7.37	9	2.47	1	8.33	42			
Kartick	0	0	24	8.82	6	6.32	15	4.12	1	8.33	46			
Agrahayan	0	0	26	9.56	6	6.32	22	6.04	1	8.33	55			
Poush	0	0	25	9.19	7	7.37	58	15.93	1	8.33	91			
Magh	0	0	23	8.46	11	11.58	72	19.78	1	8.33	107			
Falgun	0	0	22	8.09	11	11.58	62	17.03	1	8.33	96			
Chaitra	0	0	18	6.62	11	11.58	30	8.24	1	8.33	60			
Total Number	0	0	272	100.00	95	100.00	364	100.00	12	100.00	743			
Percentage	0.00	0.00	36.61		12.79		48.99		1.62		100.00			

Table 30 :Crop-wise , season –wise, type of land –wise details of land and production Type of **PRODUCTION** Season LAND\_IN\_ACRE land IN KG Kharif Upland 0.798 932.222 Mean Ν 63 63 Sum 50.247 58730.000 Medium 1.320 1180.169 Mean high 269 267 355.149 Sum 315105.000 Medium Mean 0.783 714.455 low Ν 101 101 Sum 79.082 72160.000 0.779 1061.757 Low Mean 112 111 87.272 117855.000 Sum 1040.314 Total 1.049 Mean 545 Ν 542 571.749 563850.000 Sum Rabi Upland Mean 0.151 351.667 Ν 19 18 Sum 2.860 6330.000 Medium 0.349 470.568 Mean high 44 44 15.345 20705.000 Sum

	Medium low	Mean	0.216	338.235
		N	32	34
		Sum	6.913	11500.000
	Low	Mean	0.190	338.182
		N	11	11
		Sum	2.093	3720.000
	Total	Mean	0.257	394.907
		N	106	107
		Sum	27.212	42255.000
Pre- kharif	Upland	Mean	0.172	113.333
		N	3	3
		Sum	0.517	340.000
	Medium high	Mean	0.167	357.500
		N	2	2
		Sum	0.333	715.000
	Medium low	Mean	0.183	260.000
		N	3	3
		Sum	0.550	780.000
	Total	Mean	0.175	229.375
		N	8	8
		Sum	1.400	1835.000

Season	Type of land		LAND_IN_ACRE	PRODUCTION IN KG
Total	Upland	Mean	0.631	778.571
		N	85	84
		Sum	53.623	65400.000
	Medium high	Mean	1.177	1075.160
		N	315	313
		Sum	370.828	336525.000
	Medium low	Mean	0.636	611.884
		N	136	138
		Sum	86.545	84440.000
	Low	Mean	0.727	996.516
		N	123	122
		Sum	89.365	121575.000
	Total	Mean	0.911	925.327
		N	659	657
		Sum	600.361	607940.000

Table 31 L	and type wise a	area & productio	n			
Season	Q Type of land	CROP_NAME	N	Area in Acres	Total production in Quintal	Yield Qnt. / Acre
Kharif	Upland	MUSTARD	1	0.67	10	15.00
		PADDY	22	23.07	535.4	23.21
		Total	23	23.74	545.4	22.98
	Medium high	PADDY	163	184.89	2181.98	11.80
		VEGETABLE	1	1.00	0.12	0.12
		Total	164	185.89	2182.1	11.74
	Medium low	PADDY	66	54.02	707.31	13.09
		Total	66	54.02	707.31	13.09
	Low	PADDY	42	35.07	586.2	16.72
		Total	42	35.07	586.2	16.72
	Total	MUSTARD	1	0.67	10	15.00
		PADDY	293	297.04	4010.89	13.50
		VEGETABLE	1	1.00	0.12	0.12
		Total	295	298.71	4021.01	13.46
Rabi	Upland	MUSTARD	1	0.20	0.36	1.80
		ONION	1	0.08	0.6	7.20
		POTATO	3	0.45	3.6	8.00
		VEGETABLE	10	1.08	18.9	17.45
		Total	15	1.82	23.46	12.91
	Medium high	MUSTARD	15	6.81	23.82	5.72
		ONION	2	0.18	3.12	17.66
		POTATO	8	0.64	18.4	28.75

	VEGETABLE	16	2.15	46.2	21.49
	Total	41	9.78	91.74	9.38
Medium					
low	MUSTARD	2	1.17	5.6	4.80
	VEGETABLE	1	0.50	22.5	45.00
	Total	3	1.67	28.1	16.86
Low	POTATO	1	0.10	2	20.00
	VEGETABLE	5	0.73	12.2	16.64
	Total	6	0.83	14.2	17.04
Total	MUSTARD	18	8.18	29.98	5.85

Table 31. Land type wise area & production								
Season	Q Type of land	CROP_NAME	N	Area in Acres	Total production in Quintal	Yield Qnt. / Acre		
		ONION	3	0.26	3.72	14.31		
		POTATO	12	1.19	24	20.17		
		VEGETABLE	32	4.47	99.8	22.34		
		Total	65	14.10	157.5	11.17		
Pre-								
kharif	Upland	VEGETABLE	1	0.07	0.15	2.25		
		Total	1	0.07	0.15	2.25		
	Medium high	VEGETABLE Total	8	0.64	19.8 19.8	31.02 31.02		
	Medium							
	low	VEGETABLE	1	0.04	0.2	4.62		
		Total	1	0.04	0.2	4.62		
	Low	PADDY	1	0.50	7	14.00		

		VEGETABLE	1	0.05	1.5	30.00
		Total	2	0.55	8.5	15.45
	Total	PADDY	1	0.50	7	14.00
		VEGETABLE	11	0.80	21.65	27.12
		Total	12	1.30	28.65	22.07
Total	Upland	MUSTARD	2	0.87	10.36	11.95
		ONION	1	0.08	0.6	7.20
		PADDY	22	23.07	535.4	23.21
		POTATO	3	0.45	3.6	8.00
		VEGETABLE	11	1.15	19.05	16.57
		Total	39	25.62	569.01	22.21
	Medium high	MUSTARD	15	5.81	24.02	4.13
		ONION	2	0.18	3.12	17.66
		PADDY	163	184.89	2181.98	11.80
		POTATO	8	0.64	18.4	28.75
		VEGETABLE	25	3.79	66.12	17.45
		Total	213	196.31	2293.64	11.68
	Medium low	MUSTARD	2	1.17	5.6	4.80
		PADDY	66	54.02	707.31	13.09
		VEGETABLE	2	0.54	22.7	41.78
		Total	70	55.73	735.61	13.20
	Low	PADDY	43	35.57	593.2	16.68
		POTATO	1	0.10	2	20.00
		VEGETABLE	6	0.78	13.7	17.49
		Total	50	36.45	608.9	16.71
	Total	MUSTARD	19	8.85	39.8	4.50

ONION	3	0.26	3.72	14.31
PADDY	294	297.54	4017.89	13.50
POTATO	12	1.19	24	20.17
VEGETABLE	44	6.27	121.57	19.40
Total	372	314.11	4207.16	13.39

Table 32 RISK/PROBLEM for cultivation	
	Frequency
BARSA HOBE KINA, JOLER AVAB, POKA ,SARER SAMOSA	1
BARSHA NA HOBAR JANYA FOSAL KOM HOACHE	2
BAZARE BIJ DHAN TIK MOTO PAOYA JAI NI	1
BESI BARNA HOA DHAN NASTA HOAGIACHILO	1
BESI BRISTIR FOLE FOSAL NASTA HOY JAY	1
BESI DAM, BISTI KOM BESI, POKA O LABOUR SAMOSA	1
BESI DAM, BISTIKOM, POKA,LABOUR SAMOSA	1
BESI JOL HOLE DHAN HOLE DHAN NOSTO HOBE	1
BESI KICHU DEI NA	1
BESIR VAG LABOUR BAIRE KAJE JAY FOLE CHAS HOY NA	1
BIG MARAGIYECHILO	1
BISTI HOBE KINA, BESI DAM SARER,BIJ O JOLER SAMOSA	1
BISTI HOBE KINA, JOLER SAMOSA, SARER SAMOSA	1
BISTI HOBE KINA,BESI DAM SARER, BIJ O JOLER SAMOSA	1
BISTIR JANNE CHASER SAMOSA	1
BRISTI BESI HOLE FOSAL HOY NA	1
BRISTI HOBE KINA TAR JHUKI, LABOUR SAMASYA	1
BRISTI NA HOLE FOSAL VALO HOBE NA	1
BRISTI NA HOLE FOSAL VALO HOBE NA, POKAR AKRAMON	1
BRISTIPATER OPAR NIRVARSHIL	1
DAM PABO KINA, POKA ROGER SAMASYA	1
DEPENDS UPON RAIN WATER	79
DHAN KATAR PORE LAGANO HOY FOLE SAMOY MOTO HOY NA	3
DHAN LAL HOAGIACHILO	1
FOLAN KOM POKA BESI	1
GACHER CHAYAR FOLE DHAN VALO HOY NA	1
GACHER CHAYAR JANNE, MATIR URBAR SOKTI KOM	1
HALER SAMOSA	1

JAL SECHER ABHAB	1
JALER SAMASYA	1
JAMI VALO NOY JOLER SAMASYA CHAS VALO HOYNI	1
JHARE FASOL NOSTO HOYE JAI	1
JOL NA THAKLE FOSAL HOBE NA	4
JOL THAKLE CHAS KARA HOY	1
JOL THAKLE DHAN HOY	1
JOL, POKAR SAMOSA	1
JOLAR SAMASYA, SARER DAM BESI	2
JOLER AVAB, POKA MAKARER SAMASYA	1
JOLER AVAB, POKAMAKOR SAMOSA	1
Table 32 RISK/PROBLEM for cultivation	
	Frequency
JOLER AVAB, POKAR SAMASYA	1
JOLER AVAB, SARER DAM COM	1
JOLER AVAB, SOMOYE LANGOL PAOYA JAI NA	1
JOLER KASTA O POKA BESI LAGAR JANYA FOSAL KOM HOY	1
JOLER SAMASYA	41
JOLER SAMASYA HOY	1
JOLER SAMASYA, DHANE DOSHA LAGE	1
JOLER SAMASYA, LABOUR SAMASYA	1
JOLER SAMASYA, POKAR AKRAMON	1
JOLER SAMASYA, SARER DAM BRIDHI	1
JOLER SAMASYA, SARER O BIJER AVAB	1
JOLER SAMASYA. SARER O BIJER AVAB	1
JOLER SAMOSA	10
Q11a. RISK/PROBLEM for cultivation	
	Frequency
JOLER SAMOSA, AGACHA , POKAR SAMOSA	1
JOLER SAMOSA, BISTI KOM HOLE CHAS HOBE NA	1

JOLER SAMOSA, POKA LAGE	1
JOLER SAMOSA, POKA MAKOR SAMOSA	1
JOLER SAMOSA, SARER SAMOSA	2
JOLER UPAR NIRVAR KORTE HOY	1
JOMI VALO NA	1
KHUB BESI BRISTIPAT NA HOLE DHAN HORE JAY	1
KOM BARSHA HOLE CHAS HOY NA	1
LABOUR PROBLEM, DHAN BIKRI SAMOSA	1
LABOURER DAM BESI	1
LABOURER SAMASYA	1
MATHI VALO NOY, JOLER SAMASYA	1
MATIR GUNO GATH MAN VALO NEI	1
MATITE JOL DHARER KHAMATA KOM	1
NO	7
NODI THEKE SECH KORTE BESI TAKA LAGE	1
PATHURE MATIR FOLE KONO FASOL HOY NA	1
POAKR AKROMON	2
POKA DHARECHE	1
POKA LAGA, JOL KOM	1
POKA LAGE	1
POKA LAGE, SITH KOME JAOYA	1
POKA MAKAR ROG SAMASYA	1
Table 32 RISK/PROBLEM for cultivation	
	Frequency
POKA O BRISTIR JHUKI	1
POKA ROGER SAMASYA	1
POKA, JOLER SAMASYA	2
POKAR SAMASYA	14
POKAR SAMOSA, JOL THAKE NA	1
POKAY NASTA KARECHE	4

ROG DHARECHILO	1
ROG LAGE	1
ROG POKAR AKRAMON, JOLER SAMASYA	1
ROG POKAR SAMASYA	1
ROGER SAMOSA, JOLER SAMOSA	1
SAMOY MATO BRISTI HOBE KINA, LABOUR, POKAR SAMASYA	1
SAMOY MATO BRISTI HOY NA, TAKAR SAMASYA	1
SAMOY MATO SAR, BIJ O SECHER AVABE CHAS VALO HOYNA	1
SARER DAM BESI	1
SARER DAM BESI JOLER AVAB HOY	1
SARER DAM BIRDHI	2
SARER DAM BRIDHI PEYECHILO	3
SARER DOBO BIDHI, LABOUR PAOYA JAI NA	1
SARER O JOLER SAMASYA	2
SECH SAMOY MOTO KORTE PARI NA FOLE VALO HOY NA	4
SECHER &TAKAR ABHABE CHAS BAS BHALO KORTE PARI NA	1
SECHER AVABE FOSAL VALO HOYNI	1
SECHER JOL NA HOLE DHAN HOBE NA	1
SECHER SAMASYA	1
SITH KOM HOLE POKA LAGE, JOLER SAMOSA	1
TAKAR AVAB	1
TAKAR AVAB, SAR DITE PARI NA	1
Q11a. RISK/PROBLEM for cultivation	
	Frequency
TAKAR AVAB, SARER DAM BESI	1
TAKAR AVABE SAMOY MOTO SAR DITE PARINA	1
TAKAR AVABE SAR DEYAO JAI NA	1
TAKAR AVABE SOMOY MOTO SAR DITE PARI NA	1
TAKAR JANYA SAR DITE PARE NI	1

VALO FOLAN HOY NA ANEK SAMOY	1
Total	276

Table 33 Cost of	cultivation			Cost Rs. / Acre	
		Item	Total Cost (Rs)	Acre	
Field crop	Purchase	FERTILISER	313385	997.69	
		FIELD PREPARATION	129410	411.99	
		IRRIGATION	20908	66.56	
		LABOUR	421250	1341.09	
		ORGANIC MANURE	5200	16.55	
		OTHER	4175	13.29	
		PESTICIDE	74791	238.10	
		SEED	105298	335.23	
		Total	1074417	3420.51	
	Own	FERTILISER	1900	6.05	
		FIELD PREPARATION	281240	895.36	
		IRRIGATION	18840	59.98	
		LABOUR	972530	3096.14	
		ORGANIC MANURE	227930	725.64	
		OTHER	11400	36.29	
		PESTICIDE	1030	3.28	
		SEED	104298	332.04	
		Total	1619168	5154.78	
	Total	FERTILISER	315285	1003.74	
		FIELD PREPARATION	410650	1307.34	
		IRRIGATION	39748	126.54	
		LABOUR	1393780	4437.24	
		ORGANIC MANURE	233130	742.19	
		OTHER	15575	49.58	
		PESTICIDE	75821	241.38	
		SEED	209596	667.27	
		Total	2693585	8575.29	

Table 34 Crop wise season wise sales								
SL. No.	Crop	Season	No. of HH	Total Quantity Kg	Total Amount (Rs)	Price Rs. per Kg		
1	JUTE	Rabi	1	260	2600.00	10.00		
		Pre-kharif	1	450	3600.00	8.00		
		Total	2	710	6200.00	8.73		
2	MUSTARD	Rabi	4	1420	48400.00	34.08		
		Total	4	1420	48400.00	34.08		
3	PADDY	Kharif	89	104134	1357862.00	13.04		
		Total	89	104134	1357862.00	13.04		
4	VEGETABLES	Kharif	7	970	10200.00	10.52		
		Rabi	48	9167	96034.00	10.48		
		Pre-kharif	15	3423	29500.00	8.62		
		Total	70	13560	135734.00	10.01		
5	Total	Kharif	96	105104	1368062.00	13.02		
		Rabi	53	10847	147034.00	13.56		
		Pre-kharif	16	3873	33100.00	8.55		
		Total	165	119824	1548196.00	12.92		

Table 35:Ov	Table 35 : Ownership of livestock											
	Big Small											
Animal		ousehold own Total number of animal Annual Income		Household own Total num		ımber of animal Annual		nual Income				
	N	%	Sum	Average	Sum	Average	N	%	Sum	Average	Sum	Average
Cow	83		144	1.73	70400	3200.00	71		104	1.46	0	0.00
Bull	122		259	2.12	47400	4309.09	7		11	1.57	0	0.00
Buffalo	17		36	2.12	6000	2000.00	1		2	2.00	0	0.00
Chicken	129		704	5.46	50250	1025.51	86		478	5.56	0	0.00
Duck	25		90	3.60	1800	600.00	4		26	6.50	0	0.00
Goat	92		291	3.16	137800	3062.22	52		122	2.35	0	0.00
Sheep	18		121	6.72	27500	2291.67	5		20	4.00	0	0.00
Pig	3		5	1.67	2000	2000.00	2		2	1.00	0	0.00
Hare	0		0	0.00	0	0.00	1		1	1.00	0	0.00

Table 36. Period of disease	
	N
12 MONTH	8
AGRAHAYAN	12
ASHAD	16
ASHAD, BHADRA	1
ASHWIN	11
BAISAKH	2
BAISHAK	10
BAISHAK TO CAITRA	1
BAISHAK TO CHAITRA	1
BAISHAK, CHAITRA	1
BHADRA	17
CHAITRA	39
FALGUN	19
JAISTHA	7
KARTIK	10
MAGH	32
MAGH TO CHAITRA	1
MAGH, CHAITRA	1
MAJE MAJE	1
POUSH	13
POUSH, MAGH	1
SHRAVAN	9
SHRAVAN TO KARTIK	1
Total	214

Table 37 Type of disease	
	N
COUGH,FEVER,WAIST PAIN	1
DENTAL PAIN	2
DIARRHOEA	20
DIARRHOEA & FEVER	1
DIARRHOEA & VOMITING	1
DISENTRY	2
DOG BITE	1
EAR PAIN	1
EYE PROBLEM	5
FEVER	29
FEVER & ABDOMAIN PAIN	1
FEVER & DISENTRY	2
FEVER & HEADACHE	3
FEVER, COLD AND COUGH	3
FEVER, DAIRRIYA	1
FEVER,COLD & COUGH	9
FILERIA	2
GATE GATE PAIN	1
GATE PAIN	1
HAND BROKEN	4
HARNIYA	2
HEADACHE	2

HEADACHE & WEAKNESS	1
HEADACHE, BURNING	1
SENSATION IN LEG	
HEART DISEASE	2
HIGH BLOOD PRESSUR	6
HIGH BLOOD PRESSURE	2
HYDROCIL	3
INJURY IN GATE	1
JAUNDICE	5
KNEE PAIN	1
LEG INJURY	2
LEG PAIN	2
LOW BLODD PRESSURE	1
LYGRATION	1
MENSTURATION	1
PROBLEM	1
MENTAL PROBLEM	9
NEURO PROBLEM	1
PAIN	1
PAIN IN BODY	1
PHENUMONIA	2
PRASAB PORE	1
STONE	1
STONE IN ABDOMAIN	1
STROKE	2
SUGAR	1
SUGAR, ASTHAMA	1
T.B.	1
TUMOUR	2
L	

TUMOUR IN ABDOMAIN	1
TYPHOID	5
WAIST PAIN	3
WEAKNESS	2
Total	215

Table 38. Where was the		
treatment done when ill		
	N	%
AYURVEDIC	2	
BIHAR	1	
ВРНС	14	
DIST HOSPITAL	1	
EROSHJURI HOSPITAL	1	
GOVT HOSPITAL	12	
GOVT. HOSPITAL	40	
HOMEOPATHY	6	
HOSPITAL	6	
HURA PHC	1	
KASHIPUR GOVT	1	
HOSPITAL	1	
KASIPUR	1	
MBBS DOCTOR	8	
MEDICAL SHOP	1	
PHC	2	
PRIMARI HEALTH CENTRE	1	
PRIVATE DOCTOR	32	
PRIVATE HOSPITAL	10	
PURULIA MENTAL	1	
HOSPITAL	1	
QUACK	64	
RMP	4	
SADAR HOSPITAL	1	
VILLAGE DOCTOR	5	
Total	215	

Table 39: Sources of Loan taken with purpose and average amount of loan taken									
		Number	of HHs		Average Amount				
					of loan (Rs)	Mortgage given	Percentage of HHs		
		From who	om						
	BANK	PRIVATE	SOCIETY	Total		No. of HHs			
Agriculture	3	7	21	31	12856	17	54.84		
Animal husbandry	0	0	0	0	0	0	0.00		
Dwelling	1	0	0	1	200000	1	100.00		
Health/illness	0	21	2	23	6796	2	8.70		
Education	0	1	0	1	800	0	0.00		
Social Function	0	2	0	2	12000	0	0.00		
Other	0	2	5	7	8571	1	14.29		
Total	4	33	28	65	12917	21	32.31		

Table 40 : Rate of interest paid on loan							
	Source	Rate	No of HHs				
Agriculture	BANK	5.67	3				
	PRIVATE	4.57	7				
	SOCIETY	7.00	20				
	Total	6.30	30				
Dwelling	BANK	5.00	1				
	Total	5.00	1				
Health/illness	PRIVATE	3.53	15				
	SOCIETY	18.50	2				
	Total	5.29	17				
Education	PRIVATE	0.00	1				
	Total	0.00	1				
Social Work	PRIVATE	0.00	1				
	Total	0.00	1				
Other	PRIVATE	2.50	2				
	SOCIETY	15.00	4				
	Total	10.83	6				
Total	BANK	5.50	4				
	PRIVATE	3.46	26				
	SOCIETY	9.12	26				
	Total	6.23	56				

Table 41: Number of Memb	ers receive y	vojana					
Name of yojana	Agriculture	Education	Health	Social security	Food Security	Other	Total
ADABASI BARDHAKYA BHATA	0	0	0	4	0	0	4
ANTYOYDAY ANNO YOJANA	0	0	0	0	10	0	10
BARDHAYAKA BHATA	0	0	0	17	0	0	17
BHAG CHASI OR BHUMI HIN KRISI SRAMIK DER JONNE BARDHYAKO BHATA	0	0	0	1	0	0	1
INDIRA ABAS YOJANA	0	0	0	2	0	0	2
ISOPOM	9	0	0	0	0	0	9
JANANI SURAKHYA YOJANA	0	0	7	0	0	0	7
JATIYA BARDHAKYO BHATA PROKOLPO	0	0	0	8	0	0	8
JATIYA BIDHABA BHATA PROKOLPO	0	0	0	1	0	0	1
KANYASHREE	0	0	0	0	0	1	1
KHUDIRAM BASU SWANIRVAR GROUP	1	0	0	0	0	0	1
M.L.A KOTA	1	0	0	0	0	0	1
MID DAY MEAL	0	75	0	0	0	0	75

PRATIBANDHI BHATA	0	0	0	1	0	0	1
RASTRIYA HEALTH BIMA YOJANA	0	0	14	0	0	0	14
SCHOOL DRESS/BOOK	0	88	0	0	0	0	88
STYPHEND	0	14	0	0	0	0	14
WIDOW PENSION	0	0	0	5	0	0	5
Total	11	177	21	39	10	1	259

Table 42	Climate Chang	Climate Change (Number of households)							
Tubic 42	Normal/Same	More	Less	In Time	Before Time	After Time	Erratic	On time	Tik
Quantum of rainfall	125	266	240	3	3	1	0	1	0
Rainy season	10	6	4	211	124	201	28	51	0
Cold	127	331	174	1	6	6	0	0	0
Winter season	15	20	20	162	139	222	23	37	0
Summer	7	71	12	196	290	75	9	6	0
Temparature	84	480	90	13	8	2	2	0	0
Lightning	127	312	172	2	3	6	9	0	0
Fogging	24	21	15	133	96	206	88	49	0
Fog	114	291	209	4	5	6	3	2	0
Storm	108	286	226	6	3	2	0	0	0
Hail storm	109	173	327	2	8	1	0	0	0
Cloudy sky	123	228	245	5	6	3	7	1	0
Drought	0	1	0	0	0	0	0	0	180

Table42	Climate Chang	Climate Change (Percentage of households)									
	Normal/Same	More	Less	In Time	Before Time	After Time	Erratic	On time	Tik		
Quantum of rainfall	10.02	21.31	19.23	0.24	0.24	0.08	0.00	0.08	0.00		
Rainy season	0.80	0.48	0.32	16.91	9.94	16.11	2.24	4.09	0.00		
Cold	10.18	26.52	13.94	0.08	0.48	0.48	0.00	0.00	0.00		
Winter season	1.20	1.60	1.60	12.98	11.14	17.79	1.84	2.96	0.00		
Summer	0.56	5.69	0.96	15.71	23.24	6.01	0.72	0.48	0.00		
Temperature	6.73	38.46	7.21	1.04	0.64	0.16	0.16	0.00	0.00		
Lightning	10.18	25.00	13.78	0.16	0.24	0.48	0.72	0.00	0.00		
Fogging	1.92	1.68	1.20	10.66	7.69	16.51	7.05	3.93	0.00		
Fog	9.13	23.32	16.75	0.32	0.40	0.48	0.24	0.16	0.00		

Storm	8.65	22.92	18.11	0.48	0.24	0.16	0.00	0.00	0.00
Hail storm	8.73	13.86	26.20	0.16	0.64	0.08	0.00	0.00	0.00
Cloudy sky	9.86	18.27	19.63	0.40	0.48	0.24	0.56	0.08	0.00
Drought	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	14.42