

WORLD BANK AND AGRARIAN CRISIS IN PUNJAB

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Main Issues

- World bank and Indian Agriculture.
- Agrarian economy of Punjab.
 - Growth in productivity of different crops in Punjab.
 - Declining Income from Rice, Wheat and Cotton.
- Indebtedness among Punjab farmers.
- Suicides in Rural Punjab.
- De-peasantisation in Punjab.

World Bank Funded Projects in India

Projects	Period	Amount (Million US \$)
Seeds	1969 to 1988	204
Chemical Fertilizers	1971 to 1986	1337
Agricultural Machinery	1970	6
Food Storage System	1970's	112
Special Products	1976 to 1992	820
Agricultural Research & Education	1978 to 1995	138
Agricultural Extension	1978 to 1998	328

Distribution of Workforce in Punjab (%)

Years	Cultivators	Agril. Workers	Industrial Workers	Services & Others	Total
1971	42.56	20.10	11.30	26.04	100
1981	35.86	22.16	13.16	28.82	100
1991	31.45	23.81	12.28	32.46	100
2001	22.96	16.40	8.41	52.23	100

Structural Change in Gross State Domestic Product in Punjab (%)

Years	Primary Sector	Secondary Sector	Tertiary Sector	Total
1970-71	55.11	18.09	26.80	100
1980-81	49.45	19.76	30.79	100
1990-91	48.33	22.46	29.21	100
2000-01	36.62	23.12	40.26	100
2004-05	33.97	23.16	42.87	100
2005-06	33.06	23.38	43.56	100

Distribution of Operational Holdings in Punjab (%)

Farm Size (Hectare)	1970-71	1980-81	1990-91	2000-01
Marginal & Small (< 2)	56.54	38.62	44.73	29.70
Semi-Medium (2-4)	20.44	27.99	25.85	32.90
Medium (4-10)	18.02	26.20	23.41	30.20
Large (> 10)	5.00	7.19	6.01	7.20
Total	100	100	100	100
Average Size	4.07	3.79	3.61	3.19

Growth in productivity of different crops in Punjab

Crop	Yield (kg/ha)		CGR			
	TE 1968	TE 2005	1965/66 to 1979/80	1979/80 to 1989/90	1989/90 to 1999/00	1989/90 to 2004/05
Wheat	1542	4209	4.15s	2.89s	2.06s	1.28
Rice	1169	3716	7.69s	1.74s	-0.28ns	0.65
Cotton (lint)	339	575	0.83	7.0s	- 9.11s	-1.33

CGR: Compared growth rate

Declining Income from Rice

Fig. 5.2.1.1 Net income from rice cultivation

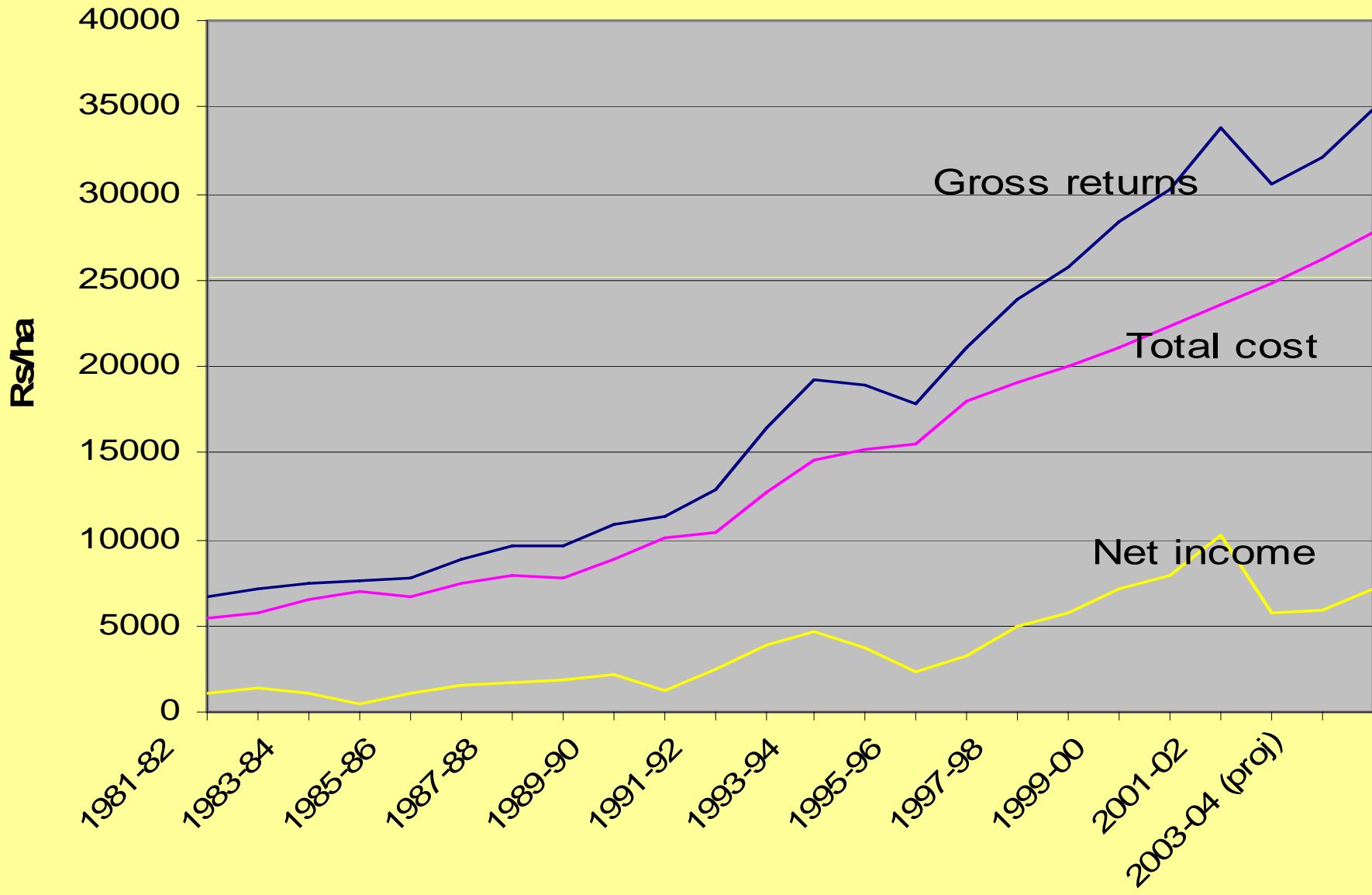


Fig. 5.2.1.2: Rice- Real net income

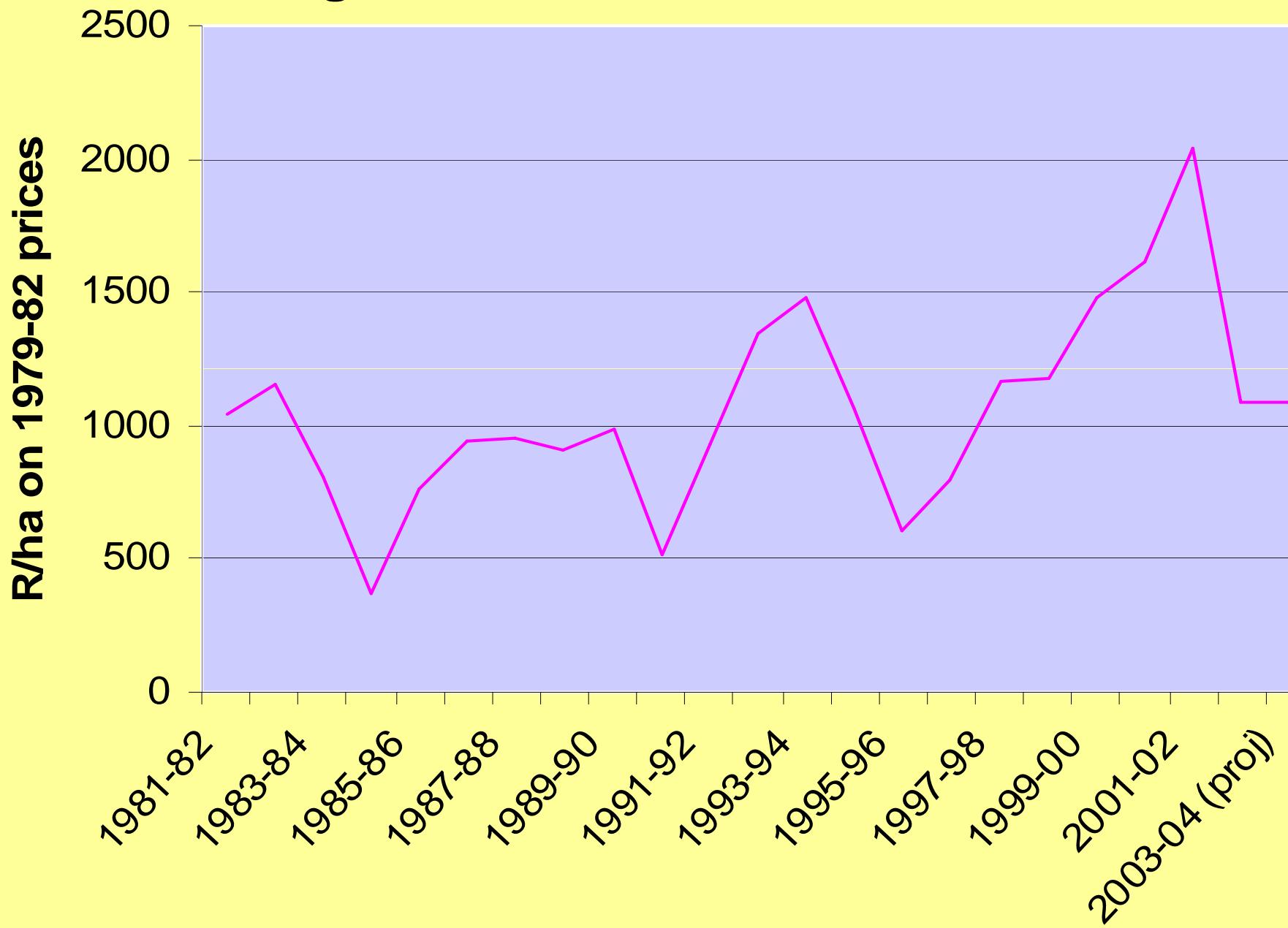


Fig.5.2.2.1 Net Income from wheat cultivation

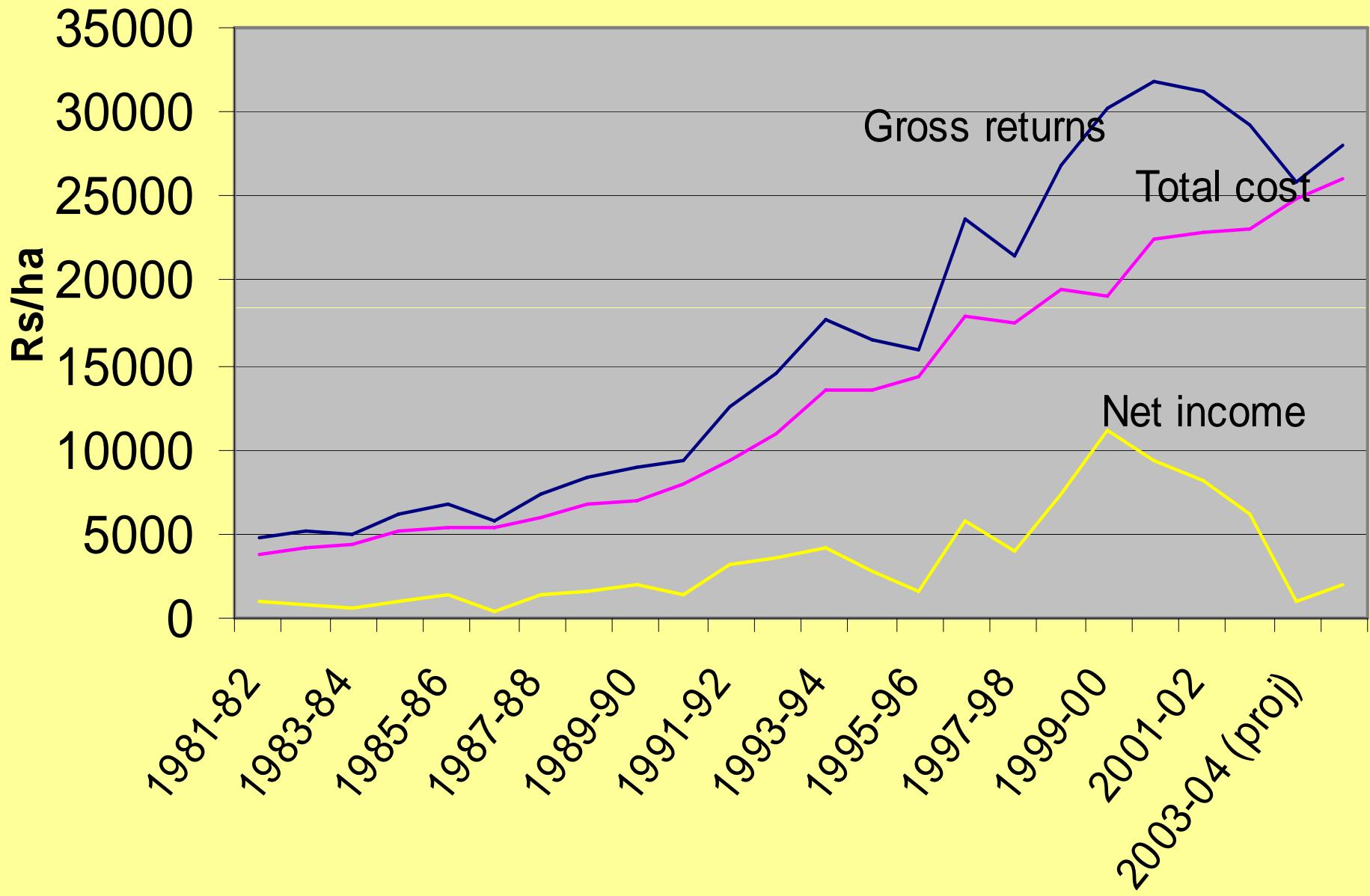


Fig. 5.2.2.2: Wheat- Real net income

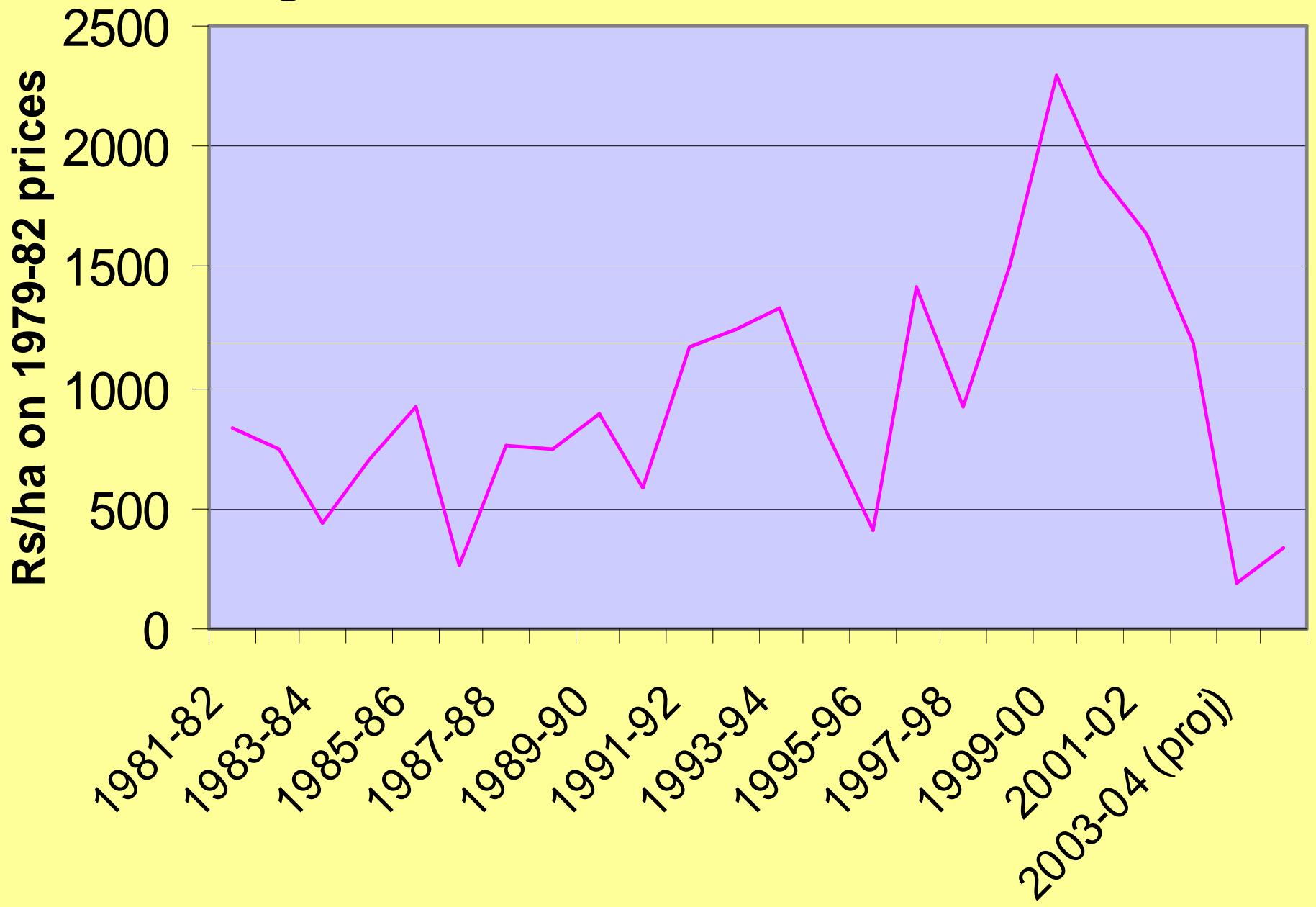
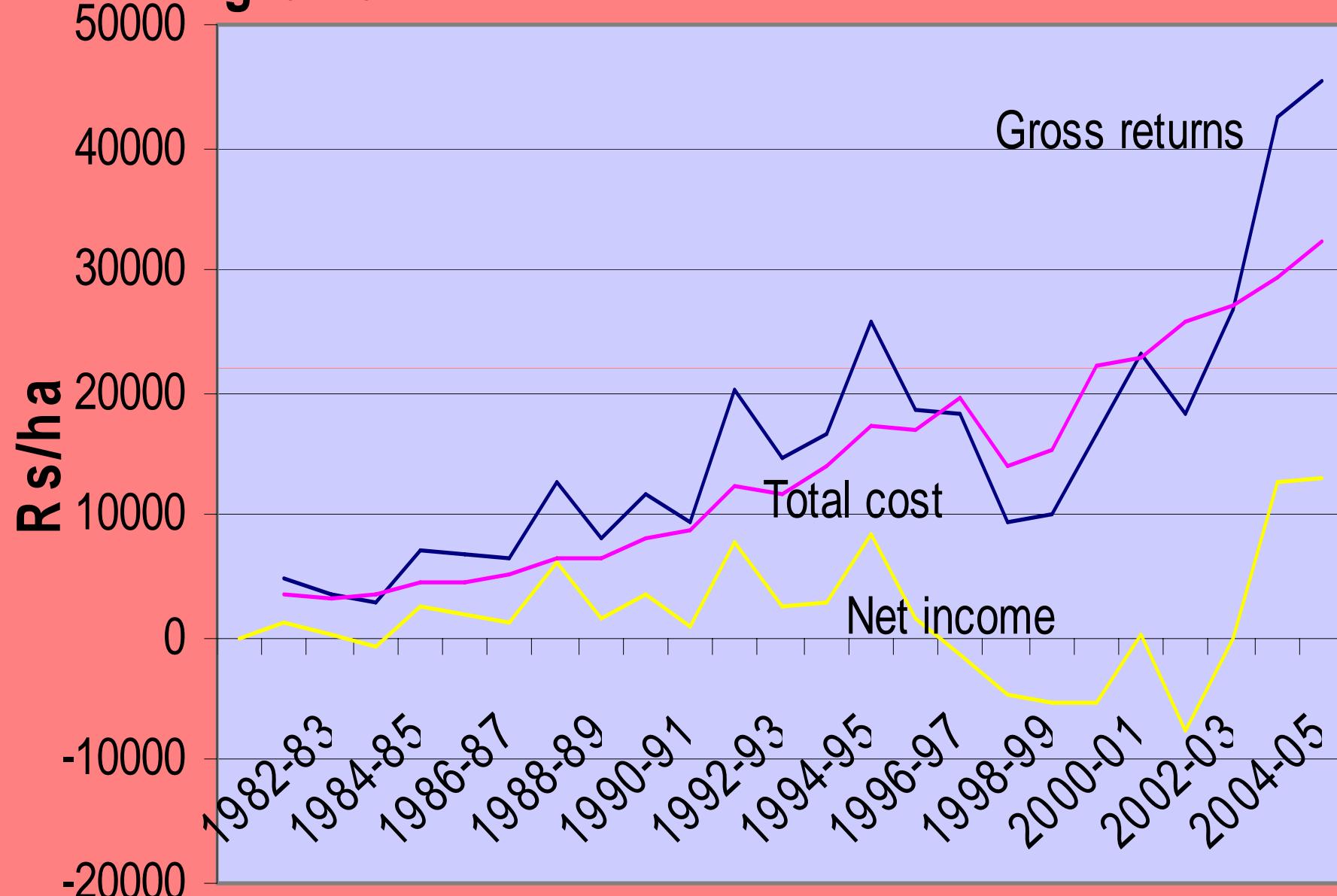
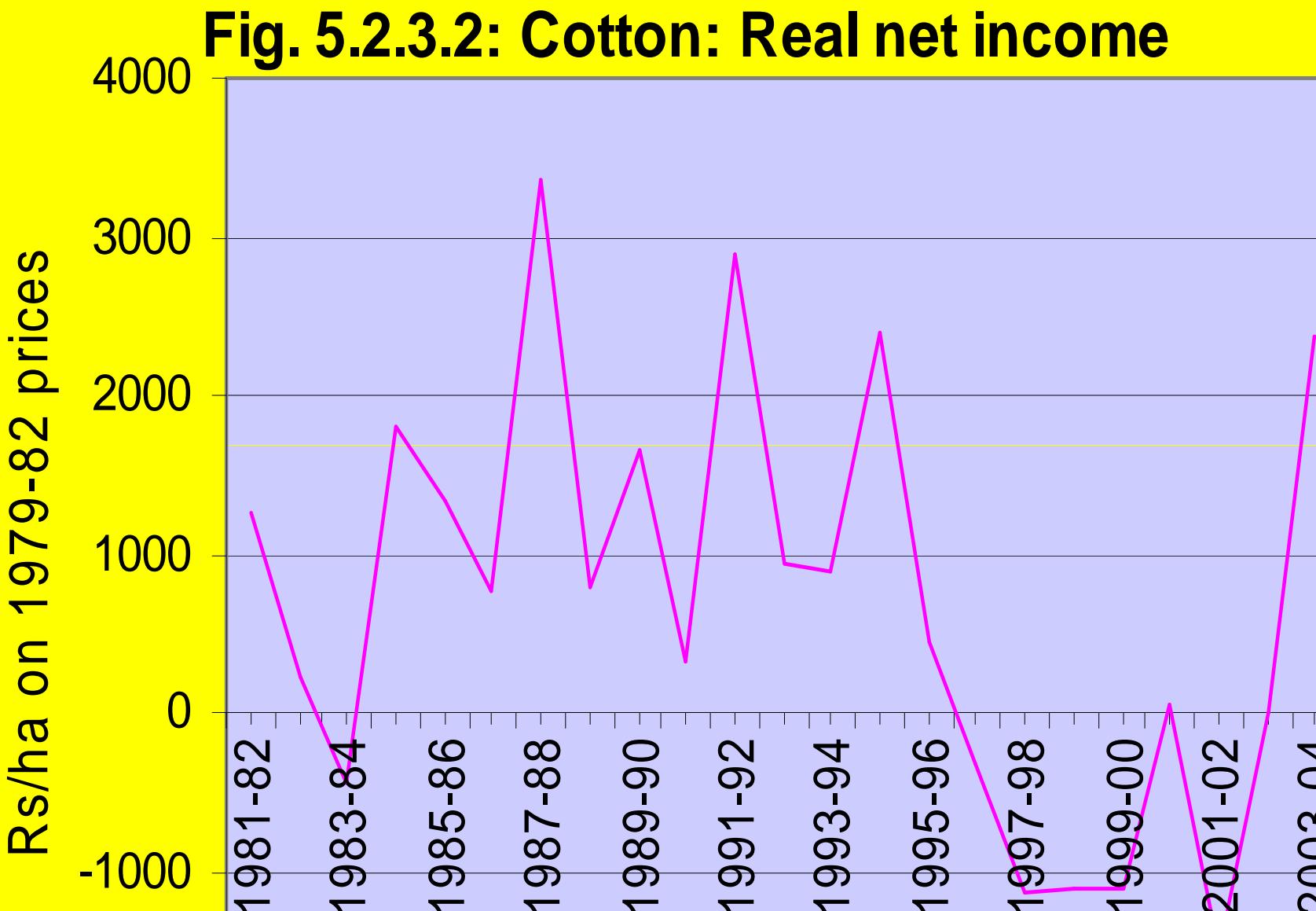


Fig. 5.2.3.1: Net income from cotton cultivation





Indebtedness in Punjab - Field Study

Sample

- 30 villages
- 3 agro-climatic regions of Punjab
 - Semi-hilly region – Ropar, Hoshiarpur
 - South-western region- Bathinda, Mansa, Ferozpur, Faridkot, Muktsar
 - Central region - All remaining districts
- Study period - 2005-06.

Institutional Agricultural Credit in Punjab

Year	Total loans outstanding (Rs crores)	Net area sown (000'ha)	Per ha loans outs. (Rs)	NSDP from agri. and livestock (Rs crores)	Inst.debt as %age of NSDP
1990-91	1863	4218	4417	7393	25.2
1995-96	2988	4136	7224	17120	17.4
2000-01	6206	4250	14602	24716	25.1
2004-05	11073	4200	26364	29408	37.6
2005-06	12411	4201	29543	32347	38.4

Percentage of Indebted Farm Households in Punjab – Region-wise

Farm categories	Semi-hilly	Central	South-western
Marginal	68.75	80.77	92.31
Small	73.33	94.59	89.13
Semi-medium	62.50	92.96	91.89
Medium	66.67	91.07	96.43
Large farmers	33.33	90.16	100.00
<i>All categories</i>	68.33	89.71	93.50

Field survey, 2006

Indebted Farm Households in Punjab

Farm categories	% of indebted household
Marginal	80.37
Small	88.67
Semi-medium	90.85
Medium	91.95
Large farmers	92.23
<i>All categories</i>	88.83

Field survey, 2006

Magnitude of debt among farm households Punjab State, 2005-06 (Rs)

Farm Categories	Amount of debt (per farm)		Amount of debt (per ha)	
	Per sample household	Per indebted household	Per sample household	Per indebted household
Marginal farmers	72018	89604	101321	126063
Small farmers	112441	126813	68549	77310
Semi-medium farmers	210023	231177	67807	74637
Medium farmers	215290	234128	42332	46036
Large farmers	309949	336050	35363	38341
Total	178934	201427	50140	56442

Institutional Debt in Punjab, 2005-06 (Rs.).

<i>Source/ Categories</i>	MF	SF	SMF	MF	Large	AII
Commercial Banks	32103	52747	92349	84115	147085	79907
Co-oper. Banks	11770	20267	33392	48236	55636	30921
Any other	2817	1647	4033	10782	8379	4908
Total	46490	74661	129774	134133	211100	115736

Non-institutional credit in Punjab, 2005-06 (Rs.).

<i>Source/ Categories</i>	MF	SF	SMF	MF	Large	AII
Commission agents	21710	35570	72025	71526	91573	57222
Landlords	2757	667	183	2437	2427	1475
<i>Relatives, friends</i>	561	697	6667	5276	3963	3523
Village, shop keepers	361	313	610	517	286	422
Others	140	533	765	1402	0	557
Total	25529	37780	80250	82158	98849	63199

Total credit in Punjab 2005-06 (Rs.)

Source	MF	SF	SMF	MF	Large	AII
Insti.	46490	74661	129774	134133	211100	115736 (62.0)
Non-insti.	25529	37780	80250	82158	98849	63199 (38.0)
Total	72019	112441	210024	215091	309949	178935 (100.0)

Estimates of total debt on farm sector in Punjab, 2005-06

S.No	Description	Debt (Rs. Crores)	%age
1	Total debt on Punjab farmers	21064	100.00
2	Total institutional debt on Punjab farmers	13044	61.94
3	Total non-institutional debt on Punjab farmers	8017	38.06

Purpose-wise Loan Among Farm Households in Punjab, 2005-06 (Rs/farm)

Purpose/Region	Semi- hilly	Central	South-West	Overall/State
Production purpose				
1.Tractor/Combine /implements	-	17405 (11.40)	38323 (14.40)	22637 (12.70)
2.Agro. inputs	17350 (46.0)	64624 (42.5)	121955 (45.7)	79007 (44.1)
3.Irrigation structure	1000 (2.7)	4694 (3.1)	4775 (1.8)	4352 (2.4)
4.Dairy/poultry	2500 (6.6)	5120 (3.4)	5805 (2.2)	5086 (2.8)
5.Purchase of land	-	3265 (2.1)	9825 (3.7)	5125 (2.9)
6.Small business	-	14245 (9.4)	28736 (10.8)	17651 (9.9)
Sub-Total	20850 (55.3)	109353 (71.8)	209419 (78.5)	133858 (74.8)

Purpose-wise Loan Among Farm Households in Punjab, 2005-06 (Rs/farm)

Purpose/Region	Semi- hilly	Central	South-West	Overall/State
Consumption/other purpose				
1.Marriage	3500 (9.3)	10589 (7.0)	22175(8.3)	13742 (7.7)
2.House construction/repair	-	24375 (16.0)	14120 (5.3)	18519 (10.3)
3.Domestic expenditure	33 (0.1)	4044 (2.7)	12129 (4.5)	6335 (3.5)
4.Education	-	1176 (0.8)	500 (0.2)	833 (0.5)
5.Medicine & Health Care	-	-	4118 (1.5)	1373 (0.8)
6.Scooter/Car	-	470 (0.3)	3935 (1.5)	1578 (0.9)
7.Repayment of old debts, litigation, others	13334 (35.4)	2259 (1.5)	250 (0.1)	4059 (1.5)
Sub-Total	16867 (44.7)	42913 (28.2)	57218 (21.5)	45076 (25.2)
Grand Total	37717 (100.0)	152266 (100.0)	266636 (100.0)	178934 (100.0)

Transaction Cost of Farmers for Getting the Loan from the Institutions

(Rs.)

	Commercial Banks	Co-operatives
Average loan per farmer	79907	30921
Average transaction costs	4016	368
% burden of transaction costs	5.0	1.2

Determinants of Indebtedness, Punjab

Variable	Total loan		Share of non-insti. loan (%)	
	With	Without	With	Without
<i>Tractor owned farmers</i>	264320	99589	34.4	47.0
Dairy Income(% farm income)				
1. 25% or more	55088	196358	33.9	38.2
2. 10% or more	79150	214604	35.3	38.4
<i>Other income:</i> 20% or more	104972	199192	28.8	39.4
10% or more of total income	133655	197881	31.4	40.0
Farmers' education: 10+	186061	175181	34.6	40.0
12+	162880	179869	34.9	38.2
Social festivities expenditure:				
1. < Rs 50,000	183482	177295	44.2	35.8
2. >Rs. 50,000	226647	154402	52.7	35.2

Degree of indebtedness in relation to income, Punjab

Stress level	Total loan in relation to total income	Percent of holdings					
		Ma	S	SM	Med.	L	All
No stress	Less than 50%	58.9	57.3	39.9	49.5	55.3	51.7
Manageable	51 to 100%	13.1	12.7	23.5	26.4	27.2	20.0
Under stress	More than 100%	28.0	30.0	36.6	24.1	17.5	28.3
Bankruptcy	More than 200%	18.7	19.3	12.4	3.5	5.8	12.8
Loan as % of income		89.2	82.9	86.0	50.1	49.3	63.7

Farmers' perceptions regarding the reasons of debt

Factors	MF	SM	SMF	MF	LF	Overall I
Low profit margins due to Stagnant crop yield	37.38	34.67	34.64	49.42	34.95	37.33
Crop failure & fluctuation in yield	7.48	6.67	6.53	6.90	5.83	6.67
Unjustified purchase of tractor	-	2.67	2.61	4.60	-	2.00
Excessive expenditure on deepening of wells	2.80	4.67	5.23	5.75	7.77	5.17
Laziness and lack of hard work	6.54	5.33	5.23	2.30	1.94	4.50
Low price of farm produce	8.41	6.67	7.19	5.75	11.65	7.83
High price of farm inputs	14.02	14.67	15.03	10.34	22.33	15.33
High expenditure on house construction and social cere.	6.54	7.33	6.54	6.90	5.82	6.67
High expenditure on health care and education	7.48	8.00	8.50	5.75	8.74	7.83
Exploitation by commission agents	9.35	9.33	8.50	2.30	0.97	6.67

Problems faced by farmers for getting institutional Credit,Pb

S. No	Problems	No. of farmers	%age
1	Complicated and time consuming procedure	388	64.67
2	Bribe for Patwari, agents and officials	65	10.83
3	High transaction cost	59	9.83
4	No bank at village level	39	6.50
5	Unapproachable for tenants and small farmers	25	4.17
6	Illiteracy and less links with bank officials	18	3.00
7	No loan without surety/security	6	1.00

Suggestions of respondents for improving institutional credit, Pb

S.No	Suggestions	No. of farmers	%
1	Simplified loan procedure	327	54.50
2	Increase credit limit	88	14.67
3	Lessen the paper work	45	7.50
4	Bank branches in every village	39	6.50
5	Sanction of loan on the spot (through Panchayat)	34	5.67
6	Waive off old debt	27	4.50
7	Provision of loans to tenants	22	3.67
8	Reduce number of trips and other transaction costs	8	1.33
9	Subsidized loan for small farmers	7	1.17
10	Availability of land record on internet	3	0.50

Suicides in rural Punjab

.

Characteristics	IDC 1998	Iyer and Manick 2000	AFDR 2000	Chahal 2005	IDC 2006
Sample Size	53	80	79	42	200
No. of villages Covered	14	11	29	12	24
Persons Committed Suicide: (%)					
Farmers	55.00	68.75	84.80	100	62.00
Agriculture Labour	45.00	31.25	15.20	Nil	38.00
Small & Marginal Farmer	24.50	53.75	65.70	54.76	81.00
Married	81.10	NA	76	NA	62.00
Illiterate	58.50	66.25	74.70	50.00	71.00
Debt: (%) Exclusively from moneylenders	36.32	67.50	27.40	52.32	65.70

Main Causes of Suicides

Causes	IDC 1998	Iyer and Manick 2000	AFDR 2000	Chahal 2005	IDC 2006
Debt as main with conflict at home, loss of status, harassment by lender	38.00	78.75	62.00	53.57	47.00
Crop Failure/Damage	1.05	26.25	5.10	7.14	--
Family discord at home	35.79	11.25	--	28.57	16.00
Alcohol and drug abuse	17.89	10.00	1.30	7.14	2.50
Poverty/poor position of family	6.32	20.00	19.00	--	14.00
Multiple with indebtedness as one	--	32.50	53.1	--	30.50
Others	4.22	--	6.30	3.57	7.00

De-peasantisation in Punjab

- Sample of 45 villages.
- All the 20 districts of Punjab .
- Sample size 589
- Survey Period: March 2007

Farm families who left farming in Punjab

Category	Total number of the farmers	Sample farmers who left farming	Total number of farmers who left farming	% of farmers who left farming
Marginal (< 1ha)	3138	217	339	10.8
Very small (1-2 ha)	1997	192	300	15.0
Small (2-4 ha)	1846	134	209	11.3
Sub-total	6981	543	848	12.1
Large (> 4 ha)	1459	46	72	4.9
Total	8440	589	920	10.9

De-peasantisation- So fast in the globalisation period

Period	Marginal	Very Small	Small	Overall
Before 1990	4.6	4.2	6.7	5.0
During 1990s	31.8	29.7	35.8	32.0
Since 2000	63.6	66.1	57.5	63.0
Total	100	100	100	100

Reasons for Leaving Farming in Punjab. (multiple response)

Reasons	Marginal	Very small	Small	Overall
Low farm income	71.4	59.9	58.2	64.1
Division of land	43.3	25.5	29.1	33.5
Debt repayment	35.5	29.7	31.3	32.4
Starting new occupation/service)	25.3	22.4	25.4	24.3
High land rent making costly difficult to lease in	14.3	17.2	23.9	17.7
land rent equal to net returns	6.0	14.6	20.9	12.7
Money needed for social needs	12.9	8.3	11.9	11.0
Children settled in other occup.	6.0	8.9	10.4	8.1
To go abroad	6.9	8.3	8.2	7.7
Emigrated elsewhere	1.4	0.5	0.7	0.9
Others	12.4	24.5	28.4	20.6

New occupations/activities after De-peasantisation, Punjab (%).

Activity	Marginal	Very small	Small	Overall
Labour				
Agriculture	6.9	4.1	1.4	4.6
Factory	3.7	4.2	1.5	3.3
Construction	1.4	0.5	-	0.7
Unspecified ¹	16.1	12.0	9.8	13.1
Sub-Total	28.1	20.8	12.7	21.7
Dairy & Milkman	10.1	8.8	10.4	9.8
Distress-rentier				
Capital interest	0.5	0.5	0.7	0.6
Land rent	1.8	13.0	15.7	9.2
Sub-Total	2.3	13.5	16.4	9.8
Trader/Dealer				
Livestock	0.9	0.5	0.7	0.7
Vehicle	-	0.5	1.5	0.6
Sub-Total	0.9	1.0	2.2	1.3

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Activity	Marginal	Very small	Small	Overall
Abroad	6.9	6.8	6.7	6.8
Service				
Government	6.9	10.9	9.7	9.0
Private	16.1	11.5	15.7	14.4
Sub-Total	23.0	22.4	25.4	23.4
Entrepreneur				
Flour mill	2.3	2.6	1.5	2.2
Operator (truck, taxi, auto, van)	6.9	7.3	3.0	6.1
Repair shop	5.1	4.2	1.5	3.9
Mason	2.8	2.6	0.7	2.2
Grocery shop	2.8	4.7	1.5	3.1
Others	7.4	5.2	17.2	9.0
Sub-Total	27.2	26.6	25.4	26.5
Others	1.4	-	0.7	0.7
Total	100.0	100.0	100.0	100.0

Status of land after de-peasantisation, Punjab

Status of land holding	Marginal	Very Small	Small	Overall
Total land sold	45.2	29.2	31.3	36.2
Partially sold	4.6	14.6	17.9	11.4
No land sale	48.4	56.3	50.8	51.7

Change in income after leaving farming, Punjab.

Change in income	Marginal	Very Small	Small	Overall
-Ve	10.0	29.8	33.4	22.7
Up to 25%	3.1	16.7	11.5	9.9
25-50 %	7.7	10.5	11.5	9.6
50 -100 %	10.0	15.8	17.9	14.0
> 100 %	69.2	27.2	25.6	43.8

Comparison of small and large farmers who left farming, Punjab

Item	Small	Large
1. % farmers who left farming	12.1	4.9
2. Reasons of leaving farming (%)		
Low income from farming	64.1	45.7
Division of land	33.5	21.7
Debt repayment	32.4	21.7
Starting new occupation/service)	24.3	15.2
High land rent	17.7	23.9
land rent was equal to net returns	12.7	15.2
Money needed for social needs	11.0	8.7
Children settled in other occu.pation	8.1	4.3
To go abroad / elsewhere	8.6	10.9
Others	20.6	26.1

Where did they go/what do they now

	Small	Large
Labour	21.7	-
Dairy & Milkman	9.8	6.6
Rentier	9.8	37.0
Capital interest	0.6	8.7
Land rent	9.2	28.3
Commission agent	-	10.9
Trader/Dealer	1.3	6.6
Abroad	6.8	8.7
Service	23.4	13.0
Government	9.0	10.9
Private	14.4	2.2
Entrepreneur	26.5	13.0
Flour mill/ Mason/etc	13.4	-
Operator (truck, taxi, auto, van)	6.1	2.2
Grocery shop/shops/ice depot	7.0	10.9
Others	0.7	4.4

5. Level of satisfaction	Small	Large
Fully	25.6	69.6
Medium	31.9	15.2
Less	18.4	4.3
Dissatisfied	22.7	4.3
Want to go to new profession	23.8	4.3
6. Status of land	Total land sold	36.2
	No land sold	51.7
7. Change in income	Negative	22.7
	More than 100 %	43.8
	Average increase in income %	65
		49

Conclusions

- Punjab agriculture is engulfed in a severe economic crisis
- Real income from major crops declined
- Share of Primary sector in GSDP declined
- Proportion of workforce in agri. declined
- About 89 % farmers of the state are indebted
- Thousands of farmers committed suicides
- Amount of debt per household in the state is about Rs. 2 lacs.
- Cotton – Belt of the state is highly indebted
- Debt servicing capacity of small and marginal farmers is negative.
- Commission agent is still major source of finance.
- 12 % of small farmers pushed away from agriculture
- 22% of these farmers joined the labour market

Policy Suggestions

- Viable farming- decreasing costs & increasing productivity
- Institutional credit at low rate of interest should be provided to farmers
- Arthiya system must be regulated
- Easy credit policies for promoting tractorisation should be rationalized.
- Non farm sector, especially Dairy Farming should be developed.
- Cooperative sector should be developed/strengthened.
- Crop insurance scheme should be made effective.
- Special package should be given to small farmers.
- Mass campaign against intoxicants, conservative social values should be launched.

Thank you