



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Vol XXVII  
No. 4

ISSN 0019-5014

CONFERENCE  
NUMBER

OCTOBER-  
DECEMBER  
1972

# INDIAN JOURNAL OF AGRICULTURAL ECONOMICS



INDIAN SOCIETY OF  
AGRICULTURAL ECONOMICS,  
BOMBAY

A RECENT CHANGE IN SAVING-INVESTMENT DIRECTION  
OF THE SMALL CULTIVATORS IN WEST BENGAL  
(CASE STUDIES IN HOOGHLY DISTRICT)

S. K. CHAKRAVORTY

*Agro-Economic Research Centre  
Visva-Bharati, Santiniketan*

Two opposite views are quite in vogue as to the extension of recent technological benefits to the small cultivators. One holds that only the big cultivators have reaped the benefits of new technology owing to the higher capital and risk contents in new technology and this has ultimately resulted in widening income disparities between the big and small cultivators.<sup>1</sup> The other view argues that the small cultivators are not, in general, deprived of the benefits of new technology<sup>2</sup> if they hold at least irrigated lands. The All-India Rural Credit Survey (AIRCS)<sup>3</sup> as well as the NSS data,<sup>4</sup> however, support the view that in respect of the irrigational facilities the small cultivators are not discriminated against.

OBJECTIVE

The objective of the present paper is to examine if the small cultivators of West Bengal with operated holdings below 5 acres—known to be chronically deficit class—, have derived any benefit during the last 20 years, out of the phenomenal price rise of the agricultural products, extension of irrigational facilities and introduction of new technology in agriculture resulting in the use of chemical fertilizers, hybrid seeds, pump-sets, pesticides, etc. In other words, the paper aims at examining if any change in the general economic condition of the small cultivators in West Bengal has taken place during the last two decades. In so doing we have to deal with the changes in their income, saving and investment levels during the current year.

THE DATA

The district Hooghly in West Bengal is marked for the predominance of small cultivators and hence to study the present condition of small cultivators in the State we have obtained our data from this district. Seventy-two small cultivators were studied in detail taking at random 9 cultivators (below 5 acres of holding) from each of eight villages in the whole district. The villages were investigated during November and December, 1970 in

---

1. Wolf Ladejinsky, "The Green Revolution in Punjab: A Field Trip," *Economic and Political Weekly*, Vol. IV, No. 26, Review of Agriculture, June 28, 1969; Clifton R. Wharton, Jr., "The Green Revolution: Cornucopia or Pandora's Box," *Foreign Affairs*, Vol. 47, No. 3, April, 1969.

2. B. Sen: "Opportunities in the Green Revolution," *Economic and Political Weekly*, Vol. V, No. 13, Review of Agriculture, March 28, 1970; Fourth Five-Year Plan 1969-74—Draft, Planning Commission, Government of India, 1969.

3. Report of the Committee of Direction—All-India Rural Credit Survey, Vol. I—The Survey Report, Part I (Rural Families), Reserve Bank of India, 1956.

4. B. Sen, *ibid.*

connection with the "Studies in the Problems of Marginal Farmers and Agricultural Labourers in the District of Hooghly, West Bengal (1970-71)" conducted by the Agro-Economic Research Centre, Santiniketan, West Bengal. Additional data on implements were collected by supplementary investigation. The mean of these 72 farmers, shown as average per household, roughly represents the current position of small cultivators in the district (although the figures are not estimates for the district).<sup>5</sup> To get a broad idea of change in some crucial aspects these averages have been compared with the corresponding data from the All-India Rural Credit Survey depicting conditions of small cultivators twenty years ago.

The All-India Rural Credit Survey gives estimates for two districts, namely, Burdwan and Midnapore adjacent to Hooghly district. Since no estimate for Hooghly district is available in the AIRCS we have used these data for a rough comparison with the present data from Hooghly leaving, however, sufficient allowance for inter-district differences. In AIRCS, the cultivators are classified into four categories of which the "small cultivators" are exactly comparable to our cultivators in respect of farm size. In some places data are given in respect of only "lower strata cultivators" with holding upto 10 acres and this has been specially mentioned when used.

## ASSET

The asset composition of the small cultivators has not much changed since the days of AIRCS. During this period the total asset value has, however, largely increased with the general shift in price level. Certain basic data about land holdings are given in Table I which reveal that the proportion of irrigated land is much higher than those of the small cultivators in

TABLE I—LAND BY IRRIGATION AND TENANCY

Sr. No.	Village						(acres)	
		Total operational holding	Owned land	Land taken as lease	Irrigated land	Upland used for double cropping		
(1)	(2)	(3)	(4)	(5)	(6)	(7)		
1.	Dudkalmi .. .. .	18.18	16.52	1.66	5.66	8.57		
2.	Pantra .. .. .	22.59	15.27	7.32	11.52	3.54		
3.	Kamarpukur .. .. .	23.27	11.42	11.85	2.81	3.76		
4.	Teghari .. .. .	18.10	9.51	8.59	15.72	6.51		
5.	Dihibatpur .. .. .	20.05	7.89	12.16	5.84	7.93		
6.	Purba Raipur .. .. .	24.15	11.80	12.35	7.07	7.36		
7.	Gopalpur .. .. .	21.03	20.03	1.00	21.03	5.21		
8.	Mandra .. .. .	21.28	18.73	2.55	21.28	6.58		
Total .. .. .		168.65	111.17	57.48	90.93	49.46		
Percentage distribution .. .. .		100.00	65.92	34.08	53.91	29.33		
Per household .. .. .		2.34	1.54	0.80	1.26	0.69		

5. Of the 15 villages selected by PPS method for Farm Management Studies, we picked up eight villages from three distinct regions so as to represent the overall condition of the district and from each village 9 cultivators below 5 acres of holding were selected for intensive investigation. Hence although the averages of these 72 cultivators are not formal estimates for the district they may be taken to be fairly representative.

the Rural Credit Survey. The extent of irrigated land as a percentage of the total land during 1951-52 was 27.4 in Burdwan and 24.2 in Midnapore district<sup>6</sup> and it was 53.9 per cent for Hooghly district in the year 1970. A little below one-third land of these small cultivators in Hooghly are upland suitable for double cropping and cash crops.

Table II presents the values of all assets other than land and buildings. Land has been shown separately and the house and buildings are omitted from the asset list as it was very difficult to assess their values mostly old and heterogeneous in structure. Assets such as gold, ornaments and other valuables though not totally omitted are obviously under-reported and no information regarding cash savings was at all available. Table IIA presents purchase and sale of land and livestock for the crop year 1969-70.<sup>7</sup>

TABLE II—VALUE OF ASSETS OTHER THAN LAND AND BUILDINGS

Sr. No.	Village	Milch cattle	Work stock	Agricultural implements		Durable consumer goods	Ornaments and other valuables	Total
				Traditional	Improved			
				(5)	(6)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Dudkalmi .. ..	1,042	2,650	549	—	2,420	336	6,997
2.	Pantra .. ..	990	1,900	483	—	2,285	750	6,408
3.	Kamarpukur .. ..	2,785	2,850	1,076	—	590	540	7,841
4.	Teghari .. ..	980	2,150	997	3,437	2,986	300	10,852
5.	Dihibatpur .. ..	945	1,550	894	1,200	1,389	475	6,453
6.	Purba Raipur .. ..	1,110	1,800	849	—	370	560	4,689
7.	Gopalpur .. ..	1,800	2,200	1,053	—	1,822	1,100	7,975
8.	Mandra .. ..	2,700	1,750	1,256	2,120	1,600	245	9,671
	Total .. ..	12,352	16,850	7,157	6,757	13,462	4,306	60,886
	Per household .. ..	171.55	234.03	99.40	93.85	186.97	59.80	845.63

TABLE IIA—SALE AND PURCHASE OF ASSETS : 1969-70

(value in Rs.)

Sr. No.	Village	Purchase			Sale		
		Land	Livestock	Total	Land	Livestock	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Dudkalmi .. ..	—	550	550	—	150	150
2.	Pantra .. ..	200	250	450	—	450	450
3.	Kamarpukur .. ..	—	300	300	800	530	1,330
4.	Teghari .. ..	1,050	315	1,365	—	352	352
5.	Dihibatpur .. ..	—	250	250	315	50	365
6.	Purba Raipur .. ..	—	250	250	—	110	110
7.	Gopalpur .. ..	—	645	645	—	270	270
8.	Mandra .. ..	1,800	250	2,050	450	320	770
	Total .. ..	3,050	2,810	5,860	1,565	2,232	3,797
	Per household .. ..	42.36	39.03	81.39	21.74	31.00	52.74

6. AIRCS Report, *op. cit.*, p. 44.

7. Although the amount spent on purchase of livestock exceeds sale proceeds it may not be a net addition to existing stock as the number of livestock did not appreciably change. Annual replacement of livestock being the common practice, the difference between sale and purchase values may indicate annual net depreciation of livestock.

## INCOME

Since the period of 1951-52 the farm income, in general, has largely increased partly due to physical increase of the farm product and partly due to price rise. The aggregate farm income in India, from the modest level of Rs. 3,830 crores in 1951-52 trebled itself by 1967-68.<sup>8</sup> But the specific problem that concerns us is the extension of these benefits to the smallest size-group of the cultivators. The all-India estimates in this respect, however, is not favourable to the small cultivators. The average (per household) farm income of the small farmers (upto 5 acres) constituted 40 per cent, 24 per cent and 7 per cent of the medium (5-10 acres), big (10-15 acres) and biggest farms (50 acres and above) respectively in 1951-52 and the corresponding figures were reduced to 40 per cent, 10 per cent and 3 per cent respectively in 1967-68.<sup>9</sup> But it must not be overlooked that the technological change in agriculture making its appearance in India since 1960-61 took several years to reach the eastern region, and upto 1967-68 its role in West Bengal was practically insignificant. Hence the all-India trends of farm income by size-groups, given above, does not necessarily indicate any guideline for the lot of small cultivators of West Bengal in 1970.

As a consequence of considerably higher content of irrigated land under these cultivators, the cropping intensity of land (1.43), use of improved seeds, chemical fertilizers, improved implements such as pump-sets, sprayers, etc., have considerably gone up (Table IV). These, reflected in high input cost per acre and per farm, represent, in general, an intensive nature of cultivation practised at present by the small cultivators of this area.

The district Hooghly being mostly in the potato zone, the cost on seed and hired labour is also very high. Table III, giving data on land utilization and crop pattern shows that the area devoted to HYV crops is not high even though sufficient irrigation is available. Among the various explanations for this low adoption of HYV, existence of alternatives, such as cash crops, appears most plausible. It has been seen that the income derived from cash crops is usually not much lower than the HYV foodgrains<sup>10</sup> and where cash crop is traditionally grown HYV foodgrains are slow to enter.

The present farm income (the value of gross farm receipts net of the current farm expenditure) and non-farm income of the selected small cultivators, given in Table V, reveal a phenomenal improvement over the AIRCS findings in 1951-52. In the year 1970 the average annual net farm income of the small farmers in Hooghly is about Rs. 2,000 per family or Rs. 88 per acre of operation. This may be compared with the "value of gross farm

8. Derived from Farm Management Studies of various States. See S. S. Madalgi, "Estimates of Farm Income in India, 1951-52 to 1967-68," *Economic and Political Weekly*, Vol. 5, No. 13, Review of Agriculture, March 28, 1970, p. A-25.

9. *ibid.*, p. A-25.

10. B. Sen, *op. cit.*, p. A-33.

TABLE III—UTILIZATION OF LAND-CROP PATTERN : 1969-70

(acres)

Sr. No.	Village	H Y V paddy and wheat	Cash crop (potato, vegetables, sugarcane, etc.)	Traditional paddy (Aus, Aman)	Others	Gross cropped area
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Dudkalmi .. .. .	—	10.25	12.73	—	22.98
2.	Pantra .. .. .	0.19	5.18	18.80	0.29	24.46
3.	Kamarpukur .. .. .	0.19	2.00	22.43	1.51	26.13
4.	Teghari .. .. .	3.39	14.98	10.89	—	29.26
5.	Dihibatpur .. .. .	3.30	14.07	11.02	5.31	33.70
6.	Purba Raipur .. .. .	3.99	12.25	21.67	3.96	41.87
7.	Gopalpur .. .. .	1.84	3.84	21.83	0.87	28.38
8.	Mandra .. .. .	1.59	11.94	21.42	—	34.95
Total .. .. .		14.49	74.51	140.79	11.94	241.73
Percentage distribution .. .. .		5.99	30.82	58.24	4.94	100.00
Crop intensity .. .. .						1.43

TABLE IV—COST OF CULTIVATION (ALL CROPS) : 1969-70

(Rupees)

Sr. No.	Village	Seed	Traditional manure	Chemical fertilizer	Hired labour	Irrigation	Pesticides	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Dudkalmi .. .. .	2,151	261	782	870	63	51	4,178
2.	Pantra .. .. .	1,255	1,221	496	1,233	375	37	4,617
3.	Kamarpukur .. .. .	980	607	387	1,065	—	—	3,039
4.	Teghari .. .. .	4,276	2,030	1,968	3,064	108	669	12,115
5.	Dihibatpur .. .. .	3,759	417	2,707	2,246	109	112	9,350
6.	Purba Raipur .. .. .	4,039	540	1,263	1,507	133	100	7,582
7.	Gopalpur .. .. .	2,255	767	1,133	2,345	67	76	6,643
8.	Mandra .. .. .	3,684	2,920	1,185	3,380	15	105	11,289
Total .. .. .		2,2399	8,763	9,921	15,710	870	1,150	58,813
Percentage distribution .. .. .		38.09	14.90	16.87	26.71	1.48	1.95	100.00
Per household .. .. .		311.09	121.71	137.79	218.19	12.08	15.97	816.85

TABLE V—FARM INCOME : 1969-70

		(Rupees)						
Sr. No.	Village	Gross farm receipt	Rent paid to land owners	Current cost of cultivation	Net farm receipt	Non-farm income (total)	Total income	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Dudkalmi .. ..	21,411	804	4,178	16,459	13,510	29,968	
2.	Pantra .. ..	18,680	2,365	4,617	11,698	8,845	20,543	
3.	Kamarpukur .. ..	22,217	5,479	3,039	13,699	5,319	19,018	
4.	Teghari .. ..	33,873	8,161	12,115	13,597	9,790	23,387	
5.	Dihibatpur .. ..	35,965	1,0637	9,350	15,976	5,397	21,373	
6.	Purba Raipur .. ..	39,367	10,422	7,582	20,963	6,999	27,962	
7.	Gopalpur .. ..	29,080	430	6,643	22,007	8,884	30,891	
8.	Mandra .. ..	40,770	1,755	11,289	27,726	13,423	41,149	
Total .. ..		2,41,363	40,053	58,813	1,42,497	72,167	2,14,664	
Percentage distribution ..		100.00	16.59	24.37	59.04	—	—	
Per household .. ..		3,352	556	817	1,979	1,002	2,981	

receipt for lower strata cultivators” which was Rs. 197 and Rs. 451 for Burdwan and Midnapore districts respectively in the year 1951-52.<sup>11</sup> The “lower strata cultivators” in AIRCS being small cultivators upto 10 acres, their income should naturally be higher than the specific “small cultivators” under our study. Even making allowance for the steep price rise, the large increase in farm income even at constant price is self-evident.

#### SAVING

The long run effect of income change on the general economic condition of the household and the future potentialities of its sustenance should be reflected in the saving-investment aspect of the households which is, however, less sensitive to income change than current consumption and as such, it deserves a closer attention. This part of the paper is devoted only to the saving-investment aspect of the households under study.

The concept of saving is much difficult to define and more so to measure. According to the AIRCS : “The only way to measure savings of a household, as distinct from a business enterprise, is to have estimates of its total receipts and its total expenditure on current consumption account. The differences between the two would represent savings of the household and these savings may either be utilized directly for capital formation by the household or be lent by it to others for current consumption or capital uses.”<sup>12</sup>

11. AIRCS Report, *op. cit.*, p. 139.

12. AIRCS Report, *op. cit.*, p. 730.



Savings should also be clearly distinguished from capital formation which may be financed from the individual's own savings or through borrowings from others or by subsidies or other types of transfers. An individual may use the savings himself for productive investment and addition to capital assets or for acquisition of durable consumer goods and residential buildings or he may lend it to others for immediate consumption and yet be termed savings from the standpoint of the lending individuals. The AIRCS used gross saving concept<sup>13</sup> as their emphasis was more on the pattern than the level of savings.

The gross saving concept as used in the AIRCS was measured through expenditure approach. Their gross saving account includes actual expenditure during the year on items such as purchase of land and livestock, capital expenditure on agricultural implements and other capital expenditure on farm or non-farm business, expenditure on durable consumption goods, repairing and construction of houses, repayment of old debts, etc. But we feel that gross savings calculated in this fashion fail to represent any change in the basic economic condition of the household. When change-study is the motive, addition to liabilities and the liquidation of assets must as well be taken into consideration. The gross savings net of current borrowings or dis-savings and sale of assets give a close approximation to net saving. By using the same expenditure approach we have intended to arrive at the net saving and so we have tried to account for all the available data including borrowings and sale of assets. Some items of saving including cash, ornaments, etc., have been omitted obviously due to the non-availability of data. Similarly, data for lending to others are not available whereas borrowing data are fairly complete. It may, however, be assumed that lending may not be an important item to the small cultivators and hence may be safely omitted.

As we have used borrowings to calculate the net savings a few particulars about current borrowings should be pointed out. Along with the old debts Table VI presents the amounts of current borrowings by purposes, as on November, 1970. Although the capital expenditure from current borrowings has not much increased, the current farm expenditure has utilized more than half of the total borrowings which indicates a major departure from the old position. Similarly, current consumption expenditure is reduced from three-fourths to nearly one-third of the total.

Current borrowings	AIRCS findings 1951-52		Present findings 1970
	Burdwan	Midnapore	Hooghly
1. Average amount of current borrowings per household (Rs.) .. .. .	117	83	200
2. Percentage of total current borrowings utilized for			
(a) capital expenditure on farm .. .. .	13.7	18.9	19.4
(b) current farm expenditure .. .. .	1.8	0.5	52.3
(c) current family consumption .. .. .	71.0	75.5	35.9

13. AIRCS Report, *op. cit.*, p. 731.

The amount of current borrowings per household has almost doubled in absolute term and this coupled with the changed utilization pattern indicates a predominance of production motive instead of the traditional consumption motive in the general purpose of borrowings by the small cultivators.

TABLE VI—OUTSTANDING DEBTS AND CURRENT BORROWINGS : 1969-70

Sr. No.	Village	Total liabilities	Old debt	Current borrowings (total)	Current borrowings by purpose			
					Current consumption expenditure	Current farm expenditure	Non-farm business expenditure	Capital expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Dudkalmi .. ..	6,960	4,760	2,200	600	1,600	—	—
2.	Pantra .. ..	7,370	5,920	1,450	800	300	300	50
3.	Kamarpukur ..	4,895	3,525	1,370	1,370	—	—	—
4.	Teghari .. ..	6,967	4,047	2,940	600	2,340	—	—
5.	Dihibatpur ..	5,476	3,526	1,950	300	450	—	1,200
6.	Purba Raipur ..	4,152	1,002	3,150	350	2,650	—	150
7.	Gopalpur .. ..	8,474	7,526	948	748	200	—	—
8.	Mandra .. ..	2,342	1,942	400	400	—	—	—
Total .. ..		46,656	32,248	14,408	5,168	7,540	300	1,400
Per household ..		648.00	447.89	200.11	71.78	104.72	4.17	19.44
Percentage distribution of current borrowings		—	—	100.00	35.87	52.53	2.08	9.62
Percentage distribution of total liabilities ..		100.00	69.12	30.88	—	—	—	—

It has been noted earlier that the AIRCS used only the concept of gross saving and hence no idea of net saving is available to compare. Table VII presents all the available items of savings, financial disbursements and liabilities that took effect during the year. From these data the level of gross savings, as per the AIRCS definition (capital sale and new liabilities not considered), amounted to Rs. 318 per household which favourably compare with the corresponding figures<sup>14</sup> in AIRCS of Rs. 92 and Rs. 139 “for the lower strata cultivators” of Burdwan and Midnapore respectively. But the net savings of the same households by taking into account the sale of assets and new liabilities amounted to Rs. 65 per household. Here, however, depreciation is omitted all through. If the non-available items of saving are added and depreciation of assets is accounted for, the net saving can still reasonably be expected to remain positive, at least.

14. *op. cit.* p. 758.

TABLE VII—SAVING ACCOUNTS OF HOUSEHOLDS : 1969-70  
(ACTUAL EXPENDITURE DURING THE YEAR)

Sr. No.	Village	Net of	Expen-	Expendi-	Expen-	Repair-	Repay-	Current	Total
		sale and purchase of land and live-stock	diture on agricultural implements	ture on land develop-ment	diture on durable con-sumer goods	ing and con-struction of houses	ment of old debts	borrow-ings	
		(+)	(+)	(+)	(+)	(+)	(+)	(-)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Dudkalmi ..	400	48	—	440	220	690	2,200	— 402
2.	Pantra ..	—	72	200	380	360	800	1,450	362
3.	Kamarpukur ..	-1,030	66	—	58	600	480	1,370	-1,196
4.	Teghari ..	1,013	3,000	650	280	288	950	2,940	3,241
5.	Dihibatpur ..	-115	800	300	196	300	1,160	1,950	691
6.	Purba Raipur ..	140	40	—	80	48	750	3,150	-2,092
7.	Gopalpur ..	375	70	120	257	504	175	948	553
8.	Mandra ..	1,280	1,800	—	332	166	350	400	3,528
Total .. ..		2,063	5,896	1,270	2,023	2,486	5,355	14,408	4,685
Per household ..		28.65	81.89	17.64	28.10	34.53	74.37	200.11	65.07

## INVESTMENT

The other important finding of the present work is to arrive at, contrary to AIRCS, a positive rate of net investment—the depreciation of capital assets, however, being again ignored.

Investment by an individual in a particular period is taken to indicate in general, an addition to capital assets, *i.e.*, expenditure of the funds in the production of capital goods. The source of the fund need not necessarily be an individual's own savings—rather capital investment by borrowed funds is quite a common practice in agriculture. While saving constitutes of asset formation of all kinds, plus repayment and money lent out, minus amount borrowed, gross investment concerns only with the addition to capital assets to be used in production, either from the own savings or from borrowed money.

“Capital investment of enterprises may be defined as the expenditure on machinery, equipment, buildings and other construction works, etc. . . . . Measured in this fashion, capital investment is related to increases in productive capacity of enterprises in general.” Similarly, net investment will “represent the expenditure on items of capital nature made by an individual household during the year as well as the change in its position of outstanding debt.”<sup>15</sup>

Table VIII presents the gross and net investment figures of the cultivators under study. The gross investment which represents capital expenditure on land and other productive means amounts to Rs. 162.71 per family and the

TABLE VIII—VALUE OF GROSS AND NET INVESTMENT: 1969-70  
CAPITAL EXPENDITURE ON FARM

		<i>(Rupees)</i>				
Sr. No.	Village	Net of sale and purchase of land and live-stock	Addition to expenditure on agricultural implements	Expenditure on land development	Repairing and construction of houses	Change in debt (current borrowing—repayment)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Dudkalmi .. .. .	400	48	—	220	1,510
2.	Pantra .. .. .	—	72	200	360	650
3.	Kamarpukur .. .. .	—1,030	66	—	600	890
4.	Teghari .. .. .	1,013	3,000	650	288	1,990
5.	Dihibatpur .. .. .	—115	800	300	300	790
6.	Purba Raipur .. .. .	140	40	—	48	2,400
7.	Gopalpur .. .. .	375	70	120	504	773
8.	Mandra .. .. .	1,280	1,800	—	166	50
Total .. .. .		2,063	5,896	1,270	2,486	9,053
Per household .. .. .		28.65	81.89	17.64	34.53	125.7

Gross investment per household = 162.71.

Net investment per household = 36.98.

net investment by making allowance for the sale of capital assets and change in outstanding debt amounted to Rs. 36.98. The comparative position given below indicates large improvements in respect of net investment as the chronically net negative investment has turned to be positive.

15. AIRCS Report, *op. cit.* p. 763.

	AIRCS findings 1951-52		Present findings 1970
	Burdwan	Midnapore	Hooghly
1. Total gross investment (per family) (Rs.) .. ..	102	97	163
2. Net investment (per family) (Rs.) .. ..	-38	-7	+37

#### CONCLUSION

Now, considering all the points together it appears that even the small cultivators with operational holdings below 5 acres may stand viable with positive saving and net investment provided sufficient market orientation and irrigational facilities are extended to them. The impact of market orientation coupled with irrigational facilities helped to raise the cropping intensity and introduction of chemical fertilizers and improved implements in small doses which resulted in increased farm income. Then with increasing farm expenditure and declining deficit for consumption needs the entire character of borrowings by the small farmers gradually changed to a production motive from the traditional consumption motive and this ultimately helped the net saving and investment to change direction from the traditional negative to positive side.

The above observations are, however, subjected to several qualifications:

(1) The straight mean from 72 observations might have failed to represent the actual position. The inter-village as well as inter-farmer distribution of any attribute being highly skewed the arithmetic mean may not be significant or very meaningful.

(2) The findings from Hooghly which is a prosperous area lying close to the industrial zone with high market orientation may not be equally true for the remote and interior regions. But since we have tried to examine the process—under what condition the small cultivators may turn to be viable—, this limitation does not seriously stand in the way.

(3) Small farmers (0.01—5.00 acres) taken in a single lump might conceal many facts of still smaller class (0.01—2.50 acres).<sup>16</sup> But we have taken the conventional definition of small farmers (0.01—5.00 acres) for easy comparison with other studies.

(4) The high degree of inflation in the period following 1951-52 makes comparison difficult in terms of absolute amounts. But we have tried to overcome the difficulty by emphasizing the change in direction and not in amounts.

16. *Vide*, Study on the Marginal Farmers and Landless Agricultural Labourers in the District of Hooghly, West Bengal (1970-71), Agro-Economic Research Centre, Santiniketan, 1971 (mimeo).