AGRARIAN CATASTROPHE

The agricultural crisis has grave implications for the country's ability to feed itself. In order to maintain the per capita production level of 2001 -2, foodgrains production should reach 240 million tonnes in 2010. Given that foodgrains production was only 219.3 million tonnes in 2007-8, this is highly unlikely. In the present 'globalisation' era, questions about food security have been greeted with the glib response that the country can import its requirements of food. This is of course a disastrous policy given that India's requirements are very large and world grain trade is narrow : any major import sends the price of grain soaring. Between May and September 2007 international wheat prices rose from \$200 per tonne to \$400, and the cost of India's imports doubled. Moreover, international grain stockpiles are low (dropping by 53 million tonnes in 2007), and supplies will remain under pressure for three reasons'?

The first, and long-term, reason is the neo-liberal slashing of public investment in agriculture in countries like India. In India, the share of agricultural investment in GDP has slid over the last 25 years, and is now just 1.9 percent. This has depressed production to the point where prices are rising despite the meagre purchasing power of the masses. Growing meat consumption worldwide too has taken a larger share of grain, since it takes 8 kg of grain to produce one kg of beef. But the immediate reason for the crisis is the massive diversion of grain to subsidized bio-fuel by the developed countries. One-third of US maize production is now going to bio-fuel (rising from 15 million tonnes in 2000 to 85 million tonnes in 2007); not surprisingly, international food prices have jumped 75 percent since 2005.

The slowdown in India's agriculture has been accompanied by a decline in food consumption per head. Per capita net availability of foodgrains (a rough measure of consumption) in 2004-2006 was 7.8 per cent lower than in 1994-1996. Indeed it was lower than in 1954-1956, when Indian agriculture had just begun to recover from British rule.

The crisis in cereals production has a direct impact on total calorie consumption : 68 percent of calorie intake in the rural areas and 56 percent in the urban areas comes from cereals. Moreover, it has an equally large impact on protein consumption : 66 percent of protein intake in the rural areas and 56 percent in the urban areas comes from cereals. Another 9 and 11 percent of protein intake in the rural and urban areas respectively come from pulses, production of which has also declined. Any improvement in nutrition would require a large increase in foodgrains production.

The poor performance of agriculture points to a deterioration in agriculture's productive base itself: in the quantity of agricultural land and its productivity. In recent years, according to Ministry of Agriculture data, the net sown area has actually fallen, from 143 million hectares in 1990-91 to 140.9 million hectares in 2003-04. One reason for this may be the increasing encroachment by non-agricultural interests (such as urban real estate) on agricultural land.

There is even a decline in the net irrigated area, from 57.1 million hectares in 1999-2000 to 55.1 million hectares in 2003-04. As a result, the cropping intensity

has stopped growing, at around 1.35 (i.e., 35 percent of the area is cropped more than once). This in a country in which other conditions permit most of the sown area to be cropped three times. Among the reasons for the decline in sown area and irrigated area are the mindless over-exploitation of groundwater (leading to a fall in the water table), and, again, the diversion of irrigated farmland to real estate.

In the post-WTO period, the terms of trade for agriculture have worsened. That is, agricultural prices relative to non-agriculture prices have fallen by 1.7 per cent a year between 1996-97 and 2003-04. With the prices of inputs rising steeply and those of output stagnating, peasants have tried to cut costs, and the growth of input use has slowed.

Nevertheless, as a result of the worsening condition of the soil, the soil's response to inputs has been decreasing too. Thus, at the same time that input growth is slowing, the capital-intensity of output is growing (i.e., more and more capital is required for a unit of output). The combination of these two trends implies stagnation of output.

The decreasing response to inputs points to the degradation of the land itself as a result of the decline of organic carbon and microbial activities. The present pattern of agriculture is taking an enormous toll of the natural resource base : nearly two-thirds of India's agricultural land is degraded or sick. Moreover, the over-exploitation of groundwater, integral to the present pattern of agriculture, has pushed the water table down in 264 of the country's 596 districts. As the water table falls, cultivators invest larger sums in boring deeper wells (and this expenditure is duly reflected in national income statistics as 'agricultural investment'!). Indian agriculture is speeding toward environmental disaster.

Despite the stagnation of output, the workforce in agriculture continues to grow; so the growth of value-added per worker in agriculture has ground to a near-halt (0.28 percent per year during the decade 1993-94 to 2003-4). Indeed, value-added per worker in 2004-5 was lower than in 1999-2000. The income of agricultural labourers also remained stagnant between 2000 and 2005: what little growth took place in wages was cancelled out by the reduction in days of employment.

The rulers respond that what is needed is new technology and bulky investments—the technology to be provided, no doubt, by firms such as Monsanto, and the investments to be made by the corporate sector through contract farming. But it has been demonstrated by public sector agricultural bodies that their agricultural technology, already demonstrated on Indian fields, could raise crop yields by huge margins in the major producing states for most crops. For example, in UP, which has the largest area under wheat, yields could be increased by 50 percent; in Bihar, by over 100 percent. Similarly, rice yields in Chhattisgarh could be raised 150 percent on unirrigated land and 169 percent on irrigated land. However, these available technological improvements are not being implemented because of (i) the backward and isolated conditions in which cultivation is actually taking place, (ii) the gross inadequacy and dismantling of public sector extension services, and (iii) the deliberate policy of the Government to leave the field open for the private sector. Even accepting that new technology may give improved yields, and even acknowledging that large investments are required in agriculture, the question remains, what kind of technology and what kind of investment? That will depend on for whom, and for what objectives.

The current orthodoxy (the establishment) view treats all cultivators as essentially homogeneous participants in a single market, differentiated only by the size of their land. They are all driven by the same drive, and they act in a similar way, with similar effects. According to this view, all the participants in the market respond to price signals by determining how to maximise their profits and minimise their outlays, shifting from one crop to another, and increasing/decreasing their output or their use of labour with the aim of maximising profit.

In line with their theory that the existing social relations pose no hurdles to agricultural growth, and that all that is required is new technology, the rulers give the impression that extensive growth in agriculture is no longer possible, and that only intensive growth (raising the productivity of the existing net sown area) is possible. While the need for intensive growth is beyond doubt, the claim that extensive growth is not possible is not borne out by land utilisation statistics, which show large fallows (26 million hectares), as well as substantial culturable waste land (13 million hectares). Of course, the fallows and waste land are also in use in many places as grazing lands for livestock, so in that sense they are in some use; but nevertheless it would appear there is considerable scope for increasing the net sown area in the country.

What prevents this from taking place? It is notable that the fallows are especially high in regions where agriculture is backward (in Jharkhand the fallows are larger than the net sown area) and low where there is irrigation, infrastructure, and a historical background which has favoured a measure of accumulation within agriculture. Indeed the reasons for the existence of such large fallows are neither the scientific practice of regenerating the soil, nor the impossibility of cultivating it. They lie elsewhere: the nonavailability of irrigation, the poverty of the cultivator alongside of his/her lack of access to working capital, the unremunerative prices of output, the decision of landowners not to cultivate their land (whether because of the unremunerative nature of cultivation, or social turmoil), the lack of organisation among poor peasants to take over uncultivated land, and so on. In other words, there are social reasons for failure to extend cultivation, or even to prevent the reduction of sown area.

The enormous inequality in land ownership in India has not diminished in the last five decades. Even according the National Sample Survey (NSS, which, as an official survey, is unable to capture the reality fully) the top 5.2 percent of rural households today own 42.8 percent of the area, and the top 9.5 percent own 56.6 percent of the area. The remaining 90.5 percent of households owned just 43.4 percent of the area. Among these are the 41.6 percent of rural households who own no land other than their homestead (10 percent do not own even homestead land).

Since small and landless peasants in parts of India operate land rented from landowning sections, the inequality of operational holdings has been less than that of ownership holdings. (In fact much of such tenancy does not get recorded, since landowners do not want to create tenancy rights; and even tenants do not reveal the facts to official surveyors, since they fear the landowners will evict them if they learn of it. Studies of states such as Bihar, Orissa and AP reveal the incidence of such tenancy to be 2 to 4 times the rate reflected in NSS data.) On the other hand, in certain regions such as Haryana and Punjab those with large holdings are adding to their holdings by leasing-in the land of small peasants; thus the concentration of operational holdings too is on the rise, with 7.4 percent of the holdings operating 42 percent of the area. The percentage of rural households with nil operated land rose from 22 percent in 1991 to 28 percent in 2003, indicating that the economic processes of the intervening years has deprived large numbers of their holdings.

A further dimension to the land question is that of common property land resources (CPLR), from which nearly half the households in the country collect materials, and common property water resources (CPWR), from which twothirds of the households which use irrigation draw water.

According to land utilisation statistics, 22 percent of the country's geographical area consists of de facto CPLRs. While 62 percent of the households in the rural areas use fuelwood, more than half of this fuelwood-half a tonne a year per household-comes from CPLRs. More than half the households in the rural areas own livestock, and perhaps more than half of these households use CPLRs as a source of fodder. All these ratios are higher in hilly regions, many of which are also home to the tribals. The dependence on common property resources rises with the backwardness of the village and the poverty of the household. The NSS fmds that even taking a narrow, *de jure*, definition of CPLRs, there has been a definite reduction in these resources over the preceding five years, as private interests have encroached on them.

More importantly, the bulk of the *de facto* CPLRs are forests in which villagers do not enjoy legal rights, and hence are more easily subject to the arbitrary actions and extortions of officialdom. These extractions by officialdom amount to a peculiar form of extraction of land rent.

According to the 2001 Census, Scheduled Tribes (STs, or Adivasis) number 84.3 million, or 8.2 per cent of the country's population. Almost nine out of 10 Adivasis depend on agriculture for their livelihood; this is more than any other social section. However, not only is the quality of their land poor, but part of it is suspended in a legal limbo, rendering them vulnerable to various types of exploitation. Driven to moneylenders for consumption loans in order to survive, they frequently are forced to part with their lands: In the words of the draft National Tribal Policy (NTP), "Land is the most important source of livelihood for STs. However, and in spite of State enactments to prevent alienation of tribal land, wrongful alienation of tribal land is the single most important cause of pauperization of tribals...." Further, they are prevented from exercising their traditional rights over the forests, even as the forests have been opened up to all sorts of plunder and destruction by the process of so-called development. According to one calculation, more than 5 lakh hectares of forests were destroyed between 2001 and 2006 for 'developmental' projects, more than during the previous 20 years together. Suggesting that the "deep sense of exclusion and alienation" among tribals was responsible for unrest in certain tribal areas, the NTP states candidly: "A situation is thus developing where the STs view the state as their exploiter and enemy, and the preachers of violent actions as their protector and friend. Tribal people tend to support these violent movements as they feel that it would help them get their rights, protect them from exploitation and redress their grievances." The Prime Minister has declared "Left-wing extremism" to be the country's "single biggest security challenge"; it is this security challenge alone that has forced the rulers to pay attention to the condition of the tribals. The recent draft National Tribal Policy and the Scheduled Tribes Act are evidence of this anxiety among the ruling circles.

Over the last four decades, the net sown area has remained virtually the same, while the number of holdings has steadily risen; thus the average size of holding has halved since the 1960s, falling from 2.63 hectares in 1961 -62 to 1.34 hectares in 1991 -92. What is most significant is that, despite the retrogression in agriculture, 57 percent of the workforce continues to be 'employed' in this sector. Indeed the total workforce in agriculture has continued to grow even during this period, rising from 191 million in 1993-94 to 257 million in 2004-5.

The income per worker in agriculture depends on the land per worker, the productivity of the land, and the price the output fetches (in relation to the prices of commodities purchased by those engaged in agriculture). In recent years the land per worker in agriculture has fallen, the per hectare yields have stagnated, and the terms of trade have deteriorated. This situation translates into falling incomes.

Why do more and more workers crowd into agriculture, in the face of falling incomes? The answer lies in the absence of employment opportunities outside agriculture. This in turn is the outcome of the particular historical process of India's industrial development and its continuation today in capital-intensive growth. Such capital-intensive growth maxi-mises profit per unit of investment for big capital. Within the existing frame of class relations in India, and the consequent character of India's relations with the world economy, this pattern of growth of industry will not change, and hence the overcrowding of agriculture will continue.

As mentioned earlier, multifarious petty economic activities barely yielding a subsistence (if that) do not really constitute an escape from agriculture. Much of the growth of 'employment' in these sectors merely reflects the desperation of the unemployed to eke out a living (eg. in petty retail); and this in effect merely redistributes a small portion of the value generated in the agricultural and industrial sectors. Neither is the income attractive in such employment, nor can it keep expanding endlessly.

Thus peasants are tied to, trapped on, the land for lack of alternative employment. This helpless situation is what enables various parasitic forces (landlords, usurers, officials, traders in inputs and produce, and the private corporate sector) to feed on them, even to the point of driving them to suicide. Despite the very great disparity of conditions in India, this trapped condition is a common feature throughout.

Remittances from outside agriculture to the peasants—whether from family members working in urban areas or abroad, or even engaged seasonally as agricultural labour in regions of relatively commercialised agriculture—merely help prevent the small peasantry from going under, but do not fund investment. Small peasant agriculture is thus in continuous crisis but refuses to die out. Indeed, between the latest two NSS employment surveys, the share of wage labourers in the agricultural workforce has declined, and that of cultivators has increased; the share of cultivators, at 64.2 percent, is higher now than in 1983. The likely reason for the increasing share of cultivators is that, as the terms of trade turned against agriculture, cultivators have attempted to reduce costs by substituting family labour for hired labour.

This widespread persistence, indeed dominance, of small peasant agriculture, despite the extensive penetration of commercialisation, stands in striking contrast to the process in the classical form of capitalist development. It underlines the need to distinguish between the form of commercialisation and the capitalist mode of production.

The Situation Assessment Survey of Farmers (SASF) was an unprecedented survey by the NSS, conducted at the request of the Agriculture Ministry. It has brought out the situation of backwardness and isolation in which the majority of cultivators are surviving: the non-availability of agricultural inputs and veterinary services at the village level; their poor literacy and education levels; their ignorance of the very existence of the statutory Minimum Support Prices in most of India, let alone their being able to obtain them; their ignorance of (and lack of access to) insurance; and, most strikingly, their lack of access to information on improved agricultural technology. The SASF revealed that only 40 percent of "farmers" had obtained information on improved technology in the previous year, and of these, most had turned to either "other progressive farmers" or "traders in inputs or output"; a negligible number had turned to public sector extension workers. (Little wonder, since India is said to have only one village or block level agricultural extension worker for every 2,200 holdings; and even this seems an overestimate.)

The term "farmer" used by the SASF is misleading, because it encompasses very diverse classes, from landless peasant households with minuscule farms to landlord households with large ones.

The SASF brings out another very important finding: cultivators' earnings from agriculture were insufficient even to meet their consumption expenditure. For average "farmer households" net receipts from cultivation covered only about 35 percent of their consumption expenditure. If farmers were to add to the "expenses on cultivation," a provision for the depreciation of equipment and buildings (which the SASF fails to do), the net receipts from cultivation would be even lower. The SASF gives a figure for expenditure on productive assets used for farm business, but this figure (Rs 1920 per year) is so low that it would not cover even depreciation, let alone net investment.

The farmer household also engages in other economic activities -agricultural labour, other labour, care of livestock, and small businesses. However, even these prove insufficient to meet the household's consumption expenditures. The sum of the average farmer household's earnings from cultivation, wages, farming of animals, and non-farm business (Rs 2115) is still less than the consumption expenditure of the household (Rs 2770). That consumption expenditure, it should be noted, is very low: Rs 503 per capita per month, or less than Rs 17 a day.

It is true that 2002-03 was a poor agricultural year. Let us assume an average year's income on all heads (net receipts from cultivation, receipts from farming of animals, wages, and non-farm business) to be 20 percent higher than the figure reported in the SASF. Even this higher figure for total income does not meet the consumption expenditure of the average farmer household; rather, it would still run a deficit of about Rs 232 a month, or nearly Rs 2800 a year. Presumably this gap is met either (i) by taking loans, (ii) by sale of assets, or (iii) from remittances sent by family members working outside the rural areas. To the extent it is met either (i) by or (ii), the income of the household would further deteriorate in future.

There are households which are much deeper in deficit, households which manage to meet their consumption expenditure from their earnings, and those which have an income in excess of their expenditure. At the all-India level, the deficit farmer households are those with holdings below 2 hectares, accounting for 88 percent of the farmer households surveyed. The households with 2 to 4 hectares 'break even'; and those with over 4 hectares have an income in excess of consumption expenditure. (Of course the size class of cultivators which breaks even varies from state to state.) It should be noted that income from rent and interest, which accrues in general to those with larger holdings, is not included in the sources of income of farmers in the SASF. If included, it would further bring out the gap between the small and marginal households and the well-off ones.

Furthermore, the consumption expenditure varies widely: from Rs 2297 per month per household in the lowest size class (possessing less than 0.01 hectares) to Rs 6418 in the highest size class (over 10 hectares). Hence looking only at the 'income minus the consumption expenditure' understates the gap between the different size classes. For example, a rich person not only saves more than a poor person, but also consumes a number of luxuries; the gap between the two is reflected not only in the rich person's savings, but also in that part of his/ her consumption expenditure beyond subsistence requirements.

Finally, as in other NSS consumption expenditure surveys, it is difficult to imagine that the top section of agrarian society would tolerate detailed and timeconsuming interviews by NSS surveyors. And so the surpluses of the landowning elite may not be reflected in this survey. However, data are provided for households operating 10 or more hectares, i.e., relatively wealthy households. Such respondents may have provided answers, but not wholly truthful ones: For example, the monthly consumption expenditure of farmer households operating 10 or more hectares is said to be Rs 6418. This modest consumption level hardly accords with one's casual observation of the lifestyles of large landholders. $\Box\Box\Box$