

A PROFILE OF BARPETA DISTRICT

For the purpose of the present study particularly, for obtaining data with which to empirically test the related hypotheses, Barpeta district has selected. It enjoys certain distinctive features with regard to socio-economic as well as climatic factors. The following are the main characteristic features of the district:

1. Situation

The Barpeta district of Assam is located between 26°5' and 26°51' North latitude and 90°38' East longitude. The district boundary is demarcated by Kamrup and Goalpara districts in the South, Nalbari district in the East, and Kokrajhar and Bongaigaon districts of Assam in the West, while Kingdom of Bhutan lies in the North. The district occupies a geographical area of 3245 sq. km. Land is characterized by almost plain topography with a gradual slope toward South. The altitude varies from 200 m in the north, along the foothills of Bhutan, upto 18 m from MSL along the riverine plains. Major parts of the district falls in the active flood zone.

2. Climate, Topography and Soil

Climate: Barpeta district falls within lower Brahmaputra valley (North-West) agro-climatic sub-zone, characterised with prevalence of tropical humid climate. The area experiences hot-summer followed by relatively prolonged rainy seasons with heavy rainfall. Winter months are relatively cooler and normally dry. Meteorological data relating to the district is shown in table 1.

Table 1. Meteorological Data Relating to Barpeta District

Months	Rainfall		Temperature °C		Relative humidity (%)	
	mm	No. of days	Max	Min	830 hr	1730 hr
Jan	19.4	3	27.8	8.8	87	67
Feb	30.0	6	28.3	10.3	80	54
Mar	123.8	10	35.8	12.3	75	56
Apr	156.4	17	35.9	17.7	74	62
May	164.9	18	38.1	19.5	74	68
Jun	348.8	22	36.8	22.8	85	80
Jul	199.8	19	37.3	24.0	82	76
Aug	317.8	21	37.0	24.0	84	82
Sep	28.2	10	35.7	21.4	79	79
Oct	141.5	7	33.8	17.8	85	81
Nov	6.6	3	30.3	12.4	85	77
Dec	Nil	-	26.6	9.0	88	74

Source: Meteorological observatory, Guwahati Airport, 2003

Topography : The topography of the district is generally plain but uneven. Only Baghbar hill is situated at Mondia Development Block, but foot hills of Baghbar hill is very low due to erosion of land by the mighty river Brahmaputra flowing through this district and its tributaries namely Beki, Manas, Polla, Pahumara, Kaldia and Tihu are also flowing through this district. The river Kaldia and Tihu meet with Pahumara river.

Soil : Soils in the district have been originated from the rocks of Archaen gneissic complex.

There are three major soil types.

They are :

(a) Younger Alluvial Soils: This type of soil is prevalent in the southern part, light textured (sandy loam) highly fertile, neutral in reaction (pH 6.8 to 7.2).

(b) Old Alluvial Soils: This type of soil is prevalent in the central zone extended towards north. It is medium textured and slightly acidic to neutral (pH 5.8 to 7.2).

(c) Mountain Valley Alluvial Soils: This type of soil is predominant in the northern parts along the foothills of Bhutan, extended towards south. Medium to heavy textured (Clayey) acidic in reaction (pH 4.5 to 5.8).

Population:

1. Total population	:	1642420
Male	:	846106 (51.53%)
Female	:	796314 (48.48%)
2. Rural population	:	1517280 (92.38%)
Urban population	:	125140 (7.62%)
3. Schedule Tribe	:	123266 (7.48%)
Male	:	61586
Female	:	61680
4. Schedule Caste	:	93861 (5.70%)
Male	:	48694
Female	:	45167
5. Total literate persons	:	769225 (46.83%)
Male	:	456870 (27.82%)
Female	:	312355 (19.01%)
6. Total Workers	:	517088 (31.48%)
Male	:	404737 (24.62%)
Female	:	112351 (6.84%)
7. Cultivators	:	209834 (12.77%)
Male	:	175155 (10.66%)
Female	:	34679 (2.11%)

8. Agricultural Labour : 81929 (4.99%)
 Male : 60311 (3.67%)
 Female : 21618 (1.31%)
9. Other Workers : 197890 (12.04%)
 Male : 158740 (9.66%)
 Female : 39150 (2.38%)
10. Density of Population : 506 per sq. km.
11. Sex ratio (Female per 1000 male) : 941

Source: Population Census, 2001.

N. B. Figures within parentheses are percentage of total population.

Land Use Pattern : In Barpeta district 65.96% of the total geographical area i.e., 2,14,042 hectare is cultivable of which 85.23% i.e., 1,82,445 ha is under cultivation. Percentage of land utilization is higher in Barpeta district than any other part of Assam. Table 2 shows the land utilization pattern in Barpeta district.

Table 2. Land Utilization Pattern

Sl. No.	Description	Unit	Value	Percentage of geographical area
1.	Geographical area.	Sq. km	3245	100.00
2.	Reporting area	Ha	322812	99.48
3.	Area under forest	Ha	57000	17.57
4.	Land put to non-agricultural use	Ha	19000	5.86
5.	Uncultivable land	Ha	32747	10.00
6.	Cultivable waste land	Ha	2000	0.62
7.	Fallow land	Ha	29597	9.12
8.	Net sown area	Ha	182,445	56.22
9.	Total cultivable land	Ha	214042	65.96

Source: Director of Economics & Statistics, Govt. of Assam.

Water Resources : Major parts of the district fall in the active flood zone. The whole district is having a shallow groundwater table. Besides a number of perennial rivers namely Tihu, Pahumara, Palla, Beki and Bhalukadoba, which have origins in Bhutan, flow through the district in the north-south direction to join the mighty river Brahmaputra. As per estimates of the Assam Remote Sensing Application Centre (ARSAC) water bodies formed by rivers cover 39,562 ha in the district. In addition to this there are 784 ha of water spread area locally known as beels. There are large number of ponds in the district which are being used for piscicultural purposes.

Economy : The economy of the district is basically agrarian. Agriculture is the mainstay of the people and therefore it is the largest enterprise. The district is poor in industrial development. Fishery, animal husbandry, and sericulture are among the subsidiary economic activities. The district represents the typical feature of the underdeveloped agrarian economy of the country with following characteristics :

- (i) almost subsistence level of farming;
- (ii) low revenue generation from land resource;
- (iii) lack of major industrial enterprises, excepting a few agro-based industries;
- (iv) high degree of unemployment and underemployment particularly among the rural youth;
- (v) high degree of poverty. It is estimated that more than 40 per cent of the population is living below the official poverty line.

Social Infrastructure : There are 5 hospitals, 36 primary health centres, 18 dispensaries, 9 rural family welfare planning centres and 351 sub-centres in the district. The district is also having 1841 L. P. School, 40 M. V. School, 356 M. E. Schools and Madrasah, 157 High School and High Madrasah, 41 Higher Secondary Schools, 29 Colleges, 01 D. I. E. T., 1 Normal School, 2 Basic Training School, 2 Teachers Training College for education. (Source : DEEO Office, Barpeta).

APPENDIX II

A PROFILE OF BLOCKS OF BARPETA DISTRICT

No. of households, population and literacy in different blocks in Barpeta I district as per 1991 census.

Name of Block No. of households. Population Literary

Male Female Total Male Female

Name of block	No. of households	Population			Literacy	
		Male	Female	Total	Male	Female
1. Jalah Dev.Block	23476	75018	72790	147808	37422 (49.88)	22231 (30.54)2
2. Bajali Dev.Block	18938	61280	59080	120360	40619 (66.28)	28950 (49.00)3
3. Gobardhana Dev. Block	26522	84242	77965	162207	30285 (35.95)	15626 (20.04)
4. Rupsi Dev.Block	26310	83588	78141	161729	29793 (35.64)	16873 (21.59)
5. Barpeta Dev.Block	27640	91708	85875	177583	38549 (42.03)	22380 (26.06)
6. Bhowanipur Dev.Block	25054	81632	75812	157444	33356 (40.06)	18672 (24.62)
7. Chenga Dev.Block	19972	68417	64335	132752	23028 (33.65)	13105 (20.36)
8. Mondia Dev.Block	34193	118117	110341	228458	28058 (23.75)	11006 (9.97)

Note: Figures in the brackets show percentage of literacy of male and female in each block. ,
 N.B.: Chachaka Dev. Block, Pukabetbari Dev. Block, Sarukhetri Dev. Block and Gumafulbari Dev. Block were formed after 1991 and hence data relating to total households, population and literacy in each block is not found in correct form.

Source: Rural Primary Census Abstract (P.C.A) 1991 D.C.'s Office (Dev. Branch) Barpeta.

APPENDIX III

A Profile of Circles in Barpeta District

Name of Circle	No. of Households	Total population	Male	Female	Schedule Caste	Male	Female	Schedule Tribe	Male	Female	Literacy	
											Male	Female
Barnagar	59657	323555	166746	156809	25315	13221	12094	27283	13641	13642	92218	63705
Kalgachia	24515	148199	77221	70978	381	199	182	0	0	0	30145	18954
Baghbar	48478	295402	152502	142900	5295	2722	2573	62	30	32	50274	26933
Barpeta	63081	356686	184072	172614	25955	13355	12580	1674	828	846	99881	70157
Bajali	18324	99540	50817	48723	7065	3569	3496	5746	2914	2832	41812	33402
Sarupeta	29891	163514	83884	79630	11171	5786	5385	33853	16905	16948	50824	34838
Jalah	17928	96337	48475	47862	1702	830	872	45379	22572	22807	33432	23688

Source : Census Report furnished by Development Branch, DC Office, Barpeta.

Note : Data relating to Chenga and Sarhabari Circles are not available separately.

APPENDIX IV A

A Profile of Survey Villages (Non-Tribal)

Name of Villages	No. of House-holds	Total population	Male	Female	Schedule Caste	Male	Female	Schedule Tribe	Male	Female	Literacy	Male	Female
Nichuka	1077	5784	2992	2792	151	81	70	0	0	0	1819	1136	683
Khoirabari	1686	9488	9463	4525	2314	1205	1109	0	0	0	3219	1863	1356
Gandharipara	561	3170	1676	1494	0	0	0	0	0	0	1327	795	532
Moutupri	201	1118	597	521	0	0	0	18	12	6	854	485	369
Mandiagaon	443	2522	1309	1213	442	218	224	0	0	0	1310	792	518
Anandapur	563	3342	1769	1573	0	0	0	0	0	0	1326	835	491

APPENDIX IV B

A Profile of survey villages (Tribal)

Name of Villages	No. of Households	Total population	Male	Female	Schedule Caste	Male	Female	Schedule Tribe	Male	Female	Literacy	Male	Female
Oxiguri	283	1632	804	828	0	0	0	1342	647	595	598	373	225
Labdanguri	317	1883	965	918	0	0	0	996	488	508	855	530	325
Majrabari	394	2080	1041	1039	197	100	97	1878	938	940	968	595	373
Pakrigurigain	407	2072	1066	1006	0	0	0	1022	511	507	942	582	360
Salbari	222	1160	610	550	197	100	97	786	408	378	626	404	222
Dhumarpathar	280	1630	809	826	0	0	0	1500	740	760	701	385	316

Source: Census Report (2001) furnished by Development Branch, D. C. Office, Barpeta.

APPENDIX V

Losses Caused by Plant Diseases

Sl. No.	Name of Crops	Name of Diseases	Probable Annual Loss %
1.	Paddy	Blast, leaf spot and root rot	10
2.	Wheat	Rust, Smuts, bunts	10
3.	Barley	Rust and Smut	5
4.	Jowar	Grain Smut	1
5.	Bajra	Green ear disease	1
6.	Gram	Blight and wilt	5
7.	Ragi	Smut	5
8.	Sugarcane	Red rot wilt and Cane Smut	10
9.	Groundnut	—————	—
10.	Cotton	Wilt and root rot	25
11.	Jute	Stem rot	5
12.	Sesamum	Wilt and other minor disease	1
13.	Rape and Mustard	—————	—
14.	Linseed	Rust and Wilt	10
15.	Tobacco	Virus disease	10

APPENDIX VI

Losses Caused by Pests

SL No.	Name of Crops	Name of Pest	Probable Annual Loss %.
1.	Paddy	Stem borer, Sucking insects, Green-hoppers	15
2.	Wheat	Termites, Stem borers, Sucking insects	3
3.	Barley	Sucking insects	3
4.	Jowar	Stem borer, Sucking insects	15
5.	Maize	Stem borer, Sucking insects	15
6.	Bajra	Do	10
7.	Gram	Leaf eating Cater Pillers	10
8.	Ragi	Stem borer, Sucking insects	10
9.	Sugarcane	Borers, Sucking insects	10
10.	Gronudnut	Leaf eating Cater pillers	10
11.	Cotton	Leaf eating Cater Pillers, Borer, Sucking insects	15
12.	Jute	Do	5
13.	Sesamum	Do	5
14.	Rape and Mustard	Sucking insects	10
15.	Linseed	Linseed fly	10
16.	Tobacco	Sucking insects	10

Source: Pesticide Association of India, 2001

APPENDIX VII

A List of Rural Markets

Dist. Barpeta

Sl. No.	Name of the Rural Market	Periodicity of Rural Markets		Regulated	Village Market
		Weekly/Biweekly/ Triweekly/Seasonal	Cattle Market		
1.	K.B. Paharpur Bazar	Weekly	-	-	Do
2.	Jadavpur Bazar	Weekly	-	-	Do
3.	Digirpam Charali (Naya Bazar)	Weekly	-	-	Do
4.	Palarpam (Sargaon)	Weekly	-	-	Do
5.	Gopalhat	Weekly	-	-	Do
6.	Manikpur Satrakara	Weekly	-	-	Do
7.	Manikpur	Weekly	-	-	Do
8.	Alirpam Bazar	Weekly	-	-	Do
9.	Baghbar hat	Weekly	-	-	Do
10.	Daharhat	Weekly	-	-	Do
11.	Jahanarpathar	Weekly	-	-	Do
12.	Moinbori hat	Weekly	-	-	Do
13.	Sonabori hat	Weekly	-	-	Do
14.	Balukuri	Weekly	-	-	Do
15.	Sikartari Tarakandi Bazar	Weekly	CattleMarket	-	Do
16.	Alupatima Bazar	Weekly	-	Regulated	Do
17.	Saysima Bazar	Weekly	-	-	Do
18.	Meghibartari	Weekly	-	-	Do
19.	Balikuri	Weekly	-	-	Do
20.	Janata Bazar	Weekly	-	-	Do
21.	Sarbasara Bazar	Weekly	CattleMarket	-	Do
22.	Janaribari Bazar	Weekly	-	-	Do
23.	Saurachara pathar	Weekly	-	-	
24.	Rabibhata Bazar	Weekly	-	-	Do
25.	Bartari Bazar	Weekly	-	-	Do
26.	Chakchaka Bazar	Biweekly	-	-	Do
27.	Bhalukadaba Bazar	Biweekly	-	-	Do
28.	Chandamari Bazar	Biweekly	-	-	Do
29.	Khandakarpara Bazar	Biweekly	-	-	Do
30.	Jaipur Bazar	Biweekly	CattleMarket	-	Do

31.	Garimari Bazar	Weekly	-	Regulated	Do
32.	Patnjagaon	Weekly	-	-	Do
33.	Saderi Bazar	Weekly	-	-	Do
34.	Denartari	Weekly	-	-	Do
35.	Dhumarkur Bazar	Weekly	-	-	Do
36.	Saparbari	Weekly	-	-	Do
37.	Barala	Weekly	-	-	Do
38.	Chaolabori Bazar	Weekly	-	-	Do
39.	Batua	Weekly	-	-	Do
40.	Bhalaguri Bazar	Weekly	-	-	Do
41.	Mahamaya Bazar	Weekly	Cattle Market	-	Do
42.	Bhola Bazar	Weekly	-	-	Do
43.	Bongachara	Weekly	Cattle Market	-	Do
44.	Chukringbari	Weekly	„	-	Do
45.	Bagariguri Pahar	Weekly	„	-	Do
46.	Bhangramari	Weekly	„	-	Do
47.	Kamargaon	Weekly	-	-	
48.	Chayakamar	Weekly	Cattle Market	-	Do
49.	Bhabari	Weekly	„	-	Do
50.	Kalpani	Weekly	„	-	Do
51.	Gobardhana	Weekly	„	-	Do
52.	Kaljar	Weekly	„	-	Do
53.	Khursabari Bazar	Weekly	„	-	Do
54.	Bilashipara Bazar	Weekly	„	-	Do
55.	Goagacha Bazar	Weekly	„	-	Do
56.	Gaduligaon hat	Weekly	-	-	Do
57.	Barpam hat	Weekly	-	-	Do
58.	Dangrigaon	Weekly	-	-	Do
59.	Nowbutakalindry Bazar	Weekly	-	-	Do
60.	Kadamtala garua	Weekly	-	-	Do
61.	Ghangpana nowsla hat	Weekly	-	-	Do
62.	Daodhora hat	Weekly	-	-	Do
63.	Kamndausha	Weekly	-	-	Do
64.	1 No. Rupahi hat	Weekly	-	-	Do
65.	Salbari Bazar	Weekly	-	-	Do
66.	2 No. Rupahi hat	Weekly	-	-	Do
67.	Barangabari Bazar	Weekly	-	-	Do

68.	Barbori Bazar	Weekly	-	-	Do
69.	Nagaon	Seasonal	-	-	Do
70.	Bagodi	Seasonal	-	-	Do
71.	Gahia	Seasonal	-	-	Do
72.	Sakirbhitha	Seasonal	-	-	Do
73.	Keotkuchi	Seasonal	-	-	Do
74.	Palhaji	Seasonal	-	-	Do
75.	Chilta Bazar	Seasonal	Cattle Market	-	Do
76.	Barbala Bazar	Seasonal	„	-	Do
77.	Sarthebari	Seasonal	-	-	Do
78.	Neularbhitha	Seasonal	-	-	Do
79.	Bongaon	Seasonal	-	-	Do
80.	Helona	Seasonal	-	-	Do
81.	Dubi	Seasonal	-	-	Do
82.	Raha	Seasonal	Cattle Market	-	Do
83.	Ghugulari Bazar	Seasonal	Cattle Market	-	Do
84.	Kalgachaya	Biweekly	-	-	Do
85.	Balapathar	Seasonal	-	-	Do
86.	Lachenga Bazar	Seasonal	-	-	Do
87.	Odalguri Bazar	Seasonal	-	-	Do
88.	Patacharkuchi	Biweekly	-	-	Do
89.	Kharadhara Bazar	Biweekly	Cattle Market	-	Do
90.	Nityananda	Biweekly	-	-	Do
91.	Jalah	Biweekly	-	-	Do
92.	Baghmara Bazar	Biweekly	-	-	Do
93.	Bahari hat	Weekly	-	-	Do
94.	Puthimari	Weekly	-	-	Do
95.	Palhaji	Weekly	-	-	Do
96.	Chaltia	Weekly	-	-	Do
97.	Ghungumari Bazar	Biweekly	-	-	Do
98.	Nangla Bazar	Biweekly	-	-	Do

Source: District Marketing Officer, Barpeta, Assam.

APPENDIX VIII

STATEWISE LEVEL OF BASIC INFRASTRUCTURAL ITEMS DURING 1993

State	Power		Irrigation		Transport		Fertilizer	Credit and Finance	Health		Marketing		Agri-culture Extensi-on	Agriculture Research
	Percent age of villages Electrified	share of agri in per centage	Irrigat ed area in per cent age	Number of tubewells per 100 hect	Road length per 100 sq kms in kms	Number of transport vchicle per 100 sq kms	Number of depot per 100 hect	Number of Rural banks per lakh populati on	Beds in Rural hospita l (per million popula tion)	Rural infant morali ty rate	Number of market (per 100sq kms)	Storage facility as percenta ge of total food grains prod	Worker Per Million Rural Populati on	Agricul tural Scientist Per Million Hect
Andhra Pradesh	100.0	40.25	38.5	13.6	53.3	73.10	1.11	5.15	72.7	88	2.9	33.0	97.0	152
Assam	89.0	2.34	21.1	0.1	33.6	104.70	2.02	4.15	140.0	111	2.2	15.8	140.0	180
Bihar	70.6	21.72	46.7	3.6	49.2	86.70	1.72	4.48	30.9	102	2.5	3.0	560	139
Gujarat	100.0	36.85	27.6	5.6	53.9	191.80	1.28	5.70	102.2	104	1.9	58.4	145.0	112
Haryana	100.0	49.53	75.6	11.5	60.0	167.10	1.78	5.30	34.0	91	6.5	27.9	143.0	459
Himachal Pradesh	100.0	2.76	17.9	0.7	45.9	28.80	6.13	12.38	108.7	90	0.7	3.3	218.0	1027
Jammu and Kashmir	95.0	10.16	42.8	0.5	5.9	49.10	2.74	8.31	53.6	86	0.8	6.8	298.0	68
Karnataka	100.0	36.37	20.3	8.2	67.7	69.00	1.07	6.94	86.0	82	3.5	12.2	173.0	460
Kerala	100.0	4.05	14.9	12.0	356.7	462.10	3.42	2.20	123.3	28	8.9	80.0	116.0	327
Madhya Pradesh	92.0	22.67	24.4	5.2	32.1	23.60	0.75	5.45	23.1	124	1.4	19.5	258.0	65
Maharashtra	100.0	25.20	13.7	9.8	73.0	90.60	1.22	4.75	142.3	73	2.7	32.0	130.0	137
Orissa	70.7	4.83	32.8	1.0	126.0	38.80	1.85	5.47	86.5	127	1.0	10.5	259.0	105
Punjab	100.0	44.27	93.3	15.7	107.8	196.40	1.95	7.21	233.5	71	13.2	54.5	293.0	241
Rajasthan	83.4	30.69	26.4	2.6	36.3	43.90	0.42	5.36	31.4	110	1.1	21.5	135.0	74
Tamil Nadu	100.0	25.50	46.4	2.7	152.3	201.45	3.40	4.93	127.7	93	2.3	20.0	135.0	204
Uttar Pradesh	75.4	39.30	65.6	4.1	69.2	55.21	3.72	4.54	21.8	140	2.2	13.6	24.0	150
West Bengal	75.8	6.96	35.8	1.8	70.0	243.00	6.80	4.19	146.8	75	2.4	14.5	45.0	90
All-India	84.0	28.20	35.2	7.0	62.1	108.66	1.81	4.23	96.8	105	2.4	21.4	95.4	155

Economic and Political Weekly march 27,1999

APPENDIX IX

QUESTIONNAIRE

Name of the Survey village :

J.L. (Mouza) No. :

Name of the Block :

Name of the P.S. :

1. Name of the respondent :

2. Father's name :

3. Age :

4. Educational Qualification :

(a) Special Qualification, if any :

5. Profile of household members :

a) No of members	b) Male	c) Female	d) Working members

6. Literacy :

Male		Female	
Age	Educational level	Age	Educational level

7. Land holding :

(a) Amount of owned land (in bighas) :

(b) Leased in land (in bighas) :

(c) Leased out land (in bighas) with reason :

8. Irrigation :

a) Land irrigated (in bighas) :

b) Unirrigated land (in bighas) :

c) sources of irrigation :

9. Have you adopted HYV seeds ?

a) Yes/No

b) If yes, fully or partially ?

c) If not, why ?

- i) Lack of irrigation
- ii) Lack of credit facilities
- iii) Due to high risk
- iv) Lack of knowledge/information
- v) Any other reason, specify

10. Do you use pesticides ? Yes/No.

: a) If yes, why ?

- i) For multiple crops ?
- ii) cost incurred per each crop season (Rs.) :

11. What type of Machineries/implements do you use ?

- a) Traditional / Modem/ Mix of traditional and Modem
- b) If only traditional, why ?
 - i) Modem implements unnecessary.
 - ii) Modem implements costly
 - iii) Lack of purchasing capacity .
 - iv) Lack of knowledge of application.
 - v) Any other reason implements.

12. No. of modem implements:

Tractor	Power tiller	Pumpsets	Threshers	Sprayers	Others

13. Expenditure on purchase of Machineries/Implements (Rs.)

Years	Rs.	Years	Rs.	Years	Rs.	Years	Rs.

14. Crops grown, production and asproductivity.

a) paddy (Aman, Boro, Aush), Wheat, Vegetables and other crops :

Name of crop	Variety		Quantity of land employed	Productivity (per bigha)	Total production	Prir/quintal
	Traditional	Modem				

15. Cropping Intensity :

a) No. of crops grown in a particular plot of land in a year, cropwise –

Aman	Aush	Boro	Vegetables	Wheat	Jute	Mustard	others

b) Do you practise Mixed Cropping? If yes, for which crops and in what seasons?

c) Cropping seasons of farmers. ,

i) Aman :

ii) Aush :

iii) Boro :

iv) Potato :

v) Cabbage

vi) Cauliflower :

vii) Mustard seeds :

viii) Others :

16. Credit facilities :

a) Do you require credit for production and marketing of produce ? Yes/No

b) If yes, how much for each agricultural crop season ? :

c) have you got any credit facility ? if yes, mention the sources :

Source	Formal	Informal	year	Amount	Rate of interest	Terms and conditions

d) If there is any additional information about the sources/availability of credit:

e) Whether the available credit from both sources adequate?

17. Marketing facility:

a) What type of marketing facilities are available ?

i) Hats

ii) Regulated Markets

iii) Daily local market

iv) Kutchha/ Pucca roads.

- v) Others, specify .
- b) Whether there is any cold storage nearby? Yes/No
- c) Whether present marketing network is satisfactory? If not, what more should be done?
18. Cost of production cropwise (Rs.) per bigha.
- a) Paddy
- b) Vegetables c) Jute
- d) Wheat
- e) Mustard seed
- f) Others, specify :
19. Risks involved in production and marketing
- a) Type of risks :
- b) Measures to avoid risks :
- (i) Personal (ii) Governmental
- c) Suggestions for Minimisation of risks :
20. supply of inputs :
- a) Sources of supply.
- i) governmental (ii) personal (Traders/Agents/Businessman).
- b) Whether supply is adequate? Yes/No
- c) Suggestions for improvement of supply of inputs.
21. Use of Labour :
- a) How much labour is required per day in each crop season :
- b) Whether demand for labour has increased or decreased after the adoption of new F Machines/Implements? Yes/ No.
- If yes, how much?
- c) Whether demand for labour increased or decreased due to the introduction of biological innovation, like HYV seeds, fertilizers, pesticides etc.
- d) How much the demand for labour has increased due to multiple cropping?
- e) Any other information.
22. Since when (specify the year)
- a) New implements/machines have been introduced?
- b) New biological innovations have been adopted?
- c) Advantage of use of new implements

d) Disadvantages, if any, of the new implements.

e) Advantages of use of new bio-technology

f) Disadvantages if any of the new biotechnology.

23. Whether gross/net income has increased due to the adoption of new technology.

24. Income :

From crop production	Business	Service	Other services	Total
----------------------	----------	---------	----------------	-------

25. Amount of fertilizer used for specific crop/ bigha (in kg).

	Urea	Potash	Nitrogen	Other manure	Org. manure
Aman					
Boro					
Cabbage					
Cauliflower					
Brinjal					
Chilly					
Other vegetable					
Mustard seeds					
Jute					
Wheat					
Others					

26. From where do you get the information about new technology ?

i) Input suppliers?

ii) Progressive favours?

iii) Govt. Agencies ? Specify .

iv) NGO's ?

v) Mass media ?

vi) Others? Specify.

27. Do you have to incur any cost for gathering information ? Yes/No.

28. Do you treat the available information credible ? Yes/ No.

29. Do you integrate indigenous knowledge and new information ? Yes/No 30. Do you have knowledge about your resource endowments ?

i) About soil fertility status

ii) Water quality

iii) Sustainability of agriculture with improved technology

iv) Soil Microbes

v) Others

31. Do you apply fertilizer based on soil testing ? Yes/No.

32. Do you apply Water Judging ?

33. Do you have the problems of ?

i) Soil erosion?

ii) Soil salinity

iii) Water logging ?

iv) The declining water table etc ?

