

# Dimensions of Agrarian Distress in Andhra Pradesh

*Indebtedness is not new to rural Andhra Pradesh, while suicides due to indebtedness are. What forces farmers to take their lives is not the amount of debt per se, but the changed nature of agriculture involving high costs and low or negative returns. The changed nature of politics has largely removed the farmers from the policy arena and led to their increasing immiserisation.*

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For the first time in the known history of India, peasants in recent years had taken recourse to suicide as a way out of agrarian distress. Although this phenomenon has been present in most of the agriculturally advanced states, it has been most virulent in Andhra Pradesh (AP), with two-thirds of suicide deaths in India in that state alone. During the past seven or eight years, the peasants of AP, known for militant agrarian struggles before and after independence, their hard work and enterprising skills, have committed suicides in the thousands. Apart from the general factors that are responsible for this phenomenon across India, there must be some additional factors that led to this alarming and disturbing situation in AP.

Actually, the phenomenon of suicides in AP dates back to 1987-88, when desperate cotton growers took their lives in Guntur and Prakasam districts. There was a boom in cotton cultivation in the early 1980s, bringing good profits to the farmers. The farmers called cotton "white gold". But from mid-1980s onwards, the cotton farmers suffered heavy losses due to crop failure. However, the area under cotton cultivation continued to grow in the state, as it expanded to other regions, especially Telangana. Again in 1997-98, a large number of farmers who cultivated cotton, chillies and groundnut committed suicides. Thereafter, it became a permanent phenomenon in the state with suicides taking place every year, with some variation in the number. There was a sudden spurt during 2004-05, after the assumption of office by the Congress Party in the wake of the general election. Although farmers' suicides have been reported from several districts in all the three regions of the state, the worst-affected districts are Anantapur and Kurnool in the drought-prone Rayalaseema region, Mahbubnagar, Khammam, Warangal, Adilabad and Karimnagar in Telangana, and Guntur and Prakasam in the coastal Andhra region.

Studies in various states identified an unbearable debt burden as the main reason for farmers' suicides [Pramod Kumar and Sharma 1998; AWARE 1998; Centre for Environmental Studies 1998; Assadi 1998; Vasavi 1999; Iyer and Manick 2000; Deshpande 2002; Chowdhary 2002; Vidya Sagar and Suman Chandra 2003; Vikas Adhyayan Kendra 2003]. But the point is that indebtedness is not something new to rural areas of Andhra, while suicides due to indebtedness are. Probably this phenomenon needs to be explained by examining the qualitative difference in the nature of indebtedness then and now. Secondly, this indebtedness is itself the result of the combined effect of several other factors that haunt the farmers' economy, of the larger malady that characterises the present state of affairs in agriculture. A multi-headed serpent seems to be hissing and biting the farmers. Thirdly, the model of development pursued in the wake of liberalisation policies all over India, and more so in the AP, added further woes to the farmers' condition. More than anyone else in the country the farmers of India do not have a say in the formulation of governmental policies, but are subjected to the

adverse consequences of these policies. Fourthly, the changed nature of politics, especially at the state level, which now centre around the urban classes – the business people, traders, investors, professionals and salaried classes – and political representatives, who have little interest in agriculture, have also played a part in causing this phenomenon.

The extent of debt, the loss of hope of repaying it and the feeling of shame that farmers undergo in the process make the present situation qualitatively different. The high dependence on external inputs, the high cost of inputs on the one hand and diminishing returns due to crop loss and low prices on the other, have caused havoc in the peasant economy. If the failure to get reasonable prices for the agricultural produce in the years of a good crop causes hardships to the farmers, the failure to get a good price even in a bad year makes their lives miserable. The farmers have little control over the markets and prices or in shaping the import and export tariffs, which are directly responsible for the distress of growers of crops such as cotton and groundnut. As this happened year after year the debt had increased to such an extent that it was virtually impossible for most farmers to repay. Going by the standards of an ordinary government employee or a petty trader in urban areas, the amount may not be very big, but it is something that the farmer cannot repay even after selling his entire crop in a year or even by selling his entire assets in some cases. This forces him paradoxically to cultivate the investment-heavy cash crops, because he is anyway sunk neck-deep in debt and has no hope of getting out of it by cultivating light crops. Thus, the farmers seem to have been drawn into this whirlpool and some are swallowed up. So what causes the death of the farmers is not the debt per se, but the changed nature of agriculture involving high costs and low or negative returns.

This paper discusses some of the dimensions of agrarian distress in Andhra Pradesh. Section I looks at the agrarian condition in the state that contributed to the collapse of the farmer's economy. Section II presents the results of the analysis of a study in two villages in Guntur district with a view to closely understand the situation at the micro level.

## I Agrarian Condition in AP: A Macro View

Although features such as monetisation of the agrarian economy, a shift to commercial crops, decline of reciprocal cooperation in agricultural operations and increased money needs of the farmers had been there for over a century of agriculture in Andhra, the changes after the 1980s are significant in several ways.

One simple feature of the rural economy of AP over the past several years is the dwindling share of agriculture in the gross state domestic product (GSDP). Although all the states had witnessed such a decline, it is more pronounced in AP. It declined from

about 53 per cent in 1960-61 to about 13 per cent in 2002-03. If we take the post-economic reform period, it almost halved. But the workforce in agriculture declined only marginally from 69 per cent in 1960 to 62 per cent in 2001. That means the population engaged in agriculture, which remained more or less stable, has been sharing the increasingly declining income. It also means that the disparity in per capita income between the agricultural and non-agricultural sections has been growing. The growth of urban wealth and the growth of misery in rural areas seem to be two sides of the same phenomenon. It shows that a primitive accumulation of wealth is taking place in the state by the transfer of "agrarian surpluses" through unmitigated exploitation of farmers' labour and wealth, as was evident in the negative returns in cultivation. The classical theories of development of capitalism or socialism emphasised the need to transfer the agrarian surplus to feed the urban and industrial sectors. But what has taken place in India is the asymmetrical growth of different sectors of the economy, where the so-called "surplus" is squeezed out of the farmers without any reciprocal benefit to the farming classes.

The decline of the share of the major crops in the GSDP is also striking. Cotton, groundnut, rice, sugar cane and chillies, which account for 60 per cent of the gross cropped area, together contributed less than 7 per cent of the GSDP in 2002-03 (Table 1). In a way this provides us a clue to the changing place of agriculture in the state's economy and the livelihood condition of the farmers. Rice, which accounted for about 31 per cent of the cropped area, contributed to only 3.8 per cent of GSDP; groundnut, which accounts for 17 per cent of gross cropped area, contributed a meagre 0.8 per cent; the share of cotton, chillies and sugar cane, which account for 14.4 per cent of the gross cropped area, was only 2.3 per cent. This decline is very steep in the case of rice, groundnut and cotton. The contribution of all five important principal crops to the GSDP taken together had declined from 16.5 per cent in 1993-94 to 6.9 per cent in 2002-03. How could the farmers survive with these meagre incomes?

Although the area under cash crops had increased over the years, the growth rates of yield for these crops had declined. As mentioned earlier, the area under cotton and groundnut had increased a great deal after 1980. The share of groundnut increased from 13 per cent in 1980-81 to 17 per cent in 2001-02 and that of cotton from 4 per cent to 11 per cent. But the yield performance of both groundnut and cotton was very uneven and poor. For instance, the growth rate of yield in cotton declined from 3.4 per cent in 1980s to 1.4 per cent in 1990s. Actually, the deceleration in yields can be seen for all the important crops except sugarcane and Bengal gram [Subrahmanyam and Satya Sekhar 2003].

In addition, the cost of cultivation for these commercial crops is higher in AP when compared to other states. If we look at the figures given by the Commission for Agricultural Costs and Prices (CACP), we notice that the cost of production of groundnut in AP was higher than in Gujarat and Madhya Pradesh by 15 and 10 per cent in 1999-2000. The data for the previous years also show a similar trend with some variations. Cotton is produced at a high cost in AP when compared with other southern states like Maharashtra and Karnataka. The higher cost of cultivation in the state could be mainly attributed to the high cost of paid-out inputs. Among all the states in India, AP stands at the top in terms of the consumption of pesticides per unit of output and second highest, next to Punjab, in the consumption of fertilisers [GoAP 2005]. The prices of pesticides and chemical fertilisers had increased several fold over the past 10 years. For example, during the period 1992-2002, the prices of urea and DAP had doubled, while the murate of potash (MoP) saw a four-fold increase. Purchase of seeds was most common in AP and highest among the Indian states. Eighty-one per cent of farmer households purchase seeds, compared to 48 per cent for India. Fifty-one per

cent of the farmers in the state, again the highest for any state in the country, replace seed varieties every year [NSS 2005a:15]. During the period 1992-2002, the prices of cotton and chilli seeds have gone up by 400 per cent. The farmers are led by the traders of seeds, pesticides and fertilisers, who of late have become the main source of knowledge and information to the farmers on cultivation practices, to believe that they need to use more of these inputs to reap a better harvest. High use of pesticides and chemical fertilisers year after year has had a deleterious effect on the productivity of the soil and environment. It is not simply the case of growing commercial crops, but heavy investments on account of seeds, fertilisers and pesticides that have made farming qualitatively different from what it was earlier.

With a high cost of cultivation, diminishing productivity and low returns, it becomes difficult for farmers to withstand crop failures. In earlier times, farmers could withstand crop losses because the component of family labour and farm-based inputs constituted a greater proportion in the composition of the inputs, and any loss of crop mainly amounted to a loss of labour and family-based inputs. With the enormous increase in the paid-out input costs, which are mostly met by taking cash loans, any crop loss or price crash would land the farmers in a distress situation. Secondly, since many farmers depend only on one crop for their livelihood, the situation becomes miserable when the crop fails or they do not get a remunerative price for their product as they have very little to fall back on. In case this situation prevails for two or three years continuously, the farmers are invariably driven to debt trap. A farmer can repay the loan incurred, if only he gets a reasonable crop and a reasonable price for the produce. Since both these conditions are rarely met, the loans get piled up. When a farmer cannot clear all the outstanding debt even by giving up all that is produced, assuming that a good crop is possible, he has to keep borrowing to meet agricultural and family expenses every year. Usually farmers sell their lands to pay off debts when they lose confidence to clear the debts on subsequent crops. For the last few years, the agrarian economy has fallen on such bad times that farmers hardly find buyers for their land, and those willing to buy would only do so at a very low price.

The present marketing structure for agricultural produce in AP consists of a number of imperfections, leading to disastrous consequences on the price front. Lack of institutional arrangements and the presence of middlemen are the main causes for these imperfections. The majority of farmers sell their produce either at a lower than expected price or less than the prevailing market price due to the pressures to clear the debts or agreement with the creditors. Due to a weak economic position, small and medium farmers sell their produce immediately after the harvest, when the wholesale price is at its lowest. These farmers lose considerable income in this way. The income foregone is very

**Table 1: Contribution (in Percentages) of Agriculture and Certain Major Crops to the SGDP in AP**  
At constant prices (1993-94)

Year	Agriculture	Rice	Groundnut	Cotton	Chillies	Sugar Cane
1993-94	24.62	8.27	3.81	1.71	0.87	1.23
1994-95	21.77	7.46	2.32	1.77	0.87	1.28
1995-96	21.97	6.77	3.41	1.82	0.85	1.22
1996-97	22.32	7.68	2.54	2.01	1.26	1.18
1997-98	17.16	6.11	1.43	1.40	0.76	1.06
1998-99	20.88	7.57	2.37	1.44	1.04	1.08
1999-2000	17.79	6.51	1.15	1.45	0.95	1.23
2000-01	19.20	6.96	2.07	1.37	0.92	1.11
2001-02	17.15	6.14	1.16	1.50	0.99	1.06
2002-03	12.94	3.79	0.82	0.81	0.67	0.83

Source: Directorate of Economics and Statistics (2004): *State Domestic Product of Andhra Pradesh*, government of Andhra Pradesh, Hyderabad; Director of Economics and Statistics (2003): *Glimpses of Identified Growth Engines from Agriculture to Gross State Domestic Product*, government of AP, Hyderabad.

high for commodities like chillies, cotton, pulses and oilseeds where there is no public procurement. The Cotton Corporation of India (CCI), which is supposed to purchase cotton at the minimum support price (MSP), purchases only a very small percentage of produce that comes to the mandis. Very rarely have farmers benefited from the MSP for cotton. Usually, the minimum support price announced by government is less than the market price (Table 2). Keeping in view the constantly rising cost of production, every year the government of AP has been recommending a higher MSP for most crops, but the union government cares very little for such recommendations. For instance, for the kharif crop of 2004, the government of AP wanted the MSP of cotton (medium staple) to be at Rs 2,700 a quintal, while the union government fixed it at Rs 1,760; the figures for the groundnut crop are Rs 2,260 and Rs 1,500; the same is the case for all the other crops. Low market prices at the time of harvest revolve around MSP fixed by the government. The farmers who withhold the product till higher market prices are obtained, tend to get higher prices than the MSP. But how many can do this? The traders and commission agents and other middlemen benefit more out of the existing agricultural marketing system.

The story of institutional credit is a problematic one. The commercial, cooperative and regional rural banks have advanced Rs 1,756 crore to the agricultural sector during 1992-93, Rs 5,158 crore in 1999-2000 and Rs 10,925 crore in 2003-04 [GoAP 2004]. While these figures may appear to be impressive, all these still constitute only about one-third of the credit needs of the farmers. More importantly, most of these advances reflect mere book adjustments, as the old debts which are overdue are included in the reissued loans, rather than actual advances during the year. More than the farmers, the traders and moneylenders benefited from the present credit delivery system. But the problem is not merely one of inadequate supply of institutional credit. In fact, the farmer seems to have become a victim of credit or loan traps. The farmer borrows to the maximum to meet his ever-growing investment needs. But farming, unlike business, does not yield minimum assured returns. Farmers say that cultivation has become a gamble, and like gamblers they borrow from wherever they can, to invest in the land. Most of them fail. Until the prices are stabilised, markets are regularised, and prices and quality of inputs are regulated, whatever the amount of institutional credit made available, the problem would remain. The loan becomes a loan trap, if not a debt trap for the farmer.

The 59th round of the NSS survey on farmers' condition reveals the distressing picture in AP. First, the incidence of indebtedness among farmers is the highest in the state. About 82 per cent of the farmer households are indebted (Table 4). The proportion of indebted households is more or less same among all social groups. Secondly, the debt liability-asset value ratio is the highest in AP. According to the NSSO survey it was 7.14 for AP, while it was 1.62 for Haryana, 1.72 for Punjab, 2.71 for Gujarat, 3.55 for Kerala, 3.71 for Karnataka and 4.48 for Tamil Nadu [NSSO 2005c:38]. The asset value of farmer households in AP (Rs 1.35 lakh) was much less than the all-India average (Rs 3.73 lakh). On an average each farmer household in the state had an outstanding debt of Rs 23,965 [NSS 2005b:26]. Thirdly, most of the debt was incurred for agricultural expenses (about 62 per cent) and very little on education, health, social ceremonies and consumption. Actually, in the olden days farmers incurred more debt for non-agricultural expenses, as recorded in the surveys on agriculture and indebtedness during the 1920s, 1930s and 1940s [Royal Commission on Agriculture 1928; Madras Provincial Banking Enquiry Committee 1930; Sathianathan 1935; Narayanaswami Naidu 1946]. The NSS data disproves the belief that the farmers are getting indebted because they take more loans to meet unproductive expenditure such as social ceremonies or

to meet the growing needs of education and health. The high cost of inputs seems to be the main factor in the growing indebtedness of the farmers [NSS 2005b]. However, it is possible that farmers actually spend a part of the loan money taken in the name of agricultural expenses on family needs such as consumption, education and health.

One of the most disappointing developments in AP's agricultural sector over the last two decades has been the declining public sector capital formation. Adequate expenditure on rural infrastructure like roads, markets, storage, communication, health, education and research apart from irrigation is a prerequisite for sustainable agricultural growth. The expenditure on the infrastructure will sustain the growth in production, productivity and income generation in agricultural sector. The share of agriculture and allied activity in state government expenditure under various plans has declined from 11.8 per cent in 1980-81 to 1.8 per cent in 2001-02. The expenditure on irrigation declined significantly under various plans. When compared to other states, AP had the lowest share of agriculture spending in total plan expenditure till 2002-03 (Table 3). While the expenditure on agriculture to total expenditure is around 7 per cent in Karnataka and 5 per cent at the all-India level, it was only around 3 per cent in AP. Clearly, the planning process in AP has neglected long-term issue of sustainable development.

As a result, the proportion of area under canals and tank irrigation over the years has declined, while the area underground irrigation has gone up. The actual extent of land under canal

**Table 2: Minimum Support Price and Market Price for Major Agriculture Commodities, Andhra Pradesh**

Year	Paddy		Cotton		Chillies	Groundnut	
	Minimum Support Price (Rs per quintal)	Market Price	Minimum Support Price (Rs per quintal)	Market Price	Market Price	Minimum Support Price (Rs per quintal)	Market Price
1993-94	310	377	900/1050	1210	1762	800	978
1994-95	340	436	1000/1200	1791	3113	860	905
1995-96	360	458	1150/1350	1477	3184	900	904
1996-97	380	492	1180/1380	1681	2802	920	1334
1997-98	415	559	1330/1530	1841	3113	980	1201
1998-99	440	598	1440/1650	2082	3986	1040	1305
1999-2000	490	875	1575/1775	1732	3534	1155	1341
2000-01	510	662	1625/1825	1852	2941	1220	1366
2001-02	530	749	1675/1875	1805	2895	1340	1367
2002-03	550	827	1695/1895	1836	3233	1355	1455
2003-04	550	-	1725/1925	1964	2441	1400	1791

Source: Directorate of Economics and Statistics: *Statistical Abstract of Andhra Pradesh* (compiled for various years), government of Andhra Pradesh, Hyderabad; Director of Economics and Statistics (2003): *Glimpses of Identified Growth Engines from Agriculture to Gross State Domestic Product*, government of AP, Hyderabad.

**Table 3: Sector-wise State Plan Expenditure in Andhra Pradesh**

Year	Agriculture and Allied Activity (Per Cent)	Irrigation and Flood Control (in Rs Crore)
1980-81	11.78	58.10
1990-91	4.42	23.98
1992-93	8.20	31.73
1993-94	0.03	28.77
1994-95	2.19	31.11
1995-96	2.69	22.74
1996-97	2.59	22.59
1997-98	4.80	21.30
1998-99	4.10	18.73
1999-2000	3.78	26.48
2000-01	3.91	19.42
2001-02	1.77	14.12
2002-03	2.15	17.88

Source: Directorate of Economics and Statistics: *Statistical Abstract of Andhra Pradesh* (compiled for various years), government of Andhra Pradesh, Hyderabad.

irrigation would be less than the area officially claimed. Official claims about the extent of canal irrigation are doubtful, as some of the lands, called the tail-end lands, in the authorised ayacut do not get water. We know that the area under irrigation and the composition of area under irrigation affect the income from cultivation. Fifty per cent of the area under irrigation in the state is by groundwater resources and 63 per cent of groundwater is drawn by borewells. Excessive dependence on groundwater and the absence of effective groundwater management had made cultivation more costly and risky. The investment in well irrigation by farmers in drought-affected areas has been going up. Incomes of farmers who use electric motors are subject to violent fluctuations due to (a) poor quality of power supply; (b) restricted hours of supply; (c) decline in groundwater levels at an alarming rate; and (d) frequent failure of equipment and failure of wells.

As if pest attacks and crop failures, high input costs, volatility of prices, and deficiencies of the market and the neglect by the government are not enough, the vagaries of the monsoon have devastated farmers' lives.<sup>1</sup> This has resulted in fluctuations in cropped area, production and productivity of crops. Untimely rains have become a recurring phenomenon every year and have seriously affected the crop economy in rain-fed areas. The adverse effects of the drought are confined not only to rain-fed areas but have also affected areas with assured irrigation. The frequent drought not only affects agricultural growth, it has severely affected rural employment. The loss of agricultural income has resulted in depletion of the purchasing power of the farmers. This has a multiplier effect on the income of those who derive their livelihood from non-farm employment.

Finally, we have to mention that after the initiation of economic reforms in the state, an atmosphere has been created that the agriculture as was practiced was no more a "growth engine". The

emphasis was on urban infrastructure, information technology and transforming AP into a knowledge society. The government, led by Chandrababu Naidu, claiming to be an active reformer, virtually stopped talking about agriculture. Instead of taking long-term measures to increase irrigation potential in the state, emphasis was laid upon watersheds and rainwater harvesting pits and they came a cropper, as there was anyway little rain in those years. The middlemen, commission agents, those in agribusiness and contractors got more benefits out of these schemes and their political clout had enormously increased. As an occupation, cultivation came to be looked down upon. In their own eyes, agriculture had little esteem for the farmers and the experience of low incomes, crop failures and indebtedness vindicated this for them.

## II

### An Enveloping Crisis: Report from Two Villages

With a view to understand the different dimensions of this agrarian distress in AP more closely we conducted, during February 2005, a micro study at the village level. A sample of 75 farmer households was selected using systematic random sampling method from two villages in Guntur district, where farmers' suicides were reported. A household schedule was used to collect information about the size of the landholding, crops grown, cost of cultivation, source of credit and the debt burden. The villages selected, represented two types of crop situations. One was Nadendla, where mainly cotton, chillies and pulses are grown under rain-fed and semi-irrigation conditions. The other was Karalapadu, where paddy was the main crop grown under canal irrigation; cotton, chillies and pulses were grown under both semi-irrigation and rain-fed conditions. The cropping pattern and irrigation conditions in these villages represented some similarity

**Table 4: Nature of Indebtedness of Farmer Households in Andhra Pradesh**

Social Category	Percentage of Indebted Farmer Households	Outstanding Debt	Capital Expenditure in Agriculture	Current Expenditure in Agriculture	Non-farm Expenditure	Consumption Expenditure	Marriages and Ceremonies	Education	Medical Treatment	Other Expenditure
<i>A: Outstanding loans by purpose of loans (for different social categories)</i>										
STs	78.0	12760	11.9	40.3	3.8	18.5	6.6	1.9	0.1	19.5
SCs	79.4	12720	17.1	33.3	1.5	15.4	11.5	0.2	4.2	16.7
OBCs	83.2	23697	23.3	35.9	3.9	12.1	11.2	1.2	3.2	9.3
Others	83.6	37802	26.8	41.6	2.7	8.7	7.6	1.9	1.4	9.3
All social groups-AP	82.0	23965	23.4	38.1	3.2	11.5	9.6	1.4	2.4	10.5
All social groups-India	48.6	12585	30.6	27.8	6.7	8.8	11.1	0.8	3.3	10.8
Size Class of Land Possessed		Outstanding Debt	Capital Expenditure in Agriculture	Current Expenditure in Agriculture	Non-farm Expenditure	Consumption Expenditure	Marriages and Ceremonies	Education	Medical Treatment	Other Expenditure
<i>B: Outstanding loans by purpose of loans (for different classes as per the extent of land possessed in ha)</i>										
< 0.01		12362	26.1	3.4	2.2	24.6	13.8	0.0	7.5	22.4
0.01 – 0.40		12192	13.6	19.8	5.1	16.6	19.1	1.2	5.6	19.0
0.40 – 1.00		18163	15.8	31.5	6.0	14.4	12.4	1.8	3.5	14.5
1.00 – 2.00		33043	29.0	37.5	1.2	10.8	9.0	0.4	1.5	10.6
2.00 – 4.00		29981	25.9	48.2	0.9	10.0	5.0	2.8	1.6	5.5
4.00 – 10.00		44865	31.2	49.6	3.9	5.4	4.6	1.5	0.6	3.1
10.00+		103817	26.9	64.2	0.0	4.5	2.3	0.0	1.6	0.5
All sizes		23965	23.4	38.1	3.2	11.5	9.6	1.4	2.4	10.5
Size Class of Land Possessed			Government	Cooperative Society	Bank	Agricultural/ Professional Moneylender	Trader	Relatives and Friends	Doctor, Lawyer and Other Professionals	Others
<i>C: Distribution of outstanding loans (in Rs) by source of loan for each size class of land possessed by farmer households</i>										
< 0.01			0.7	4.8	11.4	75.2	2.0	3.6	0.0	2.4
0.01 – 0.40			1.6	6.7	11.0	63.8	2.6	9.8	1.4	3.3
0.40 – 1.00			1.8	7.4	15.9	59.9	3.7	6.7	0.2	4.5
1.00 – 2.00			0.3	11.1	15.2	54.6	4.8	6.9	0.6	6.5
2.00 – 4.00			1.3	15.2	25.0	50.2	5.4	1.0	0.2	1.6
4.00 – 10.00			0.4	13.4	34.8	39.4	2.6	2.1	3.6	3.7
10.00+			0.0	3.0	46.5	19.8	29.8	0.9	0.0	0.0
All sizes			1.0	10.4	20.0	53.4	4.8	5.3	0.9	4.1

Source: NSSO (2005a), *Situation Assessment Survey of Farmers: Indebtedness of Farmer Households*, 59th Round, Ministry of Statistics and Programme Implementation, government of India.

to the other parts of state where suicide cases were reported. Qualitative and quantitative data were collected from the selected sample farm households. Interviews with informed persons and officials were also conducted to elicit the problems relating to cultivation. The profiles of the selected villages are given in Table 5.

In Nadendla, the farmer who committed suicide owned four and half acres of land and had leased in another 10 acres. He cultivated both cotton and chilly crops. He ended his life due to crop failure and the fear of inability to pay the accumulated debt. In Karalapadu, the farmer who committed suicide owned one and half acres of land. He had leased in another four acres of land. He cultivated both cotton and paddy. He too ended his life due to recurrent crop failures and the fear of inability to repay the debt.

The data on landholding distribution in these villages show that 46 per cent of the farmers in the two villages have operational landholdings of less than 5 acres; 43 per cent were operating land between 5 and 10 acres; and only 13 per cent had holdings above 10 acres. Thus, most of the farmers belong to marginal, small and medium groups and were vulnerable to risk and uncertainty that prevail in agricultural production. The average land operated by marginal farmers was 1.9 acres, whereas small farmers operated 4.15 acres per household. Nearly 43 per cent of the farmers were medium size and on an average operated 8 acres of land. Thirty per cent of the land cultivated by the sample households is leased land. The puzzle, however, is that while agriculture has become unremunerative why are tenants willing to take land on lease and cultivate? Probably, the marginal and small farm households, in the absence of alternative employment, choose to cultivate crops on leased lands instead of working as agricultural labourers in other farms or they hope to gain in the event of a good crop and high output prices. In a situation where the farmers are obtaining negative returns on crops, it would also mean a cut in their possible earnings, which otherwise they would have got had they engaged themselves as wage labourers. Medium and large farmers cultivate additional land by taking on lease either to meet family's additional expenditure or to ensure work for their mechanical and other inputs. It appears that small farmers and tenant cultivators are only agricultural labourers in the guise of farmers.

Farmers of Nadendla village, irrespective of their land size and socio-economic status, cultivate cotton and chillies knowing well the risks involved. Nearly 98 per cent of the area is under capital-intensive commercial crops such as cotton and chillies. When asked why they cultivate such crops instead of low-cost cereals, which could provide them at least with food requirements, farmers replied that they either float or sink with the cash crops because they are already neck-deep in debt and it is not possible to think of repaying the debts with the meagre returns on the low-value crops. They also say that the low-value crops do not give back the cost of their labour and the cash or credit-based input costs. In Karalapadu village, which has irrigation facility, 66 per cent of the area is under paddy.

Farmers of all categories had taken loans from both formal and informal agencies. Out of the total 75 farmers, 72 have borrowed from two or more than two sources. Table 6 shows the break-up of borrowings by different sources and size groups. Ninety-six per cent of the farmers borrowed from institutional agencies, namely the commercial banks or cooperative banks. In recent years, like in most other parts of the country, fertiliser and pesticide dealers in Guntur have emerged as the major source of lending agency for farm production activity. About 70 per cent of the farmers have borrowed from fertiliser and pesticides traders. These traders supply fertiliser and pesticides on credit with a rate of interest of 24 per cent per annum. Seventy-three per cent of the farmers borrowed from other sources like big farmers, moneylenders and businessmen with high rates of interest, ranging from 24 to 36 per cent per annum. Out of the 75 farmers,

27 borrowed from three or more than three sources, while 34 farmers borrowed from two sources. This is clear evidence that there is a big gap between the credit supplied by banks and the credit needs of the farmers. Therefore, farmers depend on informal credit sources at high cost.

We have also noticed that although the stated purpose of borrowing is to meet agricultural expenses, majority of the farmers use it for both farm and family expenditures. The way farmers meet their family expenditure is different from wage earners, salaried people or traders, who have daily, weekly or monthly

**Table 5: Profiles of Sample Villages**  
(Figures in parentheses are percentages)

Name of the Village	Nadendla	Karalapadu
<i>Total cultivated area (in acres)</i>		
a Irrigated	2741	2616
b Non-irrigated	4194	1667
Total	6935	4283
<i>Area (in acres) under</i>		
Paddy	13 (1)	768 (66)
Cotton	4429 (71)	134 (9)
Chillies	755 (27)	106 (7)
Pulses	13 (1)	209 (18)
<i>Outstanding debt in PACS (in Rs)</i>		
No of defaulters	755	78
Total amount	11072024	624802
Average debt per farmer	14664	8010
<i>Outstanding debt commercial banks (in Rs)</i>		
No of defaulters	50	—
Defaulters amount	800000	—
Average debt per farmer	16000	—

Note: — Not Available  
Source: Sample Survey

**Table 6: Source-wise, Purpose-wise and Size-wise Distribution of Borrowings**

(Figures in the parentheses are percentages)  
(in acres)

	Below 2.50	2.50-5.00	5.00-10.00	Above 10	Total
<i>1 Source of Borrowing:</i>					
Big farmers, local business men and moneylenders	5	18	25	7	55 (73.3)
Traders	7	15	23	9	54 (72.0)
Commission agents	—	1	1	—	2 (2.6)
Cooperative Societies	3	13	19	7	37 (49.3)
Commercial Banks	1	10	17	7	35 (46.7)
<i>2 Purpose of Borrowing:</i>					
Education	1	3	1	1	6 (8.00)
House construction	—	1	—	—	1 (1.33)
Marriage and health	1	—	1	—	2 (2.67)
Consumption	1	1	1	—	3 (4.00)
Cultivation	10	23	32	10	75 (100.00)

Source: Sample Survey.

**Table 7: Economics of Cultivation**

	Per Acre Net Profit/Loss (in Rs)			
	Below 2.5	2.5 to 5.0	5 to 10	Above 10
<i>Nadendla</i>				
Cotton	175	-1219	-1424	637
Chillies	1500	551	2099	937
<i>Karalapadu</i>				
Rice	166	-1892	-2038	-450
Cotton	-1333	-1983	-1814	-1071
Chillies	—	1000	1451	2500
Pulses	—	300	266	613
<i>Nadendla</i>				
Per acre debt	6225	16015	12542	9695
Per farm debt	15000	69615	104800	137750
Average farm size (operated)	2.25	4.15	8.15	14.30
<i>Karalapadu</i>				
Per acre debt	17541	13654	12814	11250
Per farm debt	27916	53100	98235	250000
Average farm size (operated)	1.66	4.04	7.88	25.00

Source: Sample Survey.

incomes. Farmers get lumpsum income only once or twice in a year. So they have to meet family expenses out of the loan amount. It is not possible to distinguish between what the family expenses are and what the agricultural expenses are, as the farmers would pay back the debt when they sell the crop that includes the value of family labour. Out of 72 households covered, 12 farmers have borrowed exclusively for purposes other than cultivation.

Farmers were not able to recover their cost of cultivation. Farmers in both villages used both BT cotton and non-BT cotton seeds. They spent nearly Rs 1,500 to Rs 2,500 on BT seed per acre. For HYV chilly seed farmers spent nearly Rs 2,000 to Rs 3,000 per acre. From the previous year's experience, farmers feel that BT cotton yielded good income when compared to non-BT cotton. However, in 2004 farmers who sowed BT cotton seed incurred huge losses. The plants came up well, but the yield was extremely poor. Use of HYV seeds meant more investment on fertiliser and pesticides. The net loss or profit from cultivation is shown in Table 7. If we include land rent in cultivation costs, both paddy and cotton show negative returns; chillies and pulses gave marginal returns (Table 8). In 2004 farmers suffered heavy losses even in paddy cultivation in Karalapadu due to the late release of water and pest attack. Farmers in these two villages felt that they rarely get crop productivity up to their expectation. Only in exceptionally good climatic conditions the productivity matches their level of expectation, which is a rare phenomenon, according to them.

Table 9 shows the returns to farmers across size classes in the sample farms. The data show that the losses appear to be the largest in the middle size category.

When asked about public extension services, the farmers expressed dissatisfaction about this service. In the absence of the right information on cropping patterns, seeds, other inputs, and cultivation practices, they suffer every year from one or the other problem. The private input dealers have emerged as the main source of technical knowledge about pesticides and fertiliser doses. Crop loss has become a permanent phenomenon. Every year, they lose one or other crop either due to a bad monsoon, lack of water or pests.

As debt got accumulated the loss of income from cultivation led to debt crisis for all the farmers. Out of the 75 sample farm households, 73 households are indebted to various agencies. Only two farm households are free of debt and they are in the medium farm size. Be it large or small farmers, they are not able to escape crop losses. Per acre debt is highest in Karalapadu village where irrigation facilities are available. Per acre debt in Nadendla was Rs 12,345, whereas it was Rs 13,375 in Karalapadu. In large farm holdings the debt burden ranges between Rs 1,37,000 to Rs 2,50,000. For marginal farmers it ranges from Rs 15,000 to Rs 28,000. A high correlation ( $r=0.76$ ) significant at 5 per cent level of significance is found between farm size and total debt of the farm households.

This is basically due to the difference between the cost of cultivation and the returns the farmers finally get on the produce. The loss is calculated after including the rent of the land in the cost of cultivation. There was a substantial loss in cotton in both the villages. Variation in price also reduced farming to gambling. Price received for a quintal of cotton in 2003-04 was Rs 2,000 to Rs 2,500, whereas in 2004-05, cotton was sold at a rate less than Rs 1,800. The net loss in cotton cultivation for different farmer households ranges between Rs 1,000 and Rs 1,900 per acre except in the smallest and largest size classes in Nadendla village. The net profit from the cultivation of chillies ranges from Rs 500 to Rs 2,500. Paddy cultivators in Karalapadu have suffered heavy losses. The net loss from paddy cultivation per acre was between Rs 450 and Rs 2,000. Farmers stated that they rarely incur a loss in paddy cultivation, but in 2004-05, they incurred heavy losses due to extensive damage caused by pests and late sowing due to the delay in the release of water from the Nagarjuna Sagar dam. In the previous two years, they could not cultivate paddy as the canal

water was not released to their fields because of scanty water, and whatever was available in the dam was either used for electricity production or the drinking water needs of the towns. Thus, crop losses are not confined to commercial crops. Farmers cultivating food crops are also incurring losses due to weather fluctuations, pest and market condition.

During informal conversations, farmers felt that the condition of wage labourers was better than the farmers, because a wage labourer takes away his wage in cash, whether high or low. He or she is not vulnerable to the consequences of crop losses or the volatility of market prices of the agricultural produce. True, she does not claim a greater share in case the farmers get a profit, but nor does she need to share the loss. As crop losses and low prices had hit the farmers repeatedly, their households are subjected to severe hardships. It is not that the condition of agricultural wage labourers is any better, but degradation and pauperisation are the special characteristics of farmers. The dilemma of the farmer is that he cannot transform himself into a wage labourer, nor is he happy with cultivation. No wonder that 40 per cent of farmers of India reported a dislike for farming and most of them expressed their dislike because farming is not either profitable or risky. Probably, the proportion of farmers who want to give up agriculture, given a chance, could be higher in AP than the proportion reported by the NSS survey, which puts the figure at 24 per cent [NSS 2005a]. In an economy where alternative opportunities for work and employment are low, the farmers find nowhere else to go, except to continue to work in agriculture.

## Concluding Remarks

The findings from the two villages bring out with clarity the dimensions of the agrarian distress perceivable at the state level. The low economic status of those engaged in agriculture, as reflected in the large work force continuing in agriculture, the widening gap in the per capita income between people employed in agriculture and those in non-agriculture seem to be the major

**Table 8: Cost of Cultivation of the Sample Villages**  
(Per acre in Rs)

Particulars	Paddy	Chillies	Cotton
Ploughing	1000	1000	1300
Seeds	600	2000	1500
Sowing/transplanting	800	800	100
Weeding	600	1000	1200
Pesticides	2000	4500	3000
Fertilisers	1000	5000	4000
Applying pesticides and fertilisers	400	900	600
Harvesting	900	4000	2000
Irrigation charges	200	900	200
Land revenue	200	200	200
Interest on fixed capital	400	1300	900
Transport to house	200	200	500
Transport to markets	-	400	300
Total paid out cost	8500	22200	15800
Land rent	5000	5000	4000
Total cost	13500	27200	19800
Price per quintal	650	2100	1750
Yield in quintals	18	14	10
Gross income (main and byproduct)	11700	29400	17500
Net income	-1800	2200	-2300

Source: Sample Survey.

**Table 9: Returns to Cultivation in Sample Villages**  
(In Rs)

Village	Profit/Loss	Below 2.5 Acres	2.5-5.0 Acres	5-10 Acres	Above 10 Acres
Nadendla	Per holding	1,806	-2,726.64	-2,560.46	9,275.44
	Per acre	802.77	-644.59	-300.17	645.47
Karalapadu	Per holding	(-),1,084.00	-13,474.64	-1,036.35	-2,062.18
	Per acre	(-),653.01	-3,335.30	-137.88	-82.48

Source: Sample Survey.

factors behind the present agrarian crisis in AP. There appears to be a vicious association between the two, constantly feeding off each other. This condition is evident from the decline in production and productivity in all the crops for the last one decade or more. The changes that occurred in the cropping pattern and productivity of crops significantly affected the livelihoods of the people employed in agriculture in an adverse manner. There has been a shift in the cropping pattern from low value crops to high value crops. Cotton and chillies emerged as important commercial crops whose the cost of cultivation is high and are rated as high-risk crops. The cost of cultivation of these crops in AP is found to be higher when compared to that in the competing and neighbouring states. Thus, a complete dependence on external inputs, increased expenditure on inputs and diminishing returns on inputs over time, have weakened the ability of the farmers to recover the cost of cultivation.

An increase in cash expenditure on modern inputs and a decline in productivity have been steadily taking place over the years and have resulted in a continuous decline in the net surplus from agricultural activity. The more depressing point is that these conditions are found to be common for all size groups of farmers. It has become impossible for farmers to carry out cultivation without taking loans from informal agencies.

Recurring drought conditions during the previous decade have created havoc in the crop economy of AP. It is not the crop loss in one year but recurrent losses that ruin the economic conditions of the farmers. It is not crop loss alone but multiple factors like spurious seeds and pesticides, non-remunerative prices for their produce, increasing expenditure on health and education, etc, that contribute to the acceleration of the agrarian crisis and indebtedness. Apart from economic factors, social factors like a low literacy rate, breakdown of the joint family system and the collapse of other social institutions have created depressed conditions in the agrarian economy.

It is a paradox that most of the political representatives come from agricultural background but little is done for farmers' welfare. The space for farmers in the policy process is shrinking, as they are least organised and can hardly lobby with lawmakers. For the last 10-15 years we have not seen any vibrant agrarian movements in AP. Political parties seem to be little interested in organising and mobilising farmers. The disunity among farmers and their inability to pool resources to conduct any sustained agitations make the political parties take them for granted. Over the years the role and importance of traders in agricultural produce, contractors and commission agents have been growing in politics at the district and state level.

It does not mean that farmers' condition is a hopeless one. The developments in the last few years have shown that if there is a political will there are ways out of the present distressing condition. The defeat of the Telugu Desam Party in the May 2004 elections was partly attributed to the negative vote by the farmers against the government. The Congress Party carried out its election campaign focusing on the farmers' problems. After the party came to power, it adopted programmes and policies to the benefit of the farmers and the agrarian sector. Electricity dues from the farmers to the tune of Rs 1,300 crore were waived; electricity for agricultural purposes was made free; a moratorium was declared on the recovery of farm debts; and massive outlays were made on irrigation projects. These measures were taken up less out of any altruistic attitude, but out of electoral and political considerations, as it was felt that farmers, who constitute about one-third of voters, would punish parties and leaders who do not care for their problems. When the avenues of mass agitations are not available to the farmers as the political leadership is not sensitive to farmers' concerns, the only option for the farmers to assert their interests is through their voting behaviour. It augurs well

for the farmers and the country as a whole that the agrarian distress has become a political and electoral issue in recent years. **PTW**

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## Note

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1 For every three years during the last decade AP experienced deficit rainfall in two years. A 20 per cent deficiency in rainfall affects the 80 per cent of the cropped area under dry land cultivation. In 2002-03, the rainfall deficiency was estimated at 32 per cent of normal rainfall. Union ministry of agriculture, in its report on drought in the states, estimated that the crop loss was more than 50 per cent of normal yield in an extent of 21.4 lakh hectares in AP. In the last seven years, inflows into the irrigation sources have come down due to deficit rainfall. As a result of recurring drought, the recharge to groundwater was drastically reduced. The excessive drawing of water, in order to meet the water requirements of the cash crops and the shortage of surface water supply, resulted in a further decline in water levels. According to the data given by director of economics and statistics (government of AP), in 2002 alone the decline in groundwater levels was more than four metres in 25 per cent of the borewells, between two and four metres in 26 per cent of the borewells and less than two metres in 44 per cent of the borewells.

## References

- Assadi, Muzaffar (1998): 'Farmers' Suicides: Signs of Distress in Rural Economy', *Economic and Political Weekly*, 33(14), pp 747-49.
- AWARE (1998): *Report on Farmers' Suicides in Andhra Pradesh*, Development Research Advisory Group, Hyderabad.
- Centre for Environmental Studies (1998): *Gathering Agrarian Crisis: Farmers' Suicides in Warangal District*, Citizens' Report, Warangal.
- Chowdhary, P A et al (2002): *Report of the Farmers' Commission of Experts on Agriculture in Andhra Pradesh*, Hyderabad.
- Deshpande, R S (2002): 'Suicides by Farmers in Karnataka: Agrarian Distress and Possible Alleviatory Steps', *Economic and Political Weekly*, 37(26), June 29, pp 2601-10.
- Gopal Iyer, K and Mehar Singh Manick (2000): *Indebtedness, Impoverishment and Suicides in Rural Punjab*, Indian Publishers and Distributors, Delhi.
- Government of Andhra Pradesh (2003): *Compendium of Area and Land Use Statistics of Andhra Pradesh*, Directorate of Economics and Statistics.
- (2004): *State Domestic Product Series of Andhra Pradesh*, Directorate of Economics and Statistics, government of Andhra Pradesh, Hyderabad.
- (2004): *Economic Survey of Andhra Pradesh*, Hyderabad.
- (2005): *Report of the Commission on Farmers' Welfare*, Hyderabad.
- Government of India (2002): *Report on States' Drought*, Parts I and II, Ministry of Agriculture, New Delhi.
- Government of Madras (1927): *Royal Commission on Agriculture in India, Vol III, Evidence taken in the Madras Presidency*, Calcutta.
- (1930): *Report of the Madras Provincial Banking Enquiry Committee*, Vol 1, Government Press, Madras.
- Kumar Pramod and S L Sharma (1998): *Suicides in Rural Punjab*, Institute for Development and Communication, Chandigarh.
- Narayanawami Naidu, B V (1946): *Report of the Economist for Enquiry into Rural Indebtedness*, government of Madras, Madras.
- National Sample Survey Organisation (2005a): *Some Aspects of Farming, Situation Assessment Survey of Farmers, 59th Round*, Report No 496, Ministry of Statistics and Programme Implementation, government of India, New Delhi.
- (2005b): *Indebtedness of Farmer Households, Situation Assessment Survey of Farmers, 59th Round*, Report No 498, Ministry of Statistics and Programme Implementation, government of India, New Delhi.
- (2005c): *Household Assets and Liabilities in India, 59th Round*, Report No 500, Ministry of Statistics and Programme Implementation, government of India, New Delhi.
- Sathianathan, W R S (1935): *Report of Agricultural Indebtedness*, Madras.
- Subrahmanyam, S and P Satya Sekhar (2003): 'Agricultural Growth in AP' in Ch Hanumantha Rao and S Mahendra Dev (eds), *Andhra Pradesh Development: Economic Reforms and Challenges Ahead*, Centre for Economic and Social Studies, Hyderabad.
- Vasavi, A R (1999): 'Agrarian Distress: Market, State and Suicides', *Economic and Political Weekly*, 34(32), April 7, 2263-68.
- Vidya Sagar, R and K Suman Chandra (2003): *Farmers' Suicides in Andhra Pradesh and Karnataka*, Centre for Social Development, National Institute of Rural Development, Hyderabad.
- Vikas Adhyayan Kendra (2003): *Cotton Cultivation in Maharashtra*, Vol 1, Report of a Study for OXFAM, Mumbai.