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**Emerging Constraints on Smallholder Agriculture in
Developing Countries under Neo-liberalism and Impact of
the Global Crisis: Evidence from the rural economy in India**

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ABBREVIATIONS

AIDIS	All-India Debt and Investment Survey
CACP	Commission for Agricultural Costs and Prices
CFS	Committee on the Financial System
CPI-AL	Consumer price Index for Agricultural labourers
FAO	Food and Agricultural Organization
FLI	Farm Labour Income
GDP	Gross Domestic Product
GOI	Government of India
ICT	Information and Communications Technology
IMF	International Monetary Fund
NAFTA	North American Free Trade Agreement
NSS	National Sample Survey
OIP	Outstanding Interest Payment
PS	Primary Status
RBI	Reserve Bank of India
RSS-1	Ribbed Smoked Sheet-1
SCB	Scheduled Commercial Bank
SS	Subsidiary Status
US	United States of America
WPR	Work Participation Rate

The contemporary financial crisis that has its roots in the collapse of the sub-prime housing boom in the US, primarily in its giant and fast-expanding financial sector, has steadily engulfed the real economy. The crisis has intensified at a fast pace and spread into the developing economies with multiple implications. The global South is likely to be more adversely affected given the already existing vulnerabilities like hunger and malnutrition. The phenomenal increase in food prices that preceded the global meltdown meant that the developing countries are having to cope with a twin crisis- Global Food Crisis and the Global Financial Crisis. While the high food prices threaten to seriously aggravate the persisting hunger and malnutrition in the developing countries, the financial meltdown is rapidly causing demand contraction in these economies, which are significantly integrated with the global markets.

The meltdown of the housing boom has caused immediate mayhem in the urban economies across the world, primarily in segments that were directly or closely linked with the financial markets. Scholars in both developed and developing countries have also focussed their studies mainly on the urban segments of the economy while assessing the impact of the financial crisis. However, as the contemporary global crisis has steadily crept into the real economies, it has become equally crucial to assess the impact of the crisis on the rural economies, particularly in developing countries. This becomes all the more important as the rural economies in most the developing world were already gripped with stagnation prior to the unfolding of the current crisis. The developing countries have adopted several structural adjustment measures in their economies, for varying lengths of time now, under the neo-liberal policy regimes. The impact of policies emphasizing cut-down of public expenditure has mostly had negative implications for the rural economies in the South and specifically for small-holder peasant agriculture.

Smallholder agriculture under neo-liberalism:

Small-holder agriculture which predominates on large tracts of land in the developing countries is slowly regaining its importance after decades of neglect that it was subject to under neo-liberal policies. With the Bretton Woods Institutions recommending large-scale corporate agriculture as the way forward, small-scale peasant agriculture was considered more of a hindrance to the capitalist development and progress of developing countries. However, the recent food crisis, which questions the whole philosophy behind the large-scale corporate agriculture and food production and northern bio-fuels policies, perforce has shifted the attention of policy-makers, at least in some quarters, towards the need to boost small-scale agriculture (FAO, 2008).

The experiences of small-holder agriculture in several developing countries under trade-liberalization regimes are strikingly similar. In The Central American country of Mexico, structural adjustment policies introduced in the 1970s played havoc for agricultural productivity and food production, thereby reversing the gains made by agriculture during the preceding thirty years of reformist policies. Further, the policies of trade liberalization and in particular, the NAFTA agreement in the nineties, transformed the country, which was once an abundant producer of food, into a net food importer, completely dependent on US corn. The country which in fact had domesticated corn, witnessed demonstrations of tens of thousands of people in 2007, when US corn prices

had surged by 60 percent. Nearly three decades of structural adjustment policies have also led to serious political instability in Mexico (Bello and Baviera, 2009).

Similar stories of wilting crop productivity under stringent neo-liberal policies and eroding food security is more common in the African countries which had adopted structural adjustment policies in the 1980s under the aegis of the international lending institutions like the IMF and the World Bank. Scholars have clearly outlined the process of *depeasantization* or *deagrarianization* that has set into the African countryside destroying millions of livelihoods in the rural sectors of the different African countries (Bryceson 2004, 2009). A simultaneous pauperization process where large number of people from the rural agricultural communities moves into nearby cities in search of employment and start living in typical urban slums. Estimates at the turn of the century reveal that roughly 63 percent of the urban population on the globe resides in slums (McMichael, 2009). The dismantling of public crop-procuring parastatals and various subsidies to support smallholder cultivation has led to a severe decline in productivity and food output in the Sub-Saharan Africa (Bello and Baviera, 2009), also the home now to the largest proportions of hungry people in the world.

There has been an increasing dependence of these countries on the world markets for food security, which increasingly remained elusive as food prices started moving adversely relative to the export crops that these countries had started producing. The stark decline in energy intakes by the African population and gross increase in under-nourishment is what followed as a result of these policies (Patnaik, 2007; FAO, 2008). Earlier in this decade, the severe Malawi famine was put to an end, when the government reintroduced the fertilizer subsidies that were abolished earlier, going against the wishes of its international lenders. The fact that Malawi not only ended her famine but also became a food surplus nation thereafter illustrates the effectiveness of public expenditure support that African agriculture has been starved of for decades now (Banerjee, 2007).

Various Asian countries also reveal stagnated conditions of agriculture under the effect of neo-liberal policies. The history of the rice crisis in Philippines in 2008 is starkly similar to the Mexican story as Philippines had also been a net-exporter of rice till the mid-nineties when the government policy shifted towards export-oriented non-food cultivation (Bello and Baviera, 2009). Countries like Bangladesh in South Asia, which fall in an agro-climatic zone highly favourable to rice cultivation has to depend on the world market for rice imports while her own land is used to cultivate export crops for supply to the North Atlantic countries (McMichael, 2009).

The neo-liberal economic regime relegates the agriculture sector to one of secondary importance thereby imposing mass deflation on the millions who live and depend on the agricultural and other rural livelihoods. A persisting stagnation is witnessed in the agricultural sector, which very soon turned into an agrarian crisis, even as the remaining economy grows at a fairly high rate (Patnaik, 2002). This has been the experience of India where neo-liberal economic reforms were introduced in 1991. The process of capital accumulation and further investments in the agricultural sector is severely hampered and nearly arrested by the deflating levels of farm incomes thereby perpetuating the stagnation in the sector (Banerjee, 2009). Apart from the fact that farmers are not being able to generate enough income for reinvestment, there has also been large-scale debt-driven farmer suicides (Nagaraj, 2008), predominantly in areas growing export

crops over the last decade, indicating that even a simple reproduction of the farm economy has become unviable under the neo-liberal regime.

Intensification of the Triple Constraint on Indian Agriculture:

The impact of the financial crisis on the rural economies, specifically on smallholder agriculture, in the developing world has to be assessed in this context of stagnation that has already gripped the agricultural sectors prior to the financial crisis. The Indian case is interesting to study particularly because the Indian economy has been witnessing very high rates of growth in the current decade. This growth process however has been starkly dual. While the secondary and tertiary sectors mainly located in the urban areas have experienced phenomenal growth rates, the primary sector on which millions of rural population are dependent for their livelihoods have been growing at less than 3 percent per annum. Between 1991-92 and 2007-08, the industrial and services sector grew at impressive annual rates of 6.3 and 8.2 percent respectively while the agricultural sector registered a mere 2.8 percent over this reforms period¹. With this dual character of the Indian growth story in mind, let us try to enumerate the possible impacts of the financial crisis on small-holder agriculture in India.

The partial liberalization of the financial sector in the Indian economy due to a number of reasons has caused relatively less exposure of the Indian banking sector to international finance. While the banking and financial sectors may not have to line up for bail-out packages as in the West, the real sectors of the Indian economy will be significantly affected given their dependence on export-led growth strategies in recent times. The shrinking of aggregate demand in the world market as a consequence of the crisis will hurt the exporting manufacturing industries in the country. This is already evident in certain export-driven industries like the textiles, leather or gems and jewellery, where there have been significant job-losses with the onset of the crisis. This, along with a squeeze in the high-income service sectors like financial services, hospitality or tourism will lead to a reduction in consumption spending and overall demand within the domestic economy. A direct consequence of this is a simultaneous loss of existing informal sector employment and lower generation of new non-farm employment in the economy.

In this emerging context, there is a clear possibility of an aggravation of the current situation of agrarian distress in the rural areas. The implications of the financial crisis for the rural economy can be identified as the intensification of three constraints on the production systems of the rural economy. This is not to ignore other multiple effects of the crisis on rural livelihoods but to identify three fundamental impacts of the crisis. Two of these constraints can be categorized as direct impact of the financial crisis, namely, plummeting product prices of agricultural commodities and declining availability of credit to small-scale agriculture. The third constraint is more indirect in nature arising due to the shrinkage of non-farm employment opportunities in the secondary and tertiary sectors and increasing pressure of the work force on the primary sector.

A major impact of the current crisis is an imminent depression in the world demand and prices of primary agricultural products which are cultivated on a commercial basis with the purpose of export. We can locate this phenomenon in the context of the

¹ The annual growth rates are computed by fitting an exponential curve to the sectoral GDP data available in the Handbook of Statistics on the Indian Economy, RBI.

already declining real returns from agricultural production, especially for commercial crops, in the post-liberalization period. The onset of a global economic crisis will further the income deflation that the primary sector in the country has witnessed over the last decade or so.

The other direct impact of the world financial crisis will occur in the arena of credit availability to the small-scale agriculture and other rural livelihoods in the near future. Given the nature of the financial crisis comprising of high default rates and a plunging of lenders' confidence, it is very much plausible that the banks increasingly adhere to stringent credit disbursal norms. This implies that small and petty producers in the rural economy are most likely to be excluded from credit coverage, which will further accentuate the already disturbing trends of withdrawal of institutional credit from rural areas under the neo-liberal economic regime. The stranglehold of private moneylenders on the peasant economy that has strengthened in this period as shown by NSS Debt and Investment Survey data, promises to be intensified in such a scenario.

The indirect consequence of the crisis on the rural sector will originate from the slowdown experienced by the secondary and tertiary sectors. The agrarian crisis that precipitated over the last decade had perforce caused a shift in the employment pattern in the economy towards more non-farm employment, particularly self-employment in the informal sector. This can be largely viewed as a coping response from the rural populace in the face of the compression that agricultural activity faced under a liberalized trade regime and often returns in such non-farm employment has been meagre. The fact that the present crisis will potentially decelerate the manufacturing and services sectors imply that occupational diversification, even if on unfavourable terms, will be more difficult to achieve. A relative increase in dependence of the workforce on agriculture will only compound the problems manifold given the direct adverse impacts of the crisis on the primary sector production as outlined above. The financial crisis, therefore, threatens to worsen the agrarian crisis, intensify the income deflation that is already a feature of the rural economy and consequently aggravate the alarming levels of hunger and malnutrition that currently exist in the countryside.

Assessing the constraints in a historical framework:

It is important to review the possible scenario in the agricultural sector in a historical time-frame precisely for the reason that the sector was not booming during the high growth regime in the Indian economy. The stagnation and crisis that has already afflicted the rural economy over the past one and a half decades imply that the onset of the global crisis will only serve to intensify the existing adverse trends in the primary sector. We will therefore assess the different constraints on the rural economy in the backdrop of the processes that were occurring in the period of economic reforms.

Falling Output Prices-

The real returns in agriculture were already declining, particularly for commercially cultivated crops, under the economic reforms period. Since the liberalization of trade in agricultural commodities in the mid-nineties, the movements in food-grains prices have mostly been unfavourable relative to the product prices of non-

food-grains and other commercial crops. 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.

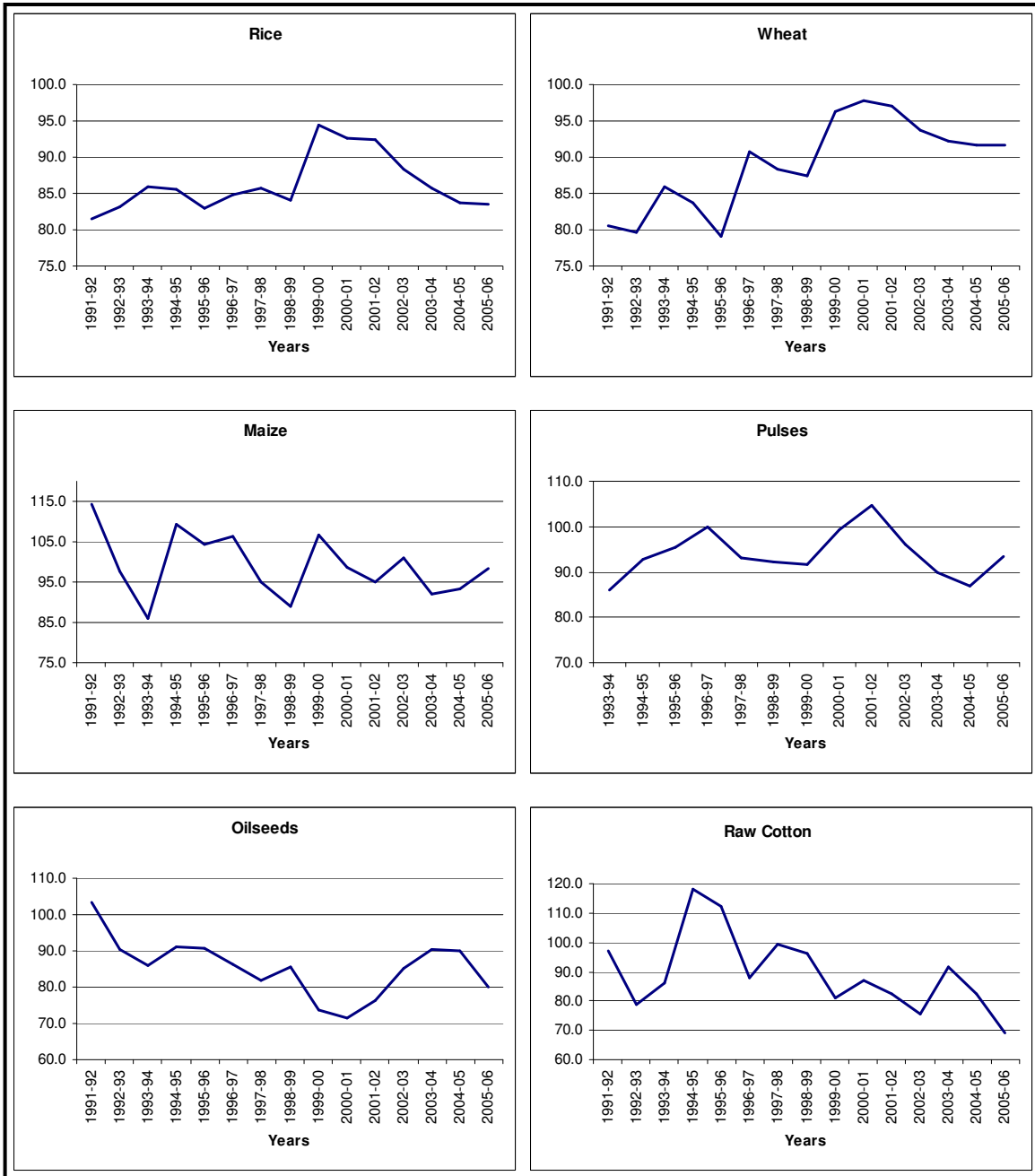
On the other hand, the primary product prices started rising since the turn of the century. Along with that food prices also increased in the world market in the new century at least at a similar rate, if not faster. An implication of this phenomenon for the small-scale primary producers in the developing 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.

To understand this phenomenon, we look at the trends in the real producer prices for major crops in the post-reform period. The movements in the real producer prices in India are unambiguously portrayed by Figure 1, where we have plotted the *real* Wholesale Price Indices (at 1991-92 prices) for different crops and product-groups for the period between 1991-92 and 2005-06. 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, assuming that the costs of cultivation as a proportion 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 given that with deregulation of input markets under the neo-liberal economic regime, prices of seeds and chemical inputs have undergone significant upward revisions.

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 and the real prices reached the early nineties level due to stagnated nominal prices and higher inflation in the new century. Similarly, real wheat prices also increased till 1999-00 and faced a stagnation and downturn thereafter. Similar trends are visible for pulses where the real prices have fast declined post 2001-02 to the early nineties levels after a brief upsurge at the turn of the century. The real prices for maize have been more volatile, but remained consistently below the 1991-92 level throughout the period.

Figure 1: Trends in real Wholesale Price Indices for different Crops and Crop-Groups (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

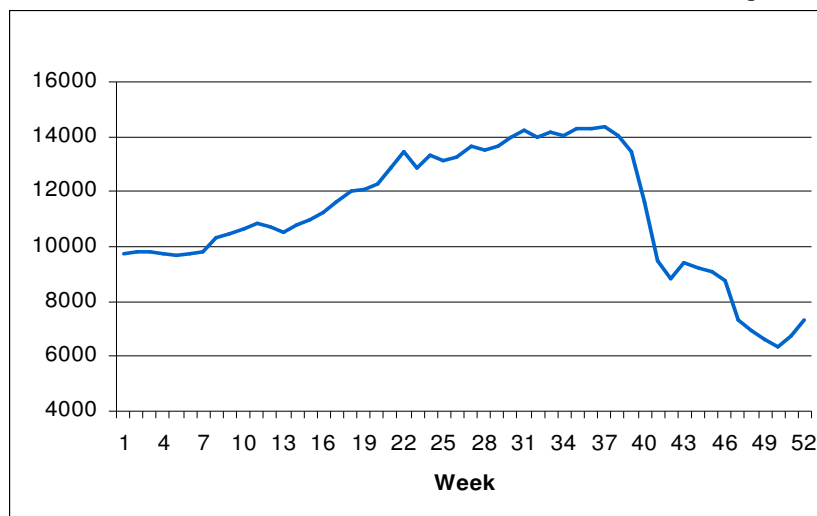
The trends for the real prices for the non-food products are significantly different from what we observed for the food crops. The real producer prices for oilseeds have secularly declined in the nineties to low levels. The subsequent rise for oilseeds after

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 were accrued by producers due to this increase which also got partially reversed in the last three years of the period of analysis. Raw Cotton, which has been at the centre of the agrarian crisis in the country, exhibits an unambiguous declining trend in real prices ever since the markets were liberalized in the mid-nineties. From a high in 1994-95, the real prices have fast dwindled and even slipped under the low value that existed in 1992-93.

These price trends explicitly reveal a more systemic income deflationary process under trade-liberalization for commercially cultivated crops like cotton or oilseeds rather than mere intermittent shocks. For food crops also, there is a clear erosion of real value of prices from around the year 2000. In the event of rising cultivation costs in agriculture unlike what we have assumed, the decline in the purchasing power of the producers is even greater than what we observe from the graphs.

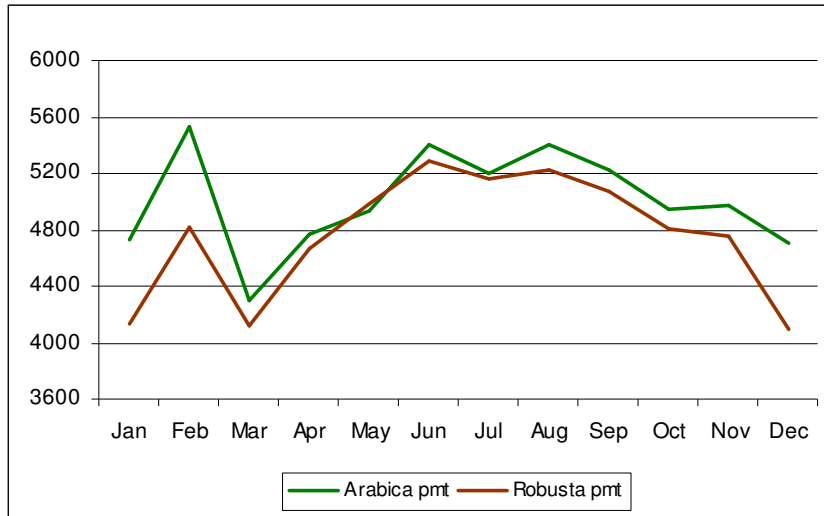
In the face of this ongoing income deflation in agriculture, renewed price shocks triggered by the financial crisis will further intensify the pressure of inadequate output prices in cultivation. Over the last couple of years, prices of most commercial crops witnessed a surge inducing more cultivators to shift to cultivating these crops. However, the simultaneous phenomenal surge in global food and fuel prices and the high inflation rates in 2008 in the Indian economy also meant that their real returns did not increase as much as the nominal prices did. Moreover, the volatility of commercial crop prices is of a nature such that the periods of high prices have not been long-lasting. Often, the premium of high prices at the start of a growing season withers well before the harvesting season or by the next growing season preventing any significant rise in the average rate of return from cultivation of these crops. In fact, farmers who were induced to shift to these crops due to the high export prices are prone to accumulate sizeable losses due to the investments that they have already undertaken for growing these crops.

Figure 2: Weekly Rubber Prices (RSS-1) in 2008: Kottayam
(in Rs./quintal)



Source: Rubber Board, Ministry of Commerce and Industry, GOI

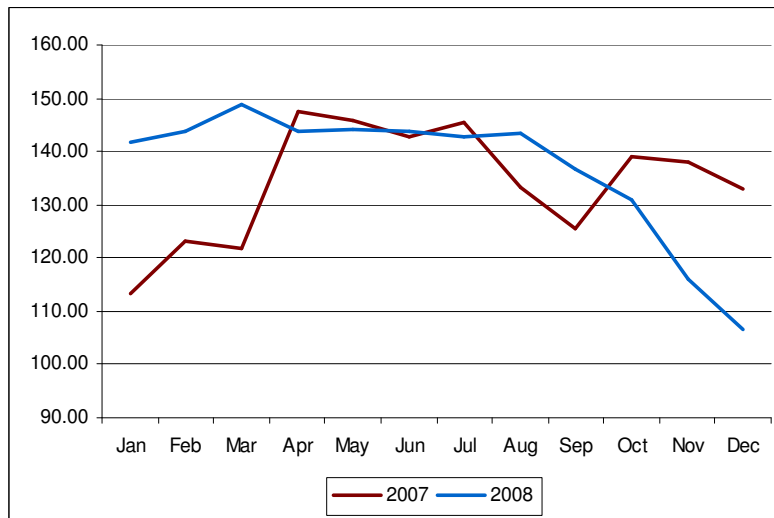
Figure 3: Raw Coffee (Parchment) month-end prices, 2008: Karnataka
(in Rs./50 kg)



Source: *Market Information*, Coffee Board of India (www.indiacoffee.org)

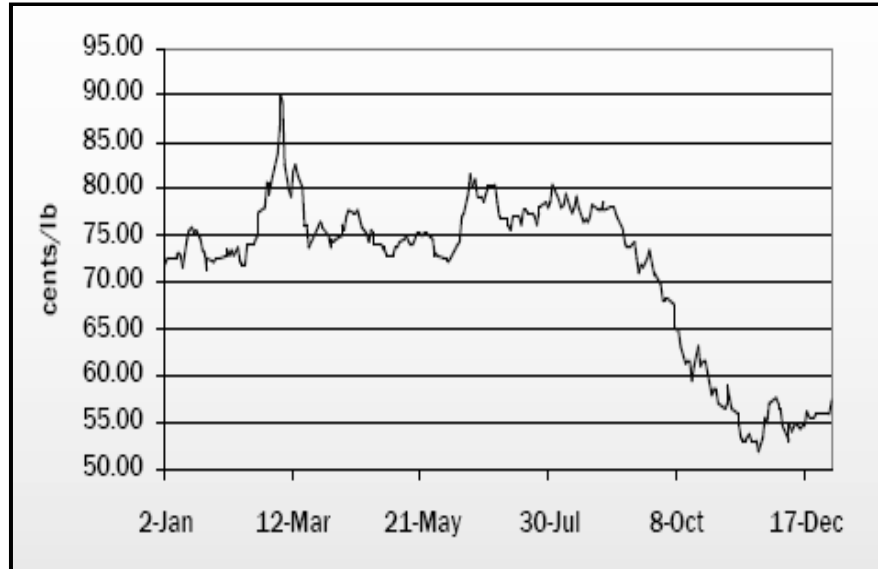
The recent prices trends of some major commercial crops illustrate this fact. The weekly rubber prices in the Kottayam market exhibits a steady increase in 2008 till the onset of the global financial crisis (Figure 2). The prices crashed in mid-October (38th week) and returned to levels much lower than that in the initial weeks of 2008 when prices started increasing. Such a short cycle of prices where high prices do not persist for even a full year is grossly disadvantageous to the grower. Similar trends are visible for coffee prices also (see Figure 3) where the prices are declining since September. For Robusta coffee, the prices by December were already as low as that in March.

Figure 4: Monthly Pepper Prices (Kochi): 2007 and 2008:
(in Rs./Kg)



Source: *Monthly average domestic prices of different spices in India*, Spices Board of India, Ministry of Commerce, GOI

Figure 5: Cotlook A Index during 2008



Source: Cotlook Monthly, December 2008, Vol 1, Issue 12.

The pepper prices (Figure 4) in contrast started rising in early 2007 and sustained till September, 2008 when the financial crisis started pushing the prices downwards. The world cotton prices as represented by the Cotlook A Index (Figure 5) also sustained high levels for the entire 2007 and most part of 2008. However, the prices crashed in October, 2008 with the meltdown of the financial markets and reached abysmally low levels that were reminiscent of the period in early 2007 when speculative activities started gaining at the New York Commodity Exchange. For both these crops, the high price regime lasted for at least a year suggesting that growers may have made some gains during this period unlike rubber or coffee growers. However, given the crash in prices in recent months, growers are likely to accumulate losses, especially on count of any long-term investments that they had made for cultivating these crops.

In the gross analysis, the short-lived character of high prices in the case of commercial crops causes hardships for small-scale farmers in the form of poor average returns. Given that backdrop, the crash in prices due to the financial crisis will accentuate losses particularly for those farmers who shifted to commercial crops and undertook large investments, attracted by the high prices, within the last couple of years.

Worsening Rural Credit Availability-

The other direct impact of the world financial crisis will occur in the arena of credit availability to small-scale agriculture and other rural livelihoods in the near future. There is a possibility that a regime of credit rationing by banks will be triggered by the crisis in which case, small and petty producers in the rural economy will find it all the more difficult to access formal credit. This will further expedite the alarming trend of a gradual and systemic retreat of the institutional banking services from the rural areas under the reforms period since 1991.

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

Year	No. of bank branches		Credit advanced		Deposits	
	Rural (number)	% to total	Rural (in Rs. crores)	% to total	Rural (in Rs. crores)	% to total
1981	19453	51.2	3600	11.9	5939	13.4
1991	35216	58.1	19688	14.7	33163	15.1
2000	32673	48.7	48753	10.6	120539	14.7
2001	32640	48.3	54431	10.1	139431	14.7
2002	32443	47.8	66682	10.2	159423	14.2
2003	32283	47.4	77153	10.2	176502	13.8
2004	32107	46.8	85021	9.7	195082	12.9
2005	31967	45.7	109976	9.5	213104	12.2
2006	30610	43.2	126078	8.3	226061	10.8
2007	30393	41.5	154898	8.0	253014	9.7

Sources: Ramachandran and Swaminathan (2002) for the figures pertaining to 1981, 1991 and 2000 and Banking Statistics: Basic Statistical Returns, RBI for 2001-2007.

The banking statistics for Scheduled Commercial banks (SCBs) reveal a gradually shrinking trend of the institutional banking sector in the rural areas (Table 1). The percentage of rural branches in total branches started declining post-1991; the decline in the nineties and afterwards not only offset the increase during the eighties but also went further below the level of 1981. Nearly 5000 rural bank branches have been closed between 1991 and 2007 citing their 'inefficient' functioning. During these seventeen years, the share of rural areas in total bank branches came down from 58.1 to 41.5, a reduction of more than 16 percentage points.

On the other hand, the percentage of rural credit to total credit advanced also exhibits a similar trend. This figure increased from 11.9 percent to 14.7 percent between 1981 and 1991 and has fallen sharply to 8.0 percent by 2007. In contrast, the share of rural deposits did not show any significant reduction at least till 2001. However, after 2001, the percentage of rural deposits also started falling rapidly for SCBs; by 2007, this share was only 9.7 percent compared to 14.7 percent in 2001. This can be attributed as a joint outcome of a decade of continuous income-deflationary policies, aggressive financial reforms and the precipitation of an agrarian crisis.

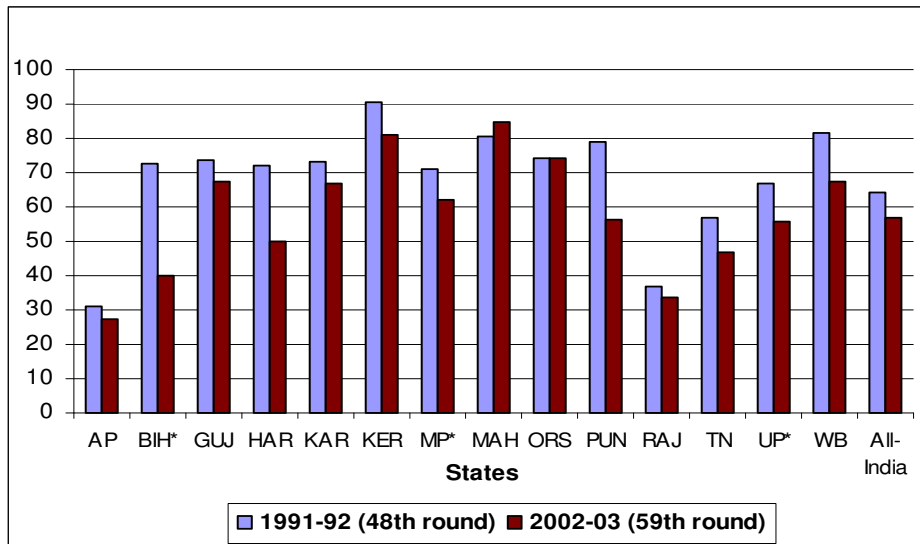
From these figures, it is adequately clear that the banking sector has been steadily curbing its operations in the rural credit market in the face of a crunch in the rural economy. The foundations of the financial reforms were laid down by the recommendations of the Committee on the Financial System (CFS) under the chairmanship of M. Narasimhan constituted in 1991. The priority sector lending norms that effectively served agriculture, small industry and self-employment after the nationalization of banks in 1969 were sought to be phased out by the Narasimhan committee.

The immediate result was a decline in the priority sector lending by banks, which consistently fell short of the target of 40 percent till 1996. The share of the priority sector

lending started increasing after 1996 but that was mainly due to the redefinition of the norms and inclusion of new categories under the priority sector. The inclusion of investments in new infrastructure funds and special bonds of State Financial Corporations and credit advances to the food processing industry under the new definition meant that even loans disbursed to multinational companies like Pepsi or Kelloggs qualified as priority sector lending. As a result, the lending to agriculture by the banks kept on declining even after 1996. This served to increase the vulnerability of cultivator households to private moneylenders at a rapid pace in several parts of the country².

The situation of credit availability in the rural areas in the recent past is better illustrated if we look at the issue from the lens of the rural households. The NSS-conducted All-India Debt and Investment Surveys of 1991-92 (48th round) and 2002-03 (59th round) reveals a decrease in the share of institutional credit sources in the total outstanding cash dues of rural households from 64 percent in 1991-92 to 57.1 percent in 2002-03 (NSS Report No. 420 and 501).

Figure 6:
Percentage of Formal credit in total outstanding dues: All Rural Households



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

* The data for 2002-03 also includes the new states formed through bifurcation of these states

During the same period, all major states, except Maharashtra and Orissa experienced significant declines in this variable (see Figure 6). While the access to formal credit for rural households was already low for states like Andhra Pradesh and Rajasthan in 1991-92, others like Bihar, Punjab and Haryana witnessed large declines in this share during this period. Most of the other states experienced a moderate fall in this share including Kerala and West Bengal, the two states where the access to institutional credit for rural households were highest in 1991-92. As a result, by 2002-03, we observe an

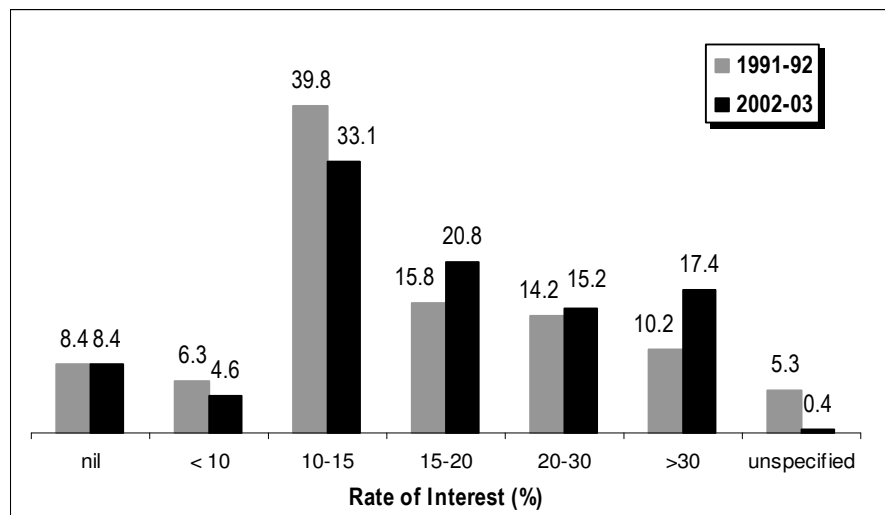
² The shrinkage of bank operations in rural areas as a result of the Narasimhan Committee recommendations and in particular, the decline of priority sector lending to agriculture, has been discussed and documented comprehensively in Ramachandran and Swaminathan (2002 and 2005) and Chandrasekhar (2004).

increase in the number of states where informal credit sources were dominating the rural credit markets i.e. supplying more than half of the credit requirements of rural households. In this respect, Haryana, Bihar and Tamil Nadu joined the ranks of Andhra Pradesh and Rajasthan by 2002-03; the latter were already in that situation in 1991-92.

The shrinkage in institutional credit for rural household implies a greater stranglehold of private moneylenders and traders, charging usurious interest rates, on the credit markets. As a result, the interest rate structure of the credit market shifts towards higher rates causing a greater diversion of money capital from the production system in the primary sector to meet the demands of credit monopoly.

The changes in the interest rate structure in rural areas for the country between 1991-92 and 2002-03 can be observed from Figure 7. For all-India, the distribution of cash loans shifted in favour of the higher interest rates between the 48th and the 59th round. The percentage of credit taken by rural households that had an interest rate between 10 and 15 percent was lower at 33.1 percent in 2002-03 compared to 39.8 percent in 1991-92. While this bracket still remained the dominant range of interest rate on credit, its share has undergone a decline over this period. The share of cash loans with an interest rate of less than 10 percent has also declined by a small percentage in this period. As opposed to this, the share of the higher interest rate brackets has increased. The percentage of cash loans with an interest rate between 15 and 20 percent shows a significant rise of 5 percent over this period. However, what is most disconcerting is that the highest range of interest rates (more than 30 percent) witnessed the largest rise from 10.2 percent in 1991-92 to 17.4 percent in 2002-03.

Figure 7: Percentage Distribution of cash loans by interest rates for rural households: All India, 1991-92 and 2002-03

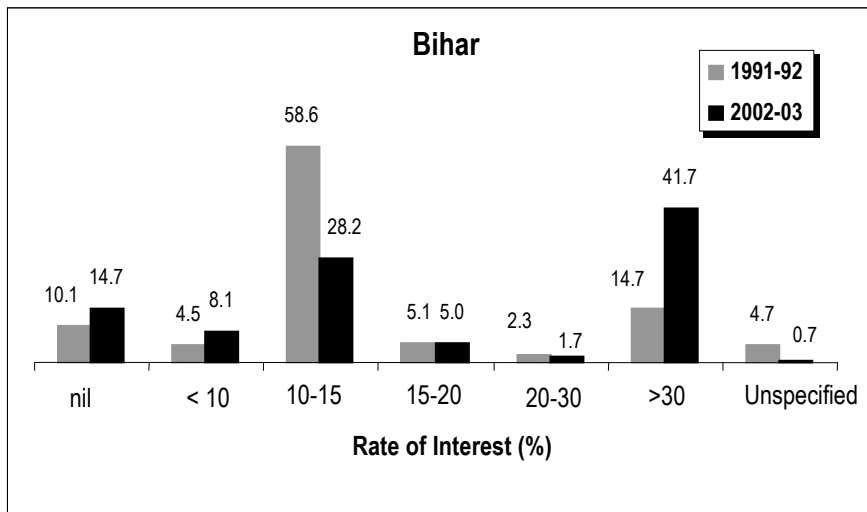
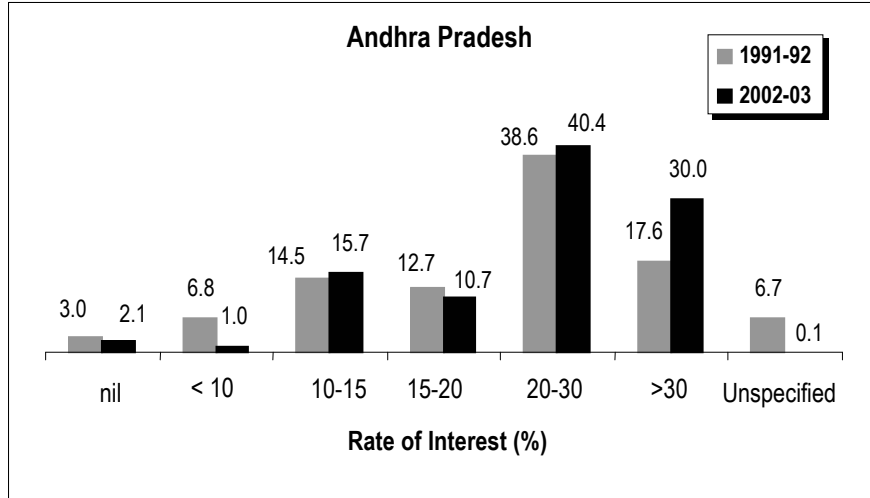


Source: Based on data from AIDIS, 48th and 59th round (NSS Report No. 420, 501)

While looking at the cash loans distribution by interest rate for all the states would be too cumbersome for the scope of this paper, we have tried to look at a few states with two distinctly different situations. We saw earlier that Andhra Pradesh and Bihar were two states where the share of formal credit in rural areas was less than that of informal credit (Figure 6). In such states with low formal credit, we can observe that the shift of

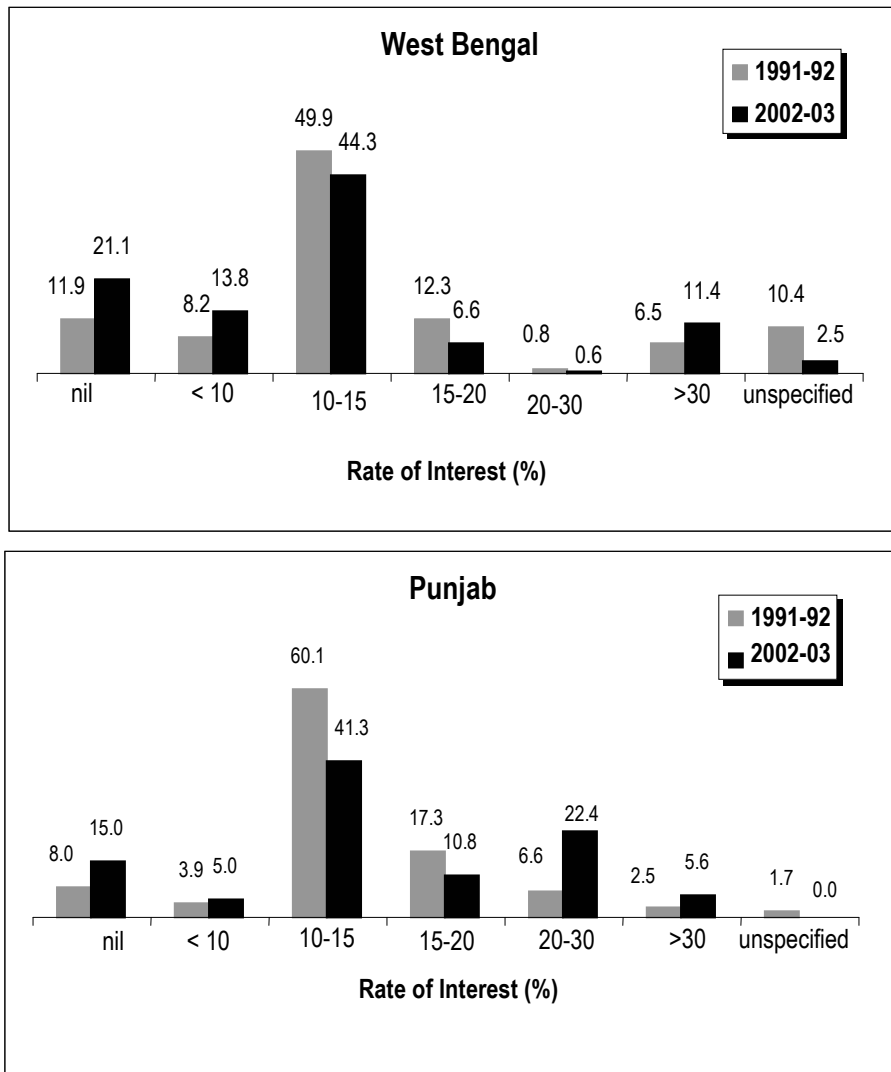
the distribution towards higher interest rates was quite large. While for Andhra Pradesh, there is a large increase for the '30 and above' interest rate bracket from 17.6 percent in 1991-92 to 30 percent in 2002-03, the same increase in Bihar is even higher (Figure 8). In Bihar, corresponding to this large rise, the share of cash dues in the lower range of 10 to 15 percent interest rate has drastically fallen from 58.6 percent to 28.2 percent in this period.

Figure 8: Percentage Distribution of cash loans by interest rates for rural households: Andhra Pradesh and Bihar, 1991-92 and 2002-03



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

Figure 9:
Percentage Distribution of cash loans by interest rates for rural households:
West Bengal and Punjab, 1991-92 and 2002-03



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

In contrast, for states like West Bengal or Punjab, where the access to formal credit for rural households was still quite high in 2002-03, the situation is slightly different. The dominant interest rate range in the distribution of cash dues for rural households was still the '10 to 15 percent' range in 2002-03. However, even in these states, one cannot ignore the fact that the share of the higher interest rate range like the '20 to 30 percent' or 'above 30 percent' bracket has increased in the period of economic reforms. This implies that although levels of informal credit are still low in such states, the general increasing trend for informal credit, accompanied with usuriously high interest rates in rural areas, of the country are also visible here.

In this context, a further exclusion of small-scale rural petty producers from the institutional credit coverage, as a result of the banks' response to the financial crisis, will accentuate the already tight grip of private moneylenders on the rural credit market.

Usurious interest rates and stringent repayment conditions that come along with informal credit will aggravate farm indebtedness that is already a major social and economic problem in many parts of the rural countryside. The current financial crisis, therefore, threatens to adversely affect the supply of cheap credit to agriculture and allied activities. This will not only cripple the production systems of small-scale producers but also intensify the tragic phenomenon of mass suicides of farmers that has been occurring in the country for over a decade now.

Shrinking Non-Farm Employment-

Finally, the third route through which of the financial crisis is likely to impact the primary sector is indirectly through a slowdown in the manufacturing and services sector. Certain manufacturing sectors dependent on the export market, like the textiles or leather industry, has already witnessed significant job-losses due to the global financial crisis and the consequent slowdown in demand for manufactured products. On the other hand, export-oriented high-productivity and high-income service sectors like the ICT or the hospitality sector are also witnessing a squeeze due to the downturn in world markets. A consequent contraction of consumption spending on part of those employed in these sectors will have indirect ramifications for other sectors as it will reduce the overall aggregate demand in the economy. Thus, there is a possibility of a significant erosion of existing livelihoods in the informal economy in the rural areas as a consequence of the financial crisis.

This direct and indirect loss of employment in the secondary and tertiary sectors will in turn have a crucial impact on the livelihoods of the populace engaged in primary economic activities. Locating this in the context of the broad changes in employment pattern that have occurred under economic liberalization helps us to comprehend this issue in a better manner.

Table 2:
Per 1000 Sectoral distribution of usually employed (PS+SS) persons: rural

Sector	1993-94	2004-05
Primary	784.1	726.5
Secondary	102.0	136.2
Tertiary	113.9	137.3
Total	1000.0	1000.0

Source: NSS Employment and Unemployment Survey, Report No. 409 and 516

The employment distribution across sectors shows a moderate but significant shift in the nineties. The data from NSS Employment-Unemployment Surveys reveal that the percentage share of the primary sector in total usually employed persons in the rural areas reduced from 78.4 in 1993-94 to 72.6 in 2004-05. In absolute terms, this implies that roughly 18.3 million workers were additionally accommodated in the secondary and tertiary sectors by 2004-05 owing to this sectoral shift in the work force. This can be

attributed to the stagnation in the primary sector and the relatively buoyant performance of the secondary and tertiary sectors.

A large part of this shift from the primary sector in the rural areas has been to the informal sector. A detailed study by Abraham (2008) points to the distress-driven nature of this shift. There has been increasing work participation by the female and aged population in this period of agrarian crisis, which substantiates the character of this shift. Simultaneously, there has been a replacement of paid-labour by family labour in agriculture owing to the low returns in the latter. The relatively lower income in the primary sector during this period caused this shift of the workforce towards non-agricultural activities, even if the new employment opportunities were largely informal in nature at unfavourable terms and conditions of work.

We have to view the impending loss of non-farm employment in rural areas due to the financial crisis in the context of this distress-driven occupational diversification that has been occurring in the recent past. Over this period, there has been no marked increase in the productivity of the agricultural sector and therefore the latter cannot absorb a part of the work-force in the non-farm sector that may lose their employment due to the slowdown. Table 3 shows that the productivity in the agriculture sector has not undergone any significant increase during this period when there has been a shift of the workforce away from the sector. The output-worker ratio in the primary sector increased at a meagre annual rate of 1.4 percent between 1993-94 and 2005-06. This was lower compared to the growth rates in the secondary sector and much below that in the tertiary sector. This underscores the fact that this transition of the work force to non-farm sectors in the recent past has not been accompanied by the pre-condition of rising farm sector productivity that the typical Lewisian theories envisage.

Table 3: Per worker real GDP Sector-wise (at 1999-00 prices)

Sector	1993-94 (in Rs.)	2004-05 (in Rs.)	Average Annual Growth rate
Primary	18048	20894	1.4 %
Secondary	89713	108231	1.9 %
Tertiary	209409	329469	5.2 %
Total	47160	75150	5.4 %

Note: Calculated by the author based on GDP data from the *Handbook of Statistics on Indian Economy* and NSS data on usually employed persons.

**Table 4: Work participation rates (PS + SS) for rural male and female:
Various rounds**

Year	Male	Female	Total
1993-94	553	328	444
1999-00	531	299	417
2004-05	546	327	439

Source: NSS Employment and Unemployment Survey, Report No. 409, 458 and 516

From Table 4, we can see that the work participation rate (WPR) increased between 1999-00 and 2004-05 for both male and female in rural areas. This increase in the WPRs almost compensated for the loss of employment that occurred between 1993-94 and 1999-00. The entry of new sections of populations into the work force was an important component of the increase in the share of non-farm employment. The shift in the work force towards the non-farm sectors is composed of both intra-generational and inter-generational shift. In either case, there is little opportunity to fall back on the stagnated primary sector in the wake of employment losses in the other sectors. There has been a significant migration of labour from rural-rural or rural-urban in the recent years and economic remittances send by these migrants to their native villages have come to play an important role in the backdrop of the low returns to agricultural activities. A drying up of these remittances in the short-run due to loss of non-farm employment will considerably worsen the living standards in the rural areas.

Deflationary Outcome for agriculture: the way ahead:

The major constraints that have emerged for Indian agriculture and the rural economy in general have seriously depressed farm incomes in the rural areas, thereby also affecting the standard of living. Some of the results in our primary survey reconfirm this trend conducted in 2006 in five villages, two each in the states, West Bengal and Andhra Pradesh. In Table 5, we have presented the Farm Labour Incomes (FLI)³ of different peasant classes⁴ in the two states and also the share of FLI that is drained by outstanding interest payments (OIP). The FLI represents the income of the farm households from cultivation, prior to making payments on account of ground rent and interest payment. For each peasant 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. The OIP is the accumulated interest from all unpaid loans including those taken in previous production cycle(s).

We can observe that for most classes either the FLI is abysmally low or the OIP depletes a considerably large share of the farm incomes. While the share of FLI required to clear all OIP is around 35 percent in West Bengal region, the same figure is a nearly 74 percent in the cotton-growing in Andhra Pradesh. In West Bengal, for both the lower peasantry classes, the OIP exceeds the FLI. This indicates that for these classes, it is not

³ Farm labour Income (FLI) = Gross Value of Output (GVO) – [Total Material Input costs + Paid-out labour costs]. The GVO is the sum of Crop Output, By-Product and Livestock Product. The Total Material Input costs is determined by the following relation-

$$\text{Total Material Input Costs} = [S_f + \text{Livestock Feed}_f + M_f] + [S_p + \text{Livestock Feed}_p + \text{Livestock Maintenance}_p + M_p + F_p + \text{Fuels}_p + \text{Irrigation charges}_p + P_p + \text{Service charges}_p] + \text{Amortization cost.}$$

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.

⁴ The peasant classes have been determined on the basis of the Labour Exploitation criterion developed by Patnaik (1976).

at all viable to depend on small-scale agriculture for their livelihoods and they are mostly semi-proletarian land-owning households. 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.

Table 5: Income and Interest payments situation across peasant classes: Various regions

Class	Raina, West Bengal			Saidapur, Andhra Pradesh		
	FLI (in Rs.)	OIP (in Rs.)	OIP as % of FLI	FLI (in Rs.)	OIP (in Rs.)	OIP as % of FLI
RL	400	400	100.0	-65	7336	OIP>FLI
PP	1253	1264	OIP>FLI	8330	5449	65.4
SP	-4146	8669	OIP>FLI	2776	4354	OIP>FLI
MP	12990	3014	23.2	10411	12764	OIP>FLI
RP	28964	8980	31.0	106968	76431	71.5
LLD	0	0	0.0	246497	38000	15.4
Total	14186	4996	35.2	22574	16683	73.9

Source: Primary Field Enquiry⁵

The situation of indebtedness and depleting farm incomes is more stringent in the Andhra Pradesh region. The small peasants and the middle peasants are unable to cover their OIP through the FLI generated from agricultural activities. 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 the West Bengal region, a tight constraint on production emerging out of credit relations is not restricted to the lower peasantry alone but also seriously afflicts 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 post interest payments 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 household that is at ease in the credit market.

There are two distinct impacts that can be traced from the point of view of the larger agrarian question. For majority of the classes undertaking cultivation, including some from the upper peasantry, it is difficult to carry out even a simple reproduction of the peasant economy. A simultaneous default in interest payments and depression of own-consumption to sub-standard nutrition levels are really the strategies of survival (or death) for these classes. On the other hand, the rare classes that retain some notable surplus through the use of modern and capitalist modes of agricultural production are the rich peasants in both the regions. However, given the income volume that they generate from agriculture and allied activities, it is difficult even for these upper peasantry households to undertake large investments and upgrade their cultivation techniques

⁵ The field enquiry was conducted as part of doctoral research in Jawaharlal Nehru University, New Delhi between February and August in 2006 collecting 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. 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.

without cutting down their consumption requirements to a certain extent. A comparison of their monthly per capita incomes with the monthly per capita expenditure corresponding to the minimum nutritional norm (required at the poverty line) reveals that even these classes were barely just crossing into the non-poor domain (Banerjee, 2009).

The assessment in the historical context indicates that the current financial crisis has the potential to adversely affect the production sphere in the rural economy and consequently cause a fall in the consumption and living standards of the rural population. The depression of world prices, especially of commercial crops, will intensify the ongoing process of income deflation under the neo-liberal regime. Moreover, the lack of required credit from institutional sources will drive the peasantry deeper into the grip of private moneylenders charging usurious rates of interest. This implies that the financial crisis directly stands against efforts to arrest the disturbing and tragic phenomenon of debt-driven farmer suicides that has been occurring in recent times. As an indirect effect, a reduction in employment opportunities in the non-farm sector will cause additional pressure on the stagnated agricultural sector and intensify the rural economic distress.

In the context of shrinking demand for world markets and deteriorating prospects for exports, a major emphasis on alternatively revamping domestic demand in the economy is required. Such an alternative policy to tackle the pitfalls of the financial crisis will require emboldened Keynesian policies in the form of enhanced public expenditure support targeted at the rural economy. Within this broad policy of enhancing domestic demand, several specific policies are necessary with regard to the principle impacts that we have identified.

The crashing prices of cash crops require some enhanced interventions by the different marketing boards in the form of providing the cash crop growers with support prices during the period of low and inadequate market prices. In order to mitigate losses in commercial crop cultivation due to the price crash and prevent any withering of livelihoods in the rural areas, the revamping the marketing boards and their procurement functions is ardently required. Simultaneously, the constitution of a price stabilization fund can be used to provide a 'minimum living price' to the farmers in the face of the crisis. This is all the more necessary as the agrarian crisis that has precipitated over the last decade is primarily located in the dryland areas cultivating export-oriented commercial crops.

An increased cultivation of food crops in the medium term will be a desirable step for farmers in the face of the collapsing export prices for commercial crops. However, there is a concern with regard to food prices also in the near future. While food crops are relatively less sensitive to the downturn in the export markets, their prices may also decline via the route of the future markets in a situation of crisis. Therefore any shift by the cultivators to food grains cultivation can be facilitated only with a revamped public policy of procurement. Simultaneously, the concern over declining real returns to agricultural activities that we have witnessed over the long run call for a rejuvenation of the public distribution system to pre-Targetted PDS levels that can provide food at cheaper prices to rural households who are mostly net food-buyers.

With regard to the possibility of a squeeze in credit availability in rural areas, an important initiative that needs to be adopted is the building of institutions based on the principle of cooperatives that will provide an alternative framework of livelihood generation in the rural economy as opposed to the dominant logic of markets under

capitalism. Institutions like credit unions or Self-Help Groups can go a long way in addressing the problem of waning credit availability for economic activities in the primary sector.

Finally, the phenomenon of a shrink in non-farm employment and its adverse effects on the rural agrarian economy is a serious problem that needs to be tackled. As the agricultural sector will possibly require some time before it is revamped, especially in a situation of economic slowdown, it is necessary to implement employment generating programmes like the NREGA more vigorously with higher allocations. This is necessary to protect the livelihoods of the millions of rural workers whose livelihoods stand threatened by the financial crisis. The emerging situation calls for a well-drafted framework of economic policies incorporating different measures for effectively tackling the consequences of the global financial crisis on the rural economy in India.

References:

- Abraham V. 2008. *Employment Growth in Rural India: Distress Driven?* Working Paper No. 404, Centre for Development Studies, Trivandrum.
- Banerjee, Arindam. 2007. "From famines to Food Surplus", *IDEAs New analysis*, http://www.networkideas.org/news/dec2007/news10_%20Malawi.htm accessed on 30.09.2009.
- _____ 2009. "Peasant Classes under Neo-liberalism: A Class Analysis of Two states" *Economic and Political Weekly*, Vol. 44, No. 15, pp 49-57.
- Bello, Walden and Mara Baviera. 2009. "Food Wars" *Monthly Review*, Vol. 61, No.3, pp 17-31.
- Bryceson, Deborah Fahy. 2004. "Agrarian Vista or Vortex: African Rural Livelihood Policies" *Review of African Political Economy*, Vol. , No
- _____ 2009. "Sub-Saharan Africa's Vanishing Peasantries and the Specter of a Global Food Crisis" *Monthly Review*, Vol. 61, No.3, pp 48-62.
- Cotton Outlook. 2008. *Cotlook Monthly*, December 2008, Vol 1, Issue 12.
- Chandrashekhar, C. P. Jan 20, 2004. "Bank Reform and the Rural Sector", available on http://www.macrosan.org/fet/jan04/fet200104Rural_Banking_1.htm accessed on 16.09.2009.
- FAO. 2008. *The State of Food Insecurity in the World 2008: High food prices and food security-threats and opportunities*. Rome, Italy.
- Ghosh, Jayati. Jan 6, 2009. "The Economic Geography of Recession", available on http://www.macrosan.org/the/macro/jan09/mac060109Economic_Geography.htm accessed on 16.09.2009.
- Government of India. 2007. *Report of the Expert Group on Agricultural Indebtedness*, Ministry of Finance.
- _____ *Reports of the Commission for Agricultural Costs and Prices for the years 1997, 2002 and 2008*.
- _____ (2008) *Weekly Rubber Prices*, Ministry of Commerce and Industry.
- _____ *Market Information* (various months), Coffee Board of India.
- _____ *Monthly average domestic prices of different spices in India* (various months), Spices Board of India, Ministry of Commerce and Industry.

Labour Bureau, GOI. *Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)*.

McMichael, Philip. 2009. "The World Food Crisis in Historical Perspective" *Monthly Review*, Vol. 61, No.3, pp 32-47.

Nagaraj, K. Mar 3, 2008. "Farmers' Suicides in India: Magnitudes, Trends and Spatial Patterns", http://www.macrosan.org/anl/mar08/anl030308Farmers_Suicides.htm accessed on 20.09.2009.

NSSO. Report No. 409. *Employment and Unemployment in India*, Employment-Unemployment Survey, 1993-94.

_____ 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. 516. *Employment and Unemployment Situation Among Social Groups in India*, Employment-Unemployment Survey, 2004-2005.

Patnaik, Utsa. 1976. "Class Differentiation within the Peasantry: An Approach to Analysis of Indian Agriculture" *Economic and Political Weekly, Review of Agriculture*, Vol. 11, No. 39, pp 82-101

_____ 2002. "Deflation and Déjà vu: Indian Agriculture in the World Economy." In V. K. Ramachandran and M. Swaminathan (eds.), *Agrarian Studies: Essays on Agrarian Relations in Less-Developed Countries*, Tulika, New Delhi.

_____ 2007. *The Republic of Hunger and Other Essays*. Three Essays Collective, New Delhi.

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, No. 4, pp 502-544.

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

_____ 2007. *Handbook of Statistics on Indian Economy*.