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Source: *Economic and Political Weekly*, Vol. 33, No. 13 (Mar. 26 - Apr. 3, 1998), pp. 720-726

Published by: [Economic and Political Weekly](#)

Stable URL: <http://www.jstor.org/stable/4406585>

Accessed: 13/06/2014 06:21

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Suicides of Cotton Farmers in Andhra Pradesh

An Exploratory Study

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Though there are several accounts of the suicides of cotton farmers in Andhra Pradesh, particularly in Telugu newspapers, no comprehensive account of the phenomenon is available. This paper makes such an attempt and concludes that the main reason for the strain on the cotton peasant is the growing indebtedness to the agriculturist to moneylender-cum-trader. But this does not entirely explain the suicides; one has here to understand the social milieu in which an individual gets alienated from the family and the society.

THIS study focuses on the unprecedented number of suicides by cotton farmers in Andhra Pradesh (AP). It examines the reasons, immediate and long-term for such suicides. The details of suicides are drawn from the newspapers particularly *Vartha* (*Vartha*, March 16, 1998) gives details of 174 farmers who committed suicides by village and districts from which they are drawn. The data show that suicides in Telangana region accounted for nearly 89 per cent of the total suicides. In Telangana as many as 45 per cent are in Warangal district and around 13 per cent each in Medak and Karimnagar districts. These three districts accounted for 71 per cent of the suicides in Telangana region (Table 1). This study focuses mainly on the district of Warangal, which records the maximum percentage of suicides.

ALLEGED CAUSES OF SUICIDES EXAMINED

A number of factors are held as reasons for suicides. Those are (1) adverse rainfall and low yields; (2) adverse prices; (3) rise in cost of cotton cultivation and particularly cash components of costs; (4) indiscriminate use of pesticides and high cost of cultivation; (5) Bad position of co-operative credit agencies and commercial banks; (6) Growing power of moneylender, trader, landlord combine and (7) growth of lease holding in cotton. It is recognised that these causes are interrelated. However the examination of each cause will provide insights into the reasons for suicides.

1 (a) Rainfall

June-July are the months of sowing of cotton in Warangal district. During these two months in 1997 except for one week the percentage deviation from normal in Warangal district is found to be negative (Table 2). The deviations are particularly large in the middle of July. The sowing period rainfall which contributed to drought in 1997 in Warangal district was less than half of the extent in 1996 and 1995 in the

same season (Table 3). The post-sowing season also, i.e., the month of August records less rainfall than the normal in Warangal district. The harvesting season starts in October third week in Warangal and lasts till March second week. In the whole period, the middle of October is marked by abnormal rainfall. Similarly abnormal rainfall is seen in November and December also. Excessive rainfall during the harvesting season coupled with low rainfall during sowing seasons resulted in very low yields.

(b) Yield of cotton

Cotton yields in Andhra Pradesh showed large year-to-year fluctuations. The highest yields were recorded in the year 1983-84, i.e., 362 kgs of lint¹ per hectare. The lowest levels were recorded in 1988-89, i.e., 153 kg/hectare (Table 4). Since then there was a rise in the yields reaching the levels of 1980s in 1991-92. Such fluctuations were associated with the changes in the percentage

area irrigated. The mid-1980s recorded high percentage of area irrigated (Table 5). Since then there was a fall in the percentage of area irrigated. However, in Warangal district the percentage of area irrigated exceeded the average of AP for all the years. Yet the yield levels reached the lowest level in 1988-89, i.e., 190 kg/hectare. We do not have records for the current levels, i.e., for 1997-98. We can expect the yield level to be one-half of the level attained in the year 1995-96, i.e., the yield level in 1997-98 cannot be more than 180 kg of lint per hectare. Other estimates give the figure ranging from 2 to 4 quintals of kapas or 66 to 133 kgs of lint [Narayana 1998].

2 Prices of cotton

One possible reason for suicides is the behaviour of the prices. If prices suddenly drop during the marketing season the farmer is affected adversely. Therefore, we examined the price trends of cotton and year-to-year

TABLE 1: NUMBER OF SUICIDES BY COTTON FARMERS REGION-WISE AND DISTRICT-WISE*

District	No of Total Mandals	No of Mandals in Suicides Committed	No of Villages in Suicides Committed	Total No of Suicides	Percentage in Each Region	Percentage in Total Andhra Pradesh
1 Warangal	50	31	62	69	45.16	39.66
2 Medak	-	11	16	19	12.26	10.92
3 Karimnagar	-	12	17	19	12.26	10.92
4 Khammam	-	11	12	12	7.74	6.90
5 Mahaboobnagar	-	11	12	12	7.74	6.90
6 Adilabad	-	9	9	9	5.81	5.17
7 Nalgonda	-	6	6	6	3.87	3.45
8 Rangareddy	-	3	4	4	2.58	2.30
9 Nizamabad	-	3	4	4	2.58	2.30
Total Telangana	-	97	142	154	100	88.51
10 Guntur	-	10	10	11	76.92	6.32
11 Krishna	-	2	2	2	15.38	1.15
12 West Godavari	-	1	1	1	7.7	0.57
Coastal Andhra	-	13	13	14	100	8.05
13 Kurnool	-	4	4	4	66.67	2.30
14 Anantapur	-	1	1	1	16.67	0.57
15 Chittoor	-	1	1	1	16.66	0.57
Rayalaseema	-	6	6	6	100	3.45
Total	-	116	161	174	-	100.00

* As on February 16, 1998.

Source: *Vaaritha*, Telugu Newspaper, Hyderabad, February 16, 1998.

instability. Recent changes in prices are taken from the Revised Series of the Economic Times Index of wholesale prices for commodities with base 1969-70 = 100. We examined the movements in prices for raw cotton, cotton yarn, textile yarn, cereals and oil seeds. In comparison with other commodities price index for raw cotton is maximum for the recent months (Table 6). It would appear that price is not a relevant factor. Such an inference may not be valid since the observed value of index depends much upon the base year. The base year 1969-70 = 100 may be a bad year for studying prices of raw cotton. So we looked at an alternative base 1970-71 = 100 from Economic Survey data. Price movements of raw cotton in comparison with cotton yarn and groundnut lagged behind. Such trends are noticed with base 1981-82 = 100 also.

The year 1994-95 witnessed a steep rise in the price of raw cotton exceeding that of groundnut and even pulses (Table 7). The year 1996-97 recorded a fall in the price of cotton as compared to the preceding year. There was not only absolute fall but also relative fall as compared to cotton yarn and also as compared to groundnut and pulses. The preceding data relates to all-India prices as seen from Economic Survey, so we tried to get prices for Warangal centre for the year in which suicides have taken place, i.e., 1997-98. The month of December is marked by sharp fall in prices to Rs 1,810-1,910 per quintal of kapas and there was a further fall

TABLE 2: RAINFALL FOR THE PERIOD 1997 KHARIF SEASON IN WARANGAL DISTRICT

Week Ending	Actual	Per Cent Deviation from Normal
June 5-11	17	-23
12-18	26	-10
19-25	67	40
June 26-July 2	49	-17
7-23	9	-88
24-30	59	-19
July 31-August 6	22	-60
7-13	32	-38
14-20	9	-84
21-27	9	-84
August 28-September 3	107	98
4-10	43	-20
11-17	82	82
13-24	33	-27
September 25-October 1	44	26
2-8	1	-95
9-15	4	-77
23-29	71	318
October 30-November 5	12	20
6-12	0	-100
13-19	21	600
20-26	23	667
December 4-December 10	40	1900
11-17	1	-75
18-24	42	4100

Source: Cyclone Warning Research Centre Data, Visakhapatnam

in January (Table 8). Given the fall in the yields to one-half the levels obtained in the earlier years the fall in price affected the gross incomes of the farmers very badly.

The problem with cotton prices is not so much its level but its year-to-year instability. We examined the percentage change per annum for three centres in AP (Guntur, Nandhyal, Adoni) for which the data are available for the period 1981 to 1993. For a comparative position we also examined groundnut and jowar prices (Table 9). Instability in cotton prices is much more spectacular than the corresponding instability observed for groundnut and jowar. The seasonal instability is also found to be much sharper for cotton. Seasonal index ranges from minimum of Rs 95 in November to a maximum of Rs 106 in April.

The variety differences in prices of cotton are much sharper. *Economic Times* price quotations vary from Rs 14,500 for Gujarat V-797 in Mumbai per candy of lint of 355 kg to Rs 25,000 for APCMU-5B variety, and Bangladesh fine-A gets much less. There are also variations across space between Mumbai market, Ahmedabad and Hubli.

The variability across states in market

prices of cotton are shown in Table 10, for the period 1973-74 to 1978-79, for the years for which the data are available. The data were got from the reports of cost of cultivation assembled by the Commission on Agricultural Costs and Prices. The variability as seen from the data is quite high. For instance 1975-76 statewide cotton kapas per quintal ranged from Rs 202.5 in Punjab to Rs 464.0 per quintal in AP. Thus the price data suggests lack of integration of the markets for cotton across states, across centres and across regions.

3 Operational cost in Andhra Pradesh

We examined operational cost per hectare of cotton kapas for Andhra Pradesh and other states. The data are derived from cost of cultivation studies assembled by the Commission on Agricultural Costs and Prices for agricultural products.² AP's cost is related to the average cost for several states for which data are available. The total operational cost in AP exceeded the corresponding cost in Gujarat, Maharashtra, Punjab and Tamil Nadu in 1975-76 (Table 11). The operational cost in Andhra Pradesh exceeded that in

TABLE 3: COMPARISON OF RAINFALL IN WARANGAL FOR 1997, 1996 AND 1995

Month	Actual Rainfall (MM)			Per Cent Deviation from Normal		
	1997	1996	1995	1997	1996	1995
June to August	299	843	607	-382	75	-33
September to December	524	255	368	7417	-151	110

Sources: 1 Cyclone Warning Research Centre Data, Visakhapatnam, (1997 Govt of Andhra Pradesh, Bureau of Economics and Statistics, Hyderabad.

2 *Andhra Pradesh Economic Statistical Bulletin* 1996-97 and 1995-96.

TABLE 4: COTTON LINT PRODUCTION AND YIELD FOR ANDHRA PRADESH AND WARANGAL DISTRICT

Year	Andhra Pradesh		Warangal		Warangal Yield Per Cent in Average Yield of Andhra Pradesh
	Production (Lakh Tonne Bales of 170 Kg)	Yield (Kg/Hectare)	Production (Lakh Bales of 170 Kg)	Yield (Kg/Hectare)	
1980-81	4.89	198	0.014	47	23.74
1981-82	6.63	238	0.070	258	108.40
1982-83	6.24	240	0.039	187	77.92
1983-84	10.19	362	0.049	248	68.51
1984-85	9.84	302	0.041	568	183.03
1985-86	7.43	204	1.00	452	221.57
1986-87	6.09	252	0.841	430	170.63
1987-88	5.37	159	0.830	381	239.62
1988-89	5.66	153	0.580	190	124.13
1989-90	9.31	244	0.783	230	94.26
1990-91	11.10	288	0.753	241	83.63
1991-92	12.99	312	0.926	276	88.46
1992-93	11.47	242	0.760	205	84.71
1993-94	13.49	315	0.960	286	90.79
1994-95	14.26	280	1.320	306	109.28
1995-96	16.10	259	1.780	363	140.15
1996-97	16.90	287	-	-	-

Sources: 1 *Andhra Pradesh Four Decades of Development*, p 24.

2 Government of Andhra Pradesh Directorate of Economics and Statistics, *Statistical Abstract*, 1984-85 T-4.12, 4.18.

3 Government of Andhra Pradesh Directorate of Economics and Statistics, *An Outline of Agricultural Situation in AP*, 1995-96.

4 Government of AP Directorate of Economics and Statistics, *Season and Crop Report AP*, 1980-81, 1981-82, 1985-86.

Gujarat by 4.54, Maharashtra by 6.14, Punjab by 3.18 and Tamil Nadu by 2.98 in 1975-76. A similar picture is seen in 1976-77 and 1977-78.

Out of the total operational cost the cost of fertilisers, manures and pesticides accounted for two-thirds of the total cost as in 1975-76 (Table 12). The cost of pesticides alone accounted for 39.48 per cent in that year. The use of pesticides is much more in AP than other states. The average cost of pesticides for all-India was Rs 446.7 and in the same year the cost in AP was Rs 1,783.78, i.e., 3.99 times that for all India in that year. Similar picture is seen for 1976-77 to 1978-79. For estimating the cost for 1997-98 we used the wholesale price index for manufactured commodities and derived the 1978-79 cost at 1997-98 prices. The cost of cultivation thus derived was around Rs 15,000 per hectare for 1997-98.

Cash expenses as a percentage of total operational cost for states for which the data are available are shown in Table 13 from 1975-76 to 1978-79. Cash expenses are derived after deducting own expenses from operational cost. For all the years for which the data are available cash expenses as a percentage of operational cost exceeded the corresponding figures available for other states in India. For the period 1975-76 to 1978-79 cash expenses formed more than 90 per cent of the total expenses (Table 13).

It is such high proportion of cash

TABLE 5: PERCENTAGE OF AREA IRRIGATED IN WARANGAL DISTRICT

Year	Area under Cotton (Hect)	Area of Crop Irrigated (Hect)	Percentage of Area Irrigated
1980-81	5132	819	15.96
1981-82	4631	1035	22.35
1982-83	3548	660	18.60
1983-84	3348	2609	77.90
1984-85	12305	3058	24.85
1985-86	37761	24849	65.81
1986-87	33208	21882	65.89
1987-88	37030	20462	55.26
1988-89	52000	-	-
1989-90	57903	32605	56.31
1990-91	53168	28492	53.59
1991-92	56988	34071	59.79
1992-93	62635	29985	47.87
1993-94	57000	-	-
1994-95	73269	31946	43.60
1995-96	83000	-	-

Sources: 1 Government of AP Bureau of Economics and Statistics, *Season and Crop Report*, AP 1980-81, 1982-83, 1983-84, 1984-85, 1987-88, table III C and IV B.
 2 Government of AP Bureau of Economics and Statistics, *Statistical Abstract AP*, 1983, 1983 to 1993.
 3 Government of AP, Bureau of Economics and Statistics, *An Outline of Agricultural Situation in AP*, 1988-89, 1989-90, 1990-91.

expenditure that makes the cultivators in AP borrow. The importance of borrowing for cotton crop in AP is to be seen from the figures of interest on working capital and fixed capital (Table 14). Compared to Gujarat, Karnataka, Maharashtra and Punjab the total interest payments are larger in AP. For the years 1975-76 to 1978-79, The total interest charges in AP were exceeded only by Tamil Nadu.

In the absence of operational cost in the current year 1997-98 we sought to make some estimate based on past data. Yield in the current year is comparable to yield obtained in the two bad years, i.e., 1987-88 and 1988-89 but during these two bad years the costs also were less. But the current situation appears to be different. In spite of low yields the costs continued to be high

from Rs 20,000 to Rs 30,000 per hectare.³ It was due to indiscriminate use of pesticides on the advice of pesticide dealers.

4 Indiscriminate use of pesticides and seeds

The cotton farmers used 10 to 12 varieties of pesticides and 15 to 25 times [Narayana 1978; Srivastava and Patel 1990] without any reason. Because of this, the cost of cultivation increases up to one-and-a-half times. There are 93 pesticide companies in the state and 1,3540 licensed shops. There are many complaints of adulteration of pesticides. Very few farmers were able to get loans from banks. Most of them take loans from the dealers at the rate of interest of 3 per cent to 5 per cent per month.

TABLE 6: REVISED SERIES OF THE ECONOMIC TIMES INDEX OF WHOLESALE PRICES OF COMMODITIES (Base 1969-70 = 100)

Year/Month	Raw Cotton	Cotton Yarn	Textile Yarn	Cereals	Oil Seeds
1997					
June	1124.3	431.8	351.0	722.4	827.2
July	1114.8	427.4	348.8	732.3	838.7
August	1121.1	427.4	348.8	725.2	838.3
September	1165.1	467.5	368.9	719.2	824.0
October	1130.5	445.2	357.7	720.1	828.1
November	1128.7	442.5	356.4	735.6	852.0
December	1122.4	442.5	356.4	742.7	851.5
1998					
January	1142.5	479.1	374.6	749.4	834.8

Source: *The Economic Times*, Hyderabad, June 27, 1997, August 29, 1997, September 26, 1997, October 24, 1997, November 28, 1997, December 26, 1997 and January 30, 1998.

TABLE 7: INDEX NUMBERS OF WHOLESALE PRICES

(Average of Weeks)

Year	Raw Cotton	Cotton Yarn	Cotton Cloth	Groundnut	Pulses
Base 1970-71 = 100					
1983-84	222	263	253	302	347
1984-85	261	295	258	323	431
1985-86	216	292	270	307	463
1986-87	185	257	273	372	408
Base 1981-82 = 100					
1987-88	133	137	125	169	153
1988-89	141	164	133	155	200
1989-90	147	188	148	156	206
1990-91	146	190	159	209	228
1991-92	238	233	183	245	249
1992-93	218	253	201	236	257
1993-94	246	273	218	230	308
1994-95	388	369	260	284	363
1995-96	376	397	297	315	399
1996-97					
April	294	383	314	306	445
May	298	383	315	308	449
June	293	380	315	312	454
July	294	374	316	318	449
August	310	372	317	325	453
September	319	374	324	336	451
October	318	371	326	314	449
November*	309	369	329	332	452
December*	301	369	328	341	460

* Provisional.

Source: Government of India, Ministry of Finance Economic Division, *Economic Survey*, 1987-88, S-59, 1996-97, S-63.

(1) Sixty varieties of cotton seeds are available in the market. Most of the farmers do not know which seed is suitable for their land and weather conditions. The traders sold adulterated and low quality seeds to farmers by filling them in good labelled bags.

(2) Because of the increased investment the farmers take debts from moneylenders at the rate of interest 24 to 36 per cent per annum. The farmers have to take seeds, pesticides and fertilisers from the traders who have contacts with the moneylenders and they should sell their product to only to those who advance credit to them.

5 Position of co-operatives and commercial banks

The working of co-operatives is important for financing cotton farmers. When the co-operatives fail the ability to acquire crop

TABLE 9: INDICES OF INSTABILITY FOR THREE CENTRES IN AP

Place	Percentage Change Per Annum in Average Wholesale Price
Cotton (Kapas)	
1 Guntur	22.05
2 Nandyal	31.92
3 Adoni	25.07
Groundnut	
1 Nandyal	12.69
2 Adoni	12.19
Jowar	
1 Adoni	18.23
2 Guntur	19.63

Note: Average wholesale prices are taken from 1981 to 1993, i.e. total 13 observations for calculation of percentage change per annum.

Source: Government of AP, Directorate of Economics and Statistics, *Statistical Abstract, AP*.

TABLE 10: MARKET PRICES OF COTTON (KAPAS) STATEWISE

(Rs per Quintal)

Year	AP	Gujarat	Haryana	Karnataka	MP	Maharashtra	Punjab	Tamil Nadu
1973-74	-	-	-	-	-	-	256.3	-
1974-75	-	334.2	299.9	323.9	-	-	298.8	378.0
1975-76	464.6	331.8	-	-	-	339.3	202.5	440.0
1976-77	565.3	514.1	-	434.4	-	502.8	-	509.5
1977-78	561.5	430.6	-	413.2	-	434.8	-	492.8
1978-79	497.9	-	-	-	-	395.9	-	457.1

Source: 1 Government of India, Directorate of Economics and Statistics, Department of Agricultural Co-operation, *Cost of Cultivation of Principal Crops in India, 1991*, pp 117.

2 Commission for Agricultural Costs and Prices, *Report of the Commission for Agricultural Costs and Prices for Crops Sown in 1991-92, 1992-93* pp 67 and 246, 1993-94 pp 81, 1994-95 pp 124, 1995-96 and 1996-97 pp 161 and 439.

TABLE 11: OPERATIONAL COST PER HECTARE FOR COTTON (KAPAS)

(in Rupees)

Year	AP	Gujarat	Haryana	Karnataka	MP	Maharashtra	Punjab	Tamil Nadu	Average
1974-75	-	1040.37 (92.63)	1190.64 (106.01)	540.90 (48.16)	-	-	1394.38 (124.15)	1449.49 (129.05)	1123.15 (100.00)
1975-76	4517.99 (245.95)	995.07 (54.17)	-	-	-	736.19 (40.07)	1421.61 (77.39)	1514.06 (82.42)	1836.98 (100.00)
1976-77	3818.53 (248.30)	1025.05 (66.650)	-	445.32 (28.96)	-	580.37 (37.74)	-	1820.01 (118.35)	1537.86 (100.00)
1977-78	3532.91 (202.53)	1168.36 (66.93)	-	576.93 (33.07)	-	607.29 (34.81)	2836.46 (162.6)	1744.39 (100.00)	1987.06 (100.00)
1978-79	3375.87 (169.89)	-	-	-	-	655.97 (33.01)	1929.35 (97.09)	1987.06 (100.00)	-
December* 1997	15089	-	-	-	-	-	-	-	-

Note: Estimates based on the assumption that there is no input change but only price change. The total manufactured price index with base 1970-71 = 100 is 189 for the year 1978-79 and 264 for the year 1981-82. With base 1981-82 = 100, the index for December 1997 is 320. The cost of cultivation is estimated for December 1997 by applying the link factors.

Source: 1 Government of India, Directorate of Economics and Statistics, Department of Agricultural Co-operation, *Cost of Cultivation of Principal Crops in India, 1991*, pp 117.

2 Commission for Agricultural Costs and Prices, *Report of the Commission for Agricultural Costs and Prices for Crops Sown in 1991-92, 1992-93*, pp 67 and 246; 1993-94, pp 81, 1994-95 pp 124; 1995-96 and 1996-97, pp 161 and 439.

TABLE 8: PRICES OF COTTON (KAPAS)

(Rs per Quintal)

Date	Warangal MCU 5	Adoni H420	Adoni HB-B6	Shadnagar	Nirmal MCH	Piduguralla	Adilabad MCEM-1	Nandyal	Guntur	Khammam	Rajahmundry
31-1-97	-	M.425 1585-1650	-	-	-	-	1780-1840	-	1770-1890	-	-
28-2-97	-	M.425 1328-1396	-	-	-	-	1780-1800	-	-	-	-
28-3-97	-	1602-1665	-	-	-	-	1841-1950	-	1925-2200	-	-
25-4-97	-	-	-	-	-	-	1820-1900	-	1925-2000	-	-
30-5-97	2050-2150	1840-1940	-	-	-	-	1970-2070	-	-	-	-
27-6-97	2250-2260	1689-1680	-	-	-	-	-	-	-	-	-
25-7-97	2200-2300	-	1740-1840	-	-	-	-	-	-	-	-
29-8-97	2250-2350	1100-1200	2220-2320	-	-	-	-	-	-	-	-
26-9-97	2450-2550	2170-2270	-	-	-	-	-	-	-	-	-
24-10-97	2070-2170	2055-2155	-	-	-	-	-	-	-	-	-
28-11-97	-	MCU-5 1070-1170	Jaider 1240-1340	1940-1990	1835-1930	1950-2000	2001-2051 1801-1951 LRA	1910-1960	1950-2000	1970-2020	1940-1990
26-12-97	1810-1910	1000-1100	1800-1900	1820-1920	1840-1940	1900-2000	1920-2020	1900-2000	1900-2000	1900-2000	1850-1950
30-1-98	1800-1900	1000-1100	1720-1820	1750-1850	1810-1910	1820-1920	1740-1840	1810-1910	1800-1900	1740-1840	1850-1950

Source: Vaartha, Hyderabad.

loans decreases and the farmers are forced to take loans from moneylenders.

In AP as a whole the central co-operative banks' overdues as on March 31, 1996 were 52 per cent. Number of banks incurring losses formed 85.8 per cent of total central co-operative banks. Taking the primary agricultural credit societies (PACS) including Lamps and FSS into consideration overdues accounted for Rs 298 crore or 64.92 per cent of the outstanding dues as on March 31, 1996. Compared to all-India position, in which total short-term loan overdues which accounted for 38.98 per cent. AP's position is obviously much worse.

Credit position in Warangal: There was a sharp decline in loans advanced during the period 1992-93 to 1994-95. Overdues as a percentage of outstanding of the co-operative central bank at Warangal rose from 57.35 per cent in 1993-94 to 71.77 per cent in 1994-95.

We also examined the position of PACS mandalwise for the year 1994-95. In almost all the mandals in Warangal district overdues exceeded two-thirds of the outstanding. We identified the mandals in which suicides were noted. In Warangal district 31 out of 50 mandals were noted to report suicides. These mandals were examined with reference to the percentage of overdues to outstanding of the co-operatives. In most cases the overdues as a percentage of advances exceeded the average. In one case Eturunagaram, the overdues on outstanding loans was as high as 103.3 per cent.

The commercial bank position was no better at the end of March 1995 the agricultural advances outstanding formed Rs 421 crore in AP. In Warangal district for which the data were available in district handbook of statistics the advances made by the commercial banks as on March 31, 1995 were Rs 129 crore only. These are outstanding. Unfortunately the data on loans advanced during the year were not provided in the district statistical handbook. In AP as a whole the loans advanced by PACS as seen from *Currency and Finance Reports*, 1996-97, formed only one-half of the total outstanding, i.e., Rs 821 crore (advanced) against Rs 1,656 crore (outstanding). If Warangal district is assumed to show the same ratio as AP, the loans advanced in the year 1994-95 in Warangal district were of the order of Rs 64.5 crore, i.e., Rs 1,216 per hectare. The operational cost of cotton per hectare is four times the figure. In such circumstances lack of accessibility of institutional credit drives the Warangal farmer to the moneylender.

6 Excessive dependence on moneylender

We referred earlier to interest rates under cost of cultivation. We have seen that in AP

interest cost is quite high compared to other states. It appears from the preceding analysis that it is because of higher degree of reliance on moneylenders. Reports in the newspapers show that the interest rates charged by moneylenders vary between 36 to 60 per

cent. In Warangal district, only Rs 20 crore were got from the commercial banks and co-operatives, where Rs 90 crore are got from moneylenders. Moneylenders take advantage of the weak position of the farmer and trap him into tied credit.

TABLE 12: PERCENTAGE OF FERTILISER AND INSECTICIDES IN TOTAL OPERATIONAL COST OF AP
(Rupees per Hectare)

Year	Total Operational Cost	Cost of Fertiliser	Cost of Fertiliser + Manure	Cost of Pesticides
1975-76	4517.99 (100.00) 245.95*	959.33 (21.23) 297.01*	1205.20 (26.68) 296.48*	1783.78 (39.48) 399.33*
1976-77	3818.53 (100.00) 248.30*	831.26 (21.27) 331.58*	1140.84 (29.88) 334.26*	1314.35 (34.42) 320.57*
1977-78	3532.91 (100.00) 202.53*	792.03 (22.42) 290.55*	956.02 (27.06) 417.48*	1182.43 (33.47) 238.06
1978-79	3375.87 (100.00) 169.89*	563.91 (16.70) 179.08*	693.19 (20.53) 173.91*	1306.63 (38.70) 262.48*
December 1997 (est)	15089.00 (100.00)	2519.86 (16.70)	3097.77 (20.53)	5839.44 (38.70)

Note: The year 1987-88 and 1988-89 are not considered because of abnormality in yields as well as costs.

1 Figures in brackets are percentage in total operational cost.

2 * indicates "By taking all states average as 100".

Source: 1 Government of India, Directorate of Economics and Statistics, Department of Agricultural Co-operation, *Cost of Cultivation of Principal Crops in India*, 1991, pp 117.

2 Commission for Agricultural Costs and Prices, *Report of the Commission for Agricultural Costs and Prices for Crops Sown in 1991-92, 1992-93 pp 67 and 246, 1993-94 pp 81, 1994-95 pp 124, 1995-96 and 1996-97 pp 161 and 439.*

TABLE 13: CASH EXPENSES AND TOTAL OPERATIONAL COST ON COTTON CROP

(Rs per hectare)

Year/State	Cash Expenses	Owned	Total Operational Cost	Per Cent of Cash Expenses in Total Operational Cost
1975-76				
AP	4243.96	274.03	4517.99	93.93
Gujarat	635.98	359.09	995.07	63.91
Maharashtra	482.92	253.27	736.19	65.60
Punjab	762.98	658.63	1421.61	53.67
Tamil Nadu	1238.16	275.90	1514.06	81.78
1976-77				
AP	3548.69	269.84	3818.53	92.93
Gujarat	651.82	373.23	1025.05	63.59
Karnataka	274.30	171.02	445.32	61.60
Maharashtra	406.95	173.42	580.37	70.12
Tamil Nadu	1605.99	214.02	1820.01	88.24
1977-78				
AP	3329.95	202.96	3532.91	94.26
Gujarat	864.26	304.10	1168.36	73.97
Karnataka	367.44	209.49	576.93	63.69
Maharashtra	410.17	197.12	607.29	67.54
Tamil Nadu	2631.68	204.78	2836.46	92.78
1978-79				
AP	3106.86	269.01	3375.87	92.03
Maharashtra	468.32	187.65	655.97	71.39
Tamil Nadu	1398.68	530.67	1929.35	72.49
1997 December (est)	13886.41	1202.59	15089.00	92.03

Sources: 1 Government of India, Directorate of Economics and Statistics, Department of Agricultural Co-operation, *Cost of Cultivation of Principal Crops in India* 1991, p 117

2 Commission for Agricultural Costs and Prices, *Report of the Commission for Agricultural Costs and Prices for crops sown in 1991-92, 1992-93, p 67 and 246; 1993-94, p 81; 1994-95, p 124; 1995-96 and 1996-97, pp 161 and 439.*

TABLE 14: INTEREST ON WORKING CAPITAL AND FIXED CAPITAL ON COTTON

Year/Item	AP	Gujarat	Haryana	Karnataka	MP	Maharashtra	Punjab	Tamil Nadu
1975-76								
Interest on working capital	132.60	26.86	-	-	-	18.22	31.12	41.79
Interest on fixed capital	190.14	66.02	-	-	-	73.47	97.68	281.89
Total	322.74	92.88	-	-	-	91.69	128.80	323.68
1976-77								
Interest on working capital	113.38	26.66	-	11.86	-	15.19	-	51.68
Interest on fixed capital	260.65	54.81	-	81.56	-	65.21	-	326.44
Total	374.03	81.47	-	93.42	-	88.40	-	378.12
1977-78								
Interest on working capital	104.51	31.38	-	14.38	-	15.87	-	82.89
Interest on fixed capital	207.04	68.82	-	55.45	-	55.91	-	317.02
Total	311.55	100.20	-	69.83	-	71.78	-	399.91
1978-79								
Interest on working capital	99.63	-	-	-	-	18.37	-	52.33
Interest on fixed capital	125.88	-	-	-	-	43.13	-	518.58
Total	225.51	-	-	-	-	61.50	-	570.91

Sources: 1 Government of India, Directorate of Economics and Statistics, Department of Agricultural Co-operation, *Cost of Cultivation of Principal Crops in India* 1991, p 117.
2 Commission for Agricultural Costs and Prices, *Report of the Commission for Agricultural Costs and Prices for Crops Sown in 1991-92, 1992-93, pp 67 and 246; 1993-94, pp 81; 1994-95, p 124; 1995-96 and 1996-97, pp 161 and 439.*

He arranges to supply fertilisers, manures, pesticides and seeds and takes the produce of the farmer at pre-fixed prices [*Eenadu*, Telugu daily newspaper, Hyderabad, January 8, 1998].

7 Tenancy

The other problem which aggravates the adverse condition of cultivators is tenancy. A common custom which had developed in recent years is leasing-in land by small farmers for cotton cultivation. When the crop fails the tenant suffers, particularly when the landowner does not permit him 'limited liability'.

There are very few investigations on socio-economic characteristics of those who committed suicide. K Ramanuja Rao, department of sociology, University P G College, Nirmal, conducted a status survey on the socio-economic background of suicides but the data relates to only 13 in Warangal district. Out of the 13 there was only one belonging to the upper caste and most of those who committed suicide belong to backward category. The land holding varied between two acres to 5.5 acres. They had limited experience of cotton cultivation.

TABLE 15: SOCIO-ECONOMIC BACKGROUND OF THE SUICIDE ACTORS IN WARANGAL DISTRICT (SEPTEMBER-DECEMBER 1997)

Sl No	Died on	Name and Age	Caste	Village/Mandal	Education	Family size and land				Experience (yrs) in Cotton Cultivation	Present Debt	Loans taken from
						Adu-	Child-	Own	Leased			
1	September	Lambada Girijanudu	-	-	-	-	-	-	-	-	-	-
2	23.10.97	Y Sudhakar Reddy, 25	Reddy	Issipeta/Mogullapalli	Secondary	2	2	3	-	6	1.50	Village, Dealer
3.	23.10.97	B Kalavathi, 28	BC	Venkatapuram/Dharmasagar	-	3	-	2	-	-	0.30	
4	15.12.97	N Kishan Rao, 28	BC	Yelukurti/Gisukonda	Primary	2	2	2	-	4	1.00	Village, Dealer
5	16.12.97	N Ravi, 26	BC	Kamaram/Atmakuru	Primary	2	2	5 1/2	-	8	3.00	Village, Dealer Adthi
6	19.12.97	L Mogili, 35	BC	Kamaram/Atmakuru	Primary	2	2	2 1/2	-	4	1.50	Village, Dealer
7	20.12.97	S Mallayya, 35	BC	Nagaram/Parkala	Illiterate	2	3	1	2	3	0.80	Village, Dealer
8	22.12.97	Junga Ravi, 30	BC	Venkarapuram/Parkala	High School	2	2	1 1/2	-	3	0.50	Village, Dealer
9	24.12.97	Y Sambayya, 35	BC	Kesavapuram/Duggondi	High School	2	2	2	-	4	0.60	Village, Dealer
10	25.12.97	K Mallayya, 45	SC	Peddapuram/Atmakuru	Illiterate	2	2	2	1	6	0.50	Village, Dealer
11	25.12.97	Ch Veeraswamy, 28	BC	Chintapalli/Sangem	High School	2	2	3	2	3	1.80	Village, Dealer Adthi
12	29.12.97	B Mangya, 45	ST	Nandanayak Tanda/Gisugonda	-	-	2	2	2	1	0.50	-
13	30.12.97	K Mallayya, 40	BC	Kesavapuram/Venkatapuram	High School	2	2	1	1	6	0.60	Village, Dealer
14	30.12.97	K Sambayya, 40	-	Sambayyapelli/Duggondi	-	2	-	-	2	-	0.30	-
15	31.12.97	M Yellareddy,	Reddy	Veldhandi/Narmetta	-	3	-	2	-	-	0.40	-
16	31.12.97	V Sarayya, 35	BC	Mangapeta/Mangapeta	High School	-	-	-	-	-	-	-

Source: K Ramana Rao, 'Rural Credit - Froced Deaths of Farmers A Sociological Perspective', Department of Sociology, University P G College, NIRMAL, and Swecha November-December 1997.

Most of them had debts varying from Rs 30,000 to 80,000 (Table 15). They were not farmers by occupation. Because of lack of opportunity in their own occupation they turned as farmers. They include tenants also. Tenants who take land on lease have to pay half of the lease amount as advance to the landlords. To pay this they borrow money from private individuals at the rate of 36 per cent interest. Their income level is not beyond Rs 20,000 per annum, but they have to incur at least Rs 10,000 to 15,000 per acre. Even if a crop loan is sanctioned by co-operatives after fulfilling so many formalities, the amount is not sufficient for making the cost of cultivation of the crop. For most pesticides the farmer invariably approaches the private moneylender or pesticide dealer who provides pesticides. Generally he will not allow discount on maximum retail price. The dealer or moneylender also puts a condition that the entire farm produce should be sold only to him, soon after harvest. The pesticide dealer, who advises him acts as extension agent prescribes two to three pesticides out of which one or two are not necessary and which are some times adulterated. All the farmers who committed suicide belong to nuclear families.

SUMMARY AND CONCLUSIONS

The preceding analysis shows that the peasant in Warangal is subjected to deep stress mainly due to the inaccessibility of institutional credit and dependence on moneylender at high rates of interest. The pressure on him is greater because of structural changes in the character of moneylender, i.e., from professional moneylender to agriculturist moneylender. We do not have data on this but earlier surveys suggest a transition from the professional moneylender to agriculturist moneylender. Agriculturist moneylender unlike the professional moneylender is a native of the village and powerful in the structure of village economy also. In many cases he is the landowner who lease out land to the peasant. It is this combination of functions of landowner, moneylender and trader that makes him a powerful agent in the village. The preceding analysis also brings out some unique characteristics of cotton cultivation which have relevance to the issue of suicides. Cotton cultivation in AP imposes much higher costs on the peasant than in most parts of the country. Higher cash components of these costs necessitate much more credit. In the context of lack of access to institutional credit he depends upon the pesticide and fertiliser dealer for credit. In recent years the decline in the occupations pursued by the backward caste groups has driven many of them into cotton cultivation as lease holders. They do not have adequate

experience of cotton cultivation and depend mainly on pesticide and fertiliser dealer for extension services. Yet another important characteristic of the cotton cultivation is its high year-to-year instability in cotton prices. When coupled with instability in yields they aggravate the problem of instability of incomes.

But none of these could be an adequate reason for ending one's life unless the social milieu is inhospitable for a man's survival with dignity. Durkheim's monograph on suicide is enlightening on this issue. He indicates growing alienation of individuals from the family, society and religion as the factor responsible for suicides. Social integration is measured by the number and strength of a person's social relationships with others. Suicides according to Durkheim indicate social disintegration. Durkheim argued that the more family ties binding the individual to the domestic group, the greater his social integration and the less likely he is to commit suicide. The situation of a homogeneous religious community, unified and integrated by uniform belief and standardised ritual is less likely to result in suicides. According to Durkheim, "Social man necessarily presupposes a society which he expresses and serves. The greater is social isolation, the less the individual participates as a social being. As a result his life lacks purpose and meaning." [Haralambos with Heald 1980].

The unprecedented number of suicides in Telangana should be a cause for concern because it reflects the deepening alienation of individual from society and social disintegration. We have very little knowledge of the factors leading to alienation of individual from the family and society. This aspect of the study of suicides should be concern of all social scientists in Telangana area in particular. The study of Durkheim might provide useful frame for such an analysis.

Notes

- 1 One kg of lint is equal to 3 kg of kapas.
- 2 The data are not available for recent years. The latest data available are for the year 1989-90. But this year was an abnormal year with low yields and low costs. Therefore the years 1975-76 to 1977-78 are considered for comparison of costs.
- 3 Our estimate (Table 11) for 1998 was lower at Rs 15,000. This could be considered the minimum.

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