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AND RURAL INDEBTEDNESS:
AN ANALYSIS OF HOUSEHOLD
PRODUCTION DATA FROM TWO STATES**

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ABSTRACT

The crisis and stagnation in Indian agriculture have persisted for over a decade and are not showing any signs of reversal. Falling real product prices faced by primary commodity producers have been one of the central causes for escalating farm indebtedness. The gradual shrinkage of formal credit institutions in rural areas has simultaneously caused increasing dominance of private players in the credit market, rendering producers all the more vulnerable. A class analysis of household-level farm production data from two states reveals the pattern of income decline and rising indebtedness in rural areas. The deleterious implications that these processes have for future agrarian development call for effective price stabilization operations and, in the short run, a comprehensive debt-relief policy.

Key words: Agricultural Policy, Farm Households, House Hold Farm Production, Price Policy

JEL Classification: Q18, Q12, D13, E 64

The period of economic reforms has witnessed the re-emergence of indebtedness as a grave problem for the Indian peasantry. In less than a decade since the introduction of a neo-liberal economic regime, incidents of farmers' suicide were increasingly reported from different corners of the country. This tragic and unprecedented phenomenon caused by increasing debt-driven vulnerability of peasant households started with the cotton-growers of Andhra Pradesh and gradually afflicted farmers in other parts of the country, primarily growers of various commercial crops. Apart from Andhra Pradesh, there have been mass farmer suicides in the past few years in several states including Karnataka and Kerala in the south, Punjab in the north and Maharashtra in the west.

Estimates made from the National Crime Records Bureau (NCRB) data expose that more than 1,60,000 farmers have ended their lives over the last decade¹. The sheer magnitude of the disaster and the sustained enquiries and publicity to the issue has culminated in the announcement of the Agricultural Debt Waiver and Debt Relief Scheme, 2008 (henceforth ADWDRS) by the government.

Much has been written on the issue of farmer indebtedness. Nevertheless it is worthwhile to revisit the phenomenon from the perspective of peasant classes. A deeper look at the structure of rising indebtedness in rural areas is necessary for the purpose of assessing its impact on the agrarian question in the historical time-frame. The

1 Nagaraj (2008) has made detailed state-wise estimates of farmer suicides using the National Crime Records Bureau (NCRB) data.

tightening constraint of debt-burdens on the surplus generated in agricultural production and its consequent impact on agrarian development needs to be assessed. This exercise is all the more indispensable once we recognize that the incidents of farmer suicides are clearly the extreme manifestation of debt-driven vulnerability. The agricultural production in other regions, where farm suicides are not occurring in multitudes, is not necessarily unconstrained by debt-burdens. The variance in the economic and socio-political structures across regions is more the reason why the symptoms of spiralling indebtedness have been divergent in their extent athwart the country.

In this context, this paper attempts to appraise the extent of the constraint of credit relations on agricultural production and its differential impact across peasant classes. Additionally, the analysis of the structure of rural indebtedness across peasant classes and size-class groups reveal the significance of a debt-relief policy in the current context and also brings out some of the shortcomings of the ADWDRS announced recently by the government. For this purpose, we have used household-level farm production data collected in 2006 through a primary field enquiry in three regions, one in West Bengal and two in Andhra Pradesh.

The two central macroeconomic processes that have caused the emergence of high rural indebtedness under the new economic regime are increasing volatility of output prices of primary products following trade liberalization and the gradual shrinkage of formal credit in rural areas as part of the financial liberalization. A glance at these issues before we focus on our household level analysis will substantially enhance the comprehension of the subject at hand.

Economic reforms, macroeconomic processes and agriculture:

With the opening up of food and other crop markets, Indian farmers have been exposed to the highly fluctuating world prices. The world prices of primary products declined since the mid-nineties till around

the end of the millennium as a result of an excess supply in the world market. The falling prices adversely affected the farmers in India and across the developing countries, especially those who had shifted to the cultivation of commercial crops, entailing large investments. The strategy of producing and exporting commercial crops and importing food at cheaper prices did not succeed due to the price trends in the world market during this period. Food prices also declined towards the end of the nineties, but at a far lower rate than the primary product prices.

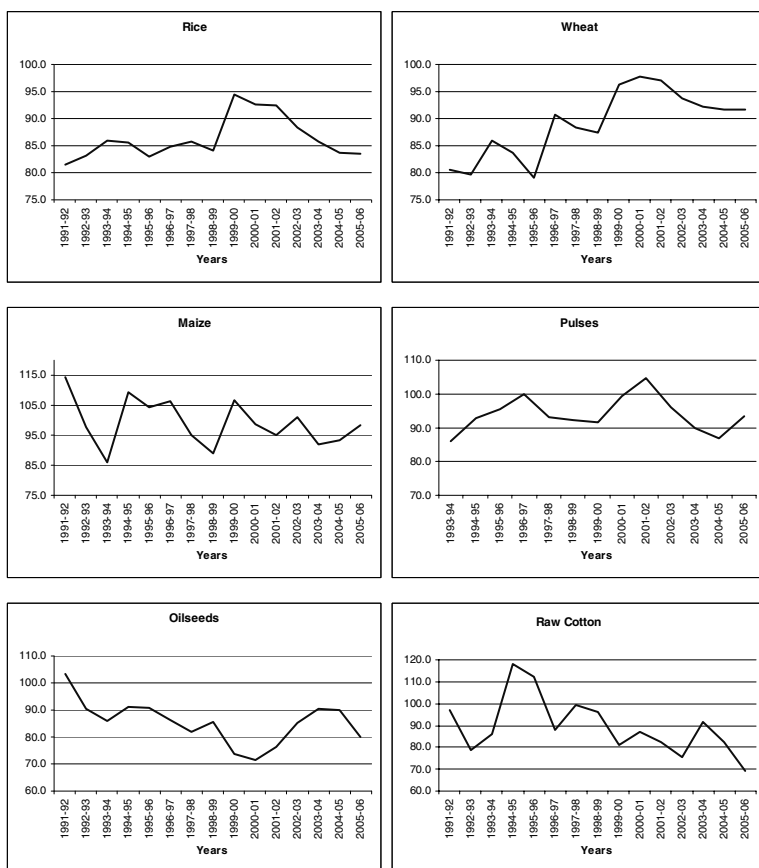
On the other hand, the primary product prices started rising since the turn of the century. Along with that food prices also increased in the world market in the new century at least at a similar rate, if not faster. An implication of this phenomenon for the small-scale primary producers in the developing world (who are mostly net food buyers) was that the real product prices they faced secularly declined over the last one and a half decades. The rising food prices in the new century, especially the phenomenal upsurges in global food and fuel prices witnessed in the last couple of years, also meant that real returns in agricultural activity in the Third World had turned even more unfavourable in recent times. Moreover, with world prices affecting domestic prices under a trade-liberalized regime, the returns to agricultural production started falling even within the domestic economies, further compounding the problem for the large rural populace in these countries.

The movements in the real producer prices in India are unambiguously portrayed by Figure 1, where we have plotted the real Wholesale Price Indices for different crops and product-groups for the period between 1991-92 and 2005-06 at 1991-92 prices. We have used the Wholesale Price Indices for Rice, Wheat, Maize and Raw Cotton and product groups like pulses and oilseeds available in the various reports of the Commission for Agricultural Costs and Prices (CACP). The nominal price indices have been deflated using the Consumer price Index for Agricultural labourers (CPI-AL).

With certain assumptions, the real producer prices capture the changes in the purchasing power of cultivators. The trends in the wholesale price indices deflated by the CPI-AL represents the changes in the capacity of the producers to purchase a particular commodity basket over time, subject to the assumptions that the costs of cultivation as a share of output, and the output share appropriated by middlemen and commission agents, have remained more or less unchanged with time. The first assumption is a particularly strong one since deregulation of input markets under the neo-liberal economic regime have pushed up prices of seeds and chemical inputs significantly. The individual crops and product groups for which we have carried out this exercise covers around 70 percent of the Gross Cropped Area in 2005-06 and hence our findings are relevant for a majority of the cultivators in the country.

The real producer prices for rice remained stable throughout the nineties but experienced a surge in the late nineties. However, this gain quickly tapered off in the new century and the real prices reached the early nineties level due to stagnated nominal prices and higher inflation. In contrast, real producer prices for wheat sharply increased initially when the economy was opened up in the mid-nineties and again towards the end of the decade. However, similar to rice, the real producer prices for wheat also stagnated during 1999-2001 and experienced a downturn in the period thereafter. Similar trends are visible for pulses. Their real producer prices have declined fast post 2001-02 to the early nineties levels after a brief upsurge at the turn of the century. On the other hand, the trend for maize has been more volatile, declining significantly in the early nineties followed by occasional upturns. Significantly, the real producer prices for maize have consistently remained below the 1991-92 level throughout the period.

Figure 1: Trends in real Wholesale Price Indices for different commodities (at 1991-92 prices)



Source: Based on Wholesale Price Index data published in various reports of the CACP.

Note: The period of analysis for pulses is 1993-94 to 2005-06 as the price indices for Pulses as a group are not available for the years 1991-92 and 1992-93.

The trends for the real producer prices for the non-food crops are significantly different from what we detect for the food crops. The real producer prices for oilseeds have secularly declined in the nineties to low levels. The subsequent rise after 2000-01 was more due to inadequate supply and poor quality production, owing mainly to the drought conditions in the early years of the new century. This implies that no real benefits accrued to producers of oilseeds due to this increase in real producer prices. This increase also got partially reversed in the last three years of the period of analysis. Raw Cotton, which has been the focus of the debate on the agrarian crisis in the country, exhibits an unambiguous declining trend in real producer prices ever since the markets were liberalized in the mid-nineties. From a high in 1994-95, the real prices in the new century dwindled fast and even slipped below the low point in 1992-93.

These price trends for the major non-food crops explicitly reveal a more systemic income deflationary process under trade-liberalization rather than mere intermittent shocks. For food crops, there is a clear erosion of real value of prices from around the year 2000. The positive effect of increasing nominal prices in the current decade has been nullified by relatively high consumer prices. We have assumed that the costs of cultivation as a share of output have remained more or less unchanged with time. In the event of rising cultivation costs in agriculture unlike what we have assumed, the decline in the purchasing power of the producers would be even greater than what we observe from the graphs. A basic implication of these trends is the necessity to stabilize both food and non-food prices. This calls for increased interventions in markets of both food and non-food commodities in the form of enhanced procurement and distribution operations in a manner that improves the net purchasing power of the primary sector producers.

Financial liberalization is the other facet of the current economic regime, which is equally responsible for mounting rural household debts. The path of financial reform adopted under the aegis of the Narasimhan Committee constituted in 1991 ensured a gradual shrinkage of the coverage of institutional banking sector in the rural areas. The committee's efforts to redefine and gradually phase out priority sector lending norms led to an immediate decline in the volume of priority sector lending by banks in the first half of the nineties. Even when lending under the caption 'priority sector' increased, the redefinition of the norms to include infrastructure funds, special bonds of State Financial Corporations and food processing companies including MNCs under the priority sector meant that lending to agriculture continued to decline in the late nineties and later. Significant literature discussing these issues and their adverse impact on agriculture and the overall rural economy are already available².

However, a cursory look at some of the banking indicators for Scheduled Commercial Banks (SCBs) show that more than 3000 rural bank branches were branded 'inefficient' and eventually closed down between 1991 and 2005 (Table 1). The percentage of rural branches to total branches started decreasing post-1991; by 2005, the figure was 45.7 percent, even lower than that in 1981. Similarly, the percentage of credit advanced in rural areas to total credit increased from 11.9 to 14.7 between 1981 and 1991 and dipped sharply to 9.5 percent by 2005. While the Credit-Deposit ratio remained more or less unchanged in the eighties, it sizably declined from 59.4 percent in 1991 to 39 percent in

2 The shrinkage of bank operations in rural areas as a result of the Narasimhan Committee recommendations and in particular, the decline of priority sector lending to agriculture, has been discussed and documented comprehensively in Ramachandran and Swaminathan (2002) and Chandrasekhar (2004).

Table 1: Trends in number of branches, credits and deposits of SCBs in rural India.

Year	No. of bank branches		Credit advanced		Deposits		Credit-Deposit ratio (%)	
	Rural (number)	% to total	Rural (in Rs crores)	% to total	Rural (in Rs. crores)	% to total	Rural	All areas
1981	19453	51.2	3600	11.9	5939	13.4	60.6	68.1
1991	35216	58.1	19688	14.7	33163	15.1	59.4	60.9
2000	32673	48.7	48753	10.6	120539	14.7	40.0	56.0
2001	32640	48.3	54431	10.1	139431	14.7	39.0	56.7
2002	32443	47.8	66682	10.2	159423	14.2	41.8	58.4
2003	32283	47.4	77153	10.2	176502	13.8	43.7	59.2
2004	32107	46.8	85021	9.7	195082	12.9	43.6	58.2
2005	31967	45.7	109976	9.5	213104	12.2	51.6	66.0

Sources: Ramachandran and Swaminathan (2002) for the figures pertaining to 1981, 1991 and 2000 and Banking Statistics: Basic Statistical Returns for 2001-2005.

2001. After 2001, this ratio shows a steep increase and rises to 51.6 percent by 2005. However, this offers no solace as it is more due to a slower growth of rural deposits (in nominal terms) than rural credit for SCBs; a joint outcome of aggressive financial reforms and the precipitating agrarian crisis.

A systematic erosion of institutional banking services in rural areas and unfavourable returns from cultivation has worked in tandem in several parts of the country to enhance manifold the vulnerability of rural households to local moneylenders. Keeping these two broad macroeconomic processes in mind, we will analyze the production outcomes of agricultural activity using our primary field enquiry data.

Field enquiry and Classification of Households:

The field enquiry was conducted between February and August in 2006. Household-level disaggregated crop-wise and farm operation-wise data on labour-use and input costs, output volumes and prices, outstanding loan details, owned and operational land holdings and asset ownership were collected. Data was also collected on paid-employment, both farm and non-farm, regular and casual wages and income generated from self-employed activities. This enabled us to estimate the farm incomes as well as total household incomes taking into account the various non-farm income sources.

The survey covered three diverse agro-climatic regions with varying economic and social structures allowing us to assess the situations of rural indebtedness under dissimilar production conditions in agriculture. The two villages surveyed in West Bengal, situated in the Raina-II (WB-rn) block in Bardhaman district, lie in the fertile Gangetic plains. Owing to abundance of groundwater in the region, the extent of irrigation is high and facilitates multiple cropping in a year. Paddy (aman) and potato are the main crops cultivated. There is also some extent of paddy (boro) cultivation in this region. The two regions

surveyed in Andhra Pradesh are Saidapur mandal (AP-sdp) in the Karimnagar district and Anantapur (rural) mandal (AP-atp) in Anantapur district. Three villages are surveyed in the Saidapur mandal. They consist primarily of households growing cotton, and around half of their operated area is irrigated. Compared to the West Bengal region, the extent of irrigation is lower in this region and cultivation is undertaken mainly in one season. In contrast, the Anantapur region is agriculturally the most backward among the three regions, has negligible irrigation and is characterized by dryland groundnut cultivation. Henceforth, we will for convenience refer to the three regions as WB-rn, AP-sdp and AP-atp.

A stratified random sampling methodology is used to draw samples for the survey. The stratification is done on the basis of operated area in order to prevent an exclusion of households with large land-holdings, which due to their thinness always contains the possibility of being left out when a simple random sampling is employed. In WB-rn, the two strata are defined by extent of operated area i.e., households below 5 acres of operated area and those above that. In AP-sdp and AP-atp, the two strata are determined by households operating below and above 12 acres. The precise reason for using different criteria for stratification across the states is due to the significant difference in the average size of land holding. The strata were arrived at after analyzing the house-listing data and demarcating the operational holding size above which the top 10 per cent households were placed. The selected sample size in WB-rn is 77 households, while it is 60 households each in AP-sdp and AP-atp regions.

We have used Patnaik's Labour Exploitation Index (E-Criterion) to classify the households into six economic classes. The calculation of the Labour Exploitation Index (E) for each household (see equation 1) has been done considering both direct labour exploitation through hiring-in and hiring-out as well as indirect labour exploitation of through leasing-out and leasing-in of land using the following equation-

$$E = X/F = [(H_i - H_o) + (L_o - L_i)]/F \dots\dots\dots (1)$$

where, H_i , H_o respectively are labour days hired-in and hired-out, L_o , L_i respectively are the total labour days on land leased-out and land leased-in and F is the family labour in self-employment. X is therefore the net direct and indirect exploitation of others' labour. E represents the exploitation of others' labour relative to the exploitation of one's own labour (Patnaik, 1976). The economic classes into which the households have been classified are rural labour (RL), poor peasant (PP), small peasant (SP), middle peasant (MP), rich peasant (RP) and landlords (LLD). The range in which the value of E lies determined the breaking up of each class (See Table 2).

Table 2: Details of Economic Classification

Economic Class	Value of E	Comments
Rural labour	$E = -\infty$	$X < 0$ and $ X $ is very large, $F = 0$.
Poor Peasant	$E \leq -1$	$X < 0$, $F > 0$, $ X $ is large and $ X \geq F$.
Small Peasant	$0 \geq E > -1$	$X \leq 0$, $F > 0$ and $ X < F$.
Middle Peasant	$1 > E > 0$	$X > 0$, $F > 0$ and $X < F$.
Rich Peasant	$E \geq 1$	$X > 0$, $F > 0$, X is large and $X \geq F$.
Landlord	$E = \infty$	$X > 0$ and X is very large, $F = 0$.

Source: Adopted from Patnaik (1976)

The poor and small peasants are the labour hiring-out classes, constituting the lower peasantry, while the middle and rich peasant are the labour exploiting classes and belong to the upper strata of the peasantry. At the two ends of the classification lie the rural labour and the landlord classes. Both these classes do not toil on their fields and have a nil F . The rural labour class hires out large quantum of their labour in the labour market due to lack of any operational holdings while the landlord class hire in large amount of labour for cultivation on their operated area or leases out land to tenants in exchange of ground rent. In the historical time-frame of a capitalist transition of agriculture,

it is the upper peasantry classes, along with the proto-capitalist landlords³, which appropriate surplus labour directly through an 'unequal exchange' in the labour market or indirectly through other exploitative relations, and lead the process of capital accumulation.

Alternatively, the households have also been grouped into six land size-classes - starting with zero or nil operated area and moving up to the size-class operating more than 10 acres. The classification according to operated area size-class is a straight-forward exercise based on the primary data collected on owned area, area leased-in and area leased-out. The operated area is the sum of owned area and the net area leased-in.

Table 3: Distribution of Households across economic and size-classes in the three regions

(in percent)			
Class	WB-rn	AP-sdp	AP-atp
RL	2.6	11.7	3.3
PP	32.5	11.7	41.7
SP	5.2	41.7	16.7
MP	20.8	20.0	20.0
RP	39.0	13.3	15.0
LLD	0.0	1.7	3.3
Total	100.0	100.0	100.0
Acres			
0	2.6	10.0	0.0
0.01-1.0	53.2	18.3	1.7
1.01-2.5	24.7	16.7	21.7
2.51-5.0	11.7	30.0	31.7
5.1-10.0	3.9	16.7	21.7
10.1 & above	3.9	8.3	23.3
Total	100.0	100.0	100.0

Source: Primary Field Enquiry

3 The proto-capitalist landlords are those who primarily undertake cultivation on their land by employing large quantum of hired labour and farm-servants. The other category of landlords is the ones who primarily lease-out land in exchange of ground-rent.

Some basic characteristics of the households in the three regions are revealed by their distribution across economic and size-classes (Table 3). In WB-rn, a significant feature of the sample is the small size of land holdings. A large 77.9 percent of the households operate between 0.01 and 2.5 acres and another 11.7 percent of the households lie in the 2.51-5.0 acres bracket. While land holdings have been historically smaller in West Bengal, a persistent land reforms programme has also ensured that large land holdings above the ceiling are not very common. The other striking feature of this region is that the rich peasants form the largest economic class, close to around 39 percent, much higher than in the other two regions. High levels of labour demand in this region originate from the cultivation of two to three crops in a year. Local labour supply alone is not sufficient to meet this demand and dependence on migration of labour from other parts of the state happens to be necessary. This sizeable net hiring-in of labour is obviously a major reason for the high proportion of rich peasant class in this region. Interestingly, the labour-exploiting upper peasantry here is larger in size than the lower peasantry. A significant point to note is that the rich peasant households are distributed across all size-classes, which means that the high demand for labour is being generated from both small and large land-holdings.

In AP-sdp, the distribution of the households across land size-classes is more spread out. The percentage of households operating 5 acres (2 hectares) and above in this region is a significant 25 percent. The small peasant class is the largest class in the region with 41.67 percent of the households. Unlike WB-rn, the rich peasant class is not only thinner (13.33 percent) but is also confined to the two highest size-class brackets (5 acres and above). The small and middle peasant classes jointly comprise more than sixty percent of the households. This indicates that although the region primarily grows commercial crops, the use of family labour is at least as important as hired labour for a significant number of households.

Finally in AP-atp, we find a large size of net labour-selling, lower peasantry classes. The poor peasant and small peasant classes respectively are 41.67 percent and 16.67 percent of the households. This is a clear indication of the higher levels of hiring-out of labour in this agriculturally backward region. Cross-classifying the households between economic and size-classes reveals that as much as 28 percent the poor peasant and 60 percent of small peasant class respectively are operating more than 5 acres. In contrast, the rich peasant and the landlord households are found to be concentrated only in the higher size-classes. The average land holdings are also larger in this dryland region; and around 45 percent of the households operate more than 5 acres.

Income Depression and Indebtedness in Rural Economy: A Class Analysis

From the disaggregated cost of cultivation data and data on output quantity and prices collected through the primary field enquiry, we have estimated the average Farm labour Income (FLI) of the households in each class. The FLI is determined according to the following relation (Equation 2)-

$$\text{Farm labour Income (FLI)} = \text{Gross Value of Output (GVO)} - [\text{Total Material Input costs} + \text{Paid-out labour costs}] \dots\dots\dots (2)^4$$

4 The GVO is the sum of Crop Output, By-Product and Livestock Product. The Total Material Input costs is determined by the following relation-
 Total Material Input Costs = $[S_f + \text{Livestock Feed}_f + M_f] + [S_p + \text{Livestock Feed}_p + \text{Livestock Maintenance}_p + M_p + F_p + \text{Fuels}_p + \text{Irrigation charges}_p + P_p + \text{Service charges}_p] + \text{Amortization cost.}$
 where 'S', 'M', 'F' and 'P' denotes seed, manure, fertilizers and pesticides respectively. The suffixes 'f' and 'p' denotes farm-produced inputs and purchased inputs respectively. The total paid-out labour costs comprise of wages paid in both cash and kind. The yearly amortization cost for productive assets has been derived by a straight-line depreciation exercise based on the data on expected life of these assets.

Total Household Income' (THI') = [FLI - Rent Payments] + Income
 from Paid-employment + Income from
 Self-employment (3)⁵

Total Household Income (THI) = [FLI - Rent Payments - Interest
 payments (OIP)] + Income from Paid-
 employment + Income from Self-
 employment (4)

The FLI represents the income of the farm households from cultivation in an economic situation where there is a complete absence of monopoly over land and credit. This renders both the ground rent and interest payment as zero. Here, by monopoly, we indicate the control of productive resources by non-producers in the economy. As both land and credit are key inputs in agricultural production, the ownership of these inputs by non-producers who also charge a return for use of these inputs in production, constitutes a kind of monopoly by non-producer agents over productive inputs. For each economic and size-class, we have an average household FLI. In order to assess the impact of credit monopoly on the production process under the real situation, we look at the share of the FLI that is required to clear all Outstanding Interest Payments (OIP) for the average household in each class across the regions (Table 4.1 to 4.3). The OIP is the accumulated interest from all unpaid loans including those taken in previous production cycle(s). The payment of ground rent also critically influenced the income situation of some lower peasantry classes in the Andhra Pradesh regions but we shall not

5 As very few households were receiving ground rent by leasing-out land and/or collecting service charges by renting-out their productive capital, we have merged both these in the category of income from self employment for the sake of convenience. Rent and service charges are returns respectively to the ownership right of land and productive capital and are usually not placed under the category of income.

go into the details of that within the scope of this paper. We have also estimated the Total Household Income, prior to making interest payments (THI'), and after making interest payments (THI) for the average household in each class (see Equations 3 and 4).

From Table 4.1 to 4.3, we can observe the diverse production situations across the regions. While the share of FLI required to clear all OIP is around 35 percent in WB-rn, the corresponding figure is almost 74 percent in the cotton-growing AP-sdp. In contrast, the situation is exorbitant in AP-atp, where the OIP exceeds the FLI for the region as a whole by more than 60 percent of the FLI. The constraint of accumulated indebtedness of the households on their agricultural production is of varying degrees across regions. It is more stringent or even prohibitive for the commercial crop growers in the Andhra Pradesh regions. One can argue that often a portion of the credit taken is diverted for consumption or for non-agricultural purposes and it is not necessary that the entire interest payments have to be made from the FLI alone. However, even after taking into account the income from other sources apart from cultivation, the situation still remains tight with the OIP constituting a high 61.53 percent in AP-sdp and 75.5 percent in AP-atp of the THI'.

We are assessing accumulated indebtedness from a class perspective. We find that both classes of lower peasantry in WB-rn generate an FLI which is short of meeting their interest payments (Table 4.1). However, the cases of the poor peasants and the small peasants are distinct from each other. The average THI or THI' of the poor peasant class in WB-rn is closer to the rural proletariat in their character; and labour-selling is the primary source of their income. Consequently, the OIP for this class forms only a modest 8 percent of their THI'. On the other hand, the small peasant class is beleaguered with a negative FLI as their average Gross Value of Output (GVO) does not cover the material and labour input costs incurred in cultivation of their land. This is primarily due to unusually lower than average physical yield of both

Table 4.1: Income and Interest payments situation across classes: WB-rn

Class	FLI (in Rs.)	Outstanding Interest Payments (OIP) (in Rs.)	OIP as % of FLI	THI (in Rs.)	OIP as % of THI	THI (in Rs.)
RL	400	400	100.0	11800	3.39	11400
PP	1253	1264	OIP>FLI	15650	8.08	14385
SP	-4146	8669	OIP>FLI	5904	OIP>THI	-2765
MP	12990	3014	23.2	12510	24.09	9496
RP	28964	8980	31.0	46510	19.31	37531
LLD	0	0	0.0	0	0.0	0
All Classes	14186	4996	35.2	26415	18.91	21419
0	400	400	100.0	11800	3.39	11400
0.01-1.0	3787	4320	OIP>FLI	13081	33.03	8760
1.01-2.5	15759	4379	27.8	17311	25.30	12932
2.51-5.0	23151	6899	29.8	23627	29.20	16727
5.1-10.0	55056	3027	5.5	61723	4.90	58695
10.1 & above	87765	17456	19.9	249098	7.01	231643
All Classes	14186	4996	35.2	26415	18.91	21419

Source: Same as Table 3

paddy and potato for this class. Such erratic variation is plausible given that this class is thin and comprises of only 4 households. However, these few households were doubly plagued by a high OIP also. The labour-exploiting upper peasantry classes, which constitute a majority of households in WB-rn, are comparatively in a much more comfortable situation as far as their pending interest obligations are concerned.

In AP-sdp (Table 4.2), the small and middle peasants are unable to cover their OIP through the FLI generated from agricultural activities. The middle peasant class is not able to clear the OIP even after making use of their non-cultivation or non-farm incomes. The share of the FLI that is depleted in the process of clearing the OIP is high not only for the poor peasant class but disturbingly high for the rich peasant class (71.5 percent) as well. Unlike WB-rn, a tight constraint on production emerging out of credit relations is not restricted to the lower peasantry alone, but is also seriously afflicting the middle and rich peasant classes in this region. In fact, the rich peasant class which generates a sizeable FLI (more than a lakh) from cultivation are left with a disposable income after payment of interest that barely allows them to meet minimum consumption norms, leave alone the question of further investments and their role in capital accumulation. The sole landlord household seems to be the only one that is at ease in the credit market. An investigation into the structure of the credit market will throw more light on this phenomenon, where labour-exploiting classes are found to be critically vulnerable with regard to the credit exchange relations they face.

We come across a worse scenario in agricultural production in the unirrigated dryland region of AP-atp. The interest obligations for the poor and middle peasants are stunningly high at 4 to 5 times their FLI, pointing that these classes are experiencing acute distress due to indebtedness and depressed returns to agricultural activity. Besides in this region, we find that a horrendously high portion (86.5 percent) of

Table 4.2: Income and Interest payments per household across classes: AP-sdp

Class	FLI (in Rs.)	Outstanding Interest Payments (OIP) (in Rs.)	OIP as % of FLI	THI' (in Rs.)	OIP as % of THI'	THI (in Rs.)
RL	-65	7336	OIP>FLI	12428	59.03	5092
PP	8330	5449	65.4	8588	63.45	3139
SP	2776	4354	OIP>FLI	7657	56.86	3303
MP	10411	12764	OIP>FLI	12277	OIP>THI'	-487
RP	106968	76431	71.5	107818	70.89	31387
LLD	246497	38000	15.4	278497	13.64	240497
All Classes	22574	16683	73.9	27115	61.53	10432
0	-76	8333	OIP>FLI	12324	67.62	3991
0.01-1.0	-1340	5496	OIP>FLI	6393	85.98	896
1.01-2.5	-2158	7239	OIP>FLI	3482	OIP>THI'	-3757
2.51-5.0	7698	4225	54.9	11134	37.95	6909
5.1-10.0	14397	12995	90.3	9991	OIP>THI'	-3004
10.1 & above	221736	122420	55.2	229496	53.34	107076
All Classes	22574	16683	73.9	27115	61.53	10432

Source: Same as Table 3

the FLI is required to clear the OIP for the rich peasant class. The fact that the proto-capitalist landlords also have OIP exceeding their FLI indicates that the debt-driven infirmity of agricultural production is more intensive and widespread in this region. The field investigations revealed the existence of bonded labour, which is used as a mode of repayment in the credit market for past indebtedness. In fact, the astronomical OIP figure that we observe for the only household in the 0.01-1.00 acre bracket is only the imputed money valuation of the outstanding interest. But that is not really relevant as the unpaid monetary debts are being settled by regular recompense in the form of dedicated physical labour-hours to the creditor.

From the point of view of the larger agrarian question, two distinct effects can be traced. For majority of the classes undertaking cultivation, including some from the upper peasantry, it is difficult to carry out even a simple peasant economy reproduction. The THI of these classes are abysmally low, and clearly is not adequate to meet the minimum consumption requirements of the households. A default in interest payments and simultaneous reduction of own-consumption to sub-standard nutrition levels are really the strategies of survival (or death) for these classes. The intensity of this income decline is illustrated by the spread of this insufficiency or shortfall amongst the labour-exploiting middle peasant classes in all three regions and also the rich peasants and landlords in the agriculturally backward AP-atp; the middle peasants in both regions in Andhra Pradesh actually end up with annual losses. This non-viability of even a simple peasant economy reproduction is reflected in the mass farmer suicides that we have witnessed in the country for a long time now.

On the other hand, the rare cases of classes that retain considerable surplus from agricultural production are the rich peasant classes in WB-rn and AP-sdp, and the sole landlord household in AP-sdp. The households in these classes appropriate significant volumes of surplus

Table 4.3: Income and Interest payments per household across classes: AP-atp

Class	FLI (in Rs.)	Outstanding Interest Payments (OIP) (in Rs.)	OIP as % of FLI	THI' (in Rs.)	OIP as % of THI'	THI (in Rs.)
RL	-2900	3600	OIP>FLI	22450	16.04	18850
PP	4041	15518	OIP>FLI	20449	75.89	4931
SP	8122	3513	43.3	10741	32.71	7228
MP	2411	12608	OIP>FLI	10569	OIP>THI'	-2040
RP	32278	27934	86.5	37167	75.16	9233
LLD	28697	35100	OIP>FLI	35697	98.33	597
All Classes	9221	15053	OIP>FLI	19938	75.50	4884
0	0	0	0.0	0	0.00	0
0.01-1.0	390	154080	OIP>FLI	14390	OIP>THI'	-139690
1.01-2.5	2871	13047	OIP>FLI	16794	77.69	3746
2.51-5.0	13897	4904	35.3	26013	18.85	21108
5.1-10.0	19292	8538	44.3	28718	29.73	20181
10.1 & above	52	26809	OIP>FLI	6855	OIP>THI'	-19954
All Classes	9221	15053	OIP>FLI	19938	75.50	4884

Source: Same as Table 3

labour through the use of modern and capitalist modes of production. However, the income they generate from agriculture and allied activities is insufficient even for these upper peasantry households to undertake large investments and upgrade their cultivation techniques without cutting down their consumption requirements to a certain extent. The following simple exercise illustrates this fact.

We calculate the Monthly Per Capita Income (MPCI)⁶, from the annual THI, for the average households in the rich peasant classes in WB-rn and AP-sdp and compare them with the Monthly Per Capita Expenditure (MPCE) required to attain certain minimum consumption standards. The average family size of households in these classes is 7.03 in WB-rn and 4.75 in AP-sdp respectively (Primary Field Enquiry). On this basis, the MPCI for the average household in WB-rn is calculated to be Rs. 445 and for AP-sdp, Rs. 551. On the other hand, the MPCE required for attaining a minimum per capita per diem calorie intake of 2200 Kcal, derived using NSS data on nutritional intake, is Rs. 573 for West Bengal and Rs. 704 for Andhra Pradesh⁷. The average MPCI of the rich peasants clearly falls short of the MPCE required for minimum consumption norms in both regions, which implies that new investments in production techniques are feasible for these households only by reducing their

6 $MPCI \text{ for } i^{\text{th}} \text{ class} = [(Annual \text{ THI for } i^{\text{th}} \text{ class}/12)/Average \text{ Family size for } i^{\text{th}} \text{ class}]$.

7 The NSS data on nutritional intake gives the per capita per diem calorie intake by the different MPCE classes. The per capita calorie intake (y-axis) plotted against the Average Per Capita Expenditure or APCE (x-axis) for each MPCE class reveals a direct relationship between the two. This relationship allows us to determine the expenditure level that achieves any particular calorie intake norm. We arrive at these figures for West Bengal and Andhra Pradesh by doing this exercise using the 61st NSS round data on nutritional intake (Report No. 513) and applying a norm of 2200 Kcal. A calorie intake norm of 2200 Kcal is chosen as that was the norm used for estimating the official poverty line of 1973-74, after the recommendations of the 1979 Task Force. For further insight on the issue, see Patnaik (2007).

consumption below the required levels and/or by defaulting to some extent in their interest or rent payments, mainly the former⁸. This largely explains the stagnation in investment and growth in the agricultural sector, now a persisting feature in the post-liberalization period.

The scanty returns in agriculture, accompanied by a move back of the formal credit institutions from rural areas in the post-liberalisation period, have pushed a large section of the peasantry to abysmally low standards of living. It has also run down the capacity of labour-exploiting dominant peasant classes to further the process of capitalist development. While intra-peasantry relations of exploitation continue to operate through unequal exchange in the labour or land-lease markets, these above-mentioned macroeconomic processes has nearly stalled the capitalist development of agriculture as a whole. It is precisely due to this that an immense debt relief programme is an urgent necessity and holds high significance for further agrarian development. A look into the characteristics and conditions of indebtedness across the regions and classes further elaborates this situation. At the same time, it points to some of the shortcomings of the recently announced debt-waiver measures in ADWDRS in its current form.

The debt situation of the households in the three regions is presented in the Tables 5.1 to 5.3. The overall outstanding debt per household (the sum of the outstanding principal and outstanding interest) is double or even more in both regions of Andhra Pradesh compared to WB-rn. An inter-regional comparison of the Debt-Assets ratio⁹ and the OIP-GVO ratio (Outstanding Interest Payments/Gross Value of Output) gives a stronger illustration of the disparity in the debt

8 Rent payments for this class in both WB-rn and AP-sdp are small and insignificant.

9 Assets comprise of buildings, livestock, means of production and transport and consumer durables of the households. The land assets and other financial assets are not included while computing the Debt-Asset ratio.

situation among the regions. The debt-assets ratio in AP-sdp is 0.66, high by any standard, while in AP-atp, it is 0.38. Comparatively, this ratio is lower at 0.22 in WB-rn. Similarly, the OIP-GVO ratio is 0.074 in WB-rn, much lower than 0.240 in AP-sdp and 0.227 in AP-atp. This emphatically points out the high volumes of debt-burdens that have come to exist in the commercial crop-growing regions under the neo-liberal policy regime.

Inspecting the situation through the lens of the different peasant classes, we find that the small peasant and the rich peasant classes in WB-rn have a higher than average outstanding debt (Table 5.1). For the rich peasant class, the debt-assets ratio and OIP-GVO ratio are all slightly less than the average for the region indicating that the class is carrying a debt burden that is commensurate with its assets and production. However, the small peasant class shoulders unusually high debt-assets ratio and OIP-GVO ratio. This class, although quite thin, is definitely ailing from a high level of accumulated debts. From the size-class classification, we find that the marginal farmers (0.01 to 1.0 acres), the majority in the region, also have a high OIP-GVO ratio of 0.213. Although the indicators which are used to measure the extent of the overall debt-burden in the region do not reveal the presence of any acute indebtedness problem, there are definitely traces of debt-driven vulnerability among the marginal cultivators and the small peasants.

We have already seen that in AP-sdp the upper peasantry classes, like the lower classes, are also facing tight constraints in the domain of credit exchange relations. The figures for both debt-assets ratio and OIP-GVO ratio for the different classes in this region authenticate this observation (Table 5.2). The outstanding debt as a percentage of physical assets was not less than 50 percent for any of the four peasant classes. The middle and rich peasants are having phenomenally high debt-assets ratios of 0.70 and 0.81. A more or less similar picture emerges for AP-atp. Here too, their debt-assets and OIP-GVO ratios do not reveal a marked distinction between the lower and upper peasantry classes (Table 5.3).

Table 5.1: Household Debt Situation across classes: WB-rn

Class	Outstanding Debt per household	Debt-Assets Ratio	OIP-GVO Ratio
RL	8400	0.70	0.103
PP	5484	0.15	0.105
SP	44669	1.25	0.297
MP	18564	0.30	0.064
RP	58255	0.21	0.067
LLD	0	0.00	0.000
All Classes	30873	0.22	0.074
0	8400	0.70	0.103
0.01-1.0	13547	0.34	0.213
1.01-2.5	26274	0.34	0.063
2.51-5.0	49899	0.34	0.054
5.1-10.0	42694	0.09	0.014
10.1 & above	242872	0.16	0.041
All Classes	30873	0.22	0.074

Source: Same as Table 3

Table 5.2: Household Debt Situation across classes: AP-sdp

Class	Outstanding Debt per household	Debt-Assets Ratio	OIP-GVO Ratio
RL	18479	1.06	0.000
PP	22020	0.61	0.203
SP	26434	0.53	0.141
MP	69014	0.70	0.211
RP	185181	0.81	0.323
LLD	388000	0.43	0.064
All Classes	60699	0.66	0.240
0	20833	3.16	0.000
0.01-1.0	14769	0.38	0.853
1.01-2.5	30039	0.50	0.460
2.51-5.0	38892	0.71	0.100
5.1-10.0	77195	0.60	0.126
10.1 & above	316420	0.72	0.285
All Classes	60699	0.66	0.240

Source: Same as Table 3

Table 5.3: Household Debt Situation across classes: AP-atp

Class	Outstanding Debt per household	Debt-Assets Ratio	OIP-GVO Ratio
RL	6600	0.14	0.000
PP	50738	0.87	0.575
SP	45663	0.32	0.071
MP	69345	0.33	0.183
RP	119123	0.42	0.217
LLD	205100	0.16	0.086
All Classes	67546	0.38	0.227
0	0	0.00	0.000
0.01-1.0	198080	198.08	48.453
1.01-2.5	38240	0.61	0.903
2.51-5.0	34625	0.42	0.113
5.1-10.0	69730	0.25	0.079
10.1 & above	128083	0.38	0.242
All Classes	67546	0.38	0.227

Source: Same as Table 3

Interestingly the susceptibility to huge debt-burdens in both these regions, as distinct from WB-rn, is not restricted to the lower size-classes (below 2 hectare or 5 acres, 1 ha. = 2.5 acres approx.). The average household in the two topmost size-classes in AP-sdp have quite high debt-assets ratios. Also, the high OIP-GVO ratio of the cultivators with operated area of more than 10 acres in AP-atp at 0.242 is not surprising, since we are aware that around 21 percent of these households actually belonged to lower peasantry classes. Glancing back at the income situations (Table 4.2 and 4.3), we can observe that the OIP ate up into a high share of or even exceeded the FLI or the THI' for the two size-classes above 2 hectares in both the Andhra Pradesh regions. This actually points to the irrationality of the unilateral differentiation ADWDRS has adopted while waiving outstanding debts between farmers operating less than 2 hectares and those operating more than that. Typically in

dryland or less irrigated areas commercial crop cultivation is more and the size of land holding is larger. Moreover, given the character of the current crisis in agriculture emanating from market risks associated with high output, households with larger operated area are not necessarily always better-off compared to the smaller cultivators. A household investing large outlay in commercial crop cultivation has to bear larger risks especially when the output prices are systemically unfavourable over a time period. In such a situation, the provision of a 'one time settlement' in the ADWDRS for farmers operating more than 2 hectares may not be adequate to salvage their sinking production systems.

The prevalent practice in the credit market, especially in case of institutional credit, is to repay the interest annually on a loan, and to renew the loan for the next year. The failure of a household to clear the interest annually forces it to obtain new loans from newer sources (often from private ones) with the objectives of carrying on production as well as to discharge the old debts. Repeated failures of this nature for a few production cycles lead to the accumulation of debts to such a high magnitude that the annual interest costs become unmanageably large. The share of the interest component in the total outstanding debt also exceeds the interest rate at which the credit was originally available due to lack of timely repayments. In such a situation, unless there is a marked jump in the returns to production, the interest costs continue to eat up larger and larger shares of the output every year.

The interest rate structure of credit itself exhibits large differences across regions. The average rate of interest on the loans taken by our sample households in the three regions is shown in Table 6. The rate is extremely high at 19.73 percent per annum in AP-sdp compared to the other two regions. The obvious reason is the higher share of non-institutional loans among all loans in this region. The higher interest rate in this region vis-à-vis the other regions indirectly reflects the interest rate gap that exists between the institutional and non-institutional credit

markets. The interest rate on loans from private sources in all the regions is found to be at least 24 percent per annum and in certain cases is as high as 60 percent. In contrast, the interest rate in the three regions for different sources of institutional loans hovered between 9 and 12 percent p.a.

Table 6: Number of loans, average interest rate and interest component of outstanding dues: All regions

	WB-rn	AP-sdp	AP-atp
No. of loans, <i>of which</i>	92	71	104
Institutional	75	27	78
Non-institutional	17	44	26
Average interest rate (p.a.)	14.64	19.73	13.82
Share of Interest in total outstanding cash dues (%)	16.18	27.48	22.29

Source: Same as Table 3

A comparison of the percentage share of interest in total outstanding cash dues of the households with the average interest rate prevailing in a region reveals the extent of default in interest payments in the short run. From Table 6, we observe that the overall interest component of the outstanding household debt in WB-rn at 16.18 percent is marginally higher than the average rate of interest (14.64 percent) of this region. This clearly indicates that a drastic build up of household interest costs with time is not much in this region. The converse is of course true for the other two regions. The share of outstanding interest in total debt is 27.48 percent in AP-sdp and 22.29 percent in AP-atp. This exceeds the average interest rate by 7.75 percentage points for AP-sdp and 8.47 percentage points for AP-atp; an unambiguous evidence of the high rates of failure on part of the households to clear their interest commitments yearly.

This brings us to the issue of sources of credit to the different classes and the differential access to formal credit across classes. The percentage

break-up of outstanding household debt for each class by source of credit, presented in Table 7, reveals the structure of credit markets in the three regions. The access to institutional credit in AP-sdp is woefully inadequate with only 23.63 percent of the total debt being owed to formal sources. Although there is a trend of increasing access to institutional credit as we move up the peasant class hierarchy, the actual extent of such access is quite poor across classes in comparison to their requirements. The high pressure of interest repayments exerted on household income that we noted earlier can be significantly reduced by providing greater access to the formal credit market with a lower interest rate structure.

This region is located in Telengana, one of the earliest casualties of trade liberalization. The volatility of world cotton prices in the mid-nineties adversely affected the cultivators here. The high default in interest payments by the cultivators, following the initial downturn in prices, led the banks to stop giving credit to them. This made it possible and easy for the private players to capture the credit market in the latter half of the nineties and charge exorbitant interest rates. Additionally the introduction of the expensive pest-resistant GM cotton plant 'Bollgard' in late nineties and its subsequent failure to decrease pesticide costs by anything worth the saying further aggravated the grim situation of the farmers. Within a few years, the Telengana region was converted into a zone of debt-driven farmer suicides.

The dominance of informal credit in AP-atp is comparatively much less taking into account the proximity of the region to the district headquarters, where commercial and cooperative banks were located. However, a distinct difference across classes can be observed in this region. While the upper peasantry classes are accessing around three-fourth of their credit from institutional sources, more than half of the credit requirements of the lower peasant classes are catered to by informal sources. Our field investigation revealed that the groundnut growers received average prices around Rs. 1460 per quintal (certain cultivators

Table 7: percentage distribution of debt by source across classes and regions

Class	WB-m		AP-sdp		AP-atp	
	Institutional	Non-institutional	Institutional	Non-institutional	Institutional	Non-institutional
RL	100.00	0.00	3.36	96.64	100.00	0.00
PP	82.13	17.87	4.24	95.76	44.55	55.45
SP	69.20	30.80	18.13	81.87	46.21	53.79
MP	65.86	34.14	12.02	87.98	76.47	23.53
RP	74.06	25.94	20.67	79.33	74.44	25.56
LLD	0.00	0.00	83.51	16.49	100.00	0.00
All Classes	73.32	26.68	23.63	76.37	64.99	35.01
0	100.00	0.00	0.00	100.00	0.00	0.00
0.01-1.0	50.90	49.10	0.00	100.00	2.26	97.74
1.01-2.5	80.15	19.85	35.02	64.98	63.59	36.41
2.51-5.0	97.88	2.12	14.73	85.27	68.87	31.13
5.1-10.0	77.33	22.67	9.50	90.50	59.79	40.21
10.1 & above	69.26	30.74	36.59	63.41	73.52	26.48
All Classes	73.32	26.68	23.63	76.37	64.99	35.01

Source: Same as Table 3

were found to be selling their crop for as low a price as Rs. 800 or Rs.1000 per quintal), which was clearly inadequate for covering the cultivation costs, no matter what production technique was being used. The repeated crop failures earlier in this decade due to drought conditions had led to a soaring debt-burden, which could not be redeemed in the subsequent production cycles due to the low output prices.

The situation in both the Andhra Pradesh regions has a serious implication for the current debt waiver scheme announced by the government. The ADWDRS does not cover the outstanding loans borrowed from informal sources. According to GOI estimates, out of the Rs. 1.12 lakh crores total cash dues of farmer households in the country in 2003, informal sources accounted for Rs. 48000 crores or nearly 43 percent of the total debt (GOI, 2007). In view of this huge non-institutional debt-burden, formalisation of informal debt is ardently required. An effective way of accomplishing it is the manner in which The Kerala Farmers' Debt Relief Commission Act, 2007 goes about it. This Act grants special powers to the State's Debt Relief Commission to negotiate with private creditors and fix a 'fair rate of interest' and an 'appropriate level of debt'. Given that around Rs.18000 crores of debt from non-institutional sources carried an interest rate greater than 30 per cent (ibid), the fixing of a 'fair rate of interest' close to the interest rates existing in the formal credit market is a necessary and productive step.

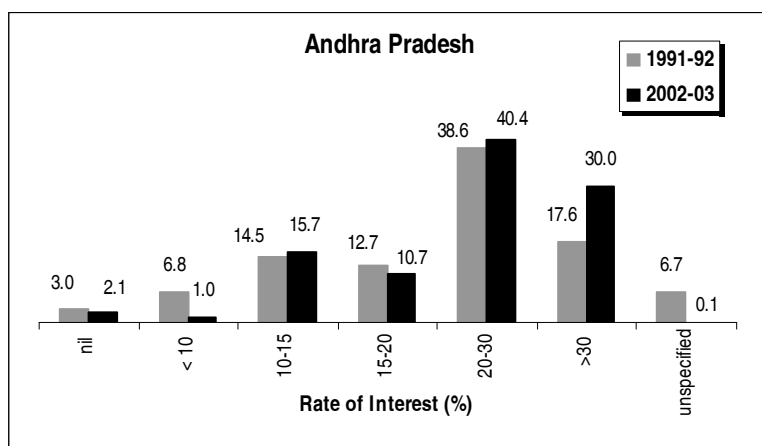
The dominance of private players in the credit market is relatively much less in WB-rn. Unlike in the other two regions, the high share of institutional credit of the lower peasantry classes is the striking feature of this region (Table 7). The existence of Adampur Cooperative Society, a well-functioning primary agricultural cooperative society, is the reason for the low dependence of different peasant classes on private moneylenders. While the debt-driven vulnerability to private credit providers is much lower in this region, we must not entirely overlook their operations. Revisiting the data by the size-group classification, we

can see that the marginal cultivators (0 to 1.0 acre) owed almost half their debts to non-institutional sources. This points to the fact that the private moneylenders are operating strongly among those sections of the peasantry with small land-holdings and consequently limited credit-worthiness in the formal market. Recent initiatives adopted by the cooperative society to provide loans to Self-Help Groups, mostly formed by women, can increasingly bring the households with limited access to land within the fold of the institutional credit market.

Our primary findings in the different regions across the two states are endorsed by the results of the secondary data of National Sample Survey. According to the Situation Assessment Survey of Farmers in the 59th round (NSSO, Report No. 498), the average outstanding loan per farmer household in Andhra Pradesh was Rs. 23,965 in 2003, much higher than the all-India average of Rs. 12,585. The corresponding figure for West Bengal was much lower at Rs. 5,237. On the other hand, the Debt and Investment Survey (59th round) revealed the much higher share of informal credit in Andhra Pradesh (72.7 percent) compared to West Bengal (32.5 percent) in 2003. However, this share had gone up for both the states when compared to the 48th round results (NSSO, Report No. 420 and 501).

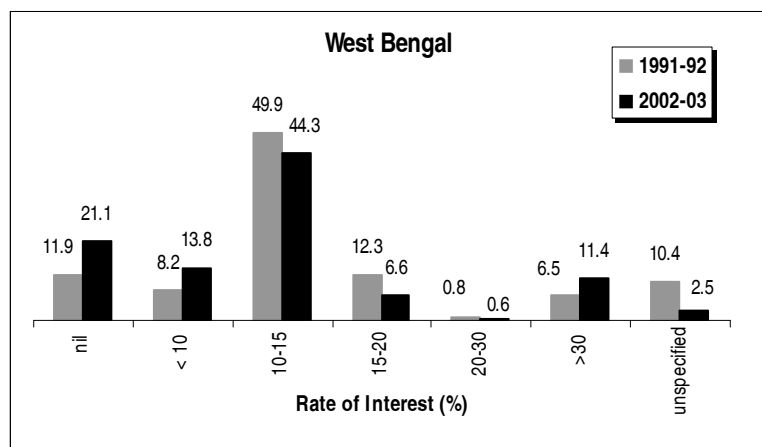
A more dismal feature that accompanies an increase in non-institutional credit is the shift in the distribution of outstanding cash dues of rural households in favour of the higher interest rate brackets. Figure 2, which represents this distribution in Andhra Pradesh for 1991-92 and 2002-03 reveals that more than 70 percent of the cash dues carry an interest rate of 20 percent p.a. or more in 2002-03, up from around 54 percent in 1991-92. A stark rise had occurred in the 'greater than 30 percent' range. In contrast, the dominant interest rate range in West Bengal is between 10 to 15 percent, similar to what we observed for the WB-rn region in our primary survey (Figure 3). However, a serious point of concern is the fact that in this state too, there is a rise in the share of the 'greater than 30 percent' range in the total distribution between 1991-92 and 2002-03.

Figure 2: Percentage Distribution of cash loans by interest rates for rural households: Andhra Pradesh, 1991-92 and 2002-03



Source: Based on data from AIDIS, 48th and 59th round (NSS Report No. 420, 501)

Figure 3: Percentage Distribution of cash loans by interest rates for rural households: West Bengal, 1991-92 and 2002-03



Source: Based on data from AIDIS, 48th and 59th round (NSS Report No. 420, 501)

The clear evidence, both from primary and secondary data sources, of high debt-burdens, increasing share of informal credit and a stringent or rising interest rate structure in rural areas is critical for further agrarian development as we have discussed above. The secondary trends disclosed by the NSS all the more strengthens the case for a simultaneous debt relief programme and public intervention to make the terms of trade more favourable for agricultural producers. We have briefly summarized our arguments below.

Summary:

The class analysis of the agricultural situation exposes the differential impact of the neo-liberal economic policies on the Indian peasantry. The conditions of peasant production vary both across regions and classes. In all regions of our study, including a primarily food growing region like WB-rn, we find that the lower classes of the peasantry face a drop in their incomes to drastically low levels, which can only support consumption levels far below the required subsistence norms. In contrast, in the commercial crop cultivating regions of Andhra Pradesh, some upper peasantry classes also suffer from income depression. The fall in income is also of such intensity that even after non-payment of their debts, it barely allowed attainment of the required consumption levels for a good number of households in these classes. On the other hand, the rare cases of upper peasantry classes which are able to retain some surplus from cultivation are just capable to cover their required consumption expenditures only, i.e. they merely accomplish a simple reproduction of the peasant economy. Although these peasant classes appropriate surplus labour, both directly in the labour market and indirectly through exchange relations in the land-lease market, the lack of effective demand for their products and consequent low output prices does not allow them realization of that surplus. Coupled with the simultaneous scaling down of government operations with regard to inputs and infrastructure required by agriculture over the reform period, this has hindered the process of capital accumulation that is so essential for furthering agrarian development in

the country. The prolonged stagnation and low investments in the primary sector is precisely due to these reasons.

Given this specific nature of stagnation, there is a strong case for stabilization of output prices for primary and food commodities in the economy. For this purpose, there is an urgent need of enhancing the procurement operations of the government, for both food and non-food crops, and expand the public distribution system to pre-TPDS levels. Since an overwhelming majority of the peasantry in the country are net food-buyers, robust procurement and distribution operations are of central importance for the real output prices faced by peasant producers to come out of their deflationary trends and witness an upturn.

The magnitude of the constraint in the sphere of credit exchange relations that has emerged for primary commodity producers also call for a comprehensive debt relief policy. The ADWDRS has been a welcome step towards that end. Nevertheless, there is need for more effective measures that will negotiate the huge debt burden of farmers to informal sources. The adoption of unilateral and misplaced targeting rules based on size of land holdings in ADWDRS also limits the effectiveness of the debt relief policy. A formulation of a more inclusive debt-amelioration policy by setting up a debt-relief commission, strengthened by expansion of rural institutional credit facilities and improved real returns for agriculture can effectively release the primary sector from the clutches of deflation and indebtedness into which it has got itself ensnared in recent times.

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References:

- Chandrashekhar, C.P. (2004) 'Bank Reform and the Rural Sector', available on www.macroskan.com.
- GOI, (2007) Report of the Expert Group on Agricultural Indebtedness, Ministry of Finance.
- GOI, Agricultural Debt Waiver and Debt Relief Scheme, 2008.
- GOI, Reports of the Commission for Agricultural Costs and Prices for the years 1997, 2002 and 2008.
- Government of Kerala, 'The Kerala Farmers' Debt Relief Commission Act, 2007'.
- Labour Bureau, GOI, 'Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)'.
- NSSO, Report No. 420, 'Indebtedness of Rural Households as on 30.6.1991, Debt and Investment Survey, 1992'.
- _____ Report No. 498, 'Indebtedness of Farmer Households, Situation Assessment Survey of Farmers, 2002-03'.
- _____ Report No. 501, 'Indebtedness of Rural Households as on 30.6.2002, Debt and Investment Survey, 2002-03'.
- _____ Report No. 513, 'Nutritional Intake in India, 2004-2005'.
- Patnaik, U. (1976) 'Class Differentiation within the Peasantry: An Approach to Analysis of Indian Agriculture', *Economic and Political Weekly*, Vol. 11(39), Review of Agriculture, 82-101.
- _____ (2007), 'Neoliberalism and Rural Poverty in India', *Economic and Political Weekly*, Vol. 42(30): 3132-3150.
- Ramachandran, V. K. and M. Swaminathan (2002) 'Rural Banking and Landless Labour Households: Institutional Reform and Rural Credit Markets in India', *Journal of Agrarian Change*. Vol. 2(4): 502-544.

RBI, Banking Statistics, Basic Statistical Returns, 2001-2006, Mumbai,
Reserve bank of India.

_____, (2007) Handbook of Statistics on Indian Economy.

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