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TRIBAL AGRICULTURE IN THE PLAINS (A CASE STUDY)

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The district Birbhum is not agriculturally advanced, nor there has been any technological break-through in agriculture. Yet due to the development of infrastructure during the last decade, some improvement in agricultural enterprises, such as cultivation of high-yielding varieties crops, use of chemical fertilizers and improved seeds, have taken place in recent years. In fact, the district is considered to be the best performer in high-yielding varieties. In such an agricultural environment, tribal agriculture continues to suffer from some basic backwardness which is sought to be examined in this paper.

Considering their attachment to or dependence on agriculture and their number in the district, the impact of the tribals and district agriculture cannot be ignored. The scheduled tribes of the district of Birbhum account for 7.39 per cent of the total inhabitants of the district and the scheduled tribes of the district account for 5.20 per cent of the total scheduled tribes of West Bengal. Bolpur Police Station alone accounts for 17.64 per cent of the total tribal population of the district.

Among the scheduled tribes, Santals are the maximum in number in this district. In rural areas, they account for 87.51 per cent of the total rural scheduled tribes of the district. In Bolpur Police Station, the Santals account for 17.73 per cent of the district.

About 87 per cent of the tribal workers are engaged in the agricultural sector. The majority of the Santal workers or 89 per cent of them are also engaged in agricultural pursuits.

An attempt has been made in this paper to assess the particular problems faced by the tribes of the district in their agricultural enterprise. The method applied here is village study method and a Santal village in Bolpur Police Station where the Santals possess some land they cultivate, was surveyed in February-March, 1970. A brief introduction of the village under study will not be out of place here.

THE VILLAGE

The village Sarbanandapur falls under the jurisdiction of Bolpur Police Station in the Sadar sub-division of the district of Birbhum. The village is about

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References: The district figure was taken from the District Census Handbook (Birbhum), Census 1961 West Bengal, pp. 86-89.

The block average was taken from the Block Development Office, Bolpur-Sriniketan block, Birbhum.

five miles away from the Visva-Bharati University, Santiniketan and comes under Sriniketan block. The river Kopai flows on the southern part and an irrigation canal on the northern part of the village. The total number of households in the village is 58, most of whom have settled over generations. Out of 58 families, only 20 families have land under their direct possession, 7 families have no land at all and the rest 31 families are mixed type cultivators, *i.e.*, they possess some land and also cultivate other's land on share-cropping basis.

The population characteristic of the village shows that out of the total 321 persons, the distribution between males and females are 162 and 159 persons respectively. Among them 190 persons or 59.19 per cent are workers and the number of literate persons is 19 which constitute only 5.92 per cent of the total population.

The village is favourably placed in so far as irrigation facilities are concerned. Table I shows that out of a total operated area of 148.66 acres, 137.05 acres or more than 92 per cent of the cultivated area has irrigation facilities. The irrigated area of the block under which the village is situated is only 57 per cent of the total cultivated area. Size-groupwise distribution also shows that the proportion of irrigated area is more or less evenly distributed over all the size-groups.

TABLE I—AREA IRRIGATED BY SIZE-GROUPS

Size-group (acres)	(in acres)		
	Total operated area	Area irrigated	Percentage of irrigated area to total operated area
0.0—1.25	7.88	7.60	96.45
1.26—2.50	23.65	22.98	97.17
2.51—5.00	73.81	63.15	85.56
5.01—7.50	24.32	24.32	100.00
7.51—10.00	19.00	19.00	100.00
Total	148.66	137.05	92.19

In spite of such favourable factors as a wide range of irrigation facilities, proximity to the Block Development Office and a milieu of a developing enterprise, the agricultural performance of this tribal village does not reflect any encouraging feature.

THE STRUCTURE OF THE ECONOMY

Before examining some of the indicators of the levels of enterprise, an investigation into the structural set up of the village economy will not be irrelevant.

The distribution of operational holding by size-group (Table II) shows that 45 farms out of the total 51 cultivating farms fall below the viable economic hold-

ing, *i.e.*, 5 acres of land and these farms together operate almost 70.86 per cent of the total cultivated area of the village. It should also be noted in this connection that the leased-in land constitute almost 59 per cent of the total operated area which is undoubtedly very high and this proportion is highest in the size-group of 2.51—5.00 acres where the percentage of cultivating farms is also the highest.

TABLE II—DISTRIBUTION OF OPERATIONAL HOLDINGS BY SIZE-GROUPS

(in acres)

Size-group (acres)	No. of farms	Per cent	Operated area	Per cent	Leased-in area	Percentage of leased-in area to total operated area	Average size of holding
0.0 — 1.25	.. 11	21.57	7.88	5.30	1.33	16.88	0.72
1.26— 2.50	.. 14	27.45	23.65	15.91	9.33	39.45	1.69
2.51— 5.00	.. 20	39.22	73.81	49.65	52.98	71.78	3.69
5.01— 7.50	.. 4	7.84	24.32	16.36	16.99	69.86	6.08
7.51—10.00	.. 2	3.92	19.00	12.78	6.67	35.11	9.50
Total	.. 51	100.00	148.66	100.00	87.30	58.73	2.91

Side by side, it will also be seen from Table III that out of the 51 cultivating farms only 20 farms are those of purely land owning cultivators who constitute 39.22 per cent and the rest 60.78 per cent farmers are share-croppers which is also high compared to the block average of nearly 25-30 per cent. So it may be safely said here that the tribal cultivators of this area suffer badly from tenurial disincentives.

TABLE III—DISTRIBUTION OF CULTIVATING FAMILIES BY TYPES OF FARMING

(in acres)

Type of farming	No. of farms	Operated area	Per cent	Leased-in area	Per cent
Purely land owing cultivators	20	32.54	21.89	—	—
Mixed type cultivators	.. 18	79.46	53.45	50.64	58.00
Purely share-croppers	.. 13	36.66	24.66	36.66	42.00
Total	.. .. 51	148.66	100.00	87.30	100.00

Alongside tenurial disincentive, these farmers also suffer from size disincentive, which can be shown by analysing the land owning households by size-groups (Table IV). It is revealed that out of the total 38 land owning families, 33 families or almost 87 per cent of them possess 68 per cent the total owned land which falls below 5 acres, considered to be an economic agricultural holding.

TABLE IV—DISTRIBUTION OF OWNED LAND BY SIZE-GROUPS

(in acres)

Size-group (acres)	No. of families	Per cent	Land owned	Per cent
0·0 — 00	20	34·48	—	—
0·0 — 1·25	9	15·52	6·55	10·67
1·26— 2·50	10	17·24	14·32	23·34
2·51— 5·00	14	24·14	20·83	33·95
5·01— 7·50	3	5·17	7·33	11·95
7·51—10·00	2	3·45	12·33	20·09
Total	58	100·00	61·36	100·00

The size disability and tenure disincentive can also be seen from another table where size-groupwise distribution of occupational class is presented (Table V). The table reveals that out of the 51 cultivating families 25 families belong to the category of cultivators of land mainly or wholly unowned and out of this 25 households, 22 households have no economic holding, *i.e.*, their holdings are below 5 acres of land.

TABLE V—SIZE-GROUPWISE DISTRIBUTION OF OCCUPATIONAL CLASS

Size-group (acres)	Occupational class				
	Cultivators of land (number of farms)				
	Wholly owned	Mainly owned	Mainly unowned	Wholly unowned	Total number of farms
0·0 — 1·25	9(81·81) (45·00)	— —	— —	2(18·19) (15·38)	11(100·00) (21·57)
1·26— 2·50	7(50·00) (35·00)	3(21·43) (50·00)	—	4(28·57) (30·77)	14(100·00) (27·45)
2·51— 5·00	3(15·00) (15·00)	1(5·00) (16·67)	10(50·00) (83·33)	6 (30·00) (46·16)	20(100·00) (39·22)
5·01— 7·50	1(25·00) (5·00)	— —	2(50·00) (16·67)	1(25·00) (7·69)	4(100·00) (7·84)
7·51—10·00	—	2(100·00) (33·33)	— —	— —	2(100·00) (3·92)
Total	20(39·22) (100·00)	6(11·76) (100·00)	12(23·53) (100·00)	13(25·49) (100·00)	51(100·00) (100·00)

LEVEL OF ENTERPRISE

While more than 60 per cent of the cultivating tribes are share-croppers, their status need be examined in the context of agricultural production. Table VI shows that 16 cultivators out of the total 31 share-croppers, or in other words, more than 51 per cent of the share-cropping farmers get only 45 per cent of the total produce as their share, 5 farmers get one-third and only 10 farmers get 50 per cent of the produce as their share, although sharing of inputs and irrigation charges are 50 : 50.

TABLE VI—DISTRIBUTION OF SHARE-CROPPING FAMILIES BY SHARE OF PRODUCE

Size-group (acres)	Share 55:45	Share 66:34	Share 50:50	Total
0·0 — 1·25	3	—	—	3
1·26 — 2·50	2	1	4	7
2·51 — 5·00	9	1	6	16
5·01 — 7·50	—	3	—	3
7·51 — 10·00	2	—	—	2
Total	16(51·61)	5(16·13)	10(32·26)	31(100·00)

Because of their small holdings these cultivators suffer from imperfections of agricultural implements which also act as a deterrent to agricultural improvement. One pair of bullocks is essential for one ploughing unit. But it is seen from Table VII that nearly 40 per cent of the cultivators have no ploughing unit, that is to say, they have either one bullock or no bullock at all for cultivation purpose. These cultivators hire bullock from neighbouring villages in ploughing season on *baincha* system under which they have to pay 3 maunds of paddy for one bullock and 6 maunds of paddy for one pair of bullocks from whom they hire. This is one of the reasons for the very low intensity of cropping for the tribal village under study.

TABLE VII—DISTRIBUTION OF FARM FAMILIES HAVING ONE OR NO DRAUGHT CATTLE BY SIZE-GROUPS

Size-group (acres)	Number of total farm families	Number of farm families having imperfection of draught cattle	Per cent
0·0 — 1·25 ..	11	9	81·81
1·26 — 2·50 ..	14	4	28·57
2·51 — 5·00 ..	20	5	25·00
5·01 — 7·50 ..	4	2	50·00
7·51 — 10·00 ..	2	—	—
Total ..	51	20	39·21

Table VIII on cropping pattern reveals that paddy being the major crop commands almost 97 per cent of the total cropped area. The percentage of area under crops is very insignificant and the intensity of cropping for the village is only 102.86 which is very low compared to the intensity of the concerned block of 108.92. It is also seen that the small farmers (in the size-group 0.0—2.50) grow no other crops excepting paddy in their fields. It may be said here that the imperfection of ploughing unit debars these farmers from growing more crops as 13 farmers are included in the above mentioned size-group out of the total 20 farmers suffering from the imperfection of ploughing unit.

TABLE VIII—CROPPING PATTERN AND AREA UNDER DIFFERENT CROPS

Size-group (acres)								<i>(in acres)</i>	
	Paddy	Wheat	Potato	Pulses	Onion	Gram	Sugar-cane	Gross cropped area	Intensity of cropping
0.0 — 1.25	7.88	—	—	—	—	—	—	7.88	100.00
1.26— 2.50	23.65	—	—	—	—	—	—	23.65	100.00
2.51— 5.00	73.81	0.59	0.38	0.53	—	0.33	0.22	75.86	102.48
5.01— 7.50	24.32	0.66	0.61	—	0.18	—	0.62	26.39	105.96
7.51—10.00	19.00	0.50	0.30	0.18	—	—	0.25	20.23	105.16
Total	148.66 (96.53)	1.75 (1.14)	1.29 (0.84)	0.71 (0.46)	0.18 (0.12)	0.33 (0.21)	1.09 (0.71)	154.01 (100.00)	102.86 (—)

Note : Figures in brackets denote percentage area under each crop to the gross cropped area.

Now, if attention is focussed on the production side, first of all it will be seen from Table IX where per acre input and production of paddy by occupational group is presented, that the first group, *i.e.*, cultivators of land wholly owned is placed on the highest rung of the ladder of agricultural enterprise in all respects compared to the other occupational groups, if the cultivating households are classified according to Census occupational groups. While in general, per acre application of seed, manure, chemical fertilizer, etc., is very low, the figure of production of only 4 quintals per acre for the village is also very low particularly in the environment of the area where rapid agricultural development is taking place. For comparison, the block average of inputs and production per acre is presented here.

Seed (ordinary)	Manure	Chemical fertilizer	Production (ordinary variety)
15 kgs.	10.89 quintals	8.17 kgs.	6.1 quintals

It is also seen from Table IX that the agricultural performance of the first two groups, *i.e.*, cultivators of land wholly or mainly owned, is better in relation to the village average but the performance of the cultivators of land wholly or mainly unowned groups is very much discouraging.

TABLE IX—PER ACRE INPUTS AND PRODUCTION BY OCCUPATIONAL GROUPS

(in acres)

Occupational class			Owned land	Leased-in land	Total operated area	Irrigated area	Percentage of irrigated area to total cropped area	Seed per acre (kgs.)	Manure per acre (quintals)	Chemical fertilizer per acre (kgs.)	Oilcake per acre (kgs.)	Production per acre (quintals)
<u>Cultivators of land</u>												
Wholly owned	..	..	32.54	—	32.54	31.76	97.60	15.89	19.36	5.53	—	6.63
Mainly owned	..	..	20.99	18.99	39.98	39.98	100.00	13.98	9.55	1.38	—	4.48
Mainly unowned	..	..	7.83	31.65	39.48	32.65	82.70	11.68	5.22	0.51	1.01	2.91
Wholly unowned	..	..	—	36.66	36.66	32.66	89.09	9.33	12.55	1.64	0.55	2.28
Total	..	..	61.36	87.30	148.66	137.05	92.19	12.64	11.29	2.12	0.40	3.99

Seen in another perspective, the same picture emerges. A distinct relationship between production and tenancy system can be found out from Table X where size-groupwise distribution of inputs and production is presented. While the use of chemical fertilizers, manure, etc., is too low to have any impact on productivity it is seen from the table that performance of the first two size-groups as regards production is better compared to the other size-groups; in fact, these

TABLE X—INPUTS AND YIELD BY SIZE-GROUPS OF HOLDING

Size-group (acres)	Improved seed per acre	Ordinary seed per acre (kgs.)	Manure per acre (quintals)	Chemical fertilizer per acre (kgs.)	Oilcake per acre (kgs.)	Production per acre (quintals)
0·0 — 1·25	.. Nil	17·64	28·93	12·69	—	5·89
1·26— 2·50	.. Nil	16·15	20·63	2·33	—	5·16
2·51— 5·00	.. Nil	12·83	10·73	2·17	0·54	3·65
5·01— 7·50	.. Nil	4·56	2·06	—	0·82	2·63
7·51—10·00	.. Nil	15·79	6·32	—	—	4·80
Total	.. Nil	12·64	11·29	2·12	0·40	3·99

cultivators have produced more than the village average. This may be attributed to the fact that the cultivators of land wholly and mainly owned constitute 82 and 71 per cent respectively in these two size-groups, as is revealed from Table XI.

TABLE XI—DISTRIBUTION OF CULTIVATING FARMS BY OCCUPATION

Size-group (acres)	Number of total farms	Cultivators of land wholly or mainly owned	Cultivators of land wholly or mainly unowned
0·0 — 1·25	.. .. 11	9(81·81)	2(18·19)
1·26— 2·50	.. .. 14	10(71·43)	4(28·57)
2·51— 5·00	.. .. 20	4(20·00)	16(80·00)
5·01— 7·50	.. .. 4	1(25·00)	3(75·00)
7·51—10·00	.. .. 2	2(100·00)	—
Total	.. .. 51	26(50·98)	25(49·02)

THE URBAN IMPACT

While such is the condition of the tribes of the area, where the majority of them are share-croppers and where they are caught in the vicious circle of low production causing low income which again is the cause of almost no saving resulting in negligible investment, the tribes of the area are trapped by the professional moneylenders who are pushing them to destitution. Due to the proximity of the village to the growing town Bolpur where some rice mills are situated, and where the Santal female workers are engaged for a few months of the year and also because of its proximity to Santiniketan, the female population of the area have come under the impact of urban influence in respect of dress and other consumption habits. To maintain their changed habits, they take loan from any source at exorbitant rates of interest. In addition, the Santals spend lavishly for festivals and other social functions, irrespective of their income, for the large number of relatives, who generally assemble during such occasions. A look into their debt position will clearly reveal the pitiable condition of the Santals.

Table XII tells us that out of the 51 cultivating households, 45 households or more than 88 per cent of them are in debt and their total loans (cash and kind) per family comes to about Rs. 214 (outstanding at the time of the survey) and kind loans constitute more than 65 per cent of the total loan. Among the indebted families cultivators in the lower three size-groups (0.0—5.00) constitute more than 93 per cent.

TABLE XII—DISTRIBUTION OF HOUSEHOLDS BY SIZE-GROUPS AND INDEBTEDNESS

(in Rs.)

Size-group (acres)	Number of farms	Number of farms in debt	Loans per indebted family		Total loan per family	Kind loan as per- centage of total loan
			Cash	Kind		
0.0 — 1.25	.. 11	10(90.90) (22.22)	65.05	110.00	175.05	62.83
1.26— 2.50	.. 14	14(100.00) (31.12)	36.57	75.00	111.57	67.22
2.51— 5.00	.. 20	18(90.00) (40.00)	101.28	153.47	254.75	60.24
5.01— 7.50	.. 4	1(25.00) (2.22)	97.00	662.50	759.50	87.23
7.51 | 10.00	.. 2	2(100.00) (4.44)	130.00	350.00	480.00	72.92
Total	.. 51	45(88.23) (100.00)	74.28	139.44	213.72	65.25

Note : Figures in brackets denote percentages of farms in debt to the total.

TABLE XIII—DISTRIBUTION OF BORROWINGS BY SIZE-GROUPS AND SOURCE

(in Rs.)

Size-group (acres)	Government	Institutional	Village <i>Mahajan</i>	Co-villagers	Professional money-lenders	Total
0·0—1·25 ..	115·00 (6·57)	250·00 (14·28)	936·50 (53·50)	150·00 (8·57)	299·00 (17·08)	1,750·50 (100·00) (18·20)
1·26—2·50 ..	30·00 (1·92)	847·50 (54·26)	383·50 (24·55)	101·00 (6·47)	200·00 (12·80)	1,562·00 (100·00) (16·24)
2·51—5·00 ..	470·00 (10·25)	2,162·50 (47·16)	1,368·00 (29·83)	75·00 (1·64)	510·00 (11·12)	4,585·50 (100·00) (47·68)
5·01—7·50 ..	—	—	734·50 (96·71)	—	25·00 (3·39)	759·50 (100·00) (7·90)
7·51—10·00..	—	960·00 (100·00)	—	—	—	960·00 (100·00) (9·98)
Total ..	615·00 (6·39)	4,220·00 (43·88)	3,422·50 (35·59)	326·00 (3·39)	1,034·00 (10·75)	9,617·50 (100·00) (100·00)

Note : Figures in brackets denote percentages to the total borrowings.

Sourcewise distribution shows (Table XIII) that the village *Mahajans* and professional moneylenders together constitute almost 50 per cent and Government and institutional sources another 50 per cent. But the interest rate of the former group ranges from 50 per cent in the case of kind loan to 150 per cent in the case of cash loans. If the loans are not repaid in time, the interest will be charged at compound rate. Here again, it is also seen that the households of the lowest three size-groups together take more than 82 per cent of the total loan.

What emerges from the above analysis may now be summed up.

CONCLUSION

Though the tribes live in an area which is progressing in the agricultural enterprises due to improvement of infra-structure during the last decade, the agricultural enterprises of this weaker section do not reflect any encouraging feature. The main reason behind such failure may be ascribed to a high proportion of tenancy prevalent among the tribes and this, in fact, is the general feature of tribal agriculture in the area. Ownership of land among the tribes is almost negligible. Cultivated lands whatever they possess are of inferior quality and these are generally uplands.

As a large proportion of the tribes depend on share-cropping, there is no denial of the fact that many of them are constantly subjected to evictions. In fact, this problem is accentuated in recent times due to the political instability in the State and various abortive land reform measures. The tenurial conditions make the efforts of extension services and other development agencies ineffective after a certain limit. Sharing of produce also serve as a drag on production incentives.

While such is the agricultural condition of the tribes, the proximity of developing urban centres and the association of some tribal women with the rice mills have raised their level of living beyond their level of income. The result is high indebtedness among the community as has been observed earlier.

As the district is not at all industrially developed and as these urban centres cannot provide them with gainful employment even for a few months of the year, the problem of the tribes has to be solved within this framework.

SUGGESTION

To get redress of the economic backwardness of the tribes, a few suggestions may be made here for creating a situation congenial to agricultural development among the tribes.

First, there should be rigid implementation of the Act safeguarding the interests of the share-croppers.

Secondly, co-operative farming among the tribes may be sought to be introduced at least as an experimental measure for fuller utilization of cultivated

lands and also for consolidation of fragmented area. Social and economic homogeneity among the tribes makes for a better possibility of success of such an experiment.

Thirdly, for raising productivity, the extension services need to be reoriented. The supply of seed, manure, chemical fertilizer, etc., and agricultural and cattle purchase loans should be assured to them in times of need so that they may not fall a prey to the greed of the village *Mahajans* and professional moneylenders. More funds should be allocated for these weaker sections of our population to help them stand on their own footing of economic solvency. Together with these, effective demonstration on improved methods of cultivation should be set up in the tribal areas and attempts should be made to bring them out of their insular position.

Last but not the least, diversification of agriculture in the form of piggery and poultry on joint farming basis with adequate subsidy from the Block Development Office should be encouraged among the landless tribes for amelioration of their economic position.

THE TRIBAL AGRICULTURE OF 'BHOTIYAS' IN A NEW SETTING OF TARAI PLAINS

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The Background

The *Bhotiyas* are a migrant tribal community, living along the borderline of Uttarakhand in Uttar Pradesh and Western Tibet. The region is arctic in climate. It is a perpetually frozen desert and has a mean temperature of less than 10°C even during the hottest month. During winters, the temperature may fall to as low a level as -20°C.

“The *Bhotiyas* are a Mongolian race; originally they were the inhabitants of Tibet. Their personal appearance, language, religion, customs and traditions point to this. The *Bhotiyas*, however, settled in the Indian Union, centuries ago. They claim Indian origin and are treated as such.”¹

Agriculture in the Hill (Bhotiya) Region

The sub-Himalayan region of Uttarakhand and trans-Himalayan part of Tibet are regions of contrasted production. Tibet has wool, musk, borax, goats,

1. J. H. Batten : Official Reports in the Province of Kumaon, Government Publications Superintendent, Printing and Stationery, Allahabad, 1851, p. 83.