INDIA:
EMPLOYMENT, POVERTY AND ECONOMIC POLICIES

A Report prepared under a Project sponsored by the UNDP under Technical Support Services 1

UNITED NATIONS
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INTERNATIONAL LABOUR ORGANISATION (ILO)
ASIAN REGIONAL TEAM FOR
EMPLOYMENT PROMOTION (ARTEP)
NEW DELHI

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International Labour Organisation (ILO)
Asian Regional Team for Employment Promotion (ARTEP)
P.O.Box No.643
New Delhi 110001
India

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Preface

This report has been prepared under a project on "Integrated Strategies of Employment Generation and Poverty Alleviation in India" sponsored and funded by the UNDP under its "Technical Support Services 1" Programme. It analyses India's past experience with employment generation and poverty alleviation, reviews the possible consequences of the reform programme currently under implementation and develops additional policy proposals for incorporation into the reform programme.

The report covers a range of relevant topics and issues. But it is obviously not possible to deal with all relevant topics and issues in one report and choices had to be made. First, the report does not provide a detailed analysis of the growth performance of the Indian economy; many such analyses (including those carried out by the World Bank) are widely available. Second, in spite of efforts, materials on informal enterprises proved difficult to gather; the analysis of informal employment, therefore, remains somewhat incomplete. Third, concerning the tribal population, the original plan was to focus on tribal cooperatives; on the basis of discussions with officials of the Government of India and of the UNDP office in New Delhi, however, the focus was shifted onto special issues relating to poverty of the tribal people and the anti-poverty programmes meant to address the problem. Finally, issues relating to social sector (health and education) programmes are not explored in the report.

The implementation of the project proceeded as follows. First, a mission consisting of three ILO officials held discussions with a large number of officials of the government, trade unions and employers' organisations as also with representatives of international organisations including the UNDP. On the basis of these discussions, the mission decided on the topics and issues to be covered in the report. Second, a set of background studies were prepared. These background studies were used to prepare a draft report. Finally, the draft report was extensively revised and finalised.

The project was coordinated by Ajit K. Ghose of ILO-ARTEP who led the initial mission in which S.V. Sethuraman and Manuela Tomei of ILO, Geneva also participated. Ajit K. Ghose also prepared one of the background studies, supervised the preparation of the other background studies and shared the responsibility for writing the report with Sudipto Mundle of the Institute of Public Finance and Policy, New Delhi who worked as a consultant on the project. The background studies were prepared by : Amit Bhaduri (Structural Adjustment and the Labour Market); S. Tendulkar, K. Sundaram and L.R. Jain (Poverty); Abhijit Sen and Jayati Ghosh (Rural Employment); Amitav Kundu (Urban Informal Employment); Ajit K. Ghose (Employment in Organised Industry); S. Gangopadhyay and W. Wadhwa (Industrial Sickness); Deepak Nayyar (Macro-Economic Policies); Y.K. Alagh (Institutional Framework for Implementation of Anti-Poverty Programmes); and Walter Fernandez, Shoma Chaudhury, Manisha Rao and Nita Mishra (Special Problems of the Tribal Population).

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CHAPTER 1

Executive Summary

1.1 Introduction

This report examines India's experience in employment generation and poverty alleviation over the past two decades. Against this background, it reviews the reform programme launched in 1991 in order to assess the extent to which the programme is consistent with the objectives of employment generation and poverty alleviation. It also attempts to identify the directions in which the reform package may need to be modified or expanded for meeting the objectives.

The information base for analysing employment and poverty is not up-to-date in India and even the developments since 1991 cannot be studied empirically. And, of course, a discussion of medium term prospects can only be speculative. These problems have dictated the methodology adopted here. Critical variables and relations are sought to be identified from the analysis of the past experience. These are then used to derive conclusions about the possible effects of the reform programme and about the modifications/extensions necessary for sustaining processes of employment generation and poverty alleviation through the nineties.

1.2 Employment and the Labour Market

General Characteristics and Trends

India had a labour force of 332 million in 1987-88, less than 10 million (2.8 per cent) of which was openly unemployed. Females constituted around one-third and rural workers constituted more than three-fourths of the employed workforce. The bulk of the employment was in agriculture and in other unorganised activities; only 8 per cent of the employed workers were in the organised segment of the economy. Correspondingly, self-employment and casual wage-employment were the main forms of employment in both rural and urban areas. It should be evident from this that the principal manifestation of the employment problem is underemployment which is difficult to measure though its trend can be discerned.

A number of interesting developments occurred in the eighties. First, the rate of growth of the labour force slowed down mainly because children and young persons were increasingly withdrawing from the labour force in order to pursue education. Second, even though the rate of

open unemployment increased slightly in rural areas, the extent of underemployment fell substantially in both rural and urban areas. The growing tightness of labour markets is also evident from the fact that the real wage rate for casual labour increased significantly in both rural and urban areas. All this happened, third, in spite of the fact that employment in organised industries grew very little even though output growth accelerated (i.e., the employment elasticity fell quite drastically). Moreover, fourth, underemployment was declining in a context where there were growing informalisation of employment in urban areas and growing casualisation of employment in rural areas.

The overall judgement must be that employment conditions improved in the eighties. One part of the explanation clearly lies in the development on the supply side - the slowdown in labour force growth in both rural and urban areas. The demand-side processes underlying the labour market developments can be identified from a sector-by-sector analysis.

Rural Employment

The rates of agricultural growth and growth of agricultural employment in the eighties were similar to those of the seventies; the employment elasticity was roughly the same in both periods. The evidence also shows that the growth of agricultural employment was essentially attributable to agricultural growth at the extensive margin in regions outside Northern India. In the green revolution belt of Northern India, growth was at the intensive margin and had little impact on employment. These facts have an important implication : the employment elasticity in agriculture can be increased if efforts are concentrated on promoting agricultural growth at the extensive margin outside Northern India, particularly in Central and Eastern India where there is much scope for expanding the gross cropped area through irrigation development.

Two other points are worth noting. First, casualisation of employment, resulting essentially from the growing pressure of population of land, indicates a shift from family farming to wage-labour-based farming but does not indicate anything about changes in employment conditions; it could be associated with either rising or falling levels of underemployment. In the eighties, casualisation went together with declining underemployment. Second, there is a tendency for agriculture to increasingly become a part-time occupation. This is suggested by the fact that, in the eighties, the number of workers with agriculture as the main occupation showed only a small growth but the number of person-days employed in agriculture grew much faster. Thus it cannot be said that the employment elasticity in agriculture declined in the eighties even though this is indicated if only the workers with agriculture as the main occupation are considered.

The major factor accounting for the improvement in rural employment conditions in the eighties was the rapid growth of non-agricultural employment. The most important point to note

in this context concerns the role of public expenditure. The evidence shows that expanding public expenditure (on social sectors and administration as well as on anti-poverty programmes) directly accounted for the bulk of the incremental regular wage-employment and a significant part of the incremental casual employment. These direct effects, it can be plausibly supposed, also had some multiplier effects.

The fact that the decline in underemployment has been associated with a rise in the real wage rate for casual labour indicates that the rural labour market functions reasonably well. Indeed, the analysis presented in this report explicitly shows that the forces of demand and supply play an important role influencing the real wage rate in the short run while growth of labour productivity has a positive effect in the long run. Thus both growth promotion measures and anti-poverty programmes help reduce poverty both by reducing underemployment and by increasing the real wage rate.

Urban Employment

Urban employment conditions improved in the eighties solely because the conditions of informal employment improved; underemployment, which affects only the informal workers, declined and the real wage rate for casual labour (which is also a good indicator of labour incomes in self-employment) increased. Employment in the organised segment of the urban economy, on the other hand, grew at a much slower rate than it had done in the seventies. Thus there were two distinct though inter-related processes at work.

It is not easy to explain the observed improvement in the conditions of urban informal employment. This is a little-researched area and a good deal of investigative work is necessary and desirable. This report views informal employment conditions as being governed principally by the conditions of employment and incomes in the organised sector.

The decline in urban underemployment was associated with a rise in the share of regular wage employment (in informal enterprises) in total informal employment. This suggests a linkage between the growth of informal employment and the near-stagnation of organised sector employment. There are activities in which informal enterprises, given their low and flexible wages and flexible employment systems, enjoy inherent advantages over organised sector enterprises. These relative advantages very probably increased in the eighties because of certain developments in the organised sector (which are discussed below).

But workers in informal forms of employment (self-employment and casual wage-employment) also experienced decline in underemployment; this is suggested by the fact that the real wage rate for casual labour increased significantly. This development could be linked to the

fact that incomes in the organised sector increased very rapidly and this led to a rapid growth of demand for certain types of services.

If these hypotheses are accepted, the following proposition suggests itself : it is the output growth in the organised sector which is critical for improving conditions of informal employment. If output growth in the organised sector results primarily from employment growth, then this improves conditions of informal employment by slowing down the growth of labour supply in informal markets. If, on the other hand, if output growth in the organised sector results primarily from growth in labour productivity, then this improves conditions of informal employment by accelerating the growth of demand for labour in informal markets.

In the eighties, the output growth in organised industries was in fact associated with a rapid growth of labour productivity (and a slowdown in employment growth in organised industries was the basic reason for the slow down in the growth of organised sector employment as a whole). The analysis of this phenomenon of "growth without employment" yields a number of important conclusions relating to issues which are currently being debated. It turns out that the relative price of labour (vis-a-vis capital) was rising rapidly in the eighties and this was one of the reasons why the capital intensity (the ratio of capital to labour) in organised industries was rising rapidly; the other reasons were the easing of credit restrictions in a financially repressed economy and the liberalisation of import policy. And the growth of capital intensity was the basic reason why the employment elasticity fell so dramatically.

The rise in the relative price of labour, however, was caused both by a shift of the agriculture-industry terms of trade in favour of agriculture (this meant a rise in the relative price of food), which increased the product-wage rate for any given real wage rate, and by a rise in the real wage rate. In other words, macroeconomic policies and labour market developments were both responsible. On the whole, therefore, the macroeconomic policies (easing of credit restrictions, import liberalisation and shifting of terms of trade) had played a larger role in reducing the employment elasticity than the labour market developments.

But the labour market developments should also be viewed with due concern. The analysis in this report suggests that the wage formation rules, particularly in public enterprises, and the nature of industrial relations were the major problem areas. The employment security regulations, on the other hand, do not seem to have been responsible for the slow growth of employment except in so far they may have played a role in causing the rapid growth of the real wage rate, but this, if true, should really be attributed to the nature of industrial relations.

The analysis of sick industrial enterprises also does not point to the employment security regulations as a problem area. The sickness of enterprises seem to have been caused by their unsound financial structure and, in the case of the public enterprises, by the problem of

overmanning. Thus the functioning of the financial market and the labour recruitment practices in public enterprises turn out to be the major problem areas.

1.3 Poverty

General Characteristics and Trends

Roughly about 360 million Indians (about 43 per cent of all Indians) lived below the official poverty line in 1987-88 and about 80 per cent of them lived in rural areas. Not much more needs to be said in order to underline the seriousness of the problem and the urgency of finding a solution.

The poor live in households which have few assets other than labour resources and poverty arises fundamentally because these labour resources cannot find adequate and adequately remunerative employment; underemployment is the basic cause of poverty. This is obvious from the fact that households with members in regular wage employment are rarely poor. The poor generally belong to either casual labour households or self-employed households in both rural and urban areas. In rural areas, a majority belongs to casual labour households; in urban areas, a majority belongs to self-employed households.

The poorest of the poor suffer from additional disadvantages. The development process itself often poses threats to the livelihood of the tribal people; deforestation, commercial exploitation of forest resources, displacement caused by development of mines or construction of dams - all these are special reasons for their impoverishment. In a male-dominated society, females face discrimination in the labour market; female-headed households are consequently poorer than male-headed households in similar situations. Given the absence of any system of community assistance, households with high dependency ratios are poorer than households with low dependency ratios.

The incidence of poverty has been declining since the early seventies and the pace of decline became faster in the eighties. This is an important fact since it suggests that there are processes and policies which reduce poverty. There are two other facts which are also relevant in this context. Along with the urbanisation of the population, there has also been urbanisation of poverty though it still remains overwhelmingly a rural phenomenon. And uneven development has led to a growing concentration of the poor in certain regions, particularly in Central and Eastern India. By 1987-88, a majority of India's poor lived in Central and Eastern India while very few lived in Northern India.

Poverty and Public Action

Since underemployment and low labour-income (in both self-employment and wage-employment) are the most general causes of poverty, declining underemployment and growing labour-income are the most obvious explanations for declining poverty. The foregoing discussion on the trends in employment and wages, therefore, already says why poverty declined in the eighties. However, the analysis can be carried a little farther. In particular, it is useful to delineate the role of public action in poverty alleviation.

The first point to note is that economic growth alleviates poverty because it is most often not accompanied by adverse distributional changes. At least this has been the Indian experience. There were very few anti-poverty programmes for the urban areas and the decline in urban poverty in the eighties was almost wholly attributable to the growth of the urban economy. In rural areas too, agricultural growth was generally poverty alleviating; this is evident both from the analysis of the effects of agricultural growth on employment and wages as well as from the analysis of the effects of agricultural growth on poverty. Agricultural production, however, is subject to periodic shocks because of its dependence on weather conditions and a fall in agricultural production tends to be associated with adverse distributional changes.

Policies to promote growth, therefore, are also polices for poverty alleviation. A qualification should be added, however. The pattern of growth is almost as important as growth itself, particularly in rural areas. Promotion of agricultural growth at the intensive margin has much less effect on poverty than promotion of agricultural growth at the extensive margin. Similarly, promotion of growth in certain regions has much less impact on poverty than promotion of growth in certain other regions. The government's role, therefore, is not limited to promoting growth alone; it has to be extended to influencing the pattern of growth as well.

It is already obvious that if government policies, in addition to influencing the pace and pattern of growth, are also concerned with lowering the distributional inequality, the pace of poverty alleviation can be faster. This is where the anti-poverty programmes assume significance. Their significance naturally increases when production shocks in agriculture combine with adverse distributional changes; the drought relief programmes played a major role in reducing poverty in the drought year of 1987-88. But they retain significance even in normal periods as they can help bring about favourable distributional changes. These are some of the lessons of the experience of the eighties.

There are other policies which can help supplement these measures. First, special provisions were already made within the anti-poverty programmes (particularly the IRDP) for helping the specially disadvantaged groups (scheduled castes and tribes, female-headed households), but these do not seem to have been very effective. Some of the programmes,

moreover, were not even designed to help the specially disadvantaged groups; the relief employment programmes, for example, did not attempt to eliminate the discrimination suffered by women in the labour market. A good deal of attention to these matters will be needed in future.

Second, the analysis in this report shows that rising food prices tend to increase poverty in the short run, particularly in rural areas. Policies to maintain stability of food prices, therefore, indirectly help poverty alleviation.

Finally, one positive development in the eighties was the process of withdrawal of children and young persons from the labour force for pursuing education. The process of human capital formation indicated by this should help poverty alleviation in the long run. Continuation of this process is important and the government has a major role to play in this respect. The most important aspect of the process of human capital formation, it should be recognised, is that it has the potential of making poverty non-hereditary.

1.4 Economic Reforms, Employment and Poverty

The economic reform programme, initiated in 1991 in the wake of an economic crisis, was planned to be implemented in two phases. The first phase, which is virtually over, has been concerned with stabilisation and has principally involved restraining the growth of aggregate demand. The second phase - that of structural adjustment - is now underway and involves wide-ranging reforms (described in some detail in chapter 4 of this report) affecting the basic structure and the growth path of the economy.

The stabilisation measures have induced industrial recession and have involved cuts in public expenditure on anti-poverty programmes. As such, there can be little doubt that the employment generation and poverty alleviation processes, operative in the eighties, have been reversed in the course of stabilisation. Both the level of underemployment and the incidence of poverty have very probably increased since 1991 although this cannot be empirically confirmed.

It is more useful to ponder over the medium term effects of structural adjustment on employment and poverty. The first problem is clearly one of reviving growth, i.e., of boosting aggregate demand in the economy. Since expansionary fiscal policies are not on the cards, revival of growth depends on the degree of success in boosting exports and in attracting foreign direct investment. Success in these areas, unfortunately, depends not only on domestic policies but also on developments in the international economy. It is thus difficult to predict growth prospects of the economy with any degree of confidence.

Employment generation and poverty alleviation, of course, will depend not only on economic growth but also on other policies designed to influence the pattern of growth and distributional changes. Indeed, in the absence of these other policies, even a revival of growth will

not be enough to renew the processes of employment generation and poverty alleviation in the medium term. For although a revival of growth and the associated growth of export-orientation of the economy should have positive effects on employment and poverty, some of the structural adjustment measures themselves (or the absence of them) are likely to have negative effects. Restructuring of the sick enterprises and public sector reforms are most likely to lead to substantial redundancies in the organised sector; the lack of clear policies towards the rural economy may lead to an acceleration in the rural-urban migration; and so on. Moreover, inflow of foreign direct investment and the increasing openness of the economy are likely to create pressures for modernisation leading to a growth of capital intensity in industries.

The medium term employment outlook, therefore, appears to be as follows. Even if growth is revived in the immediate future, employment in the organised segment of the economy is likely to stagnate. With no changes in policies towards the rural sector, the employment elasticity in agriculture is unlikely to be high and the dynamism in the rural non-agricultural sector, observed in the eighties, will very probably be missing in the nineties. All this may mean accelerated rural-urban migration. As a consequence, conditions of urban informal employment may worsen even if industrial growth is healthy. The incidence of poverty may well rise under these conditions. If, on the other hand, the industrial recession persists, employment conditions will worsen in all sectors of the economy. The incidence of poverty will almost certainly rise in this situation.

1.5 Future Policies

The basic strategy advocated in this report, concerned as it is with employment and poverty, can be stated as follows. While efforts must continue to be made to promote exports and to attract foreign direct investment, it must also be accepted that there are uncertainties about the behaviour of these variables. A good deal of attention, therefore, should be paid to policies whose effects do not depend on developments in the international economy. The focus should be on policies which will not only help maximise the beneficial effects of growth when this is revived but will also minimise the social costs of adjustment if growth remain sluggish for a while. Their implementation, of course, will involve restructuring of public expenditure, but this will be well within the government's realm of control.

The basic strategy outlined above underlies the policy ideas proposed in the report. Furthermore, these are proposed with the objectives of employment generation and poverty alleviation in view. Policies needed to promote growth or to overcome the industrial recession, for example, are not discussed though these obviously are of critical importance.

Stability of the relative price of food is important for both employment generation and poverty alleviation. Government intervention in the market for foodgrains, therefore, remains

important. If external trade in agricultural products is liberalised, tariff rates will have to be the basic instruments of intervention. But hasty liberalisation would be risky. If restrictions of trade are retained, there is a choice between retaining a reformed procurement-public distribution system and replacing it by open market operations; both can be used as price-stabilising instruments. The former may be the costlier option but would have an advantage - it can help the urban poor directly in times of difficulties.

Policies towards agriculture will need to be guided by the objective of maximising the employment-generating and poverty-alleviating effects of agricultural growth. This will require a shift of emphasis from subsidisation of inputs to public investment in irrigation. This will mean promotion of agricultural growth outside the green revolution belt in Northern India. Concentration of public investment in Central and Eastern India will have the strongest effects on employment and poverty.

In organised industries, appropriate methods of restructuring of sick enterprises and of using the National Renewal Fund will have to be found. More fundamental reforms will be necessary for pre-empting industrial sickness and for encouraging employment growth. Reforms of the financial markets, the labour recruitment practices in public enterprises, the wage formation rules and the structure of industrial relations are particularly important.

Public expenditure on anti-poverty programmes in rural areas will need to be substantially increased. Some elements of the programmes, particularly those intended to help the specially disadvantages groups, also require reforms. Other areas requiring attention include regional distribution of the funds and the administrative costs of implementation of the programmes.

Alleviation of urban poverty requires a different approach. Emphasis here should be on the creation of basic facilities in slum areas, public distribution of foodgrains in times of difficulties and development of an insurance system for protection against loss of assets.

Finally, increased public expenditure on primary education and health is important for both rural and urban areas. Apart from alleviating poverty through employment effects in the short run, this will make poverty non-hereditary by assisting human capital formation among the children of the poor.

CHAPTER 2

Employment and the Labour Market

2.1 Introduction

Analysis of employment and unemployment in India is seriously handicapped by the absence of any comprehensive weekly, monthly, quarterly or even annual data on employment and unemployment. Until recently annual employment statistics were available only for manufacturing industry, public enterprises and government including para-statal organisations. The National Sample Survey (NSS) has started estimating employment-unemployment for the whole country on an annual basis since 1989-90. However, the annual NSS surveys are based on a limited set of questions canvassed with a very small sample. The quinquennial NSS surveys of employment and unemployment are the most useful source in terms of frequency, coverage and items of information. The other major source is of course the decennial census. Though the oldest and most comprehensive source, the items of information included in the census are limited. Furthermore, not only has the reference period varied from one census to another but also, more importantly, concepts and definitions. As such it is more difficult to make close comparisons between one census and another. Fortunately, the concepts used in the 1981 and 1991 censuses are more or less similar and therefore allow broad comparisons to be made.

The second problem which makes the analysis of employment-unemployment difficult in India, as in most developing countries, is the phenomenon of under-employment. Visible underemployment is a situation where a person is employed for only a part of the time that s/he is available for work. Invisible underemployment (disguised unemployment) is a condition where a person is apparently employed, but with such low or negligible productivity that the person may be described as virtually unemployed. The latter is very difficult to qualify. However, both the census and the NSS have attempted to generate some quantitative indicators of visible under-employment.

Thus the census makes a distinction between 'main workers' who were working for most of the previous year and 'marginal workers' who have done some work during the year but not for most of the year. Unfortunately, for those not working the census does not distinguish between those who were available for work but could not get work and those who were not available for work, i.e., the unemployed and those out of the workforce. As such this source is not of much help in studying unemployment. However the census data on of 'main workers' by industrial categories is very useful for analysing the structure of employment.

BOX 2.1

Concepts and Definitions : Population Census

Work : Work is identified as participation in any economically productive activity. Such participation may be physical or mental in nature. Work involves not only actual work but also effective supervision and direction of work. It also includes unpaid work on farm or in family enterprises.

Main Workers: Those who had worked for the major part of the reference year are termed as main workers. By major part of the year is meant 183 days or more.

Marginal Workers: Those who had worked for less than 183 days in the reference year.

The quinquennial NSS surveys go much further in presenting data which aids the analysis of both open unemployment as well as visible under-employment. A person is first classified in terms of his/her 'principal activity status' as well as secondary activity status, somewhat like the main/marginal worker classification in the census. The principal status in turn is classified in terms of three different reference periods. The 'principal usual status' refers to a person's labour disposition during the major part of the year. Thus a principal usual status 'employed' person is like the census 'main worker'. The principal status of persons is also classified in terms of the reference week, a person being classified as employed if s/he had at least one hour of work during the week. Finally, the current daily status refers to a person's labour time disposition during the reference week and is useful for measuring the total flow of labour during the week measured in person days. The usual status and weekly status stock of employed persons can be converted into corresponding flows of work at usual norms of hours of work per full day and number of working days in a week or year. If all persons reported as employed under the different concepts were indeed fully employed then the different flow measures would be equal. Hence differences between the different flows gives a measure of visible underemployment. The NSS surveys, unlike the census, also indicate whether a person not employed was available for work or not in the labour force, thereby allowing for an unambiguous measure of open unemployment.

BOX 2.2

Concepts and Definitions : National Sample Survey

Classification according to usual status approach :

A person engaged in gainful activities for more than half of the 365 days in the reference year is a "usual principal status" worker. A person who pursued some gainful activities for less than half of the 365 days in the reference year is a "usual subsidiary status" workers. Persons belonging to these two categories together constitute the category of employed workers. A person who was not working but was seeking or available for work for more than half of the 365 days in the reference year is unemployed. A person who was not working and was also not seeking or available for work for more than half of the 365 days, in the reference year is not in the labour force.

Classification according to current weekly status approach:

A person who was engaged in any gainful activity for at least one hour on any one day of the reference week is employed. A person who did not work for even one hour on any one day but was seeking or available for work at any time during the reference week is unemployed. All the others are not in the labour force.

Classification according to current daily status approach:

A person who engaged in gainful activities for four hours or more during the reference day is employed for the whole day. A person who worked for one hour or more but less than four hours during the reference day is employed for half day. A person who did not work but was seeking or available for work for four hours or more is unemployed for the whole day. A person who did not work but was seeking or available for work for less than four hours during the reference day is unemployed for half day. Similarly, a person is not in the labour force for either full or half day. The aggregate of person-days thus classified for seven days give the distribution of person-days by activity category during an average week over the survey period of one year.

Note: Gainful activity (or work) is an activity pursued for pay, profit or family gain; in other words, it is an activity which adds to national income. Execution of household chores or social commitments are not considered gainful activities. Activities such as prostitution, begging, etc. which generate incomes are, by convention, not considered gainful.

2.2. Trends in Employment and Unemployment

Broad trends in the supply of labour, employment and unemployment have been summarised in table 2.1. The NSS quinquennial surveys show that the size of the total labour force grew from around 240 million persons in 1972-73 to around 332 million in 1987-88. Women accounted for about one third of the workforce throughout this period.

While the labour force has continued to grow in absolute numbers, the rate of growth of the labour force shows a marked decline in the eighties. The annual growth rate fell from 2.5 per cent or more during the seventies and early eighties to 1.4 per cent between 1983 and 1987-88. The decline in growth of the labour force despite a more or less constant rate of growth of population is attributable to a fall in the labour force participation rate. As we shall see later, the participation rate declined even though the share of working age cohorts in total population increased during the eighties. This is because there was a marked withdrawal of children of age 5 to 14 and of young persons of age 15 to 29 from the labour force and their increased participation in education. This occurred in the case of both males as well as females.

A countervailing tendency which is evident during this period is the decline in the output elasticity of employment (table 2.2). The factors underlying this fall in employment elasticity are discussed in greater detail further below. Here, it is sufficient to note that as a consequence the rate of growth of employment (usual status) also slowed down during the eighties along side the slow down in labour force growth (table 2.1).[1]

One effect of these two countervailing tendencies was a rise in the rate of open unemployment (usual status) from 1.9 per cent in 1983 to 2.8 per cent in 1987-88. However it would be inappropriate to interpret this increase in open unemployment as indicating a deterioration in the overall conditions of employment. As we shall see later, during the same period daily status unemployment rates for both males and females came down in both rural and urban areas, approaching the usual status unemployment rates. This convergence of different unemployment rates points to a decline in underemployment. Moreover there was an increase in real wage rates for casual labour in both rural and urban areas as also a decline in the incidence of poverty. All these outcomes taken together would suggest an overall tightening of the labour market and an overall improvement in employment conditions.

[1]These observations are based on the NSS data. Census data yield a slightly higher growth rate of employment in the eighties. The censuses, however, seriously underestimate female employment and as such are less reliable.

Table 2.1

Employment and Unemployment (millions)

	Labour Force	Employed	Unemployed
1972-73 : NSS & Usual Status			
Total	240.2	236.3	3.9 (1.6)
Male	161.6	158.5	3.1 (1.9)
Female	78.6	77.8	0.8 (1.0)
1977-78 : NSS & Usual Status			
Total	271.2	264.3	6.9 (2.5)
Male	177.9	174.1	3.8 (2.1)
Female	93.3	90.2	3.1 (3.3)
1981 : Census			
Total	-	250.8	-
Male	-	188.2	-
Female	-	62.6	-
1983 : NSS & Usual Status			
Total	308.5	302.7	5.8 (1.9)
Male	204.7	200.0	4.7 (2.3)
Female	103.8	102.7	1.1 (1.1)
1987-88 : NSS & Usual Status			
Total	331.5	322.2	9.3 (2.8)
Male	221.5	215.5	6.0 (2.7)
Female	110.4	106.7	3.3 (3.0)
1991 : Census			
Total	-	317.4	-
Male	-	230.0	-
Female	-	87.4	-
Annual rate of growth (%)			
1972/73-1977/78	2.5	2.3	12.1
1977/78-1983	2.6	2.8	-3.4
1983-1987/88	1.4	1.3	9.9
1981-1991	-	2.4	-

Note: Figures in parentheses represent unemployment rates.

Source: (1) NSSO: Key Results of Employment and Unemployment Survey. All India, Part 1, New Delhi 1992.
(2) Census of India 1991: Final Population Totals, Brief Analysis of Primary Census Abstract (paper 2 of 1992).

Table 2.2

Employment Usual Status Elasticity

Periods	Compound Growth Employment	Rates Real GDP	Employment Elasticity = (1 divided by 2)
	(1)	(2)	(3)
1972-73 to 1977-78	2.3	4.4	0.52
1977-78 to 1983-84	2.8	4.1	0.68
1983-84 to 1987-88	1.3	4.7	0.28

Sources: 1. NSSO op. cit.
2. National Accounts Statistics, various issues.

Seen from this perspective the slight increase in the usual status unemployment rate probably reflects some underlying institutional and behavioural changes. Thus a transition from family labour based peasant household farming to hired labour based commercial agriculture might replace underemployment by open unemployment. Similarly, workers from middle or rich peasant households searching for non-manual work following improvement in their education status may prefer to remain unemployed rather than take up manual labour if white collar jobs are not immediately available.

A third important point to note is that there was no trend towards informalisation of employment in the economy as a whole though, as we shall see later, such a trend is observed in urban areas in the eighties. Employment in the formal or organised sector accounted for roughly 8 per cent of the work force throughout the period 1978-1988 (table 2.3). It is also noteworthy that the shares of the public sector and the service sector in total organised sector employment have been large and growing. It appears that much of the incremental employment in the organised sector has been in service activities in the public sector.

Finally, the eighties are marked by a widening gap between output per worker in agriculture and that in the non-agricultural sector though both have rising (table 2.4). This is not a new tendency; it has been a feature evident throughout the post-independence period. Underlying this growing productivity gap between agriculture and non-agriculture is the emergence

Table 2.3

Employment in the organised sector

	1978	1983	1988
Total (in millions)	21.2 (8.0)	24.0 (7.9)	25.7 (8.0)
Share (%) of :			
Public Sector	67.0	68.8	71.2
Private Sector	33.0	31.2	28.8
Share (%) of:			
Agriculture	6.1	5.4	5.4
Industry	39.2	38.3	36.6
(Manufacturing)	26.9	26.2	24.5
Services	54.7	56.3	58.0

Note: Figures in parentheses give percentage of total employment.

Source: Estimated from data provided in : Government of India, Economic Survey, 1992-93 (New Delhi, 1993).

of a mismatch between the structure of production and the distribution of work force which is quite typical of most industrialising countries. Thus, between 1931 and 1991 the share of agriculture in GDP fell from about 54 per cent to only 32 per cent, but its share of the work force is still as high as 67 per cent or more than double its share output (tables 2.5 and 2.6). In other words, industrial growth has continually outstripped agricultural growth but this growth has occurred more through capital deepening, investment at the intensive margin or rising factor efficiency rather than through the absorption of labour at the extensive margin.

Moreover, this has happened in the context of a rapidly growing labour force so that agriculture has served as a residual sector absorbing all the extra labour supply which is not absorbed in the non-agricultural sector. It signifies failure to exploit a potential source of growth, namely, transfer of labour from low-productivity to high-productivity sectors. In principle, it could also lead to rising income disparities (till the turning point of the so called Kuznets curve is reached), as also rising unemployment or underemployment and deterioration in standards of living in the agricultural sector.

Table 2.4

Labour Productivity of Important Sectors : Direct Estimates

(Rs./worker, 1980-81 prices)

Year	Total	Agricul-ture, Forestry, Fishing	Manufac-turing	Trade & Commerce	Cons-truction	Col.(3) div.by Col.(2) (%)	Col. (4) div.by Col.(3) (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1950-51	2898	2305	3671	4942	9182	0.80	1.59
1959-60	3390	2498	4761	7160	9412	0.74	1.91
1969-70	4430	2794	7443	10252	n.a.	0.63	2.66
1979-80	4563	2506	7540	9805	13839	0.55	3.01
1989-90	6169	3157	11099	13136	16110	0.51	3.52

Source: A. Bhaduri, Structural Adjustment, Labour Market and Employment in India (mimeo), ILO-ARTEP, 1993.

Table 2.5

Percentage distribution of employed by residence and sector

	NSS				Census	
	1972-73	1977-78	1983	1987-88	1981	1991
Rural	83.7	83.8	80.3	78.4	77.8	76.1
Urban	16.3	16.2	19.7	21.6	22.2	23.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	73.9	72.3	68.1	64.2	68.8	66.8
Industry	11.2	12.3	13.9	16.1	13.5	12.8
(Manufacturing)	(8.8)	(9.8)	(10.7)	(11.3)	-	-
Services	14.9	15.4	18.0	19.7	17.7	20.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: The distribution is of usual status workers in the case of the NSS and of main workers in the case of the Census.

Source: Estimated from data provided in :
(a) NSSO, Key Results of Employment and Unemployment Survey, All India, Part I (New Delhi, 1990).
(b) Office of the Census Commissioner, Final Population Totals : Brief Analysis of Primary Census Abstract (Census of India 1991, Paper 2 of 1992).

Table 2.6

The Structure of Output and Work Force

Year	Share of Agriculture in Output (NDP)	Share of Agriculture in Work Force
1931	54	71
1951	52	73
1961	49	70
1971	43	69
1981	36	69
1990-91[a]	32	67

Source: Bhaduri, op. cit.

As we shall see below, all this has not in fact happened. The agricultural sector has in fact witnessed a tightening of the labour market, increases in real wage rates and also a marked decline in the incidence of rural poverty. This may be explained in part by temporary or partial shift of workers from agriculture to non-agriculture which is not reflected in the data. Workers may remain rural residents and their main work may still be in agriculture, but they could also be partially diversifying into seasonal non-agricultural activities, including activities relating to public works and relief employment programmes. Another part of the explanation is that while agricultural growth has not kept pace with the high growth of industry, it has nevertheless grown fast enough to productively absorb a part of the growing labour force, The tightening of the labour market was also no doubt brought about by the decline in the growth of labour supply discussed earlier.

2.3 Rural Employment and Wage Rates

There were five noteworthy labour related developments in the rural sector in the eighties: (i) a decline in rural underemployment, (ii) the apparent slow growth of agricultural employment compared to agricultural output, a phenomenon often described as the declining output elasticity of employment, (iii) a rise in the share of non-agricultural employment in total rural employment, (iv) a rise in rural wage rates and (v) a rise in the share of labour households in all rural households and of casual wage employment in total rural employment i.e., casualisation. Before presenting a causal interpretation of these developments it is important to first examine the strength or firmness of each of them empirically.

Participation Rate and Unemployment

The Labour Force Participation Rate (LFPR) measures the proportion of population which is in the labour force, i.e., available for work though they may or may not have employment. Worker participation rate (WPR) measures the proportion of population which is actually engaged in work, either in self-employment or as hired employees. The difference between the two rates is due to the existence of unemployment. Labour Force Participation rates measured by the casual, weekly and daily status are shown in table 2.7 for the NSS quinquennial surveys of employment-unemployment upto 1987-88.

Table 2.7

Crude Labour force Participation Rates

All India, Rural

Year	Males			Females		
	NSS Usual	NSS Weekly	NSS Daily	NSS Usual	NSS Weekly	NSS Daily
1972-73	55.1	54.6	54.5	32.0	29.3	26.0
1977-78	56.0	53.8	52.5	33.8	24.2	21.4
1983	55.5	53.1	52.1	34.2	23.7	21.7
1987-88	54.9	52.6	52.5	33.1	23.0	22.2

Source: A. Sen & J. Ghosh : Trends in Rural Employment and the Poverty-Employment Linkage (mimeo.) ILO-ARTEP, 1993.

In the case of both males and females the daily status LFPR is lower than the weekly status LFPR which in turn is lower than the usual status LFPR. However, while the differences are marginal in the case of males, they are quite large in the case of females. Evidently women who are available for work during the major part of the year (usual status) withdraw temporarily during, for example, the off-peak season. This is reflected in the lower weekly status and especially daily status LFPRs which are more sensitive to such seasonal factors. Strikingly, the usual status and weekly status LFPRs declined during the eighties in the case of males. In the case of females, all three LFPRs show a decline during the eighties.

The decline of participation rates has to be squared with the increase in population share of the working age cohorts (15-59). In fact while the population share of this working age cohort was rising there was a concurrent withdrawal from the labour force in the 5-29 age group. This applies to both males and females and reflects a very positive development. In these age cohorts there was a simultaneous decline in both the employment rate as well as the unemployment rate while their education participation rate increased (table 2.8). In other words the decline in employment among this category reflects a sharp increase in education participation, particularly in the 5-14 age group and particularly among female children in that age group. The fall in participation rates along with increased migration to urban areas led to slowdown in the growth of the labour force (usual status) in rural areas. The average annual rate of growth was 2.4 per cent between 1972-73 and 1977-78, 1.8 per cent between 1977-78 and 1983 and 1.0 per cent between 1983 and 1987-88.

The data in table 2.8 also reveals that the highest rates of unemployment are experienced by young men and women in the 15-29 age group, particularly the men for whom the unemployment rate was as high as 5.7 per cent in 1987-88. This is consistent with the idea that some of the educated youth may be opting for unemployment rather than accepting available jobs in rural areas.

Overall unemployment rates by usual, weekly and daily status are shown in table 2.9. These data show that there is a clear decline in the unemployment rate by daily status in 1987-88, even though there is an increase in the usual status and weekly status unemployment rates. Since the usual status unemployment rate is lower than the weekly status unemployment rate and this is in turn lower than the daily status unemployment rate, the movements over time also indicate a tendency toward convergence of the different unemployment rates. As explained earlier, the difference in unemployment rates as measured by the usual status and the weekly or daily status essentially gives a measure of visible underemployment, i.e., persons who are usually employed but happen to be temporarily unemployed. While this is by no means an adequate measure of under-employment, the reduction in temporary unemployment is itself a positive sign, confirming that there may have been some tightening of the labour market in rural India. This is also confirmed by a recent exercise which attempts a more direct measure of underemployment.[1] Thus the labour market developments in rural India in the eighties were somewhat ambiguous; while underemployment declined, the rate of open unemployment increased at the same time.

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[1]See P. Visaria and B.S. Minhas, Evolving an Employment Policy for the 1990s : What Do the Data Tell Us? Economics and Political Weekly Vol. XXVI No.15.

Table 2.8

Activity Status by Sex and Age - NSS Weekly Status

All India, Rural

	1977-78	1983	1987-88
Males 5-14	(29.0)	(28.2)	(27.4)
Employed	12.9	11.4	7.6
Unemployed	0.4	0.4	0.2
In Education	46.2	53.3	58.6
Other	40.6	34.9	33.8
Males 15-29	(23.7)	(24.3)	(25.2)
Employed	79.7	77.1	73.4
Unemployed	5.1	4.9	5.7
In Education	11.2	13.9	16.3
Other	4.0	4.1	4.6
Males 30+	(33.5)	(33.7)	(34.1)
Employed	87.3	86.5	87.5
Unemployed	1.8	2.0	2.0
In Education	0.1	0.1	0.2
Other	10.8	11.5	10.3
Females 5-14	(26.9)	(26.1)	(25.1)
Employed	8.6	8.7	6.3
Unemployed	0.3	0.2	0.2
In Education	26.6	33.4	40.9
Other	62.4	62.3	63.0
Females 15-29	(24.8)	(24.9)	(26.5)
Employed	33.2	31.9	30.5
Unemployed	2.0	2.0	1.6
In Education	2.5	3.8	4.9
Other	62.4	62.3	63.0
Females 30+	(34.4)	(34.6)	(35.3)
Employed	36.7	35.3	35.0
Unemployed	1.3	1.3	1.2
In Education	0.0	0.0	0.1
Other	62.0	63.4	63.7

Note: Figures in brackets are population shares of the age-group.

Source: Sen & Ghosh, op. cit.

Table 2.9

Unemployment Rates

All India, Rural

Year	Males			Females		
	Usual Status	Weekly Status	Daily Status	Usual Status	Weekly Status	Daily Status
1972-73	1.2	3.0	6.8	0.5	5.5	11.2
1977-78	1.3	3.6	7.1	2.0	4.1	9.2
1983	1.4	3.7	7.5	0.7	4.3	9.0
1987-88	1.8	4.2	4.6	2.4	4.4	6.7

Source: Sen and Ghosh, op. cit.

Agricultural Growth and Employment

A comparison of the seventies and eighties shows that the growth of usual status agricultural employment clearly slowed down in the eighties. There was no corresponding slow down in output growth so that there was a decline in the output elasticity of agricultural employment (table 2.10). However, as already noted in the context of unemployment, the weekly status picture and the daily status picture suggest an acceleration of agricultural employment growth as well as an increase in the elasticity of such employment. On the whole, therefore, a conclusion that employment growth in agriculture slowed down in the eighties is not really warranted. Clearly there was a shift in the nature of employment in agriculture, with a slow down in the growth of the stock of usually employed persons, while there was an acceleration in the availability of employment on a person-day basis. The fact remains, though, that barring the daily status elasticity for 1983-88, all the other elasticities cited above are distinctly lower than the figure of around 0.75 usually accepted as the elasticity of agricultural employment in the early seventies. More direct estimates of elasticity based on the Agriculture Ministry's cost of production data also suggest that there was a decline in the output elasticity of employment.[1] The balance of evidence would suggest that the growth of demand for labour was probably not very different in the eighties from that in the seventies.

[1]S. Bhalla : Report of the Study Group on Employment Generation. National Commission on Rural Labour, Government of India, 1991.

Table 2.10

Growth and Elasticity of Agricultural Employment

All India, Rural

Period	Usual Status Employment		Weekly Status Employment		Daily Status Employment	
	Growth	Elasticity*	Growth	Elasticity*	Growth	Elasticity*
1972-78	1.70	0.59	0.61	0.18	0.66	0.20
1977-83	1.37	0.52	0.74	0.28	1.22	0.47
1983-88	0.40	0.17	0.71	0.31	1.85	0.79

*based on three year moving average of GDP in agriculture.

Source: Sen and Ghosh, op. cit.

Rural Non-agricultural Employment

One reason for the slow down in the growth of labour supply within agriculture was the slowdown in the growth of labour supply in general. The other reason was a shift of labour from agriculture into non-agriculture within rural areas. The percentage distribution of labour between agricultural and non-agricultural activities in rural areas recorded in the NSS quinquennial surveys have been shown separately for males and females by usual, weekly and daily status in table 2.11. Though there is no clear time trend in the case of females, the data for males clearly shows the increasing share of non-agricultural activities in rural employment since the late seventies. This picture appears much more sharply in the share of non-agriculture in additional male employment and total employment shown in table 2.12.

The rising share of non-agriculture in additional employment is revealed most sharply in the case of usual status employment. It rose from 35.5 per cent in the period 1977-83 to 68.2 per cent in 1977-88 for males and from only 17.9 per cent to as much as 56.7 per cent for total employment. In other words more than half of the increase in usual status employment during the eighties was accounted for by the non-agricultural sector. Though the figures are less dramatic in the case of additional weekly and daily status employment, here too the rising share of non-agriculture is apparent.

Table 2.11

Share of Agriculture and Non-agriculture in Rural Workforce

All India, Rural

Period	Male						Female					
	Usual		Weekly		Daily		Usual		Weekly		Daily	
	Agri-culture	Non-Agri culture	Agri-culture	Non-Agri culture	Agri-culture	Non-Agri culture	Agri-culture	Non-Agri culture	Agri-culture	Non-Agri culture	Agri-culture	Non-Agri culture
1972-73	80.9	19.1	78.4	21.6	78.6	21.4	85.7	14.3	80.6	19.4	80.2	19.8
1977-78	80.3	19.7	78.0	22.0	78.0	22.0	88.1	11.9	83.8	16.2	83.4	16.6
1983	78.1	21.9	75.5	24.5	75.6	24.4	90.0	10.0	83.3	16.7	83.1	16.9
1987-88	73.1	26.9	71.8	28.2	71.9	28.1	84.8	15.2	80.1	19.9	80.2	19.8

Source: Sen and Ghosh, op.cit.

Table 2.12

Percentage of Additional Employment Accounted for by Non-Agriculture

All India, Rural

Concept	Males		Total	
	1972-83	1977-88	1972-83	1977-88
Usual	35.5	68.2	17.9	56.7
Weekly	41.9	65.5	34.1	60.9
Daily	48.1	54.1	38.0	47.2

Source: Sen and Ghosh, op. cit.

Trends in Rural Wages

The analysis so far suggests that, in the eighties, the growth of demand for labour in rural areas may have accelerated; while the demand for labour in agriculture grew at a trend rate, that in non-agriculture seems to have growth faster than in the seventies. At the same time, labour force growth slowed down. Thus there was some tightening of the rural labour market.

This conclusion is supported by the evidence on movements in real wages. Though labour includes workers self-employed in rural agriculture or non-agriculture and not just the of workers in the market for hired labour, it is reasonable to expect that real wage movements in the latter would reflect the underlying labour market situation as a whole. The relevant data has been reproduced in table 2.13. It shows that real wages may have declined upto the mid-seventies but since then it rose monotonically for females as well as males and in agriculture as well as non-agriculture. Time series estimates based on an alternative source of data leads to the same conclusion.[1]

It may be noted that this evidence clearly suggests that the rise in the rate of open unemployment is not really explicable in terms of demand-supply imbalances.

[1]A.V. Jose : Agricultural Wages in India : A Note, Paper prepared for the National Commission on Rural Labour, Government of India, 1991.

Table 2.13

Some Characteristics of Rural Labour Households and Rural Real Wage Rates

All India, Rural

	1964-65	1974-75	1977-78	1983	1987-88
% in total rural households of					
Agricultural Labour Households	21.8	25.3	29.9	30.7	31.1
All Rural Labour Households	25.4	30.3	36.8	37.3	38.8
Real wage rates received (Rs./day at 1977-78 prices)					
Male Agricultural	3.19	2.90	3.81	4.48	5.59
Female Agricultural	2.05	2.02	2.69	3.10	3.69
Male Non-agricultural			5.26	6.64	7.82
Female Non-agricultural			2.83	3.22	4.53

Source: Sen and Ghosh, op. cit.

Rising share of labour households and Casualisation

The data in table 2.13 also points to the last of the five major rural labour related developments which were cited earlier, i.e., landlessness and casualisation. It can be seen that the share of labour households in all rural households went up from about 25 per cent in 1964-65 to nearly 39 per cent in 1987-88, a sharp increase of over 50 per cent in proportionate terms. Much of this increase consisted specifically of an increase in the share of agricultural labour households, who account for the bulk of labour households in rural areas. Thus the share of agricultural labour households went up from around 22 per cent of all households to over 31 per cent in the two decades from 1964-65 to 1987-88.

Closely related to this is the phenomenon of casualisation. Hired labour in rural India mostly takes the form of casual wage employment. Regular or permanent hiring of wage labour is very limited. Most activities are carried on by self-employed households. The rest is largely undertaken by casual labour. Hence a decline in the share of self-employed households goes together with a rise in the share of casual workers in total rural workers. This close correspondence will be evident from a simple comparison of the rising share of rural or agricultural labour households in table 2.13 with a rise of very similar proportions in the share of different categories of casual workers in terms of usual, weekly and daily status in table 2.14.

Table 2.14

Casual Workers as Percentage of Total Workers

All India, Rural

	1972-73	1977-78	1983	1987-88
Rural Males				
Usual Status				
Total	22.0	26.6	29.3	31.4
Agricultural	19.3	23.2	24.6	
Non-agricultural	2.7	3.5	4.7	
Weekly Status				
Total	21.3	24.1	26.8	28.7
Agricultural	16.5	19.4	21.0	21.5
Non-agricultural	4.8	4.7	5.8	7.8
Daily Status				
Total	18.4	21.4	23.8	28.7
Agricultural	14.2	17.3	18.6	21.0
Non-agricultural	4.2	4.1	5.2	7.7
Rural Females				
Usual Status				
Total	31.4	35.1	35.3	35.6
Agricultural	28.9	31.6	32.3	30.0
Non-agricultural	2.5	3.5	3.0	5.6
Weekly Status				
Total	27.7	34.9	36.7	38.0
Agricultural	22.4	30.4	31.3	30.3
Non-agricultural	5.3	4.5	5.4	7.7
Daily Status				
Total	25.0	32.2	34.9	34.8
Agricultural	19.8	27.9	29.5	27.6
Non-agricultural	5.2	4.3	5.4	7.2

Sources: Sen and Ghosh, op. cit.

Interpreting Labour Related Trends in Rural India

The foregoing is an empirical account of the five major trends which have dominated labour and employment conditions in rural India. To recapitulate these include (i) a rise in unemployment and a decline in visible under-employment, (ii) the slow growth of both employment and labour force, (iii) the rising share of rural non-agricultural employment in total rural employment, (iv) rising real wage rates for both males and females in agriculture as well as rural

non-agriculture, and (v) the rising share of labour households and of all rural households or casual wage workers among all rural workers.

In order to understand how these labour related tendencies fit into the overall dynamics of the rural economy, it is important to take note of three 'autonomous' factors (besides the slowdown in labour force growth) underlying these developments in the sector during the eighties. The first such autonomous factor is the growing pressure of population on land. Studies based on the NSS landholding surveys show how the entire size distribution of both ownership and operational holdings has been shifting downwards through a process of land fragmentation as families expand and partition in the course of population growth.[1] This has inevitably led to splitting of households all along the line with some branch families turning to other activities in the non-agricultural sector where this has been available, a link which is followed up further below. But it has especially meant a great deal of crowding at the lower end of the land distribution structures and eventually a crowding out of large numbers of poor peasant households altogether from their owned or operated asset-base in land. It is essentially this process which accounts for the large increase in the proportion of labour households among all rural households and of casual wage workers among all agricultural workers.

Thus it is the demographic pressure towards landlessness which has driven the gradual shift from self-employed peasant farming to hired labour based agricultural operations. Nevertheless, it is self-employed farming, not hired labour based farming, which still accounts for the major proportion of agricultural operations as a whole. Of course there are important inter-regional variations in this regard. Furthermore, a rise in the share of casual wage labourers in total agricultural workforce does not by itself indicate any slackening of the market for agricultural labour because the shift from self-employed peasant farming to hired labour based farming implies an increase in both the demand for hired labour as well as its supply. It is, in other words, a shift from one organisational arrangement for agricultural production to another. Whether or not this should lead to any slackening or tightening of the labour market depends on other developments affecting the labour market.

The second 'autonomous' factor is the growth of agricultural production, both at the extensive margin and at the intensive margin. The cost of production analysis cited earlier reveals that the increase in agricultural employment recorded during the period 1971-84 is almost entirely (98 per cent) attributable to growth at the extensive margin, i.e., an expansion of gross cropped

[1]See S. Mundle (a) Land, Labour and the Level of Living in Rural Bihar and (b) Land, Labour and the Level of Living in Rural Punjab in A.R. Khan and E. Lee (ed.) Poverty in Rural Asia, ILO-ARTEP, Bangkok, 1984.

area through spread of multiple cropping, itself made possible by the extension of irrigation.[1] Growth at the intensive margin, i.e., diffusion of 'Green Revolution' technologies and the greater use of HYV seeds, chemical fertilisers etc., on the other hand, resulted in an increase in productivity rather than employment. This is also evident from the results of a regression analysis presented in Table 2.15. These indicate that while agricultural growth in the "rest of India" has a significant positive impact on agricultural employment, the employment effect of agricultural growth in Northern India is insignificant. This is presumably because the original green revolution areas of Punjab, Haryana and Western U.P. have already been brought under irrigation and the room for further extension of gross cropped area in these regions is limited. Agricultural growth

Table 2.15

Pooled Cross Section Time Series Regression Results
Dependant Variable : State-Level Survey-to-Survey Growth Rate of Person Days of Agricultural Employment per Rural Person. (NSS State-Level Daily Status Data)

Independent Variable	All Rural Persons				Males	Females
Constant	-23.4	-21.3	-28.3	-26.1	-16.0	-52.2
Time Trend	0.01 (4.61)	0.01 (4.34)	0.01 (5.93)	0.01 (3.09)	0.01 (3.09)	0.03 (3.76)
Growth Rate of Agricultural Value Added (G)	0.25 (6.26)		0.26 (7.02)			
GX DN (Dummy for North India)		0.19* (0.95)				
G(I-DN) : Rest of India		0.27 (6.75)		0.26 (7.21)	0.20 (4.86)	0.39 (3.59)
Product Wage Rate			-0.11 (3.23)	-0.09 (2.61)	-0.05 (1.96)	-0.26 (2.69)
Lagged Level of Dependant Variable	-0.10 (2.99)	-0.10 (3.16)	-0.17 (4.57)	-0.15 (4.27)	-0.14 (3.46)	-0.28 (2.51)
Adjusted R^2	0.570	0.614	0.656	0.667	0.479	0.396

Note: All level in logs and growth variables expressed as log differences. Figures in parenthesis are T-values. Asterisk indicates that variable is not statistically significant.

Source: Sen and Ghosh, op. cit.

[1]Bhalla, op. cit.

in the rest of India was at the extensive margin and hence was employment-intensive. Given this evidence, the patterns of employment growth examined earlier suggest that there was no significant change in the mix of two types of growth in the eighties. One policy implication of this analysis should be noted here. If stimulating employment growth is considered as desirable, emphasis should shift from subsidisation of inputs such as chemical fertilisers to investment in irrigation and land development. Such a policy shift also has a regional dimension; public investment in irrigation and land development would mean public investment in the "rest of India", particularly in Central and Eastern India.

Intensive agricultural growth and rising labour productivity have, however, played an important role in the determination of real wages in agriculture. It has been noted that real wage rates in agriculture have been rising since the mid-seventies. The formation of real wage rates is a complex process, dependent on several factors. These may be conveniently grouped into labour supply, labour demand and labour productivity. The relative strength of these different determinants of the real wage rate, as quantified through regression analysis, have been shown in table 2.16.

Table 2.16

Regression Results : Pooled Cross-Section and Time-Series NSS Data; Department Variable: Male Agricultural Real Wage

Independent Variables	Coefficient	
Constant	4.97	15.08
Labour Supply	-2.11 (4.42)	
Labour Demand	0.91 (2.77)	0.73 (2.13)
Productivity	0.41 (6.65)	0.35 (5.89)
Agriculture share in Rural Usual Status Male Workers		-2.52 (4.44)
Rural Usual Status Male Workers: Participation Rate		-1.35 (2.75)
Casual Workers in Rural Male Usual Status Workers		-0.23(3.54)
Adjusted R^2	0.732	0.784

All variables are in logs. Figures in parentheses denote T-Values.

Source: Sen and Ghosh, op. cit.

In the first regression, labour supply is measured by the ratio of usual status male agricultural workers to population while labour demand is represented by the ratio of male person

days of work in agriculture to population. It is quite clear from this analysis that the real wage rate is market-determined and that the effect of productivity on wages is positive and highly significant.

In the second regression, the labour supply variable is split into its two components : the share of agriculture in usual status rural male workers and the usual status work-force participation rates of rural males. An additional variable - the share of casual workers in usual status male workers - is also introduced. These results essentially support the earlier conclusions except that they show the relative strengths of the effects of changes in different components of labour supply on real wage rate. Thus, for example, the share of agriculture in total rural workers turns out to be the most important variable on the supply side thereby indicating the importance of growth of non-agricultural employment for growth of the real wage rate in agriculture.

Alternative regressions[1] in terms of rates of change of the dependent and the independent variables also show a high degree of responsiveness of the real wage rate to changes in the demand for and supply of agricultural labour even in the short run. They also suggest that the positive effects of productivity growth and growth of non-agricultural employment show up with a certain time-lag. The implications are as follows. Creation of supplementary casual employment through anti-poverty programmes cannot reduce underemployment but can also unlikely to affect the real wage rate in agriculture positively by increasing the demand for labour in the short run. Agricultural growth and sustained growth of non-agricultural employment, on the other hand, have a positive though delayed effect on the real wage rate in agriculture independently of changes in the demand for and supply of agricultural labour.

All this points to the third factor which underlay the changes in rural employment conditions in the eighties, namely, a relatively rapid growth of non-agricultural employment. It has already been observed that much of the incremental employment in rural areas in the eighties was accounted for by non-agricultural activities. An important point to be noted here is that the government played an important role in bringing about this change.

The data in table 2.17, again based on the NSS surveys, reveals that regular employment in the rural non-agricultural sector increased by about 4.1 million persons in the period 1977-88. Over three quarters of these additional jobs were in government. In the case of casual employment out of about 9 million persons additionally employed, about a quarter were employed by government. Since the terminal year happens to be the drought year 1987-88 and the government had offered relief work on a very large scale in that year, particularly in Gujarat and Rajasthan, it is reasonable to infer that these relief work programmes largely accounted for the

[1]These results are not reported here, For details, see Sen and Ghosh, op. cit.

government's contribution to increments in casual non-agricultural employment in the rural sector.[1]

Table 2.17

Contribution of Government to Increment in Rural Non-agricultural Employment

All India

Type of Employment	1977-83	1983-88	1977-88
Regular Non-agriculture (usual status)			
Government	1.7	1.5	3.2
All	2.2	1.9	4.1
Government Share (%)	77.3	78.9	78.0
Casual Non-Agriculture (Daily Status)			
Government	0.21	2.12	2.33
All	2.73	6.22	8.95
Government Share (%)	7.7	34.3	26.0

Source: Sen and Ghosh, op. cit.

The essential point to note, however, is that while there was a marked increase in the demand for labour in the rural non-agricultural sector in the eighties, the major impetus for this increase appears to have come from the government. This highlights an often neglected point - the importance of public expenditure for rural employment. This is further emphasised by the fact that the slowdown in the growth of labour supply was associated with a significant increase in educational opportunities.

In summary, employment conditions in rural India improved in the eighties even though the rate of open unemployment increased slightly and employment was increasingly casualised. There was a significant decline in underemployment and the real wage rate for casual labour showed a rising trend. These labour-related outcomes can be understood in terms of four major processes, i.e., growing pressure of population of land, slowdown in the growth of labour supply, agricultural growth and the expanding role of government in the rural sector.

The growth and partitioning of agricultural households in the process of demographic expansion has caused some branch households to look for non-agricultural means of livelihood. More importantly, it has pushed down the whole size structure of land distribution, crowding out

[1]This is confirmed by the analysis of the 1987-88 drought relief operations in Chapter 3.

households at the bottom into condition of landlessness. This accounts for both the rising share of labour households in all rural households as well as the rising share of casual wage workers in the total agricultural workforce since only a small proportion of hired labourers in agriculture are engaged as permanent or regular farm employees. Thus there is an institutional shift from self-employed peasant farming to farming based on hired labour, though the former still remains predominant.

Rising levels of literacy and education has been associated with withdrawals of younger people from labour force and this has been an important reason for the slowdown in the growth of labour force (the other reason being rural-urban migration). Public expenditure has played a role here in so far as educational facilities have expanded. However, this may also have been a reason why the rate of open unemployment showed a tendency to rise since the educated youth is likely to seek regular work in non-agriculture.

Agricultural growth at the extensive margin - multiple cropping and expansion of gross cropped area made possible by expansion of irrigation - especially outside the original green revolution belt of northern India, accounted for almost the entire increase in agricultural employment in the recent period. Since there is no evidence to suggest that the growth in the demand for agricultural labour slowed down, it must be supposed that the mix of growth at the extensive margin and that at the intensive margin was roughly the same in the eighties as in the seventies. On the other hand, the growth of non-agricultural employment was faster in the eighties. These developments, along with the slower growth of the labour force in the eighties, led to a decline in underemployment and a rise in the real wage rate in agriculture.

The growth of non-agricultural employment is attributable primarily to the expanding role of government. Government directly accounted for about eighty per cent of the additional 'regular' rural non-agricultural employment (usual status) and about a quarter to one-third of the additional casual employment in the eighties. Since the terminal year for the computation of this incremental employment is the drought year of 1987-88, it would appear that a large part of this incremental casual employment came from the large scale relief work programmes organised in that year in addition to the usual work programmes, especially in Gujarat and Rajasthan. At any rate, the central point to note is that growing public expenditure played a major role in improving employment conditions in agriculture.

2.4 Urban Employment

An analysis of employment trends in the urban sector is subject to data constraints similar to those encountered in the rural sector. Reference has already been made earlier to problems of comparability across different censuses because of differences in the kind of questions asked

as well as in definitions and classification. The latter also impairs comparison across sources, i.e., between the census and the NSS surveys. The nearest comparison is that between the main workers in the Census and Principal Usual Status Workers in the NSS. Within the NSS again the employment data for 1989-90 which are based on a very limited survey, are not comparable with the data in the quinquennial employment/unemployment surveys. These limitations notwithstanding, some reasonably robust patterns are still discernable.

Starting with the workforce participation rate (WPR), the main feature observable over the past two decades is its remarkable stability. The usual status male WPR as per the NSS has been stationary at around 50 per cent while the Census estimates suggest stationarity at the slightly lower WPR of around 49 per cent. In the case of females the Census indicates a marginal rise in WPR from under 7 per cent to a little over 8 per cent between 1971 and 1991. The NSS data shows stationarity of the female WPR at around 12 per cent. (Table 2.18). The weekly and daily status WPRs for both males and females also remained stationary.

The labour force participation rates (the data on which are not cited here) were also stationary. In spite of this, however, the growth of urban labour force accelerated in the eighties because the pace of urbanisation of population quickened. According to NSS data, the rate of growth of urban labour force was 2.5 per cent between 1972-73 and 1977-78, 6.4 per cent between 1977-78 and 1983, and 3.2 per cent between 1983 and 1987-88. It should be noted, that there was a slowdown in labour force growth in the second half of the eighties compared to the first half.

The stationarity of overall WPRs in urban areas should not, however, be interpreted to mean that there were no important changes affecting different segments of the workforce. There was a distinct decline in the WPR for children and young persons upto age 29, noticeable especially in the case of males. As observed in the rural context, this is not a negative development. It mainly reflects increased education participation by children. There was a similar decline in the 60+ age group, obviously for different reasons (table 2.19). The overall WPR nevertheless remained stable, because of an increase in the relative share of high WPR cohorts in the 30-44 and 45-59 age groups.

Table 2.18

Workforce Participation Rates for the Total and Above Five Year Population by Various Concepts in Different NSS Rounds and Population Censuses in Urban Areas

All India, Urban

Concepts		NSS Rounds				Population Census		
		1972-1973	1977-1978	1983	1987-1988	1971	1981	1991
1. Usual Status								
a) Main Workers (Principal Usual Status)	M	-	49.7 (56.7)	50.0 (56.7)	49.6 (56.0)	48.8 (55.2)	48.5 (54.5)	48.6 NA
	F	-	12.3 (14.0)	12.0 (13.8)	11.8 (13.4)	6.6 (7.7)	7.3 (8.3)	8.1 NA
b) Main & Marginal Workers (Principal & Subs. Status)	M	50.1 (57.1)	50.8 (57.5)	51.2 (58.1)	50.6 (57.2)	NA (55.3)	49.1 (55.1)	48.9 NA
	F	13.4 (15.5)	15.6 (17.8)	15.1 (17.2)	15.2 (17.2)	NA (8.3)	8.3 (9.5)	9.2 NA
2. Weekly Status	M	49.1 (56.3)	49.0 (55.5)	49.2 (55.9)	49.2 (55.6)	NA	NA	NA
	F	12.3 (14.0)	12.5 (14.2)	11.8 (13.5)	11.9 (13.5)	NA	NA	NA
3. Daily Status	M	47.7 (54.7)	47.2 (54.1)	47.3 (53.7)	47.7 (53.9)	NA	NA	NA
	F	10.8 (12.2)	10.9 (13.0)	10.6 (12.2)	11.0 (12.4)	NA	NA	NA

Note: The figures in brackets are for population aged five years and above while those outside are for total population.

Source: A. Kundu : Growth in Employment, Changing Work Force Structure and Poverty - Employment Linkages in Urban Areas (mimeo.) ILO-ARTEP, 1993.

Table 2.19

Age Specific Workforce Participation Rates as per Principal Usual Status in Different NSS Rounds

All India, Urban

Age Groups	Male			Females		
	1977-1978	1983	1987-1988	1977-1978	1983	1987-1988
5-10	-	0.5	0.5	-	0.5	0.3
10-14	(5.4)	(5.0)	(3.8)	(3.5)	(2.9)	(2.3)
15-29	-	9.3	7.3	-	5.4	4.4
30-44	63.3	64.0	60.2	15.0	14.5	13.9
45-59	97.2	97.3	97.4	24.3	23.4	23.1
60+	92.7	92.1	92.4	22.9	22.8	22.1
	49.7	48.5	46.1	10.3	11.6	9.3
5+	56.72	56.78	56.0	14.0	13.8	13.4

Note: The figures within brackets are for the age group of 0-14 years.

Source: Kundu, op. cit.

Turning now to questions of unemployment and underemployment, there appears to have been some tightening of the urban labour market (a development similar to that in the case of the rural sector as discussed earlier). The usual status unemployment rate for males has remained stable at around 5 per cent since the late seventies (table 2.20). The weekly and daily status unemployment rates, on the other hand, declined. Thus there was a convergence of the three unemployment rates indicating a decline in underemployment. For the females, the tendencies are less clear; indeed the estimates appear unreliable. However, for the second half of the eighties, all three unemployment rates showed a rising tendency. Nevertheless, there seems to have been a tendency for the three unemployment rates to converge suggesting a decline in underemployment.[1]

[1]It is to be noted that an independent study using a more direct measure of underemployment reached similar conclusions. See Visaria and Minhas, op. cit.

Table 2.20

Unemployment Rate

All India, Urban

	Male				Female			
	1972-1973	1977-1978	1983	1987-1988	1972-1973	1977-1978	1983	1987-1988
1. Usual Status	4.8	5.4	5.1	5.2	6.0	12.4	4.9	6.2
2. Weekly Status	6.0	7.1	8.7	6.6	9.2	10.9	7.5	8.9
3. Daily Status	8.0	9.4	9.2	8.8	13.7	14.5	11.0	12.0

Source: Kundu, op. cit.

Thus the broad trends in urban employment in the eighties can be summed up as follows: growth of the labour force accelerated, the rate of open unemployment remained fairly stable and the extent of underemployment declined. Urban employment conditions, therefore, improved quite unambiguously. There are two reasons why this basically means that conditions of urban informal employment improved quite substantially. First, employment growth in the organised sector decelerated in the eighties; as the data in table 2.3 show, employment in the organised sector grew at 2.5 per cent per annum between 1977-78 and 1983 and at 1.4 per cent per annum between 1983 and 1987-88. Since the rate of open unemployment nevertheless remained stable, a growing proportion of the incremental labour force clearly found informal employment. This in itself is not perhaps surprising. But, second, the fact that underemployment declined means that the conditions of informal workers improved. And this means that the demand for labour in informal activities grew at an accelerated rate in the eighties. In what follows, these features are further investigated.

Urban Informal Employment

The term "informal employment" is used here in preference to more widely used terms such as "employment in informal enterprises" or "employment in informal sector" for a number of reasons. Informal enterprises are still enterprises and must have fixed premises. This is precisely what most informal workers, particularly poorer workers, lack. Informal sector workers, on the other hand, are all those who are not in the formal sector (whatever be the definition of the formal sector). This category, therefore, fails to include casual or irregular workers in the formal sector.

Informal employment covers self-employment, casual wage-employment (in both formal and informal sectors) and regular wage-employment outside the formal sector. The first two categories are conceptually clear and statistically measurable. Regular wage-employment outside the formal sector, however, is difficult to analyse statistically. NSS surveys provide data on regular wage-employment but do not distinguish between formal and informal sectors. The available data on formal/organised sector employment (see table 2.3) do not give rural/urban breakdowns. There are, moreover, problems of comparability of the two sets of data. The estimates of workers in the organised sector, for example, almost certainly include irregular workers. These difficulties notwithstanding, some fairly robust conclusions about the basic tendencies in informal employment can be drawn.

Comparisons across NSS surveys (table 2.21) shows that, in the case of males, the share of informal forms of employment (self-employment and casual wage-employment) in total urban employment increased till 1983 and remained unchanged thereafter; in the case of females, this increased till 1977-78 and declined thereafter. Given that male workers account for nearly 80 per cent of the urban work-force, it is reasonable to draw the conclusion that the share of informal forms of employment in total urban employment remained fairly stable around 60 per cent in the eighties.

This does not mean, however, that the share of informal employment in total urban employment also remained stable. For, the behaviour of regular wage-employment outside the formal sector remains to be discerned. This cannot be done in a precise manner, given the limitations of the data. But the evidence, presented in table 2.22, strongly suggests that regular wage-employment outside the formal sector grew very rapidly in urban areas in the eighties. Between 1977-78 and 1983, urban regular wage-employment grew by 6.1 million while organised sector employment grew by 2.8 million; the corresponding figures for the period 1983-1987/88 were 4.2 million and 1.7 million respectively. Even if it is assumed that the entire growth in organised sector employment was in urban areas, it follows that much of the increase in regular wage-employment took place outside the organised sector. The assumption, of course, is obviously invalid. If, alternatively, it is assumed that all regular wage-employment in rural areas was in the organised sector, it follows that organised sector employment in urban areas grew by 1.8 million during 1977/78-1983 and by 0.4 million during 1983-1977/78. On this reckoning, the organised sector accounted for about 30 per cent of the incremental regular wage-employment in the first period and for less than 10 per cent in the second period. Also, by 1987-88, organised sector employment constituted only 22 per cent of regular wage-employment in urban areas. Admittedly, these calculations are based on rather extreme assumptions. Nevertheless, the central

Table 2.21

Percentage Distribution of Usually Employed Persons as per Principal and Subsidiary Status across Employment Categories in Different NSS Rounds

All India, Urban

Employment Categories	Male				Female			
	1972-1973	1977-1978	1983	1987-1988	1972-1973	1977-1978	1983	1987-1988
Self-Employed	39.2	40.4	40.9	41.7	48.4	49.5	45.8	47.1
Regular/Salaried	50.7	46.4	43.7	43.7	27.9	24.9	25.8	27.5
Casual Workers	10.1	13.2	15.4	14.6	23.7	25.6	28.4	25.4

Source: Kundu, op. cit.

point seems firm enough : the growth of regular wage-employment took place increasingly outside the formal sector in the eighties.

Table 2.22

Regular Wage-Employment (in millions)

	1977-78	1983	1987-88
Regular wage-employment			
urban	17.8	23.9 (6.1)	28.1 (4.2)
rural	17.2	18.2 (1.0)	19.5 (1.3)
Employment in the organised sector	21.2	24.0 (2.8)	25.7 (1.7)

Note: Figures in parentheses indicate increments (in millions) over the preceding period.

Source: Computed from data provided in NSSO, op. cit.

It seems clear that the share of urban informal employment in total urban employment increased in the eighties and that this increase was associated with an increase in the share of regular wage employment (in the informal sector) in urban informal employment. Here, then, is one reason why underemployment among informal workers declined. But there is also evidence to suggest that underemployment declined even among the self-employed and casual workers in the urban sector. Thus the data presented in table 2.23 show that the real wage rate for casual labour in urban non-agricultural activities increased throughout the eighties and quite rapidly in the second half of the eighties. It is reasonable to take this as indicating that even those engaged in informal forms of employment experienced increased pressure of demand for their labour.

Table 2.23

Real Wage Rate of Casual Workers in Urban Areas
(Rs. per day in 1977-78 prices)

	Male	Female
1977-78	6.57	3.12
1983	6.77	3.31
1987-88	7.89	4.31

Note: The wage rate refers to that in non-agricultural activities.
The deflator is the Consumer Price Index for Industrial Workers.

Source: The wage data are taken from the various NSS Reports.

What explains these developments in the informal labour market in urban areas? Our knowledge-base in this area is not in fact good enough to provide a definitive answer to this question. Informal employment is not a well-researched area in India and should receive much attention from researchers in future. Here it is only possible to advance some hypotheses.

To begin with, it may be noted that, unlike in the case of rural areas, the government did not do much by way of direct employment creation through anti-poverty programmes. This means that the main factor underlying the improvements in the conditions of informal employment has been the growth process itself. The urban economy experienced fairly rapid public expenditure-driven growth in the eighties. The organised sector industries performed well in terms of output growth though, as we shall see shortly, they performed poorly in terms of employment growth. All this suggests a hypothesis in terms of linkages between the organised and the unorganised sectors: it is the rate of growth of output in the organised sector which has the critical influence on conditions of informal employment. If this growth is employment-intensive, then this has the effect of slowing down the growth of supply of informal labour. If this growth is capital-intensive and thus based on growth of labour-productivity, then this is associated with a rapid growth of real wages in the organised sector. This leads to a rapid growth of demand for goods and services produced by informal labour. Some such process seems to have been at work in the eighties.

However, the fact that the share of regular wage-employment in urban informal employment was rising suggests that there is something more to the story. For, this suggests that there are activities in which wage-labour-using informal enterprises have inherent advantages over organised sector enterprises. A plausible hypothesis is that these advantages derive from substantially lower wages and the high degree of employment flexibility which characterise the informal enterprises.

Employment and Wages in the Organised Manufacturing Sector

In India, the formal or organised sector is defined to consist of enterprises using power and employing ten or more persons and those not using power but employing twenty or more persons. It has already been observed that employment growth in the organised sector decelerated in the eighties and this had consequences for overall employment conditions. An investigation into the causes of this deceleration, particularly in a period of expansionary macro-economic policies, is clearly of some relevance.

In this section, however, attention is focussed not on the organised sector as a whole but only on the organised manufacturing sector. There are several reasons for this. First, the deceleration in employment growth in the organised sector as a whole was due largely to a sharp

deceleration in the manufacturing segment. Second, though a large part of the organised sector employment is in fact located in rural areas, much of the employment in organised manufacturing is concentrated in urban centres. Finally, adequate time series data for a serious analysis to be attempted is available only for the manufacturing sector and a few other minor (from the point of view of employment) industrial activities.

Data for the organised manufacturing sector is collected annually under the Annual Survey of Industries (ASI) conducted by the Central Statistical Office (CSO), from a census of enterprises with over a hundred employees and a sample of one third of the smaller registered enterprises. Apart from manufacturing enterprises, the ASI also collects data on utility enterprises supplying electricity, gas or water, cold storage and repair services. Indeed some items of data such as classification by size of establishment or ownership categories are only available for the aggregate of manufacturing and these other activities. The main tabulations, however, are available industry-wise for eighteen industries at the 2-digit level of disaggregation. The ASI data can also be supplemented by other sources such as population census, national accounts, NSS, etc.

(i) Declining Employment Elasticity : A recent study which analyses this data reveals important contrasts between the seventies (1974-75 to 1981-82) and the eighties (1982-83 to 1988-89).[1] In particular the study points to a drastic decline in the employment elasticity during the eighties. While the growth of output accelerated, employment growth declined, for some groups of enterprises to such an extent that the elasticity fell close to zero and the entire increase in output was accounted for by an increase in labour productivity (table 2.24).

The table shows that for small registered enterprises of between 10 to 99 workers the elasticity remained positive though it fell. For enterprises with 100 or more workers, the manufacturing sector as a whole and even industry as a whole employment elasticity in the eighties was not significantly different from zero. There are reasons to believe that the ASI data are not entirely accurate.[2] Comparisons of output figures with alternative sources suggest that there is significant under reporting. However, if both employment and output are under reported then there is little reason to doubt the very strong evidence of declining employment elasticity, even though too much should not perhaps be read into the precise estimates.

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[1]A. K. Ghose, Employment in Organised Manufacturing in India (mimeo.), ILO-ARTEP, 1993. The study also derives estimates of net capital stock which are not directly available.

[2]For a discussion on the reliability of the ASI data, see Ghose, ibid.

Table 2.24

Employment Elasticities in Organised Industry

	1974/75-1981/82	1982/83 - 1988/89
Aggregate Industry	0.56 (0.65)	-0.11* (-0.07*)
Size 10-99 workers	0.69 (0.80)	0.25 (0.24)
Size 100 or more workers	0.52 (0.59)	-0.23* (-0.21*)
Public limited companies	0.52 (0.69)	-0.66* (-0.54*)
Public corporations	0.37 (0.41)	-0.12* (-0.10*)
Aggregate Manufacturing	0.59 (0.68)	-0.09* (-0.10*)

Note: The elasticities have been estimated by fitting the regression equation log y = a + b log x where y is employment and x is gross value added in real terms to annual data. Gross value added in current prices is deflated by using two price indices - the wholesale price index (1970/71 = 100) and GDP deflator (1980/81 = 100) from National Accounts Statistics. Figures in parentheses refer to estimates which use gross value added deflated by GDP deflators.

*Statistically not significant.

Source: Ghose, op. cit.

Employment elasticity is nothing but the inverse of the proportionate change in output relating to a proportionate change in employment. The results suggest, therefore, that the eighties was a period of rapid growth of labour productivity in the organised industrial sector. This rise in labour productivity can occur either because of an increase in the efficiency of factor use or because of rising capital intensity (net capital stock per unit of labour). The latter in turn could represent purely a substitution of capital for labour, in which case the productivity of capital goods would decline in line with the law of diminishing returns. On the other hand rising capital intensity and labour productivity could occur along with a rise or without a decline in the productivity of capital. This would indicate rising efficiency of factor use along with substitution of capital for labour, i.e., modernisation involving technological upgradation.

In the manufacturing sector as a whole, there was indeed a sharp rise in capital intensity in the eighties associated with rising labour productivity (table 2.25). There was at the same time no decline in the productivity of capital. It would follow that rising capital intensity was associated with rising efficiency in factor use indicating a process of modernisation involving technology upgradation. But the important question to ask is why capital intensity was rising in the eighties after having declined during the seventies. This appears to be a very strong phenomenon, evident not only at the aggregate level, but also in seventeen out of the eighteen (two-digit) industries for which data is available at the disaggregated level.[1]

Table 2.25

Labour Productivity (LP), Capital Intensity (CI) and Capital Productivity (CP) in Organised Manufacturing : Growth Rates (%)

1974/75 - 1981/82			1982/83 - 1988/89		
1974/75 LP	- CI	1981/82 CP	1982/83 LP	- CI	1988/89 CP
1.31* (1.19)	-0.48	1.79 (1.67)	6.10 (6.63)	6.65	0.55* (0.02*)

Note: Two deflators have been used to deflate the current values of gross valued added: the wholesale price index (1970/71 = 100) and the GDP deflator (1980/81 = 100) available from National Accounts Statistics. The figures in parentheses represent estimates using the GDP deflators.

*Statistically not significant.

Source: Ghose, op. cit.

(ii) Labour Market Developments

One possibility which conventional economic theory would suggest is a change in relative factor prices, i.e., firms would substitute capital for labour if the price of capital fell relative to that of labour. Another labour market related explanation could be protection of jobs. Employment security for the worker means employment inflexibility for the employer; this increases costs of adjustment in output levels in response to changes in market conditions. Employers may then increase capital intensity in order to reduce adjustment costs. Furthermore, generalised

[1]The disaggregated analysis shows that changes in output composition had very little to do with the rising capital intensity in the sector as a whole. It also shows that although pure substitution of capital for labour occurred in some industries, rising capital intensity was associated with modernisation in most industries. See Ghose, op. cit. for the details.

employment security has the potential of creating an "insider-outsider" problem[1] and of increasing the bargaining power of the "insiders". It could, therefore, cause a rise in the relative price of labour. Changes in factor intensity could also occur for reasons quite unrelated to labour such as availability of new, more capital intensive, techniques which may be simply more cost efficient or more profitable at the existing prices. That this factor may have been relevant is suggested by the fact that the productivity of capital goods did not go down despite rising capital intensity.

So far as the labour market processes are concerned, there was indeed a very steep rise in the relative price of labour, measured as a ratio of annual emoluments per employee (ASI) to the fixed capital formation deflator in the national accounts (see graph). This ratio had fluctuated around a mildly declining trend until 1981 and rose very steeply thereafter.

It should be noted in this context that there was a distinct reduction in employment flexibility in the eighties. The Industrial Disputes (Amendment) Act of 1976 had made it a statutory requirement for enterprises employing 300 workers or more to seek permission from the concerned state government for either closure or retrenchment. A further amendment in 1982 extended the applicability of this clause to all establishments employing 100 employees or more. As noted above, such curtailment of employment flexibility could induce firms to substitute capital for labour both directly and indirectly by entailing increases in the relative price of labour.

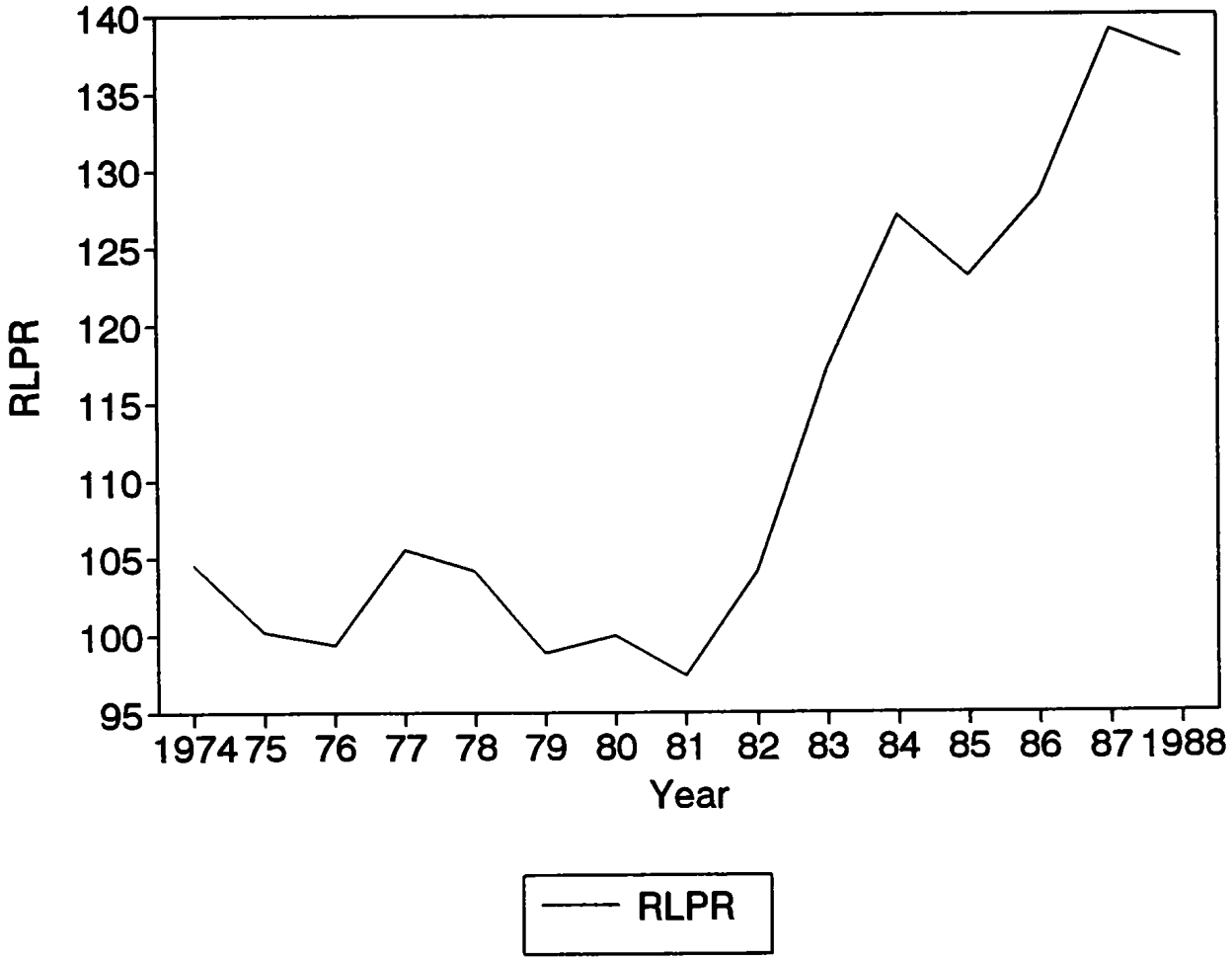
The study used regression analysis to test how far these different influences accounted for rising capital intensity. The results are presented in table 2.26 below. A dummy variable introduced to capture the possible effect of the 1982 amendment to the Industrial Disputes Act turns out to be statistically insignificant. This means that the reduction in employment flexibility did not have any independent effect on capital intensity. It may, of course, have contributed to the growth in the relative price of labour - a variable which turns out to be highly significant. Thus the analysis leads to the conclusion that it was the rising relative price of labour which induced rising capital intensity in the eighties. If the employment security regulation had any effect on capital intensity, then this was transmitted through their effects on the relative price of labour.

However, this apparently neat relation between the relative price of labour and capital intensity does not remain so neat once analysis at a disaggregated level is attempted. The data in table 2.27 show that the relative price of labour was not in fact rising in the small enterprises (those employing between 10 and 99 workers) virtually all of which belong to the private sector;

[1]The "insiders" (those who are already employed) would have little reason to be concerned about the situation of the "outsiders" (all those seeking employment in organised industries) or, in other words, about the consequences of their action for general employment conditions.

GRAPH

Relative Price of Labour



RLPR - Ratio of the index of emoluments per employee to the deflator for gross fixed capital formation in registered manufacturing available from national accounts statistics.

Table 2.26

Regression Results, Dependent Variable : (CI)

No.	Constant	RP	CI_{-1}	D	R^2(Adj.)	n	D-W
1	-0.33 (-2.91)	0.60 (4.63)	0.62 (4.81)	-	0.97	14	2.93
2	-0.30 (-2.38)	0.52 (2.52)	0.65 (4.42)	0.02 (0.50)	0.97	14	3.02

Note: All the variables except D are in logs. Figures in parentheses are t-statistics.

*Statistically not significant on a two-tailed test.

Source: Ghose, op. cit.

Table 2.27

Capital Intensity and Relative Price of Labour in Organised Industry: Growth Rates

	1974/75-81/82	1982/83-88/89
All enterprises		
Capital intensity	-0.91	4.46
Relative price of labour	0.003*	3.69
Enterprises with 10-99 workers		
Capital intensity	-1.52	5.85
Relative price of labour	0.35*	1.20*
Enterprises with 100 or more workers		
Capital intensity	-0.94*	4.39
Relative price of labour	-0.62*	4.57
Public limited companies		
Capital intensity	3.49	6.96
Relative price of labour	-0.48*	3.42
Public corporation		
Capital intensity	-12.10	7.12
Relative price of labour	-0.35*	6.59

Note: * Statistically not significant on a two-tailed test.

Table 2.28

Regression Results, Dependent Variable : in (CI)

	Constant	(RP)	(CI-1)	Dummy	R^2(Adj.)	D-W	n
All enterprises							
1.	-2.78	0.54	0.47	-	0.96	2.57	14
	(-7.03)	(7.21)	(4.33)				
2.	-3.52	0.69	0.40	-0.03*	0.97	2.82	14
	(-5.10)	(4.96)	(3.43)	(-1.29)			
Enterprises with 10-99 workers							
1.	-0.68*	0.19*	0.99	-	0.96	1.51	14
	(0.81)	(0.67)	(10.06)				
2.	1.78*	-0.15*	0.91	0.09	0.97	2.04	14
	(1.35)	(-0.51)	(10.11)	(2.22)			
Enterprises with 100 or more workers							
1.	0.98*	0.23	0.87	-	0.92	1.31	14
	(0.63)	(1.98)	(6.87)				
2.	1.16*	0.22*	0.86	0.004*	0.91	1.29	14
	(0.52)	(1.71)	(5.44)	(0.011)			
Public limited companies							
1.	1.42	0.70	0.75	-	0.94	2.44	14
	(2.44)	(2.30)	(4.59)				
2.	1.43	0.70	0.75	-0.001*	0.94	2.44	14
	(2.03)	(2.00)	(4.24)	(-0.02)			
Public corporations							
1.	1.39	0.62	0.85	-	0.85	2.30	14
	(3.30)	(3.32)	(8.53)				
2.	1.25*	0.56	0.88	0.03*	0.83	2.33	14
	(1.73)	(1.90)	(5.50)	(0.24)			

Note: All the variables except the Dummy are in logs. Figure in parentheses are t-statistics.
*Statistically not significant on a two-tailed test.

Source: Ghose, op. cit.

yet capital intensity in these enterprises was rising quite rapidly. Rising relative price of labour was a problem faced by the large enterprises - both private and public. This is shown most clearly by the data relating to "Public Limited Companies" (which are generally in the private sector) and "Public Corporations".[1] In the case of these enterprises, it is certainly possible to view the rising capital intensity as a response to the rising relative price of labour.

These points are brought out quite sharply by the regression results presented in table 2.28. Particular attention can be drawn to the fact that the dummy variable turns out to be statistically significant only in the case of the small enterprises. This obviously cannot mean that employment security regulations played a direct role in inducing growth of capital intensity since the regulations do not apply to these enterprises. It only indicates that there was some (as yet) unknown development in the eighties which both encouraged and enabled these enterprises to increase capital intensity.

The conclusions suggested by the aggregative analysis discussed earlier, therefore, remain roughly valid : the rising capital intensity was largely a response to the rising relative price of labour and while the employment security regulations may have played a role in raising the relative price of labour, they had no direct effect on capital intensity. The growth of capital intensity in small enterprises remains puzzling and requires further investigation (not undertaken here). The explanation may lie in the behaviour of the capital market. If, for example, these enterprises are supposed to have been operating in a financially repressed regime, then it is possible to imagine that they were forced to maintain capital intensity at lower-than-desired level. Under these circumstances, any easing of credit restrictions would lead to a growth of capital intensity. Viewed in this way, it can be argued that the expansionary macroeconomic policies pursued in the eighties both induced and enabled the small enterprises to increase capital intensity.

There are other possibilities. These enterprises, for example, may have attempted to improve product quality in response to changes in demand conditions. It is then possible to imagine that improvement in product quality required introduction of improved technologies which were more capital intensive.

Two general points must be added. First, since the growth of capital intensity was generally associated with modernisation, a question about the availability of capital goods embodying improved technologies naturally arises. To this extent, the liberalisation of imports, which occurred in the eighties, can be regarded as a factor influencing capital intensity in organised industries. Second, the expansionary macroeconomic policies, which contributed to the

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[1]Enterprises belonging to these categories generally employ 100 workers or more. It should be noted that "Public Corporations" contribute only a segment, though an important segment, of the public sector.

growth of the relative price of labour, also engendered rapid output growth without which the rapid growth of capital intensity would have been impossible.

(iii) Wages, Prices and Macro-Economic Policies

So far as the labour market is concerned, the question still remains : why did the relative price of labour compared to capital rise so sharply during the eighties? The price of capital goods as measured by various deflators rose at a stable rate during the seventies and the eighties.[1] Hence the burden of explanation for the rising price of labour relating to capital goods lies on the side of wage movements. At one level the rise in money wage rates can be explained quite simply as reflecting the greater bargaining power of labour in the industrial sector, reinforced by the 1982 amendment in the case of the larger enterprises. However, the labour market is not insulated from the rest of the economy and labour market outcomes are not independent of influences from outside that market. Hence it is useful to go beyond this limited micro economic perspective to explore the relationship between wage movements and other developments in the economy, particularly price movements and the underlying macro economic policies.

Though wage bargains are settled in money terms, these money wage settlements are based on varying considerations on the side of employers and workers. The employer is concerned about the effect of a money wage settlement on the product wage, i.e., the money wage measured in current prices of the product, since it is this which affects the profit margin of the product. Workers, on the other hand, are concerned with the effect of a money wage settlement on their purchasing power or the real wage rate. This is the ratio between the money wage and the consumer price index, a major component of which is the price of foodgrain. An important relationship which must be noted in this context is the following. When the relative price of foodgrains is falling, or the terms of trade are shifting against agriculture, it is possible to have a rising real wage rate without an increase in the product wage in manufacturing. Conversely, when the relative price of foodgrains is rising, even maintaining a constant real wage would entail a rising product wage.

Furthermore, this relationship must be placed in a context of asymmetric market responses in agriculture and industry. In the former, output is inflexible in the short run and the market responds to demand changes through price adjustments. In industry, on the other hand, the mark up process of price formation or administered prices make prices relatively inflexible in the short run. The market therefore responds to demand changes through adjustments in quantities of output rather than prices. Placing the food price-wage relationship in this context

[1]The details are available in Ghose, op. cit.

leads to a remarkable conclusion regarding the effects of macro economic policy which helps to explain the experience of the eighties.

Assuming an exogenously given profile of agricultural production, an expansionary macro economic policy would raise the growth rate of industrial production and the relative price of food. The latter in turn would lead to an increase in the product wage in industry and rising price of labour relating to capital. The more so if real wages also rise as a consequence of labour market developments. These are precisely the linkages and tendencies which had come into play during the eighties. Macro economic policies shifted to an expansionary stance increasingly financed by debt. The relative price of food, which had been falling in the seventies, now started rising. Meanwhile real wages continued to rise at about 2.7 per cent, not significantly different from a little over 2 per cent in the seventies. As a consequence the product wage in the manufacturing sector, which was more or less constant in the seventies, started rising at close to 4 per cent during the eighties (table 2.29).

Table 2.29

Product-Wage, Real Wage and Relative Price of Food in the Manufacturing Sector: Growth Rates

	1974/75 - 1981/82	1982/83 - 1988/89
Real wage	2.08	2.70**
Product-wage	0.37*	3.87
Relative price of Food	-2.70	0.66

Note: Real wage is derived by deflating annual emoluments per employee by a weighted average of the consumer price index (CPI) for industrial workers and the CPI for urban non-manual employees; product-wage is derived by deflating annual emoluments per employee by the wholesale price index (1970-71 = 100) for manufactures; and relative price of food is the ratio of the wholesale price index for food articles to that for manufactures.

*Statistically not significant.
**Statistically not different from the figure for the preceding period.

Source: Ghose, op. cit.

It would appear that it was essentially the shift to an expansionary macro economic policy, which accounted for the rising relative price of labour in the eighties. However, such an interpretation would not be correct. There are reasons to believe that micro economic factors internal to the labour market reinforced the macro economic process outlined above. This follows from the differential pattern of real wage movements in the organised sector.

The data presented in table 2.30 show that in small enterprises, employing between 10 and 99 workers, real wage growth slowed down significantly in the eighties and this negated the effects of the rise of the relative price of food on the product wage. In contrast, in large enterprises in general and in public corporations in particular, real wage growth accelerated significantly in the eighties so that the effects of the rise in the relative price of food were reinforced. All this suggests that while the small enterprises operated in a flexible labour market, the large enterprises, and public enterprises in particular, faced considerable labour market rigidities. The fact that real wage growth accelerated in the large enterprises in the eighties even though the macroeconomic environment was unfavourable indicates, moreover that the employment security regulations may have contributed to the growth of the relative price of labour, perhaps by accentuating the "insider-outsider" problem.

Table 2.30

Growth of Real Wage in Industry

	1974-75 - 1981/82	1982/83 - 1988/89
Industrial enterprises with 10-99 workers	3.59	1.07
Industrial enterprises with 100 or more workers	2.61	4.44
Public limited companies	2.75	3.29
Public corporations	2.88	6.46

Note: The variable considered is annual emoluments per employee.
*Statistically not significant.

Source: Ghose, op. cit.

To sum up, two basic factors were responsible for the rising capital intensity and the consequent declining employment elasticity in organised industries. The expansionary macroeconomic policies generated a tendency for the relative price of labour to rise. The labour market developments reinforced this tendency in large enterprises by leading to an acceleration in real wage growth. Furthermore, the macroeconomic policies, being associated with easing of credit restrictions, probably induced the growth of capital intensity in small enterprises directly.

Industrial Sickness and Labour

The analysis so far shows that the employment security regulations adversely affected employment growth only in so far as they may have contributed to the growth of the relative price of labour. An analysis of the so-called sick industrial units, however, shows that the regulations did increase adjustment costs in some enterprises in certain situations. It should be added that

the point is not that downward employment inflexibility caused sickness of enterprises, but that it made it difficult to nurse a sick enterprise back to health.

A sick industrial unit, as currently defined in India, is a unit with negative net-worth. It should also have been registered for seven years and incurred losses for two consecutive years in order to qualify for support from the Board of Industrial Finance and Reconstruction (BIFR). In a competitive market situation private enterprises in these conditions would have closed down or sold out. Such firms continue to exist and are quite widespread because, in fact, there is neither free entry nor free exit in most industries in India. Sick enterprises have continued to operate because they have been sheltered from competition by industrial licensing under the Industrial Development and Regulation Act of 1956 and they have been helped by the financial institutions and banks to carry on, usually with encouragement from government. Indeed they have been prohibited from closing down (if they employ a hundred or more workers) under the Industrial Disputes (Amendment) Act of 1982.

What matters for the present purpose is that such sick enterprises which have applied for BIFR support constitute on excellent sample for analysing poorly performing enterprises. Enterprises can fall sick either because (a) they belong to a sunset industry which has reached the end of a product life cycle or because (b) they are inefficient as compared to other enterprises in the same industry or because (c) the financial structure of the enterprise is unsound, rendering it incapable of absorbing fluctuations in sales. When an enterprise is sick because it belongs to a sunset industry, it obviously has to close down or shift to other products. If it is inefficient, this would typically show up in a high variable cost to sale ratio compared to other enterprises in the industry. If its financial structure is unsound, this would appear as an excessively high fixed cost to sale ratio compared to other enterprises in the industry. Of course these are not mutually exclusive sources of industrial sickness. An enterprise can have a high fixed cost to sale ratio, a high variable cost to sale ratio as well as a product which is at the end of its life cycle.

A recent study comparing a sample of BIFR applicant enterprises with non-BIFR enterprises shows that in most cases sickness can be traced to an unsound financial structure.[1] Here it is important to clarify that while variable costs are those which vary with output (sales), fixed costs are costs invariant with respect to sales. Usually wages are included under variable costs along with cost of raw material, power, etc. However, in India, the Industrial Disputes Act has effectively turned wage costs into fixed costs for all large enterprises covered by the Act, except for labour hired casually through sub-contractors etc. The other major element of fixed costs identified by the study is interest cost on borrowed finances.

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[1]S. Gangopadhyay and W. Wadhwa, Sickness in organised industries (mimeo.), ILO-ARTEP, 1993.

When the fixed cost to sale ratio is high, either because of overmanning or an excessively high debt - equity ratio, the costs are not sufficiently elastic with respect to sales. Even a temporary reduction in sales may force the enterprise into further debt to cover its costs, progressively rendering the financial structure more unviable until its net worth is finally completely wiped out. The study reveals that essentially this has been the process leading to industrial sickness across different industrial sectors and in the public sector as well as the private sector. A high debt-equity ratio has usually been the most important factor contributing to industrial sickness but inflexible wage cost has also been a factor.

In the private sector, sickness is perhaps most rampant in the textile sector. The study finds that in this sector both wage and interest cost per rupee sale were higher for BIFR enterprises compared to non-BIFR enterprises. This was true for the entire reference period 1970-1990 as well as in its sub-periods. The wage per rupee sale was on average 63.5 per cent higher for the BIFR enterprises and the debt-equity ratio about 26 per cent higher. At the same time the variable cost ratio was slightly lower for BIFR enterprises, thus eliminating technical inefficiency as a possible cause of sickness. Explanations such as rising energy and other input costs or sales fluctuations are no explanations because the same conditions held for both sets of enterprises. Indeed during the twenty one year reference period, the industry did face a sales crisis. The quantity index for the mill sector fell by 50 per cent in this period because of competition from the unregulated and hard-to-tax power looms. However, while the mills with greater cost flexibility were able to adjust their costs in line with sales and remain viable, those with excessive labour costs or interest costs could not make the necessary adjustment and turned sick.

The second major private sector industry with high incidence of sickness is the engineering industry. Here again the wage cost per rupee sale has been higher for BIFR enterprises, but the more important contributing factor has been excessive and rising interest cost. As against a stable interest cost of 4 paisa per rupee sale for non-BIFR enterprises, the interest cost ratio for BIFR enterprises rose from 7.5 paise per rupee to 12 paise per rupee. The engineering industry as a whole faced rising variable costs compared to sales. However, while the variable cost to sale ratio was lower for BIFR enterprises in the first half of the reference period 1970-1990, it went higher in the latter half compared to non-BIFR enterprises. Thus inefficiency combined with cost inflexibility to turn such enterprises sick in this industry while others adjusted to the squeeze on profits.

In the case of the public sector, the strategy of research followed by the study was different since public sector enterprises have only recently been given access to the BIFR and the sample is not large enough to allow separate and meaningful comparisons between BIFR and non-BIFR public sector units within industries. The study therefore used regression analysis to identify

the major factors, effecting gross profit margin first for all sick public sector enterprises and then separately for all public sector units within an industry for eleven different industries.

In the case of sick public sector enterprises by far the most significant factor having a negative impact on the gross profit margin turned out to be deferred loans per rupee sale the only other significant factor being employment per rupee sale which also had a negative impact on the profit margin (Table 2.31). The industry specific analysis for eleven industries again showed employment and debt to be the most significant factors adversely influencing the profit margin. Employment had a significant negative impact in eight out of the eleven industries analysed and it was the most significant factor in six out of these eight cases. The debt stock was a significant factor in eight out of eleven cases. In four of these cases it had the most significant and negative impact on profit margin. Energy costs and raw material costs were the other important negative effects on profit margin, being significant in 5 cases and 2 cases respectively, but in no case the most significant.

Table 2.31

Sick Public Sector Units
Dependent Variable : Gross Profit per rupee sale
Number of observations : 150

Variable	Coefficient	T-Statistics
Constant	0.345	2.840
Deferred Loans per rupee sale	-0.167	-20.974
Employment per rupee sale	-0.131	-4.894
Energy per rupee sale	0.097	0.281*
Raw Materials per rupee sale	-0.217	-1.033*
Adjusted R^2: 0.906		

*Statistically not significant. All the variables are in logs.

Source: Gangopadhay and Wadhawa, op. cit.

It emerges, therefore, that an unsound financial structure was a major cause of sickness in both private and public enterprises. But overmanning is a problem which has been peculiar to public enterprises. The employment security regulations cannot be held responsible for overmanning; nor is it certain that workers in public enterprises would have had less employment security had the Industrial Disputes Act not existed. It was only in sick private enterprises facing

unfavourable demand conditions that the employment security regulations proved to be obstacles to adjustment and restructuring. But even here, they did not cause sickness.

2.5 Employment and Economic Policies

It is an interesting fact that employment conditions improved in the eighties even though employment in the organised sector stagnated and employment was increasingly informalised in urban areas and casualised in rural areas. Open unemployment was rising in rural areas but underemployment declined substantially. In urban areas too, underemployment declined substantially while the rate of open unemployment remained stable. The real wage rate for casual labour - a good indicator of labour-income in informal employment - was rising in both rural and urban areas.

One apparent reason for the improvement in employment conditions was the slowdown in the growth of the labour force. This happened principally because children and young people were withdrawing from the labour force in increasing numbers in order to pursue education. This fact suggests, however, that the improvement in employment conditions was itself a cause of the slowdown in labour force growth; if more children went to school, then this was partly because more families could dispense with the need to treat children as earners. Thus a virtuous circle seems to have been in operation; an improvement in employment conditions led to a slowdown in labour force growth which in turn led to an improvement in employment conditions.

On the demand side, expansionary macroeconomic policies played the most important role. These policies permitted a higher rate of industrial growth while agricultural growth continued at the trend rate. The high rate of industrial growth appears to have been the major factor in improving conditions of informal employment in urban areas. In rural areas, the decline in underemployment was due in large measure to the growth of non-agricultural employment. The latter is attributable to the growth of public expenditure (including that on anti-poverty programmes) in rural areas - a phenomenon also traceable to the expansionary macroeconomic policies.

The same policies, of course, were also partly responsible for the stagnation of employment in the organised sector, particularly in organised manufacturing. One consequence of the policies was a shift in the terms of trade in favour of agriculture. This increased the product-wage in industry which encouraged growth of capital intensity. The policies were also associated with increases in credit supply which too probably encouraged growth of capital intensity, particularly in smaller enterprises.

Labour market developments in the organised sector were also partly responsible for the stagnation of employment in the large-scale segment of the organised manufacturing sector. The

growth of real wages accelerated in the eighties and this, together with the shift in the terms of trade in favour of agriculture, led to a sharp growth of the product-wage in large-scale industry. This translated into a sharp rise in the relative price of labour and encouraged growth of capital intensity.

The role of the employment security regulations in all this is not very clear. There are indications that they may have been partly responsible for the acceleration in the growth of real wages in the eighties; but this is a hypothesis rather than an established proposition. It seems clear, however, that they had no significant direct effect on employment growth.

But an analysis of sick industries shows that the regulations did pose obstacles to adjustment in private enterprises facing unfavourable demand conditions, perhaps not surprisingly. It can also be argued that the regulations obstruct restructuring of the sick public enterprises which do not face unfavourable demand conditions. But these problems need to be viewed in the context of the overall problem of sickness. The real causes of sickness lay elsewhere - in unsound financial structure in the case of private enterprises and in problems of overmanning and unsound financial structure in the case of public enterprises. Solution to the problem of sickness will require reforms of financial markets and of recruitment practices in public enterprises. Employment security regulations did not cause the problem; nor will their abolition solve it.

The central lesson to be derived from the experience of the eighties is that, in Indian conditions, the main determinant of employment growth is macroeconomic policy and not labour market policy.[1] Labour market policy covers only a segment of the workers in the organised sector - probably no more than 5 per cent of all workers in the country. As such, its role in improving employment conditions is necessarily limited in the context of the economy as a whole.

In Indian condition, moreover, the role of labour market policy or reforms in stimulating employment is limited even in the context of organised industry. Such reforms can at best reduce unit labour cost either by reducing the real wage or by stimulating productivity growth or by reducing the level of overmanning. In the best of circumstances, this can simultaneously increase profitability and reduce price. Effective demand can then rise as the rise in profitability stimulates investment and the reduction in price increases consumer demand (both domestic and foreign). But if the reduction in unit labour cost is brought about either through a reduction in real wage or through a reduction in the level of overmanning, then there is a reduction in effective demand to begin with so that there may be no positive effects at all. This is likely to be the case in India. Furthermore, these reforms can make sense only if they are accompanied by reforms of financial markets, recruitment practices in public enterprises, and so on.

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[1]See Bhaduri, op. cit. for elaboration on the point.

Macroeconomic policy, therefore, will remain the vital determinant of employment growth in future just as it was in the past. This has two dimensions. First, macroeconomic policy will have to ensure adequate growth of aggregate demand in the economy. In the past, this was done through deficit financing, but this option will not be available in future. Second, the pattern of public expenditure clearly has an effect on employment growth, particularly in rural areas. Thus, for example, public investment in irrigation development is more effective in increasing agricultural employment than subsidisation of agricultural inputs. Both these dimensions will need to be borne in mind in formulating future strategies.

CHAPTER 3

Poverty and Public Action

3.1 Introduction

Poverty is a starkly visible phenomenon, even to those who do not directly experience it. Nevertheless, it is remarkably difficult to come to grips with it conceptually for purposes of measurement and analysis of the kind which is essential for designing any effective policy of poverty alleviation. Economists have usually proceeded in their analysis of the problem starting with a commonsense proposition that poverty is essentially the non-fulfillment of certain human needs which may be socially recognised as being basic or minimum needs for human existence i.e. *social deprivation*. Clearly there is a normative or judgemental element here in deciding what constitutes a minimum or basic needs threshold. The social norms which apply here could be varying over space, time and across societies.

This introduces a certain amount of arbitrariness in the definition of poverty which seems to be unavoidable. It is reasonable to say, for instance, that the threshold of basic needs consists of the ability - capability - to meet minimum nutritional requirement, escape avoidable disease, be sheltered, clothed, at least minimally educated and mobile. However, what is the minimum threshold for each of the elements of the basic package? Take even the most basic of all, i.e., nutritional requirement, which one might think is easily quantifiable. It turns out that the minimum requirement varies a great deal from person to person depending on age, sex and activity status. It can also vary for the same person from one day to another, based on a host of factors including the interaction between intake of different nutrients, the living environment, quality of drinking water, health and sanitary facilities, etc.

While recognising this unavoidable element of arbitrariness, it is nevertheless possible to adopt a nutritional norm such that the probability of a person being undernourished at that norm is minimum. Taking this nutritional norm as an anchor, it is then possible to apply the known nutritional content of different foods and the observed pattern of consumption of food and other goods and services at different expenditure levels in household consumer expenditure surveys to arrive at the per capita expenditure level required to ensure the required minimum nutritional intake. This constitutes what economists call a poverty line.

Before proceeding further it must be noted that, apart from the element of arbitrariness mentioned earlier, there are other problems also in using a poverty line defined in this way. Any

useful comparisons of poverty incidence using such a line will require that the line be suitably adjusted for variations in prices across time and space in order to arrive at estimates of time-space specific nominal consumption expenditure levels which can support consumption of the same package of goods and services. This requires the construction of appropriate price deflators. Furthermore, in a country like India where commercialistion is incomplete, there may be significant components of both income and consumption which are not transacted through the market and have no value tags attached to them. These have to be imputed. There may also be components of the basic needs package such as foodgrains or primary education which may be publicly provided free of cost or at heavily subsidised rates, the subsidies again varying from place to place or between different points of time. These too will require suitable adjustments in the application of the poverty line.

Such difficulties notwithstanding, a poverty line based approach to the measurement of social deprivation can yield very useful insights. In the context of India, it is also the only meaningful approach which is feasible. First of all, there is an official poverty line adopted by the Indian Planning Commission, anchored at 2435 calories for rural areas and 2095 calories for urban areas, based on the recommendations of a task force and a Nutrition Expert Group set up for this purpose.[1] These calorie norms translate into norms of per capita monthly consumption expenditures of Rs.49.09 and Rs.56.65 respectively for rural and urban areas at 1973-74 prices. Secondly, there is a long series of large sample surveys of household consumer expenditure, conducted annually by the National Sample Survey Organisation from 1951 to 1973-74 and quinquennially since then, based on an even larger survey. This data series is very well suited for analysis based on the poverty line approach. Furthermore, appropriate price deflators are now available, based on the NSS survey data, which allow the poverty line to be suitably adjusted for price variations over time and across states.

A poverty line of the kind described above can be used to measure several dimensions of the incidence of poverty, all of which have an important bearing on the choice of appropriate policies for poverty alleviation. The first and simplest dimension is the number of people or proportion of the population living below the poverty line. Known as the Head Count Ratio (HCR), this statistic gives us a measure of the *prevalence* of poverty. Notice however that such a measure is quite insensitive to the *depth* of poverty, i.e., how far below the poverty line the poor are situated. Suppose for instance, that 30 per cent of the population is below the poverty line. The average per capita consumption of this given population below the poverty line could be, say,

[1]There is also one alternative poverty line constructed by Professors Dandekar and Rath, anchored at a calorie intake norm of 2250 per capita, which has been frequently used by researchers in the field.

40 per cent below the poverty line or 20 per cent below the line or just 5 per cent below the line. However, the HCR would in all cases indicate a poverty incidence of 30 per cent, making no allowance for the fact that the poor in the first case are much poorer than those in the second case, that those in the second case are poorer than those in the third case and so on.

In order to take care of this deficiency of the HCR, economists use an alternative measure called the Poverty Gap Index (PGI) which is a measure of the average gap between the poverty line and the actual consumption expenditure of those below the poverty line. Obviously the higher the PGI the greater the *depth* of poverty. However, being an average measure of the depth of poverty, the poverty gap ratio is not sensitive to the dispersion or spread of the population below the poverty line. For instance, the entire population could be concentrated at say 10 per cent below the poverty line level of consumption expenditure. Alternatively, there could be many persons just 1 per cent or 2 per cent below the line and some perhaps 20 per cent or 25 per cent below the line, such that *on average* they are about 10 per cent below. The PGI would interpret the incidence of poverty as being the same in both cases though clearly this is not true. Some people are much more severely impoverished and others less so in the second case as compared to the first. A third class of measures have therefore been devised which actually combine the HCR, the PGI and a measure of the dispersion of persons below the poverty line to arrive at a composite measure of the *severity* of poverty. Two such measures frequently used by economists are the Foster, Greer, Thorbeeke Measure (FGT) and the Sen Index (SI), both named after their respective authors.

The measures of social deprivation described above are all poverty line based measures relating to the population which is unable to attain a certain minimum standard of living. These are to be contrasted against measures based on a characteristic of the entire population in a country or region, such as per capita income, which is completely insensitive to the distribution of income and other more recent indices which specifically attempt to combine several such characteristics. One such measure is the Physical Quality of Life Index (PQLI), which combines the relative status of a country in terms of infant mortality, life expectancy at age one and literacy rate for the population aged 15 years or more.[1] While focussing on social indicators such as the health and education status of the population, the PQLI ignores the productive capacity of a society. This is a problem. Social condition can undoubtedly be improved a great deal through public action in areas of health and education which are emphasised by PQLI. However, if the productive capacities of a society stagnates or declines in relation to the size of the population, this will

[1]M.D. Morris; Measuring the Condition of the World's Poor,the Physical Quality of Life Index, Pergomon Press, New York, 1979.

BOX 3.1

Measures of Poverty

Let Z represent the poverty line, M the number of the poor, i.e., individuals with consumer expenditure less than Z, Xp the average consumer expenditure of the poor, CVP the coefficient of variation of consumer expenditure among the poor, GP the Gini Coefficient of consumer expenditure among the poor and N the total population. Then :

Head-count-ratio (HCR) : $\frac{M}{N}$

Poverty-gap-ratio (R) : $\frac{Z - Xp}{Z}$

Poverty-gap-index (PGI) : $\frac{M}{N} \bullet R$

Foster-Greer-Thorbecke Measure (FGT) : $\frac{M}{N} [R^2 + (1 - R^2) CVP^2]$

Sen-index (SI) : $\frac{M}{N} [R + (1 - R) GP]$

perpetuate or even intensify social deprivation. The PQLI is not very sensitive to this important relationship between productive capacity and the quality of life.

Recognising this lacuna in the PQLI, the UNDP has now adopted an alternative measure of social deprivation called the Human Development Index (HDI).[1] This index combines a measure of the health status of a population, as reflected in life expectancy at birth , its minimal educational status measured by combining literacy with overall years of schooling and income status as measured by per capita income in internationally comparable unit called Purchasing Power Parity (PPP).

The HDI is obviously an improvement over the PQLI since it combines indicators of health and education status with that of productive capacity in a country, measured on an internationally comparable basis. As such it is an efficient summary measure of social deprivation. However,

[1]United Nations Development Programme, The Human Development Report, Oxford University Press, New York, 1992.

precisely because it is such a summary measure, it does not tell us as much specifically about the poor as the various poverty measures described earlier i.e., the HCR, PGI, FGT and SI. These measures of social deprivation, based on alternative approaches, are therefore complementary to each other rather than substitutes and should be recognised as such. Furthermore, it must be recognised that none of these approaches serve to measure poverty as conceived in an altogether different ethical sense, where the focal variable for measuring deprivation is neither the *achievement* of a certain material standard of living nor the *achievement* of other 'functionings' such as good health, literacy and self-respect but the *freedom* or *capability* to achieve all these functionings.[1] While measures like HDI open the door towards this new conception of poverty, it will be obvious that they still measure actual achievements and not the underlying freedom or capability.

It is clear that poverty quickly turns out to be a fairly complex concept once we attempt to measure it and analyse it for purposes of designing poverty alleviation policies. Empirical work on measuring poverty defined as the deprivation of capabilities is virtually non-existent. However, a great deal of information is available on the incidence of poverty understood in a more conventional sense, i.e., measured on the basis of a notion of poverty line. With the help of such data, it is possible to analyse the structure of poverty, changes in the incidence of poverty over time and the causal factors underlying poverty. These issues are addressed in what follows.

3.2 The Structure of Poverty

The quinquennial NSS surveys, which combine household expenditure data with household data on employment and unemployment[2], make it possible to apply the different poverty measures described above to various cross classifications of sampled households in terms of their consumption and socio-economic status. This generates a fairly sharp picture of the structure of poverty, i.e., which kinds of households and individuals are most prone to poverty measured in terms of either prevalence or depth or severity. Furthermore, a comparison of structures of poverty observed in different survey years also makes it possible to see how this structure is evolving over times.

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[1]This new approach towards an understanding of poverty and inequality, pioneered by Prof. Amartya Sen, is still in its formative stage. Interested readers may like to consult his recently published book Inequality Re-examined, Clarendon Press, Oxford, 1992.

[2]They also allow construction of appropriate price deflators. See B.S. Minhas, L.R. Jain, S.M. Kansal and M.R. Saluja; "Measurement of General Cost of Living for Urban India, All India and Different States", Sarvekshana Vol. XII No.1, 1988 and their "Cost of Living in Rural India : 1970-71 to 1983, Statewise and All India", Indian Economic Review Vol.XXV No.1, 1990.

A recent study uses the data generated by the NSS surveys for analysing poverty for the period from 1970-71 to 1988-89.[1] The study considers, separately for rural and urban areas, poverty among different livelihood, social and demographic groups. The livelihood groups in rural areas include self-employed agricultural or non-agricultural households, agricultural labour households, rural labour households and the non-labour, non-self-employed households. In urban areas the livelihood groups are identified as self-employed households, regular salary or wage earning households, casual labour households and other non-self-employed households. The social groups include the scheduled caste or scheduled tribe households, as opposed to the general category of households, and households headed by women. The demographic groups include adult males, adult females and children below age 5. The study also analyses the incidence of poverty across geographical regions.

The study shows that poverty remains predominantly a rural phenomenon; nearly 79 per cent of the poor belonged to the rural sector in 1987-88 though the sector accounted for about 75 per cent of the population. Some other main results of the study have been summarised in tables 3.1 and 3.2. It can be observed straightaway from a comparison of these two tables that the structure of poverty has by and large remained unchanged during the eighties; it was pretty much the same in 1987-88 as in 1983.

In rural areas, self-employed households, both those engaged in agriculture as well as those engaged in non-agriculture, accounting for about 44 per cent of rural households, experience a relatively lower degree of social deprivation as compared to rural labour households. This holds in terms of all the poverty indicators covering prevalence, depth as well as severity of poverty. Rural labour households, predominantly agricultural labour households, accounting for a third of the rural population, are economically the worst-off. This is indicated by all the indices of poverty. Households headed by non-self-employed, non-manual workers, i.e., salaried lower level government functionaries, teachers, etc. tend to be better off than even the self-employed.

In urban areas, the self-employed appear to be quite severely deprived. This is despite the fact that within this category there is a very small group of households with highly skilled persons such as, doctors lawyers, etc, for whom the per capita expenditure level is very high. Regular salary or wage earning households, accounting for over 44 per cent of the urban population, and a residual miscellaneous category are socially the least deprived. The worst off in urban areas are casual labour households such as construction workers, head load workers, etc. However they account for just over 12 per cent of the urban population.

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[1]S.D. Tendulkar, K. Sundaram and L.R. Jain, "Poverty in India : 1970-71 to 1988-89", (mimeo) ILO-ARTEP, 1993.

Table 3.1

Poverty Indicators and their Shares in Total Population in Year 1983 for various Livelihood, Social and Sex-age-specific Groups of All-India Rural and Urban Population

Sl. No.	Group Type	Rural						Urban					
		SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)	SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Livelihood Groups								
1.	Self-employed households	57.92	43.23 (63.3)	41.42 (48.9)	0.1061 (44.3)	0.0389 (41.3)	0.1459 (44.9)						
2.	Households other than self-employed	42.08	34.50 (36.7)	59.58 (51.1)	0.1834 (55.7)	0.0760 (58.7)	0.2463 (55.9)						
3.	Agrl. labour households	27.68	30.03 (21.0)	68.61 (38.7)	0.2212 (44.2)	0.0936 (47.5)	0.2921 (43.0)						
4.	Non-agricultural labour households	6.10	31.36 (4.8)	65.67 (8.2)	0.2071 (9.1)	0.0866 (9.7)	0.2748 (8.9)						
5.	Other households	8.30	51.98 (10.9)	24.80 (4.2)	0.0401 (2.4)	0.0098 (1.5)	0.0726 (3.2)						
					Social Groups								
1.	Scheduled caste households	17.97	33.20 (15.1)	61.55 (22.6)	0.1984 (24.7)	0.0783 (25.8)	0.2530 (24.2)	12.16	45.74 (9.6)	52.03 (16.5)	0.1462 (16.1)	0.0577 (19.2)	0.1995 (17.8)
2.	Schedule tribe households	10.79	30.69 (8.4)	67.24 (14.8)	0.2246 (17.5)	0.0978 (19.3)	0.2958 (17.0)	2.69	47.22 (2.2)	50.46 (3.5)	0.1436 (3.7)	0.0565 (4.2)	0.1938 (3.8)
3.	Other social groups	71.24	41.39 (74.5)	43.07 (62.6)	0.1125 (57.8)	0.0420 (54.9)	0.1553 (58.8)	85.15	60.26 (88.2)	36.01 (80.0)	0.0911 (78.0)	0.0329 (76.6)	0.1158 (72.4)

contd./.

Table 3.1 contd.

Sl. No.	Group Type	Rural						Urban					
		SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)	SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Sex or/and age-specific Groups								
1.	Adult Male population			44.64						32.50			
2.	Adult Female population			46.58						36.01			
3.	Children population (below age 5 years)			54.82						45.54			
6.	All Groups	100	39.58 (100)	49.02 (100)	0.1386 (100)	0.0545 (100)	0.1882 (100)	100	58.18 (100)	38.33 (100)	0.0995 (100)	0.0366 (100)	0.1362 (100)

Notes: (1) SGTP refers to share of a specific-group in the population of all groups
(2) APCTE refers to mean per capita total expenditure (PCTE) at constant prices of 1970-71.
(3) These estimates of poverty indicators are based on the Planning Commission All -India poverty lines which are monthly PCTE of Rs.49.09 (rural) and Rs.56.64 (urban) at 1973-74 prices.
(4) Figures within brackets refer to group-specific shares in aggregate value of the variable at top for all groups.

Source: Tendulkar, Sundaram and Jain, op. cit.

Table 3.2

Poverty Indicators and their Shares in Total Population in Year 1987-88 for various Livelihood, Social and Sex-age-specific Groups of All-India Rural and Urban Population

Sl. No.	Group Type	Rural						Urban					
		SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)	SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Livelihood Groups								
1.	Self-employed agricultural households	44.43	44.39 (48.0)	38.27 (37.9)	0.0903 (34.5)	0.0317 (32.9)	0.1258 (39.1)						
2.	Self-employed non-agricultural households	12.48	43.10 (13.1)	39.04 (10.8)	0.0928 (9.9)	0.0323 (9.4)	0.1282 (10.0)						
3.	Self-employed households	56.71	44.08 (61.1)	38.45 (48.7)	0.0907 (44.4)	0.0318 (42.3)	0.1263 (45.1)	38.77	55.19 (35.5)	41.50 (43.0)	0.1077 (42.0)	0.0391 (41.0)	0.1464 (42.1)
4.	Households other than self-employed	43.09	37.85 (38.9)	54.54 (51.3)	0.1527 (55.6)	0.0592 (57.7)	0.2067 (54.9)	61.23	62.71 (64.5)	34.10 (57.0)	0.0909 (58.0)	0.0345 (59.0)	0.1248 (57.9)
5.	Agri-labour/wage earner households	27.12	31.55 (20.8)	62.74 (37.9)	0.1790 (41.8)	0.0697 (43.9)	0.2408 (41.0)	43.69	70.11 (50.9)	25.94 (30.3)	0.0622 (27.3)	0.0221 (26.1)	0.0867 (28.1)
6.	Other labour/casual labour households	8.12	37.45 (7.4)	48.73 (8.8)	0.1320 (9.2)	0.0502 (9.5)	0.1799 (9.2)	12.11	36.87 (7.4)	68.05 (22.0)	0.2125 (25.9)	0.0859 (28.1)	0.2786 (25.0)
7.	Other livelihood groups	7.85	55.67 (10.6)	26.41 (4.6)	0.0672 (4.5)	0.0256 (4.7)	0.0942 (4.6)	5.45	68.22 (6.2)	32.68 (4.7)	0.0864 (4.7)	0.0325 (4.8)	0.1185 (4.8)
					Social Groups								
1.	Scheduled caste households	18.37	30.14 (14.3)	56.06 (22.9)	0.1499 (24.5)	0.0557 (25.3)	0.2032 (24.1)	11.68	52.56 (9.4)	53.31 (17.0)	0.1453 (18.2)	0.0545 (18.8)	0.1963 (17.9)
2.	Scheduled Tribe households	10.49	32.72 (8.9)	62.74 (14.7)	0.1891 (17.6)	0.0765 (19.9)	0.2525 (17.1)	3.77	48.11 (2.8)	48.30 (5.0)	0.1382 (5.6)	0.0534 (6.0)	0.1852 (5.5)
3.	Other social Groups	71.14	41.83 (76.8)	39.39 (62.4)	0.0917 (57.9)	0.0311 (54.8)	0.1279 (58.8)	84.55	67.45 (87.8)	33.69 (78.0)	0.0842 (76.2)	0.0301 (75.2)	0.1158 (76.6)

contd..

Table 3.2 (contd.)

Sl. No.	Group Type	Rural						Urban					
		SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)	SGTP (%)	APCTE (Rs. p.a.)	HCR (%)	PGI (ratio)	FGT (ratio)	SI (ratio)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Sex or/and age-specific Groups								
1.	Adult Male population			40.11						30.36			
2.	Adult Female population			42.30						33.87			
3.	Child Male population (below age 5 years)			50.26						43.93			
4.	Child Female popln. (below age 5 years)			51.59						45.94			
5.	Children popln. (below age 5 years)			50.58						44.61			
6.	Female headed households			47.00						43.36			
6.	All Groups	100	38.73 (100)	44.88 (100)	0.1126 (100)	0.0404 (100)	0.1546 (100)	100	65.10 (100)	36.52 (100)	0.0934 (100)	0.0338 (100)	0.1278 (100)

Note: See the notes to Table 3.1

Source: Tendulkar, Sundaram and Jain, op. cit.

Thus the main livelihood groups which have to be kept in view for poverty alleviation policy are rural (mainly agricultural) labour households covering roughly a third of the rural population, urban casual labour households who are highly deprived like their rural counterpart and the urban self-employed (other than doctors, lawyers etc.), who account for almost 39 per cent of the urban population.

Turning to the social composition of the poor, it turns out that the households belonging to scheduled castes and scheduled tribes, who account for about 30 per cent of the rural population and 15 per cent of the urban population, are highly over-represented in the group of poor while the others are under-represented. Furthermore, in rural areas the degree of deprivation seems to be distinctly higher for scheduled tribe households as compared to scheduled caste households. However, in urban areas their condition appears to be roughly the same. It needs to be said that scheduled caste households in rural areas are also over-represented in the livelihood group of rural labour households and this explains why they are poorer than other social groups. The poverty of scheduled tribe households, however, is attributable to certain special factors (see Box 3.2).

In terms of the age profiles of poverty, it turns out that the prevalence of poverty (HCR) was significantly higher among children as compared to adults in 1983 as well as 1987-88. This indicates that there is a positive correlation between dependency ratio and prevalence of poverty. The incidence of poverty among adult females is higher than that among adult males and this seems to be linked to the fact that the incidence of poverty among female headed households is higher than that for the total population. This is especially evident in urban areas. These facts reflect the disadvantages suffered by women in a male-dominated society.

Finally, inter-regional comparisons based on 1987-88 data for seventeen states (Table 3.3), shows that two states of U.P. and Bihar together accounted for about one-third of the rural poor. Six other states accounted for another 43 per cent of the rural poor. Thus eight states accounted for over three-fourths of the rural poor in the country. Apart from U.P. and Bihar these states are Andhra Pradesh, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu and West Bengal. Thus rural poverty is concentrated in Central and Eastern India and in a few pockets in Western and Southern India. The regional dispersion of urban poverty is slightly different because the degree of urbanisation does not bear a consistent relation with the incidence of rural poverty. Thus, for example, Orissa's share of the rural poor is higher than Gujarat's, but Gujarat is the more urbanised state and its share of the urban poor is higher than Orissa's. Nevertheless, the broad pattern of regional dispersion of urban poverty is similar to that of rural poverty. Four Central and Eastern Indian states (Uttar Pradesh, Madhya Pradesh, Bihar and West Bengal) account for about 40 per cent of the urban poor, two Western Indian states (Gujarat and Maharashtra) account for

BOX 3.2

Impoverishment of the Tribal Population

People left on the ledge of history is an apt image of the tribal population. More accurately, of course, they were pushed on to a ledge where there was enough room and natural resources for them to survive as non-competing communities committed to preserving their distinct cultures. Contacts with non-tribal communities remained peripheral and non-intrusive for centuries. But in time, with population growth, incursions from non-tribal communities, seeking resources and markets, increased and became increasingly assertive and exploitative. Eventually the oppressive inter-face caused the tribals to rebel and a series of rebellions in different parts of the country during the second half of the nineteenth century were duly quashed by the state. The tribals, thus subdued and humbled, receded further into their cultural shells while the non-tribals felt encouraged to exploit forest, minerals and land resources in areas where the tribals lived.

In post-independence India, the state attempted to develop the tribal areas and to integrate the tribal population into the mainstream. However, one of the most tragic ironies of post-independence India is that the process of development, conceived as industrialisation, commercialisation and modernisation of the economy, has simultaneously led to the marginalisation and increasing deprivation of tribal communities - communities which are losing their traditional means of livelihood but are as yet unable to adjust to the pressures of a modern, competitive society. This progressive deprivation of tribal communities has proceeded mainly through two distinct routes, namely, deforestation and displacement.

Forests and forest produce have traditionally served as major sources of livelihood for tribal communities. However, the over exploitation of forest resources in the wake of commercialisation and industrialisation has led to a steady erosion of forest cover. A process which was already well underway during the colonial period, it accelerated with the post-colonial industrialisation spurt. By the eighties, forest cover was declining at the rate of over 56,000 sq.km. per annum, total forest cover declining from 752,273 sq.km. in 1985-87 to 639,182 sq.km. in 1987-89. This amounts to less than 20 per cent of total land area in the country.

This rapid depletion of forest resources as also their growing commercialisation has placed tribal communities under increasing stress. In Bihar, for instance, the community has access to less than one-third of the remaining forest resources. The rest is commercially exploited. In Orissa the tribals now have to travel about 7 km. a day to collect forest products as against 1.7 km. only in the past. Since old persons and children cannot cover such distances, the work pressure on tribal women has increased enormously. The effect of this increasing deprivation is deteriorating health and nutrition status of the tribal people.

The other major source of increasing deprivation is through direct displacement by various projects sited on traditional tribal lands. Thus between 1951 and 1990, about 18.5 million persons were displaced by dams (14 million), mines (2.1 million), industries (1.3 million) and even wildlife sanctuaries and other projects (1.1 million)! Of these only 4.6 million persons were 'rehabilitated' leaving a backlog of 13.9 million displaced persons, some displaced more than once. Even those 'rehabilitated' have often failed to re-establish normal and secure livelihood. This encounter with the modern economy and an alien value system. (individual property rights backed by the state, written records etc.) has had a shattering impact on tribal communities.

Source: W. Fernandes, S. Chaudhury, M. Rao and N. Mishra, "Deforestation, Displacement and Impoverishment of Tribals : Are Tribal Sub-Plans the Solution?", (mimeo) ILO-ARTEP, 1993.

Table 3.3

State-wise Percentage Shares in Poor Population of 17 States, 1987-88

Sl. No.	Name of the State	Percentage share of	
		Rural Poor	Urban Poor
(1)	(2)	(3)	(6)
1	Andhra Pradesh	5.03 (14.1)	8.51 (6.4)
2	Assam	3.91 (11.0)	0.40 (0.3)
3	Bihar	16.33 (45.8)	8.85 (6.7)
4	Gujarat	3.84 (10.8)	6.68 (5.0)
5	Haryana	0.94 (2.7)	0.96 (0.7)
6	Himachal Pradesh	0.39 (1.1)	0.02 (0.0)
7	Jammu & Kashmir	0.63 (1.8)	0.23 (0.2)
8	Karnataka	4.34 (12.2)	8.33 (6.3)
9	Kerala	3.56 (10.0)	3.52 (2.6)
10	Madhya Pradesh	8.19 (23.0)	8.71 (6.6)
11	Maharashtra	8.60 (24.1)	12.85 (9.7)
12	Orissa	5.93 (16.6)	2.61 (2.0)
13	Punjab	0.98 (2.8)	0.87 (0.7)
14	Rajasthan	4.67 (13.1)	5.41 (4.1)
15	Tamil Nadu	6.43 (18.0)	9.78 (7.4)
16	Uttar Pradesh	17.06 (47.8)	15.24 (11.5)
17	West Bengal	9.16 (25.7)	7.03 (5.3)
18	17 States together	100.00 (280.6)	100.00 (75.5)

Notes: Figures in parentheses indicate total number of poor in millions.

Source: Tendulkar, Sundaram and Jain, op. cit.

about 20 per cent and three Southern Indian states (Andhra Pradesh, Tamil Nadu and Karnataka) account for about 27 per cent of the urban poor in the country.

3.3. The Changing Incidence of Poverty Over Time

In the preceding section it was suggested that the basic structure of poverty had remained stable during the eighties. However inter-temporal comparisons show that there have been important changes in the overall incidence of poverty over time. National level (All India) estimates of the prevalence of poverty (HCR), its depth (PGI) and severity (FGT, SI) based on NSS surveys for eight different years between 1970-71 and 1988-89 have been shown separately for rural and urban areas in table 3.4.[1]

[1]These estimates are different from the official estimates provided by the planning Commission. The two sets of estimates use the same poverty lines but somewhat different methodologies. For details of the methodology and estimates of the Planning Commission, see its Report of the Expert Group on Estimation of Proportion and Number of Poor (New Delhi, July 1993).

Table 3.4

Poverty Indicators for Eight Years from 1970-71 to 1988-89, based on two alternative Poverty Lines : All India Rural and Urban

Sl.No	NSS survey period	Poverty line* (Rs.p.m.)	Poverty Indicators			
			HCR	PGI	FGT	SI
Rural						
1	1970-71	33.01	0.5738 (84.15)	0.1760	0.0732	0.4938
2	1972-73	40.24	0.5768 (82.48)	0.1798	0.0757	0.4987
3	1973-74	49.89	0.5666 (81.32)	0.1675	0.0672	0.5016
4	1977-78	57.64	0.5457 (81.69)	0.1660	0.0688	0.4855
5	1983	93.16	0.4986 (80.33)	0.1386	0.0545	0.4448
6	1986-87	110.75	0.4526 (79.63)	0.1221	0.0460	0.4096
7	1987-88	122.63	0.4481 (78.72)	0.1126	0.0404	0.4130
8	1988-89	132.77	0.4268 (78.18)	0.1020	0.0354	0.3924
Urban						
1	1970-71	39.04	0.4549 (15.85)	0.1341	0.0533	0.4173
2	1972-73	47.31	0.4740 (17.52)	0.1357	0.0532	0.4340
3	1973-74	56.64	0.4955 (18.68)	0.1388	0.0531	0.4503
4	1977-78	68.08	0.4297 (18.31)	0.1216	0.0481	0.4010
5	1983	111.25	0.3837 (19.67)	0.0995	0.0366	0.3632
6	1986-87	142.89	0.3535 (20.37)	0.0948	0.0354	0.3359
7	1987-88	158.31	0.3652 (21.28)	0.0934	0.0338	0.3464
8	1988-89	170.60	0.3543 (21.82)	0.0891	0.0319	0.3359

Notes: *corresponds to Planning Commission all India poverty lines of monthly PCTE of Rs.49.09 (Rural) and Rs.56.64 (Urban) at 1973-74 prices. Figures in parentheses indicate percentage share of total poor, rural plus urban.

Source: Tendulkar, Sundaram and Jain, op. cit.

Since India is still an agrarian economy, with a major proportion of the population still dependent on rain-fed agriculture, it is inevitable that the observed incidence of poverty in any survey would be quite sensitive to the state of the monsoon in that year, as well as the lagged effect of the monsoon status in the previous year. As such the eight observations spread over twenty years are too few to allow any rigorous statistical estimate of time trends in poverty, adjusting for the weather effect and so on. Nevertheless it is quite easy to see from table 3.4 that there is an unmistakable tendency towards declining poverty incidence since the mid-seventies and especially during the eighties.

In rural areas, the prevalence of poverty (HCR) increased marginally from 57.38 per cent in 1970-71 to 57.68 per cent in 1972-73 but fell in every subsequent survey year to reach 42.68 per cent in 1988-89. The PGI measure similarly shows a marginal increase in the depth of poverty between 1970-71 and 1972-73, followed by decreases in every subsequent survey year upto 1988-89. An identical picture of over time changes is also conveyed by the FGT measure of the severity of poverty. The alternative Sen Index of severity of poverty (SI) broadly conforms to this picture showing small increases from 1970-71 to 1972-73 and again between 1972-73 and 1973-74, but then a sustained decrease till 1988-89 except for a small upturn in the drought year 1987-88. In urban areas, the indices of poverty prevalence (HCR), depth (PGI) and severity (SI but not FGT) all show increases in incidence between 1970-71 and 1972-73 and again between 1972-73 and 1973-74. They then decline upto 1988-89, except for a small upturn in 1987-88 for the prevalence index (HCR) and the Sen Index of severity. Even this upturn is not visible in the depth of poverty measure (PGI) or the FGT index of severity.

Comparing the incidence of poverty in rural and urban areas, it turns out that the share of the urban poor in the total poor has risen from about 16 per cent in 1970-71 to nearly 22 per cent in 1988-89. However, the share of urban population in total population has also been rising over this period, such that the urban sector's share in the below-poverty-line population remained lower than its share of total population.[1] The apparent tendency towards urbanisation of poverty, therefore, merely reflected the tendency towards urbanisation of the population. Furthermore, despite a decline in its share of the poor population, along with its declining share of total population, the rural sector still accounted for over 78 per cent of the total poor in 1988-89. The incidence of poverty therefore still remains, predominantly, a rural phenomenon.

[1]The urban sector's share of the total population was 19.2 per cent in 1970-71 and 25.2 per cent in 1988-89.

Table 3.5

The Percentage Share of the Individual States in Total Poor Population of 17 States, 1970-71 and 1987-88

Sl.No.	Name of the State	Rural		Urban	
		1970-71	1987-88	1970-71	1987-88
1	Andhra Pradesh	7.11	5.03	7.96	8.52
2	Assam	2.64	3.91	0.50	0.40
3	Bihar	13.71	16.33	6.28	8.85
4	Gujarat	4.36	3.81	7.75	6.68
5	Haryana	1.30	0.94	1.26	0.96
6	Himachal Pradesh	0.36	0.39	0.09	0.02
7	Jammu & Kashmir	0.41	0.63	0.47	0.23
8	Karnataka	4.60	4.34	6.88	8.33
9	Kerala	4.85	3.56	4.44	3.50
10	Madhya Pradesh	8.55	8.19	8.13	8.77
11	Maharashtra	7.60	8.60	12.93	12.85
12	Orissa	5.89	5.93	1.98	2.61
13	Punjab	1.16	0.98	1.63	0.87
14	Rajasthan	4.56	4.67	4.29	5.41
15	Tamil Nadu	7.50	6.43	14.38	9.78
16	Uttar Pradesh	15.33	17.06	13.58	15.24
17	West Bengal	10.05	9.16	7.45	7.03
18	17 States	100.00	100.00	100.00	100.00

Source: Tendulkar, Sundaram and Jain, op. cit.

Another important fact emerges from the data presented in table 3.5 : there has been a tendency for poverty, both rural and urban, to be increasingly concentrated in the Central and Eastern Indian states. The share of five states - Bihar, Madhya Pradesh, Orissa, Uttar Pradesh and West Bengal - in poor rural population of the country increased from 54 per cent in 1970-71 to 57 per cent in 1987-88. Similarly, the share of four states - Bihar, Madhya Pradesh, Uttar Pradesh and West Bengal - in poor urban population of the country increased from 35 per cent in 1970-71 to 40 per cent in 1987-88. The incidence of poverty (both rural and urban) of course declined in these states too, but the pace of decline was evidently much slower than in other regions.

3.4 Understanding Poverty : Some Exercises in Interpretation

The basic facts about poverty in India, therefore, are as follows. The incidence of poverty has been declining since the mid-seventies. Because the rate of decline has not been uniform across regions, however, poverty has been increasingly concentrated in certain regions of the country. Furthermore, with growing urbanisation, there has been a tendency towards urbanisation of poverty, but it still remains overwhelmingly a rural phenomenon.

The poor, in both rural and urban areas, have few assets other than labour which, moreover, fails to find stable and adequately remunerative employment; underemployment is the basic cause of poverty. Some of the poor also suffer from special disadvantages: the development process itself poses threats to livelihood for the tribal population, women face discrimination in a male-dominated society and households with high dependency ratios face particular difficulties.

The fact that poverty has been declining clearly suggests that there have been processes at work which have helped some of the poor to overcome their disadvantages. Understanding these processes is obviously important for formulating effective poverty alleviation strategies. The discussion that follows is concerned with developing such an understanding.

Some important insights can be derived from an exercise comparing changes in average per capita total expenditure (APCTE), with changes in the prevalence and other indicators of poverty in the rural areas of seventeen states. The exercise is based on the four quinquennial surveys of 1972-73, 1977-78, 1983, 1987-88 and the Consumer Expenditure Survey of 1970-71. In all, therefore, there are four periods of change 1970-71 to 1972-73, 1972-73 to 1977-78, 1977-78 to 1983 and 1983 to 1987-88, observed in seventeen states offering a total of 68 observations. Comparisons of the growth of APCTE with changes in poverty prevalence (HCR) and changes in HCR with the other distribution sensitive indices of poverty in these 68 observations (see table 3.6) lead to some important conclusions:

i. In 37 out of 68 cases, or 56 per cent of the observations, there was a decline in poverty prevalence as well as the other poverty indicators along with a rise in APCTE. In 9 cases there was an increase in poverty prevalence along with a fall in APCTE. Thus there were altogether 46 cases or 68 per cent of all observations where poverty incidence and APCTE changed in opposite directions.

ii. In a total of 14 cases, about 21 per cent of all observations, poverty incidence increased with adverse distributional changes or declined with positive distributional changes.

iii. Social deprivation declined in 51 observations or 75 per cent of all observed cases.

Table 3.6

State-wise Trends in Rural Poverty : 1970-71 to 1987-88

Sl. No.	Name of the State	Item	Level in 70-71	Direction of change over period				Level in 87-88	Appropriate/ synchronous movements between	
				I	II	III	IV		APCTE & HCR	HCR & other PI
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Andhra Pradesh	APCTE	34.32	D	I	I	I	44.72	Yes	
		HCR	51.55	I	D	D	D	31.56		Yes
2	Assam	APCTE	48.29	D	D	I	MI	41.72	No	
		HCR	50.34	I	I	D	I	53.8		Yes
3	Bihar	APCTE	33.13	I	MD	D	I	37.28	No	
		HCR	68.77	MD	D	I	D	66.26		No
4	Gujarat	APCTE	36.64	I	I	I	D	48.84	Yes	
		HCR	57.73	D	D	D	I	43.67		Yes
5	Haryana	APCTE	48.86	I	D	I	MI	56.84	No	
		HCR	40.00	D	I	D	D	23.17		No
6	Himachal Pradesh	APCTE	50.77	I	D	I	D	54.17	No	
		HCR	28.78	D	D	I	I	24.75		Yes
7	Jammu & Kashmir	APCTE	46.50	D	D	I	I	47.55	No	
		HCR	27.65	I	I	D	I	33.11		Yes
8	Karnataka	APCTE	35.90	MI	I	I	D	39.89	No	
		HCR	52.80	D	MI	D	I	42.29		No
9	Kerala	APCTE	36.13	I	I	I	I	52.17	Yes	
		HCR	69.01	D	D	D	D	44.82		Yes
10	Madhya Pradesh	APCTE	32.88	MD	MI	I	I	37.21	No	
		HCR	62.39	I	I	D	D	49.84		No
11	Maha-rashtra	APCTE	36.37	D	I	I	I	42.62	No	
		HCR	55.72	I	I	D	MI	54.17		No
12	Orissa	APCTE	28.87	I	I	I	I	33.37	No	
		HCR	74.68	D	D	D	MI	65.64		No
13	Punjab	APCTE	57.99	I	I	D	I	63.09	No	
		HCR	28.63	I	D	D	I	21.03		No
14	Rajasthan	APCTE	35.40	I	I	D	D	40.74	No	
		HCR	54.72	D	D	I	MD	41.89		No
15	Tamil Nadu	APCTE	30.00	I	I	I	I	38.68	No	
		HCR	66.42	D	D	I	D	51.30		Yes
16	Uttar Pradesh	APCTE	35.89	MI	MI	D	I	37.68	No	
		HCR	51.34	MD	MD	D	D	47.70		No
17	West Bengal	APCTE	33.32	I	I	I	I	48.45	Yes	
		HCR	76.66	D	D	D	D	57.19		No

Notes:

(1) APCTE figures are in Rs. per month at 1970-71 prices and HCR figures are in percentages.
(2) Periods I, II, III and IV refer to 1970-71 to 1972-73, 1972-73 to 1977-78, 1977-78 to 1983 and 1983 to 1987-88 respectively.
(3) An 'Yes' in column (10) indicates that in all the periods, the changes in APCTE and HCR are in the appropriate (i.e. opposite to each other) direction. A 'No' indicates that this was not so at least over one of the four periods.
(4) An 'Yes' in column (11) indicates that the four poverty indicators (PI), i.e. HCR, PGI, FGT and SI have moved synchronously in all the periods. A 'No' indicates that at least one of the PGI, FGT and SI did not move in the same direction of HCR in at least one of the four periods.
(5) D, I, MD and MI refer to decrease, increase, marginal decrease and marginal increase respectively.

Source: Tendulkar, Sundaram and Jain, op. cit.

Apart from confirming the declining trend in rural poverty, this evidence permits two inferences: (a) The declining tendency and variations in poverty incidence in general are primarily dependent on variations in average per capita consumption expenditure. To the extent that per capita consumption expenditure depends on per capita income and the latter depends on per capita agricultural output, it can be inferred that rural poverty is inversely related per capita to agricultural output. (b) While distributional changes are not quite as important as output changes, they can nevertheless negate the effects of output changes in some situations. These are inferences which have relevance for the design of poverty alleviation policy. Consequently, they need to be probed more carefully and the robustness of the inferences cross checked through alternative exercises before they can be taken as a basis for guiding policy.

In one such exercise the various measures of poverty prevalence (HCR), its depth (PGI) and severity (FGT, SI) were regressed against various combinations of plausible explanatory variables. The exercise was undertaken separately for rural and urban areas using state-wise cross section data for the 1983 NSS survey, the 1987-88 NSS survey and the pooled data for both surveys. The results show that per capita monthly wage income[1], which is a reasonable proxy for total income accruing to socially deprived groups, is an important determinant of poverty in both

[1]Per capita employment is derived by dividing total number of person-days employed (irrespective of whether these were self-employed or wage-employed on regular or casual basis), as given by the National Sample Survey, by total population. Per capita wage income is then derived by multiplying per capita employment by the daily wage rate for casual labour, again given by the National Sample Survey.

urban and rural areas.[1] In rural areas, the average price of cereals paid by rural households also turns out to be a significant factor. The bulk of the rural poor belong to rural labour households who depend on wage income. A large part of their income is spent on foodgrains. It is also known that nominal wages in rural areas do not adjust quickly to price changes. It is not surprising, therefore, that the real income of rural labour households, and hence the incidence of rural poverty in all its dimensions, should be quite sensitive to the prices of cereals. Urban poverty turns out to be less sensitive to cereal prices, partly because cereals account for a smaller proportion of the urban dweller's expenditure, partly because some of the urban low-income households have access to subsidised foodgrains supplied through the public distribution system and partly because urban wages adjust rather quickly to price changes.

In urban areas, the daily status unemployment rate (which reflects both unemployment and visible underemployment) turns out to be an important determinant of poverty. Given that the poor in urban areas generally engage in informal activities, this should not appear surprising. What is surprising is that the variable does not turn out to be important in the case of the rural poor. This may be explicable in terms of statistical estimation problems; indeed, as we shall see shortly, another exercise shows the daily status unemployment rate to be an important determinant of rural poverty as well. Thus the degree of underemployment and the level of real wage rate are the two most important determinants of poverty in both rural and urban areas.

Finally, it is worth noting that the more distributionally sensitive measures of poverty are also more sensitive to the explanatory variables (see Table 3.7). In other words the elasticities of the depth measure PGI are higher than the elasticities of the prevalence measure HCR and the elasticity of the severity measures FGT or SI are higher than the PGI elasticities.

In another exercise relating to rural poverty, the measures of poverty prevalence (HCR) and its severity (FGT) were regressed against per capita income in agriculture (TAGY), person days of employment per capita in agriculture (APDM) and non-agriculture (NPDM), the real wage rate in agriculture (RW) and the daily status unemployment rate (UR), using pooled state-wise cross section and time series data for the four quinquennial NSS combined surveys of household consumption expenditures and employment.

[1]For detailed results see Tendulkar, Sundaram and Jain, op. cit.

Table 3.7

Partial Point Elasticities of Poverty

Year	Poverty Measure	Independent Variable		
		PCMWI	CP	PDUR
Rural				
1983	HCR	-1.20	0.82	-
1987-88	HCR	-0.98	0.91	-
1983	PGI	-1.94	1.07	-
1987-88	PGI	-1.44	1.16	-
1983	FGT	-2.51	1.24	-
1987-88	FGT	-1.76	1.32	-
1983	SI	-1.87	1.03	-
1987-88	SI	-1.38	1.12	-
Urban				
1983	HCR	-1.35	-	0.31
1987-88	HCR	-1.80	-	0.33
1983	PGI	-1.57	-	0.46
1987-88	PGI	-2.05	-	0.38
1983	FGT	-1.69	-	0.58
1987-88	FGT	-1.98	-	0.41
1983	SI	-1.55	-	0.45
1987-88	SI	-2.04	-	0.40

Note: PCMWI - per capita monthly wage-income (nominal)
CP - cereal prices
PDUR - daily status unemployment rate for urban males.

Source: Tendulkar, Sundaram and Jain, op. cit.

The results, presented in table 3.8, show that over 80 per cent of the inter-state variations in prevalence of poverty (HCR) and around 78 per cent of the variation in severity of poverty (FGT) are explained by the chosen variables. When the employment availability variables are tried, per capita output in agriculture turns out to have the strongest impact on reducing both the prevalence of poverty as well as its severity. This is followed by the real wage rate in agriculture and then the availability of employment in agriculture. Furthermore, the poverty alleviating impact of *all* these variables is much stronger on the severity measure of poverty as compared to the simple prevalence measure. This suggests that all these variables also help to reduce inequality of income among the poor. The availability of employment in non-agriculture does not appear to have a significant impact on the incidence of rural poverty. When the employment availability

Table 3.8

Determinants of Rural Poverty

Independent Variables	Dependent Variables		FGT
	HCR	FGT	
Constant	9.54	8.41	4.81
TAGY	-0.55 (7.8)	-0.96 (6.2)	-1.9 (7.5)
APDM	-0.31 (1.9)	-0.79 (2.2)	
NPDM	0.01 (0.1)*	-0.19 (0.9)*	
RW	-0.47 (4.9)	-0.89 (4.3)	-0.7 (4.8)
UR			0.20 (2.6)
Adjusted R^2	0.831	0.775	0.785

Note: All variables are expressed in logs. Figures in brackets are T-values. Asterisk denotes non-significant variable.

Source: Sen & Ghosh, op. cit.

variables are replaced by the daily status unemployment rate in the exercise relating to severity of poverty, the latter turns out to have a significant positive effect on severity of poverty. These results reinforce the conclusion emerging from the previous exercise that the most important factors for permanently alleviating rural poverty in all its dimensions are agricultural growth, agricultural employment and the real wage rate in agriculture. Furthermore, as shown by the analysis of agricultural employment and wage rates, presented elsewhere in this report, agricultural growth can have a strong positive impact on both these rural labour related outcomes. It would appear, therefore, that the promotion of agricultural growth should be at the core of any long term strategy for the permanent alleviation of rural poverty.

But the results so far also suggest that measures to generate temporary employment can be effective in alleviating poverty in the short run. The point is further highlighted by a third exercise which exploits the fact that the four quinquennial NSS surveys combining the consumer expenditure survey with the employment-unemployment survey of the same set of households happened to correspond to either peak years or trough years of agricultural production. This is obviously fortuitous in an agrarian economy like India, where a large part of the socially deprived population are directly or indirectly dependent on the state of agricultural production, which in turn is still largely rainfed and therefore very sensitive to the nature of monsoons. Comparisons between alternative pairs of years such as peak to peak (1977-78 to 1983); trough to peak

(1972-73 to 1977-78), peak to trough (1983 to 1987-88) and trough to trough (1972-73 to 1987-88), using counter factual simulations in which either the average per capita total expenditure (APCTE), or the Lorenz Curve of expenditure, serving as a proxy for income distribution, is kept fixed while the other is allowed to vary, makes it possible to decompose changes in any measure of poverty into the growth effect (GE) and the distribution change effect (DCE). The results of this exercise are presented in Table 3.9. The exercise yields interesting insights not so much on the impact of growth on poverty, which the earlier exercise has already shown to be very important, but on the role of changes in income distribution and its underlying factors.

The first point to note in the results is that 1987-88 seems to represent a break from the past. Earlier, a year of drought or a year following a drought always showed an increase in the degree of social deprivation. However, the year 1987-88 came after a drought in 1986-87 and was itself a drought year. Yet, all the indicators of poverty in urban as well as rural areas show that, compared to the peak year 1983, social deprivation was distinctly lower in 1987-88. As the subsequent discussion shows, there are important lessons to be learned from the experience of 1987-88 about how much can be achieved through appropriate public action in containing or reducing social deprivation in the short run until the normal growth process eliminates poverty more or less permanently in the long run.

It is to be noted that growth effect is clearly the dominant factor affecting changes in the degree of social deprivation in comparisons between like years, i.e., peak to peak or trough to trough. However the distribution change effect turns out to be important in comparison between trough and peak or peak and trough. This seems to reflect the important distributional effect of large scale public action, which is mobilised to protect socially deprived groups during periods of drought but withdrawn or substantially scaled down during normal agricultural years. Such an interpretation would also account for the relatively weak distributional effect in urban areas. It will be noted, for instance, that there are only four cases in which the distribution effect dominates the effect of growth on changes in poverty incidence. Of these, the urban sector accounts for only one case relating to reduction of poverty prevalence (HCR) between 1972-73 and 1977-78. All the other three cases relating to reduction in the depth (PGI) and severity (FGT, SI) of poverty are found in the rural sector between 1983 and 1987-88. It is also noteworthy that between 1983 (peak year) and 1987-88 (trough year), the distribution change effect in urban areas was actually adverse.

Table 3.9

Decomposition of Change (percentage points) in Poverty Indicators : All-India Rural and Urban

Sl. No.	Period	Rural Population			Urban Population		
		GE	DCE	Total change	GE	DCE	Total change
				Headcount Ratio (HCR)			
1	I : 72-73 to 77-78	-2.89 (91.7)	-0.26 (8.3)	-3.15 (100.0)	-1.62 (40.4)	-2.39 (59.6)	-4.01 (100.0)
2	II : 77-78 to 1983	-4.58 (78.9)	-1.20 (21.1)	-5.70 (100.0)	-4.85 (98.4)	-0.08 (1.6)	-4.93 (100.0)
3	III: 1983 to 87-88	-3.15 (57.9)	-2.29 (42.1)	-5.44 (100.0)	-3.78 (256.9)	2.26 (156.9)	-1.44 (100.0)
4	IV : 72-73 to 87-88	-10.46 (74.8)	-3.53 (25.2)	-13.99 (100.0)	-10.72 (103.3)	0.34 (-3.3)	-10.38 (100.0)
				Poverty Gap Index (PGI)			
5	I : 72-73 to 77-78	-1.11 (100.0)	0.00 (0.0)	-1.11 (100.0)	-0.61 (59.2)	-0.42 (40.8)	-1.03 (100.0)
6	II : 77-78 to 1983	-1.79 (78.2)	-0.50 (21.8)	-2.29 (100.0)	-1.65 (88.7)	-0.21 (11.3)	-1.86 (100.0)
7	III: 1983 to 87-88	-0.94 (42.6)	-1.32 (57.4)	-2.30 (100.0)	-1.12 (233.3)	0.64 (-133.3)	-0.48 (100.0)
8	IV : 72-73 to 87-88	-3.90 (68.4)	-1.88 (31.6)	-5.70 (100.0	-3.58 (106.2)	0.21 (-6.2)	-3.37 (100.0)
				Foster, Greer, Thorbecke Index (FGT)			
9	I : 72-73 to 77-78	-0.65 (103.2)	0.02 (-3.2)	-0.63 (100.0	-0.27 (87.1)	-0.04 (12.9)	-0.31 (100.0)
10	II : 77-78 to 1983	-0.83 (76.9)	-0.25 (23.1)	-1.08 (100.0)	-0.69 (78.4)	-0.19 (21.6)	-0.88 (100.0)
11	III: 1983 to 87-88	-0.39 (36.4)	-0.68 (63.6)	-1.87 (100.0)	-0.45 (214.3)	0.24 (-114.3)	-0.21 (100.0)
12	IV : 72-73 to 87-88	-1.88 (67.6)	-0.98 (32.4)	-2.78 (100.0)	-1.47 (105.8)	0.08 (-5.8)	-1.39 (100.0)
				Sen Index (SI)			
13	I : 72-73 to 77-78	-1.47 (99.3)	-0.01 (0.7)	-1.48 (100.0)	-0.87 (65.4)	-0.46 (34.6)	-1.33 (100.0)
14	II : 77-78 to 1983	-2.38 (77.4)	-0.67 (22.6)	-2.97 (100.0)	-2.23 (86.8)	-0.34 (13.2)	-2.57 (100.0)
15	III: 1983 to 87-88	-1.22 (40.8)	-1.82 (59.9)	-3.04 (100.0)	-1.57 (230.9)	0.89 (-130.9)	-0.68 (100.0)
16	IV : 72-73 to 87-88	-5.10 (68.1)	-2.39 (31.9)	-7.49 (100.0)	-4.85 (105.9)	0.27 (-5.9)	-4.58 (100.0)

Notes: (1) All Indices have been multiplied by 100 for the purpose of decomposition.
(2) Figures in brackets indicate percentage share of each component.

Source: Tendulkar , Sundaram and Jain, op. cit.

In the urban sector, the distribution of subsidised foodgrains is completely untargeted and there are also no significant anti-poverty programmes other than the limited employment support provided under a special employment scheme for urban areas. In contrast, 670 million person days of employment were provided in rural areas in 1987-88 under the centrally initiated special employment schemes. In addition, an outlay of Rs.1433 crores was allocated for drought relief operations by the Central government in that year, the bulk of it going to generate 772 million person days of relief employment, as also to protect livestock and organise potable water supply in Gujarat and Rajasthan, the two worst affected states.

Additionally, as much as 20 million tons of cereals were released through the Public Distribution System (PDS) in 1987-88 as compared to 16 million tons in 1983. The releases were met mainly through drawing down of government stocks to the tune of 11 million tons, imports of a little over 2 million tons and procurement from surplus states. Apart from direct distribution of subsidised foodgrains through the employment and relief employment programmes in rural areas, the distribution of foodgrains even in urban areas helped to prevent the sucking out of grain from rural areas to urban centres. Furthermore, the draw down of public foodstocks itself facilitated the maintenance of a contractionary macro-economic policy stance because of the reduced requirement of food credit. All these aggregative and food policy measures helped to contain the inflationary impact of the supply shock in agriculture, in particular the potential increase in foodgrain prices, a variable identified earlier as one of the key factors governing the incidence of poverty in rural areas.[1]

The central role attributed above to government employment programmes in explaining the favourable distributional change effects in 1987-88 as compared to 1983 can be verified directly and more concretely from the cross tabulations of consumption expenditure data and the employment-unemployment data in the NSS surveys in these two years. This has been undertaken on the basis of data pertaining to All India and six individual states and with reference to expenditure fractile groups of households, especially the bottom 30 per cent and the next 20 per cent, which covers all the socially deprived households (table 3.10).

It is evident from the table that at the All India level, the availability of employment or person workdays per household (WDH) was actually a little higher in 1987-88 compared to 1983. More importantly, the availability of non-agricultural work in 1987-88 was almost 19 per cent higher while the availability of agricultural work was marginally lower. Clearly there was a distinct increase in the availability of non-agricultural work relative to agricultural work in the country as a whole,

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[1]A more detailed and comprehensive account of the strategy pursued by the government in containing the adverse impact of the 1987-88 drought is given in the Economic Survey 1987-88, Ministry of Finance, Government of India, 1988.

Table 3.10

Level in 1987-88 as Percentage of Level in 1983 for Person-days at Work Per Household (WDH) by Fractile Group-wise Rural Population : Six States and All-India

(percentage)

Sl. No.	Name of the State	Fractile Group (%)	WDH-Males			WDH-Females			WDH-Persons		
			engaged in industry (with division code)								
			'0'	'1-9'	'0-9'	'0'	'1-9'	'0-9'	'0'	'1-9'	'0-9'
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Bihar	00-30	106.7	115.9	108.2	85.4	57.7	81.0	100.8	100.0	100.7
		30-50	106.1	106.0	106.1	104.6	60.9	96.9	105.8	96.3	104.1
		00-100	105.1	111.0	106.3	86.9	63.6	82.9	100.9	101.8	101.0
2	Gujarat	00-30	68.1	260.5	97.0	66.5	650.0	106.6	67.5	335.1	100.5
		30-50	75.2	200.9	102.2	54.8	373.1	85.0	67.3	234.6	96.1
		00-100	73.8	191.6	99.2	58.9	366.7	85.8	68.5	220.3	94.8
3	Karnataka	00-30	104.1	96.2	102.8	96.5	90.0	95.5	101.4	94.1	100.3
		30-50	100.0	100.0	100.9	88.4	93.9	89.3	95.9	98.0	96.3
		00-100	97.8	104.7	99.2	89.4	104.9	92.0	95.0	104.8	96.9
4	Maharashtra	00-30	113.0	105.7	111.5	122.8	64.4	114.1	117.2	91.7	112.6
		30-50	104.9	108.1	105.6	109.7	79.5	105.9	107.0	100.0	105.7
		00-100	100.0	112.6	103.8	107.4	86.1	104.7	103.6	106.1	104.1
5	Orissa	00-30	103.0	100.0	102.5	101.8	72.7	94.6	102.6	89.4	110.0
		30-50	95.3	101.9	96.7	109.6	111.8	110.2	98.6	105.0	100.2
		00-100	98.6	112.0	101.9	96.6	104.5	98.8	98.1	109.9	101.1
6	Rajasthan	00-30	70.2	192.3	91.1	81.6	184.8	90.6	75.2	190.3	90.9
		30-50	70.6	170.6	90.5	81.7	187.1	90.8	75.4	174.3	90.6
		00-100	71.8	163.1	89.6	89.4	195.8	100.0	79.2	169.3	93.6
7	All-India	00-30	103.0	117.0	105.8	102.2	111.8	103.7	102.7	115.6	105.1
		30-50	99.5	113.9	102.7	100.6	125.0	104.6	99.8	116.4	103.3
		00-100	98.0	118.6	103.0	98.7	119.4	102.2	98.2	118.8	102.8

Note: Industry division code '0' refers to agricultural and allied activities. Division group code '1-9' refers to non-agricultural activities and group code '0-9' to agricultural as well as non-agricultural activities taken together.

Source : Tendulkar, Sundaram and Jain, op. cit.

though the decline in the latter was small. This is because not all regions suffered from drought in 1987-88. While it was very severe in some parts, cereal output actually increased in other parts such as Maharashtra and Bihar.[1]

Underlying the increase of non-agricultural work at the all India level is a much more striking picture at the level of individual states. Rajasthan and Gujarat, which were more severely affected by the drought experienced a sharp decline in the availability of agricultural work in 1987-88, which was about 80 per cent of that in 1983 in Rajasthan and about 70 per cent of that in 1983 in Gujarat for all fractile groups taken together. At the same time, there was a sharp increase in the availability of non-agricultural work, which was about 170 per cent of that in 1983 in Rajasthan and 220 per cent of that in 1983 in Gujarat. That this increase in availability of non-agricultural work was essentially in the nature of relief employment under the drought relief programmes discussed above is obvious from the fact that the increase in work availability is largely accounted for by the bottom 30 per cent and to an extent also the next 20 per cent. Thus the availability of non-agricultural work for the bottom 30 per cent increased by about 90 per cent in Rajasthan and by 235 per cent in Gujarat! Because of the very nature of the relief or anti-poverty employment programmes, it is only the desperately poor or distressed rural households who take advantage of such relief programmes. These programmes, therefore, are very well targeted because of their self-selective nature.

To check whether the increased availability of employment, particularly in non-agriculture, accounts for the favourable distribution changes in states like Gujarat and Rajasthan, the available work days per household in agriculture and non-agriculture have to be multiplied by the appropriate gender-sector specific casual labour wage rates to arrive at the implicit per capita wage income. These turn out to be almost 50 per cent higher than the observed average per capita total expenditure (APCTE) which implies that labour incomes from self-employment were lower than the casual wage rates. Two important conclusions follow. Increased availability of rural non-agricultural work does account adequately for the relatively small decrease in APCTE compared to the steep fall in cereal output in the relevant states as also the favourable distributional changes which account for the decrease in all dimensions of poverty at the all India level. The second and more troubling conclusion is that some self-employed rural households do not or cannot take advantage of the employment programmes even though their rewards from self-employment are evidently lower in a period of drought. Hence the difference between the imputed per capita wage income and the ACPTE.

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[1]It is more difficult to explain the marginal increase in availability of agricultural work in states like Orissa and Karnataka which also recorded a sharp fall in output in 1987-88 compared to 1983.

An explanation for this puzzle is provided by the distribution of labour-time of self-employed workers across different agricultural operations. Table 3.11 gives the relevant figures for Rajasthan as an illustrative example. It will be evident that over 25 per cent of male person days and about 19 per cent of female person days among the self-employed are allotted to operations at the outset or early stages of the agricultural season. This is pre-committed labour which obviously cannot be reallocated to other activities subsequently when the season unfolds and it turns out that the rains have failed. Another 13 per cent of male labour and 23 per cent of female labour is dedicated to animal husbandry. The stock has to be kept alive regardless of whether there is a drought or not, indeed the effort in tending to livestock, procuring fodder, water, etc. may require more effort during a drought.

Table 3.11

Distribution of Self-Employed Person Days for Males and Females Across Operations : Rajasthan 1983

Sl.No.	Operations	Males	Females
1	Ploughing, sowing, transplanting and weeding	25.7	18.6
2	Harvesting	15.2	18.6
3	Other crop production	28.1	31.1
4	Animal husbandary	12.9	22.7
5	All Agriculture (Div. '0')	88.7	96.4
6	Non-Agriculture (Div. '1-9')	11.3	3.6

Source : Tendulkar, Sundaram and Jain, op. cit.

Both forms of labour pre-commitment account for the fact that despite the significantly lower rewards from self-employment compared to mean wage income, the poorest 30 per cent depend on self-employment to finance between 32 to 58 per cent of their consumption. Under normal weather conditions this dependence may go up to between 44 and 78 per cent. The structure of poverty analysed earlier has shown that the self-employed are much less prone to poverty than labour households in rural areas. Nevertheless, they account for over 44 per cent of all rural households and about 38 per cent of all rural households below the poverty line. Thus any anti-poverty strategy for the rural population or protection strategy during droughts must recognise

the constraints which prevent the self-employed from taking advantage of relief employment programmes.

3.5 Poverty and Public Action

The foregoing analysis of the structure of poverty in India and variations in the different dimensions of poverty over time and space yield some very clear lessons with regard to the strategy of poverty alleviation and the role of public action. These are elaborated below.

Critical Importance of Agricultural Growth

Agricultural growth is found to have a strong positive impact on poverty alleviation both direct (via its effect on the incomes of the self-employed poor) as well as indirect via its impact on employment generation and the formation of real wages in agriculture (as discussed in the preceding chapter). Furthermore, growth of output, employment and real wages are all found to have a 'progressive' impact on poverty alleviation in the sense that their positive impact is strongest on the distributionally sensitive measures of the severity (FGT, SI) or depth (PGI) of poverty as compared to its prevalence (HCR). Therefore, policies which foster agricultural growth should form the core of a strategy for permanently eliminating or minimising the incidence of poverty.

This is not the place to explore issues of agricultural policy in any detail. However it is necessary to recognise that agriculture in India is essentially a private sector activity with public action confined to a supporting role of compensating for various market failures which occur because of the 'public good' nature of some goods and services, the presence of externalities, missing or incomplete markets, problems of coordination and so forth. This is the rationale underlying public investment in irrigation development, flood control, land development activities - as also the incomplete and aborted attempts at land reform and institutional development in the fifties. It is also the logic behind the catalytic role of government in initiating the green revolution through research and development efforts, dissemination of technology, distribution of seeds, fertilisers, credit, pesticides and weedicides, etc. Whether or not these particular forms of non-price interventions were optimal is not a question pursued here. However, the essential principle involved remains important, namely, that public action is needed to compensate for market failures, where these exist, to support private farms and farmers.

In the context of India today, it also needs to be recognised that the regional spread of agricultural growth is at least as important as the pace of agricultural growth. A large majority of the poor live in Central and Eastern Indian states. The analysis in the preceding chapter has shown that these are also the states where agricultural growth would be employment intensive.

Thus public investment in agriculture (particularly in irrigation development) in these regions would pay rich dividends in terms of agricultural growth, employment generation and poverty alleviation. On the other hand, while agricultural growth can perhaps be achieved by directing investment to other parts of India, the employment-generating and poverty alleviating effects of this growth would be much less substantial.

Relief Work Programme

The second lesson which emerges from the foregoing analysis is that it is not necessary to live with large scale social deprivation till such time when it is eliminated or minimised through the normal growth process. The experience of public action in the last decade in general and during the 1987-88 drought in particular shows very clearly how social deprivation can be substantially reduced through relief work programmes. These programmes, which are well targeted because the work involved operates as a self-selection mechanism, are best described as 'relief work programmes' rather than employment programmes to distinguish such work from normal productive employment. Relief work programmes operated in normal agricultural years such as the Jawahar Rozgar Yojna (see Box 3.3) have had a limited impact because they have been operated on a limited scale; even so they have played a role in generating the declining trend in poverty incidence in the eighties. As the 1987-88 experience of Gujarat and Rajasthan show, if they were operated on a sufficiently large scale and with due attention to the fluctuations in agricultural growth, they could substantially reduce social deprivation in the short run till the normal growth process obviates the need for such programmes in the long run.

This observation leads to two important conclusions. The first is that these programmes should be recognised as essentially relief programmes, with manual labour attached as a filtering device to ensure that the transfers are restricted only to the most needy. In particular, the creation of physical capital assets should not be seen as their primary purpose since that would make the programmes less oriented towards maximising the relief flow and would encourage excessive expenditure on capital equipment and administration as well as on employment of skilled labour. Furthermore, this may cause the programmes themselves to be endangered as they would be judged by wrong standards i.e. the creation of capital assets.

Obviously, if these programmes can be used to promote capital construction activities without thereby altering their basic character as relief programmes, then this should be done. The best way of achieving this, however, may be to entrust the responsibility for implementation of these programmes to local representative bodies such as the panchayats rather than to alter the

BOX 3.3

Jawahar Rozgar Yojna

A number of employment generation schemes had been initiated in India, specially since the mid-sixties, in order to help the poor raise their income levels through additional employment. Most of the initial schemes were tentative and limited in scope. At the end of the seventies, an attempt was made to rationalise these schemes into two comprehensive nation-wide schemes - the National Rural Employment Programme (NREP) and the Rural Landless Employment Guarantee Programme (RLEGP). The operation of these schemes left much to be desired; assets created were usually not economically productive, felt needs of the people were not reflected, funds did not go where they were most needed, the system of project approval was inefficient and time consuming, and the States tended to use the funds allocated for the programmes for other purposes. All this led to the replacement of NREP and RLEGP with a single scheme - the Jawahar Rozgar Yojna (JRY) - towards the end of the eighties.

The JRY, a nation-wide programme, is funded jointly by the Central (80 per cent) and State (20 per cent) Governments, Allocation of funds is based on a formula designed to ensure that distribution of funds corresponds to the distribution of the poor across regions. Part of the funds (less than 25 per cent) allocated to a State are earmarked for two sub-schemes of the JRY: Indira Awaas Yojna (IAY) - a scheme for building houses free of cost for the weaker sections (Scheduled castes and Tribes - SC and ST - and liberated bonded labour), and the Million Wells Scheme (MWS) for constructing dug wells free of cost for small and marginal farmers among the weaker sections. Of the remaining funds, 80 per cent goes to Village Panchayats and the balance to the district authorities.

The Village Panchayats are free to decide on the use of funds, except that 22.5 per cent must be devoted to works that directly benefit the weaker sections. Funds allocated to the district, however, must be spent in accordance with a given schedule, including an Individual Beneficiary Scheme for SC & ST. Significantly, 10 per cent of the funds are to be allocated for the maintenance of assets already created.

The choice of community assets to be built is not restricted. Assets that may be owned by a group of individuals can be included in the works if they result in a flow of income for the group. Land development in small and marginal farms is also permissible if the owners are in the poor category. So also are works for identified poor individuals among the weaker sections.

The responsibility for identifying and executing works rests at the district level with the District Rural Development Agency or the Zila Parishad (District Panchayat) and at the village level with the Village Panchayat. The latter is empowered to take up any project that has been technically appraised and approved by the Panchayat Samiti (Block Panchayat). To avoid deviation and malpractice, the Village Panchayat is required to prepare muster rolls in detail for labour employed and display these in a public place. For all works under JRY, the wage paid is the minimum wage as prescribed under the Minimum Wages Act. Two Kgs. of foodgrains at subsidised rate is also available to the workers.

contd..

Box 3.3 contd.

All works undertaken are included in the Annual Action Plan. Priority is required to be given to incomplete works from the previous Plan. At the village level, the Plan has to be discussed in the Village Panchayat and care has to be taken to ensure that top priority is given to works benefitting the weaker sections. The Village Panchayat must also report on the progress of work to the Gram Sabha (Village Assembly) at least twice a year.

Since its inception in April 1989, an average of 8 to 9 million mandays of employment have been annually created under JRY. An average of Rs.3270 crores were available to JRY in the first two years. In the next two years, implementation of macroeconomic stabilisation measures led to a substantial decline in the resources available to JRY. In 1993-94, however, there has been a substantial increase in Centre's allocation

It is evident that the panchayats are, in principle, substantially involved in implementing JRY. However, the panchayats have so far been ineffective and, consequently, government bureaucracies have played a dominant role in the implementation process. For this there were several reasons, most importantly the inherent weaknesses in the Panchayat system as provided for in the Constitution. Recently, the Government has been able to mobilise political support for bringing the Panchayat system centre stage and passed the Constitution (Seventy Second Amendment) Bill, 1991 thus removing the system's inherent shortcomings. The new Panchayat system should now provide the much needed non-bureaucratic institutional support to the poverty alleviation programmes and, with a more aware and conscientised rural population, the prospects for its success are perhaps brighter.

Source: Y.K. Alagh, "Institutional Framework for Implementation of Anti-Poverty Programmes", (mimeo) ILO-ARTEP, 1993.

objective of the programmes. Substantive efforts have already been made in this direction and such efforts should continue to be made.[1]

Secondly, the financial allocation to these programmes needs to be flexible; the size of the programmes has to expand in a bad crop-year and contract in a good crop-year. Such a flexibility already exists; there are regular programmes which are implemented nationwide every year and there are others which are implemented in areas affected by natural calamities some of the years. The optimal balance between these two types of programme, however, needs to be reviewed. In particular, the size of the regular programmes clearly needs to be increased.

If these work programmes are explicitly recognised as relief work programmes aimed at reducing social deprivation temporarily, then it is clear that they should not be undertaken at the

[1]For detailed discussions, see Y.K. Alagh, op. cit.

cost of other kinds of public action, such as investment in irrigation for instance, which promote agricultural growth and thereby alleviate poverty on a permanent basis. It is argued elsewhere in the report that it is both possible and desirable to combine public action for promoting growth, especially in agriculture, with public action for poverty alleviation in the short run without undue pressure on the government budget. This can be achieved by economising on wasteful expenditures elsewhere, particularly unintended or non-transparent subsidies to those not socially deprived. It should also be noted in this context that there are some forms of social expenditures such as primary education and primary health which simultaneously contributes to poverty alleviation in the short run and also in the long run by enhancing the growth potential of the rural economy.

Before leaving the topic, it is perhaps appropriate to comment on two particular problems encountered in implementing these programmes. The first is the problem of administrative costs. It is well-known that these costs tend to be rather large; probably no more than 50 per cent of the allocated funds is actually used to generate employment. Perhaps the best solution to this problem lies in transferring the responsibility for implementation to the panchayats. The second problem is that of targeting. The analysis in this report indicates that, in any given region, the programmes are fairly well-targeted because self-selection is at work. However, for the programmes to be well-targeted in a macro-sense, regional distribution of the funds would have to correspond to the regional distribution of poverty. This aspect has not been considered in this report though it certainly deserves to be analysed.

Programme for Self-Employment of the Rural Poor

A similar rationale applies to anti-poverty programmes like the Integrated Rural Development Programme (IRDP) which are intended to augment the asset base of the poor in a way which helps them cross the poverty line on a permanent basis (see Box 3.4). In that sense, the programme contributes to poverty alleviation both in the short run and in the long run.

The IRDP, as it stands, suffer from a number of weaknesses. An assessment[1] based on the average poverty gap, an assumed investment-income ratio of 2 and a leakage coefficient of 15 per cent indicates that the assistance given per family in various states was inadequate to help them cross the poverty line, except in Andhra Pradesh and Assam. If the ratio is assumed to be 2.5, then the assistance even in these two states turns out to have been inadequate. Furthermore, a review of IRDP assistance extended in 7 out of 17 states, which account for about 55 per cent of the poor, shows that IRDP assistance was extended to less than 50 per cent of poor

[1]For details, see Tendulkar, Sundaram and Jain, op. cit.

Box 3.4

Integrated Rural Development Programme

The Integrated Rural Development Programme (IRDP), launched in 1980, is intended to promote or to improve the economic viability of self-employment activities in poor rural households. Not distinguishing originally between the degree of poverty in the target group, the programme was subsequently changed to target the 'poorest of the poor' which, in reality, translated into a priority rating between categories of poor: destitutes, very very poor, and poor. Within this priority frame, emphasis is placed on certain groups: scheduled castes, scheduled tribes, women, liberated bonded labour and physically handicapped. It is now stipulated that in terms of numbers as well as resource flows, 50 per cent of the beneficiaries should be scheduled castes and scheduled tribes, 40 per cent women, and 3 per cent physically handicapped. To encourage women's cooperatives, an exception is made to include groups of women as beneficiaries if they have formed thrift and credit societies. In order to guard against bias, identification of beneficiaries is now done by Gram Sabhas (Village Assembly).

IRDP, as originally conceived, was to help raise the productivity level of household ventures by: (i) strengthening their asset base, (ii) upgrading their technology and skill levels and (iii) providing access to institutional credit, inputs and markets for output. In practice, little has been done in respect of (ii) or access to inputs and markets. The programme is essentially confined to providing assets and term credit at subsidised prices for ventures in agriculture, industry and services.

The rate of subsidy varies depending upon categories of beneficiaries subject to an overall ceiling : small farmers - 25 per cent of the project cost; marginal farmers, agricultural labourers and rural artisans 33.3 per cent; and scheduled castes, scheduled tribe - 50 per cent. Credit is arranged with commercial banks, cooperative banks and the Rural Regional Banks. Recently an additional dose of assistance has also become permissible where earlier beneficiaries have not been able to cross the poverty line for no fault of their own. Group insurance cover is also available at government cost to beneficiary households.

The implementing agency for IRDP is the District Rural Development Agency (DRDA) which is assisted at the village level by Block staff. The DRDA has a Governing Body which has elected politicians, representatives of scheduled castes and tribes and women, heads of district Development Department and Chairman of Zila Parishad (District Panchayat) as members. The State Level Coordination Committee (SLCC) monitors the implementation process. The Central Ministry of Rural Development lays down policy, provides overall guidance, monitors and evaluates the entire programme. It also shares half of the funding with state governments. People at the grass root level are involved only indirectly through the Governing Body at the district level.

contd....

Box 3.4 contd.

The number of beneficiaries continued to rise till it peaked in 1987-88 at 4.25 million. Thereafter, to avoid spreading limited resources too thinly, the number was progressively reduced to 2.54 million by 1991-92. Annual expenditure on the Programme (current prices) also rose sharply till 1987-88, after which it has stabilised between Rs.7600 million and Rs.8100 million. Because of the decline in the number of beneficiaries, the per household investment (subsidy and credit) has increased from Rs.3574 in 1985-86 to Rs.7141 in 1991-92.

There is an ongoing debate on the methodology of official evaluation of IRDP, but even so there is no gainsaying that IRDP has been a useful programme and has helped many poor households raise their income levels. Equally, there is no doubt that the Programme harbours inefficiencies and serious shortcomings. Among the major ones, on which there is broad agreement, are: First, the selection of beneficiaries even by Gram Sabhas is not free of bias on account of the annual income criterion for selection and the yardstick of crossing the poverty line as the measure of success. The bias works in favour of households closer to the poverty line and against the priority scheme of the Programme. In fact a significant number of households above the poverty line still get selected as beneficiaries. Second, subsidy and credit are distributed in kind (assets) and not in cash. The use of middlemen to purchase assets leads to leakage of funds (estimated at 15 per cent). This practice has been modified recently and 50 per cent of the beneficiaries are being given cash. There are also inefficiency related (excessive expenditure on administration) leakages and leakages due to corrupt practices. Third, besides negligible assistance in skill formation, access to inputs and markets, post-assistance support is exceedingly weak and hardly any infrastructural facilities are made available to the beneficiaries. Finally, the practice of mechanically handing over ready-made projects to beneficiaries, especially those with no earlier experience, has resulted in a significant proportion - a quarter - of the assets or ventures having generated no addition income.

Source: Tendulkar, Sundaram and Jain, op. cit and Alagh, op. cit.

households. At the All India level, assistance was extended, cumulatively, over the period 1983 to 1990, to 25,705 families as against a stock of 45, 598 poor families in 1983. There is evidence to suggest, moreover, that at least some of those assisted were not poor and that particular groups among the poor (such as scheduled castes/tribes and women) did not benefit from the programme as much as they were supposed to.

The conclusion follows that while the IRDP has clearly been an important anti-poverty programme, the assistance given per family and the number of families covered have not so far been adequate. There is also obviously much room for making the administration of the programme more efficient, the targeting tighter and so on. However, it is important to emphasise

that a programme of this type is essential in the total anti-poverty package in addition to the JRY. The latter, as explained earlier, does not always help self-employed agricultural households who account for almost 40 per cent of the rural poor.

Food Policy

Another important dimension of public action for reducing social deprivation relates to the intervention in the market for foodgrains through the procurement and public distribution system. In an economy where the poor are not indexed against price increases, inflation, particularly of cereal prices, has a major adverse effect on poverty in all its dimensions as the analysis reported earlier has shown. An important policy question arises here regarding the choice of an appropriate strategy for protecting the poor against inflation of food prices. One option is to pursue a targeted policy of subsidised food deliveries to the poor, with the government picking up the subsidy bill or some such variant of a targeting approach. An alternative approach is for the government or a para-statal organisation to engage in price stabilising market interventions.

Till recently, the procurement and public distribution system served principally to limit fluctuations in foodgrain prices (Box 3.5). In recent years, however, procurement prices have increasingly been used as incentive prices and have, therefore, started behaving as determinants of market prices. In parallel development, the objective of the public distribution system has been increasingly viewed as distribution of subsidised food to the poor. It is from this perspective that the system is criticised today. It is often pointed out, for example, that the public distribution system has a pronounced urban bias and that a large part of the subsidy actually flows to the non-poor.

But it is worth asking if the procurement and public distribution system should not continue to be used as an instrument for limiting fluctuations in foodgrains prices. Use of procurement prices as incentive prices can generate inflation. It also tends to increase the burden of subsidy. None of these problems would arise if procurement prices are viewed as minimum support prices. As far as the public distribution system is concerned, the targeting approach has a number of limitations. It is a moot question whether it is at all possible to target the public distribution system so that it effectively covers all the poor and only the poor. As observed in other spheres like primary education, successful targeting in the provision of a 'merit' good may itself lead to a deterioration of the whole operation since the poor beneficiaries lack the countervailing power to block abuse and corruption in the operation. Furthermore, if all the poor and only the poor were indeed effectively covered by the system, the scale of operations would have to be much larger than at present, leading to an enormous increase in the food subsidy bill.

BOX 3.5

The Public Distribution System

The public distribution system in India dates back to the Second World War and the Bengal Famine of 1943. The colonial government prepared a basic food plan to direct the flow of grain from surplus to deficit areas. After independence this framework of government control was retained during the shortage years of the fifties to keep the urban areas supplied with foodgrains, through imports when necessary, while at the same time preventing high spending urban centres from sucking an excessive supplies from rural hinterland for speculative reasons. Adequate food availability rather than poverty alleviation was the over-riding concern and the focus of public distribution was on urban centres.

In the late sixties, along with its catalytic role in promoting the Green Revolution, government also established the Food Corporation of India to undertake procurement operations at prices recommended by the simultaneously established Agricultural Prices Commission. The source of supplies for the PDS now shifted from imports to domestic procurement in what became an integrated structure of government operations in foodgrains. The objective now was to offer an assured market to farmers at remunerative prices, the procurement price effectively serving as a floor price, and at the same time to offer grain to consumers at controlled prices through the PDS. Targeted support for poverty alleviation was still not an explicit objective of the PDS.

With the shift from imports to internal procurement for supplying the PDS, availability was restricted to domestic output and imports ceased to be a significant source of domestic availability. Furthermore, the growing gap between high procurement prices paid to surplus farmers and low PDS prices for consumers led to a growing burden of food subsidy in the government budget in addition to the huge subsidies involved in below cost delivery of fertilisers, electricity, water, etc. These and other factors made it difficult to keep the budget deficit under control and monetisation of the deficit accelerated the growth of money supply. Thus the elimination of imports for augmenting domestic supplies, expanding food credit to the Food Corporation of India and a deficit driven expansion of money-supply reinforced each other in a process of rising inflation of food prices as well as of the general price level.

Source: Tendulkar, Sundaram and Jain, op. cit.

Finally, while the adverse impact on poverty incidence might be the most important effect of a rise in food prices, it is not the only adverse effect. As has been explained at some length in the chapter on employment, rising food prices can have a negative impact on employment growth via the increase in price of labour relative to capital and a possible squeeze on industrial profitability as a consequence of rising product wages, even if real wages do not rise.

In view of these problems, it is useful to consider an alternative approach which is directed not specifically at the poor but at maintaining stability of food prices in general, thereby benefitting

all consumers including the poor. In this approach, the relevant agency would intervene in the market by stocking up grain in years of surplus production and by releasing them in years of shortage so as to maintain food prices within a pre-determined band. The band itself could be adjusted from time to time in line with macro economic policy stance. Notice that typically the market intervention agency would be buying when prices are low and selling when prices are high. The spread between buying and selling rates, the lower and upper trigger prices of the band, can be so set as to cover the cost of stocking, transportation, waste, etc. Hence no large subsidy from the budget need be involved and the whole operation could be self-financing. This would allow protection of food entitlements and employment growth without undue fiscal pressures.

In principle, this type of market intervention could be effected through a modified procurement and public distribution system. Alternatively, the government could engage in open market operations. A modified procurement and public distribution system, may be costlier to operate but it would also have an added advantage; it can directly help the urban poor in times of rising prices. The modifications required are as follows. First, procurement prices should be conceived as minimum support prices and not as incentive prices. This would automatically ensure large procurement in good crop-years and little or no procurement in bad crop-years. Second, nothing but the staple foodgrains should be supplied through the public distribution system. This would make the system less attractive to the non-poor. Third, the price of the publicly distributed grains should be set at the upper limit of the band within which the government intends to contain price fluctuations. There will then be little or no demand for publicly distributed grains in good crop-years and much demand in bad crop-years. Finally, Third, the system should be confirmed to urban areas and the retail outlets, which need not be permanent, should be concentrated in poor or slum areas.

It should be pointed out that if external trade in foodgrains is liberalised, market intervention of any type would not be a feasible option. Domestic food prices would reflect world food prices and sales and purchases by the government would alter the volume of external trade rather than prices. One possible form of intervention would be to change export taxes and import duties but frequent changes in these may not be practicable. The other possibility would be imposition of temporary restrictions on external trade. For these reasons, and given the volatility of foodgrains prices in the world market, the question of liberalisation of trade in foodgrains deserves careful thinking. And this means that liberalisation of trade in non-food agricultural products should not be done in haste, for that will affect the allocation of land between foodgrains and non-foodgrains by altering the domestic relative prices.

Anti-Poverty Strategy in Urban Areas

The ingredients of an anti-poverty strategy discussed so far are largely concerned with the rural sector; only the food policy is meant to benefit both the rural and the urban poor. The focus on the rural sector is not inappropriate since the rural sector accounts for almost eighty per cent of the poor. Furthermore, at least a part of the problem of urban poverty is a spill-over of the rural problem. The poor from the rural hinterland migrate to urban centres in the hope of a better livelihood as much in India as in the rest of the developing world. To that extent, tackling the problem of rural poverty will automatically ease the problem of poverty in urban areas.

That, however, would do nothing to reduce the existing stock of the urban poor whose number exceeds 75 million in India today. Public action to tackle this problem cannot be postponed in the hope that tackling rural poverty will do away with problems of urban poverty in the future. Nor is it possible to take the view that urban poverty can be tackled in the same way as rural poverty. Urban poverty has specific characteristics of its own. It is useful to note that most industrialised countries continue to face very serious problems of urban poverty in ghettos and inner city areas even though problems of rural poverty have been by and large eliminated in these countries.

Anti-poverty policies in urban areas must recognise that the bulk of the urban poor are self-employed. Though the prevalence, depth and severity of poverty among casual wage workers in urban areas is very high, the casual wage workers as a group account for a relatively small proportion of the urban labour force. Hence urban relief work programmes are not likely to be very effective in alleviating urban poverty. The bulk of the urban poor, engaged as self-employed in various trades from hawking to shoe shining to push cart hiring to low skilled repairs need other forms of support. The best approach, consistent with incentive problems, is to emphasise expenditures on public goods or merit goods such as primary and preventive health care, potable water supply, sanitation and sewerage in shanty towns along with better roads, public transportation, primary education, etc. A special thrust is also necessary to augment supplies of a private good which is nevertheless a major source of social deprivation, i.e., shelter. These measures combined with a modified public distribution system, should constitute the basic elements of an urban anti-poverty programme.

One respect in which urban poverty is similar to rural poverty is that it bears a strong inverse relationship to per capita income. States which have a relatively high per capita income seem to have a relatively lower incidence of urban poverty. Hence, as in rural areas so also in urban areas, the long term strategy for permanently eliminating or minimising the incidence of urban poverty has to focus on higher income generation, i.e., on economic growth.

There is, finally, a difficult macro level incentive problem which has to be faced with regard to rural-urban migration of the poor. It was pointed out earlier that a part of the urban poverty problem is really a spillover of the rural problem. Socially deprived families or individuals in rural areas all over the world are induced to move to urban areas by the higher level of average private income plus the higher per capita availability of publicly provided goods and services. This makes the expected standard of living higher in urban areas even though the realised standards may fall short of expectations for many of those who migrate. This expectation of a higher standard of living would of course be raised further when urban poverty alleviation measures of the kind discussed above are undertaken. Potentially, this could increase the inducement to migrate, i.e., increase the spillover of the rural poverty problem and thereby aggravate rather than ameliorate the problem of urban poverty. In this context, it is important to note that the specific variable which acts as the incentive is not the expected urban standard of living itself but the difference between expectations in urban and rural areas. The greater the difference, the greater the incentive to migrate. Strategically the policy which is necessary to avoid this is to ensure that, in absolute terms, the expected standard of living for the poor in rural areas rises more than the expected standard of living for the corresponding population in urban areas per unit of time. When rural poverty is tackled simultaneously with urban poverty, the problem associated with rural-urban migration should not be unmanageable.

Anti-poverty Programmes for the Particularly Disadvantaged Groups

Analysis in this report has shown that households belonging to scheduled castes/tribes tend to be poorer than other households, that women tend to be poorer than men and that households with high dependency ratios tend to be poorer than the others. It should be clear from the foregoing discussion that some of the anti-poverty programmes do pay special attention to these particular groups. Thus, in the IRDP, priority is accorded to scheduled caste/tribe households, women and the poorest of the poor households in general which would include households with high dependency ratios. The programmes concerned with providing public or merit goods should also benefit the households with high dependency ratios more than the others.

Two further relevant points need to be added. First, anti-poverty programmes do not constitute an adequate response to the problems of the tribal people whose way of life and sources of livelihood are threatened by the development process itself. The government has been aware of these dimensions of the problem and have attempted to implement other special programmes, though with only limited success so far (see Box 3.6). Innovative ideas are clearly needed.

BOX 3.6

Taking Development to the Tribal Population

It was in the early seventies (Fifth Plan) that, for the first time, a serious effort was made to address the problem of development of tribal communities. Notably it was recognised that the protection of tribals against the exploitative behaviour of the outsiders had to be an important component of development strategy and that area development by itself could be counter-productive unless the people were also involved. All this called for a more precise targeting of area as well as people and also for a differentiated organisational structure for taking development to the tribals. With this change in approach, the development programme for the tribals was upgraded into a Tribal Sub-Plan (TSP) in the Five Year Plans.

The TSP distinguished three types of areas: (i) where the tribal population was in a majority, (ii) where there was a substantial tribal population or there were pockets where tribal population was concentrated, and (iii) where tribal population was dispersed. Areas of type (i) were deemed to need no separate sub-plan. For areas of type (ii) an Integrated Tribal Development Programme (ITDP) was worked out where there was substantial tribal population and a Modified Area Development Approach (MADA) was worked out where there were tribal pockets. For the areas of type (iii) special projects were designed. For a decade, tribal population covered under TSP increased, but excluded those living in areas of type (i). In the early eighties (Seventh Plan) TSP was extended to the entire tribal population.

Immediately, the introduction of TSP led to a several fold increase in Plan allocation for the development of tribal people. ITDP in the TSP strategy was the core instrument designed to coordinate the entire programme. In practice this did not happen. Expectations that ITDP would bridge the barrier between the tribals and the state bureaucracy did not materialise. The basic problem of making projects reflect felt needs remained unresolved. The emphasis continued on infrastructure and since much larger sums of money were now available, achieving expenditure targets became more important than the quality of service rendered.

There are numerous suggestions for amending the TSP strategy, strengthening ITDP and providing a more effective institutional framework for tribal development. Attention is also drawn to the need for a more rigorous implementation of laws enacted for the protection of tribals. But no emphasis seems to be laid on the transformation of tribal agriculture - their core productive activity - on the basis of a rational use of available natural and human resources, into a more productive and dynamic source of income. For the tribals to enter the mainstream, it is now clear that they must draw upon their own sources of strength (comparative advantage) to acquire the confidence to deal with markets, money, exploitative traders and bureaucracies.

Traditionally, tribal agriculture has consisted of shifting cultivation of seasonal crops, trees and husbandry of small animals. Decades ago the cycle of shifting cultivation was 18-20 years - long enough for natural regeneration of tree cover on the land left fallow

contd...

Box 3.6 contd.

before re-cultivation, and for providing timber as well as sufficient burn to fertilise the soil for yielding good crops. Produce from cultivation and non wood forest products were the basis of a self-sufficient food system. With continuing pressure of population on land, shifting cultivation cycle has shrunk considerably and will continue to shrink to the detriment of crop yields. Tribal agriculture has already ceased to be self-sufficient, while efforts to make it so by routinely applying the standard irrigation-seed-fertiliser formula have not been particularly successful.

To begin with it seems necessary to give up the emphasis on food self-sufficiency in favour of utilising available natural and human resources in the most productive way possible and of developing these resources for progressively higher levels of productivity. The terrain and soil characteristics of tribal areas, in general, are more suited for tree crops - timber and horticulture , fodder and pastures than for traditional foodgrains. People have affinity for trees as well as knowledge and experience of tree culture. Thus the problem of development can be seen as one of conversion of shifting cultivation of seasonal crops to permanent cultivation of perennial crops.

Source: Fernandes, et. al., op. cit.

Second, women's relative position among the poor is probably much worse than is shown to be the case in this report. Intra-household inequalities usually have unfavourable consequences for women. These inequalities, which are known to be substantial, are not reflected in the data used here. The reason that even these data show a higher level of poverty for women than for men is that female-headed households are poorer than other households and this essentially reflects the discrimination suffered by women in the labour market. Outside the organised sector, women's wages are much lower than men's. Attempts to remove this type of discrimination would obviously benefit women. The NSS surveys show that even in relief work programmes, women are paid a much lower wage than men. At least a beginning in ending labour market discrimination could be made if these programmes paid equal wages to men and women.

CHAPTER 4

Economic Reforms, Employment and Poverty

4.1 Growth and Imbalances in the Eighties

The eighties were a period of high growth in the Indian economy. Real GDP grew at an average rate of over 5.5 per cent. Though this was not as high as the rate of growth recorded in many countries of East and South East Asia, it was higher than the growth rates recorded during any earlier decade in India. Agricultural production, which now accounts for about a third of national output, grew at around 3.6 per cent during the decade while industry, with a weight of a little over 27 per cent, grew at almost 8 per cent. The services sector, where more than 40 per cent of GDP now originates, grew at about 6.3 per cent.

That the economy could slip into a severe foreign exchange crisis in 1990-91 despite this robust performance is not surprising once it is recognised that the high growth of the eighties was led by the growth of public expenditure on revenue account and increasingly financed by public borrowing. Given the state-led heavy-industries-based strategy of protected industrialisation which India has pursued since independence, it is not surprising that the share of the state in aggregate economic activity should have been rising throughout. However, the growth of government spending clearly accelerated during the eighties, rising in real terms from under 7 per cent in the decade prior to 1983 to almost 10 per cent in the period thereafter.[1]

The sharp increase in public expenditure was mainly on the current account. While the ratio of government expenditure (centre plus states) to GDP rose from about 27 per cent to over 33 per cent of GDP, the share of revenue expenditure in total expenditure, which had already risen from about 53 per cent in 1971-72 to about 63 per cent in 1980-81, rose further to over 70 per cent by the end of the eighties. Capital expenditure in government budgets is only an approximate measure of capital formation in the public sector is public investment is partly financed by the internal extra budgetary resources of public enterprises. However, given the low level of public sector surpluses, it is reasonable to infer that public sector investment in the eighties was being crowded out by the claims of current expenditure.

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[1]see S. Mundle and M. Govinda Rao, Issues in Fiscal Policy in B. Jalan (ed.) The Indian Economy : Problems and Prospects, Penguin (India), New Delhi, 1992.

Though the revenue : GDP ratio also rose during the eighties, it could not keep pace with the growth of public expenditure. Consequently the fiscal deficit (centre plus states) which was already around 9 per cent in 1980-81 rose to 12.4 per cent by 1990-91. The increasing resort to borrowing for financing not just capital expenditure but also revenue expenditure led to a number of major macro-economic consequences. Domestically the rising pre-emptive claim by government tended to crowd out private investment, both through pressure on interest rates as well as direct rationing in the capital market. Thus, while the pattern of public spending tended to crowd out public investment, the financing of this expenditure increasingly through borrowed funds tended to crowd out private investment. This was at a time when rising capital intensity required a rising investment rate to support a given growth rate of output. Thus, on the one hand, fiscal policy pump primed domestic demand while, on the other hand, it restrained the growth of production capacity.

Internally, this growing imbalance between domestic absorption and expansion of productive capacity resulted in a rising trend inflation rate. The expanding domestic stock of public debt only aggravated the problem by further raising the interest component of revenue expenditure. The spillover of domestic demand to the external sector was not matched by a commensurate growth of exports, given the anti-export bias of the trade policy regime, thus resulting in a rising deficit on the external account as well and the consequent growth of external debt. By the late eighties the external debt servicing ratio had risen to over 30 per cent. The concessional component of external borrowing, which has been traditionally very high in India, declined drastically. Direct foreign investment remained negligible and there was increasing reliance on short term debt for balance of payments support.[1]

It was when these precarious balance of payment conditions had emerged that India was hit by the third oil shock of 1990-91. By early 1991, the country's credit rating had been downgraded, commercial credit had dried up, foreign exchange reserves had been virtually exhausted and the country was close to defaulting on its external commitments. The external liquidity crisis was overcome through substantial assistance from the IMF, the World Bank, Asian Development Bank and other members of the Aid India Consortium.

The assistance however was extended on the understanding that India would introduce a programme of thorough going reforms, ranging from short term stabilisation measures to longer term structural adjustment measures intended to replace a dirigiste policy regime by one which is more market oriented and to shift the economy from an unsustainable public expenditure-led

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[1]S. Mundle and H. Mukhopadhay, India's Recent Experience in International Financing, paper presented at the Third ADB Seminar on International Finance, New Delhi, August 1993.

path of growth to an export-led path of growth. The first three years of the programme have been nearly completed. The short term stabilisation phase is more or less over. Various longer term structural adjustment measures have also been initiated in the external sector, financial sector, public sector as well as private industry and agriculture. However these reforms are still at an early stage.

The Government of India has repeatedly stressed that it would like to ensure, while undertaking reforms, that the burden of adjustment is not passed on to the poor and the disadvantaged. There is also a fairly strong consensus among the various multilateral agencies, aid disbursing countries and professional economists that adjustment can and should be undertaken without hurting vulnerable groups in the adjusting economy. This chapter attempts to assess the likely impact of the economic reforms on employment and poverty on the basis of analytical inferences drawn from an analysis of the experience of the eighties. It thereby helps identify possible extensions or modifications of the reform programme which may be necessary in order to ensure "adjustment with a human face".

4.2 The Reform Programme[1]

Industrial Policy Reform

Policy changes in the industrial sector have removed barriers to entry for new firms and limits on growth in the size of existing firms. Investment decisions are thus no longer dependent upon Government approval or constrained by State intervention. This reform has been implemented through industrial de-licensing and amendments in the law regulating monopolies. The Statement on Industrial Policy placed before Parliament in late-July 1991 abolished industrial licensing for all industries, except those specified, irrespective of levels of investment. The exceptions are few. These specified industries are either reserved for the public sector or subject to compulsory licensing because of security concerns, environmental or safety factors and social reasons such as the desire to limit elitist consumption. Subsequent relaxations extended de-licensing further so that the exceptions have become an even narrower set. In April 1993, the National Mineral Policy opened up the entire mining sector, except coal, oil and uranium, for private investment. At the same time, industrial de-licensing was extended to consumer durables including automobiles, entertainment electronics and white goods.

The limits on the growth of large domestic firms implicit in the Monopolies and Restrictive Trade Practices Act (MRTP) have also been removed. The intention was announced in the Statement on Industrial Policy in July 1991, while the amendments to the legislation were

[1]This discussion is based on D. Nayyar, "Economic Reforms in India", (mimeo) ILO-ARTEP, 1993.

subsequently introduced. The MRTP Act has been amended to remove the threshold limit of Rs.1 billion on the assets of MRTP companies, and to eliminate the need for prior approval from the Government for capacity expansion, capacity creation, amalgamation, mergers or takeovers on the part of MRTP companies. The concerns about concentration of economic power, which were the raison d'etre of the erstwhile MRTP Act, were thus given up. The amended Act is now supposed to be concerned with the regulation of monopolistic, restrictive or unfair trade practices, but it remains a watchdog without teeth.

Trade Policy Reform

The object of trade policy reform, implicit in the process which gathered momentum from July 1991, is to eliminate discretionary controls of international trade transactions, to reduce the nominal as also the effective protection available to domestic industry, and to bring domestic prices closer to world prices. In this context, it is important to distinguish between three dimensions of trade policy reform: a rapid dismantling of quantitative restrictions on imports and exports, a substantial reduction of taxes and subsidies on trade and adjustments in the exchange rate.

The process of dismantling quantitative restrictions on, or licensing of, imports and exports, which was initiated in the Statement of Trade Policy placed before Parliament in mid-August, 1991, culminated in the Export-Import Policy which was tabled in Parliament in end-March, 1992. Quantitative restrictions on most imports and exports, except for specified negative lists, were eliminated. These negative lists, much smaller than ever before, consisted of goods where imports or exports were prohibited, restricted through licensing (or some other means), or canalised (importable only through designated State trading organisations).

There has also been a substantial reduction in import duties over the past two years. The maximum duty rate was reduced to 150 per cent in the Union Budget for 1991-92, 110 per cent in the Union Budget for 1992-93 and 85 per cent in the Union Budget for 1993-94. The customs duties on imports of most capital goods were reduced to 80 per cent in July 1991, 55 per cent in February 1992, and 35 per cent in February 1993. The tariffs on project imports for sectors such as coal mining, petroleum refining and power generation were reduced even further and are now in the range of 20-25 per cent. While there has been a corresponding reduction in customs duties on components for such capital goods to 60-65 per cent in July 1991, 35-40 per cent in February 1992 and 25 per cent in February, 1993. Tariffs on imports of raw materials and manufactured intermediates have also been reduced by similar proportions. There has been some rationalisation in the structure of customs duties. For instance, the auxiliary duty has been removed and merged with the basic duty. Some end-use notifications for concessional duty rates have been removed.

Some of the multiple rates of customs duties have been rationalised and reduced to three or four slabs and, in this process of rationalisation, customs duties have been reduced by 20-30 percentage points.

The changes in the trade policy regime outlined above should be seen in the wider context of a series of exchange rate adjustments during the past two years. Between end-June, 1991 and end-June, 1993, for example, in nominal terms the rupee has depreciated by 50 per cent vis-a-vis the US dollar. It would be reasonable to presume that this exchange rate policy is premised on the hope that it would shift resources from the non-traded goods sector to the traded goods sector and bring domestic prices closer to world prices.

Foreign Investment and Foreign Technology

The process of economic reform seeks to increase the degree of openness of the economy to integrate it with the world economy. This endeavour is not confined to trade flows. It also extends to capital flows and technology flows. Thus, the policy regime for foreign investment and foreign technology has been liberalised. The main object is to enlarge non-debt creating capital flows through direct foreign investment, while access to technology and to markets appears as a subsidiary objective. This perception is shaped by the persistent concern about a the fragile balance-of-payments situation.

The liberalisation of the policy regime for direct foreign investment began with the Statement on Industrial Policy presented to the Parliament in July 1991. This announced three major decisions. First, direct foreign investment, with upto 51 per cent equity, would receive automatic approval in 34 selected high-priority industries, subject only to a registration procedure with the Reserve Bank of India. To begin with, this dispensation was available only for new investments and subject to a balancing of dividend payments by export earnings over a period of time. Subsequently, however, these conditions were relaxed. Existing companies already in India were allowed to raise foreign equity to 51 per cent with or without an expansion programme. Similarly, the stipulation about balancing dividend payments with export earnings was withdrawn except in the sphere of consumer goods. Second, the Government constituted a Foreign Investment Promotion Board to negotiate with large international firms and attract substantial inflows of direct foreign investment, which would also provide access to high technology and to world markets. The proposals submitted to. or solicited by, this Board, it was stated, are to be considered in totality, free from pre-determined parameters and procedures. Third, the government decided that foreign equity upto 51 per cent would be allowed for trading companies primarily engaged in export activities. This constituted a departure from the past because, direct foreign investment was simply not allowed in trading activities earlier.

The endeavour to create a comfortable and inviting ambience for direct foreign investment has continued. The Foreign Exchange Regulation Act has been amended to remove a number of constraints on foreign firms. The following restrictions on foreign firms in India have been explicitly removed: domestic borrowing, acquisition of interest in domestic firms (except for agricultural and plantation activities), establishment of places of business, acquisition and holding of immovable property, use of foreign brand names or trade marks in the domestic market, and employment of foreign national in India. To begin with, these changes in FERA were introduced through administrative notifications, but later, in March 1993, these changes were ratified through legislative amendments. At the same time, provisions of the Foreign Exchange Regulation Act have been amended and procedures of the Reserve Bank of India have been streamlined in an attempt to facilitate investment abroad by Indian companies in the hope that domestic firms would develop global linkages.

The liberalisation of the policy regime was extended further to portfolio investment in September 1992. Foreign institutional investors such as Pension Funds or Mutual Funds were allowed to invest in the domestic capital market, subject simply to registration with the Securities and Exchange Board of India. Guidelines issued by the Reserve Bank of India permitted such registered foreign institutional investors to hold upto 5 per cent of equity in an Indian firm with a limit on total foreign portfolio investment at 24 per cent of equity in an Indian firm, but these limits are not applicable to firms where there is foreign majority ownership in terms of equity. The income tax rate on dividends from such portfolio investment has been fixed at 20 per cent for foreign institutional investors, which is much lower than the corporate income tax rate for domestic or foreign firms. The tax rates on long-term capital gains and short-term capital gains on such portfolio investment have been reduced from 40 per cent to 10 per cent and 30 per cent respectively, once again lower than what is payable by resident tax payers. Last but not least, foreign institutional investors will be allowed to repatriate the principal, the capital gains, the dividends and any other receipt from the sale of such equity, without any restriction, at the market exchange rate. In effect, this extends convertibility on capital account to portfolio investment on generous terms for foreign institutional investors.

The policy regime for the acquisition of foreign technology by domestic firms was also liberalised through the Statement on Industrial Policy presented to Parliament in July 1991. Technological upgradation was perceived as essential for imparting economic dynamism and international competitiveness to Indian industry. The elaborate procedure for screening and approving imports of technology was dispensed with. It was decided that foreign technology agreements in the specified 34 priority industries would receive automatic approval, upto a lump sum payment of Rs.10 million, 5 per cent royalty for domestic sales and 8 per cent royalty for

exports, subject to total payments of 8 per cent of sales over a ten-year period from the date of agreement or seven years from commencement of production. The royalty rates prescribed were net of taxes. For industries other than the specified 34, such automatic permission was available only if the foreign technology agreement was not associated with any expenditure in foreign exchange. This stipulation, however, was relaxed with the introduction of the Liberalised Exchange Management System in March 1992. Thus, subject to the specified parameters, the import of technology was made easier for domestic firms in all industries.

Public Sector Reform

The process of economic reform in the public sector began with the Statement on Industrial Policy presented to Parliament in July 1991. The industries reserved for the public sector were reduced from 17 to 8. It was emphasised that the public sector should focus only on those sectors which are strategic and high-technology or constitute an integral part of the essential infrastructure. Subsequently, private sector participation was allowed even in some of the sectors reserved for the public sector. For example, mining and minerals were opened up for private investment. However so far there has been no systematic attempt to reform the public sector itself.

The centre-piece of public sector reform, as it has unfolded, is disinvestment of Government equity upto 20 per cent, subsequently extended to 49 per cent, in selected public sector enterprises. In the first instance, such Government shares were sold to mutual funds in the public sector. The pricing of these shares has posed a problem. The stated objective was to impart a commercial orientation to profitable enterprise in the public sector. However such disinvestment has also been driven, quite clearly, by the need to mobilise resources for the exchequer. The capital receipts from such asset sales have been absorbed in the Union Budget to reduce the borrowing needs, hence the fiscal deficit, of the Central Government. At the same time, non-plan budget support to the public sector, used mainly to finance losses, has been progressively reduced and is sought to be eliminated altogether by 1994-95.

Public enterprises which are chronically sick and are unlikely to be turned around would be referred to the Board of Industrial and Financial Reconstruction. This has been made possible through an amendment of the Sick Industrial Companies Act. The Board of Industrial and Financial Reconstruction would decide whether these units can be effectively reconstituted or whether they should be closed down. In case of closures, compensation and retraining for displaced workers would be provided through the National Renewal Fund, financed mostly by borrowing from multilateral financial institutions.

Unfortunately, the problems of efficiency and productivity in the public sector remain largely unaddressed. Some public sector enterprises may be allowed to form joint ventures and to raise equity from the capital market as a means of financing capacity expansion or capacity creation. This may save them from the consequences of a serious resource crunch in the Government. There is also a beginning of an attempt to introduce more flexibility in the system of administered prices, such as those for coal, steel and petroleum products. Such steps, however, are few and far between.

Financial Sector Reform

The objective of reforms in the financial sector is to improve the profitability of the commercial banking system and the functioning of the domestic capital market on the presumption that the discipline introduced by market forces would make both more efficient.

The prescriptions to improve the health of the commercial banking system are based on a diagnosis which runs as follows. (a) First, the high Statutory Liquidity Ratio and Cash Reserve Ratio stipulated by the Government, combined with the complex structure of differential interest rates eroded profitability. (b) Second, the lack of transparency in accounting practices and the absence of prudential norms undermined financial health. The process of reform has endeavoured to address these two sets of problems.

(a) The average Statutory Liquidity Ratio (the minimum percentage of deposits that banks must hold in Government securities) was reduced from 38.5 per cent to 37.75 per cent while the incremental 10 per cent Cash Reserve Ratio was eliminated in April 1992. A year later, in April 1993, the Reserve Bank of India cut the base Cash Reserve Ratio from 15 per cent to 14 per cent and announced that the Statutory Liquidity Ratio would be reduced further to 36.75 per cent. The busy season credit policy announced by the RBI on 11 October 1993 has reduced this further to 34.75 per cent. The stated objective is to reduce the Statutory Liquidity Ratio to 25 per cent over the next three years, so that resources made available in the form of bank deposits are not pre-empted by the Government but released for the private sector.

The Government has sought to rationalise and simplify the complex structure of differential interest rates largely through de-regulation. This process which began in 1991-92 culminated in 1992-93. Deposit rates are now de-regulated altogether subject to a ceiling rate. Lending rates have also been de-regulated with a floor rate for all advances above Rs.0.2 million and two concessional rates for priority sectors. In parallel, interest rates on long-period Government securities have been raised, by 1.25 percentage points in 1991-92 and another 1.5 percentage points in 1992-93, to levels which are closer to market rates. This would obviously reduce the burden on commercial banks that was implicit in pre-emptive market borrowing by the

Government. It will hopefully lead to the development of a secondary market in Government securities, which would make Government debt marketable, but it will also increase the burden of public debt on the exchequer.

(b) In April 1992, the Reserve Bank of India introduced new guidelines for income recognition, asset classification and provisioning requirements. It also adopted with some modification the risk-based capital adequacy framework of the Basle Committee. In accordance with this, all commercial banks should have attained an interim level of 4 per cent by March 1993, and must meet the 8 per cent standard for the capital-assets ratio by March 1996. These accounting practices and prudential norms are expected to conform to international standards. The implementation of these norms would obviously require large provisions for poor or doubtful assets in their portfolios, which would erode net worth and these banks would have to be re-capitalised in the form of a larger equity base. In the Union Budget for 1993-94, the Government has made a provision of Rs.57 billion for this re-capitalisation in the form of new Government bonds. In other words, the Government would borrow, creating a substantial interest burden, to recapitalise banks so that they can, in effect, write off bad loans.

Such a re-capitalisation of nationalised banks across-the-board would inevitably impose a substantial burden on the exchequer. Hence, some of the nationalised banks such as the State Bank of India, which have balance sheets that would be acceptable, would be allowed to enter the capital market and raise equity from the public. It is emphasised, however, that control would remain with the Government through a minimum equity of 51 per cent. Guidelines announced by the Reserve Bank of India in January 1993, suggest that existing private sector banks would be allowed to expand without fear of nationalisation. At the same time, new private sector banks would be allowed to set up in business, provided that such banks have a minimum capital of Rs.1 billion and comply with all the specified prudential norms, including the capital adequacy ratio of 8 per cent, from the outset.

The object of reforms in the capital market is to finance investments in the private sector, attract foreign portfolio capital and facilitate divestiture in the public sector. The first step was de-regulation of interest rates in the domestic capital market, as the Union Budget for 1991-92 announced a removal of the interest rate ceilings on bonds and debentures issued by companies. This was followed by a decision that private sector mutual funds would be allowed to operate in the capital market. The need for prior Government approval of the size and the price of equity issues in the primary capital market was also given up, as the Office of the Controller of Capital Issues was abolished in May 1992. The Securities and Exchange Board of India, which had been in existence as a non-statutory body since 1988, was endowed with statutory powers in 1992. It is believed that the capital market would be disciplined by market forces but SEBI rules and

regulations would govern the stock market, as also its intermediaries to improve trading practices, rules for disclosures and measures of investor protection.

Tax Reform

Reform of the system of direct and indirect taxes is an important component of the adjustment package. Changes in import tariffs and related measures have been described above in the context of trade policy reforms. However, changes in tariffs are only one part of a much wider programme of tax reforms which is being phased in gradually.

Based on the interim recommendations of the Chelliah Committee on Tax Reforms, personal income tax rates were lowered in the March 1992 budget, along with a reduction in the number of slabs. At the same time savings linked exemptions and exemption on interest income, mainly availed off by upper income groups, were pared down along with a tightening of other exemptions. The essential policy underlying these changes is a move towards a simpler and transparent tax system with reasonable rates, a broader base, few exemptions and strict enforcement. Numerous other measures in rationalisation and simplification of the tax system have also been introduced. The corporate tax rate is yet to be lowered, but meanwhile investment incentives have been significantly enhanced in the budget for 1993-94. Special concessional rates of taxation have also been made available for foreign institutional investors.

On the indirect taxes side, reference has already been made earlier to the reduction in customs duties. The Tax Reform Committee report suggests that the initial round will be followed by further reductions over the next few years to bring Indian rates in line with those prevailing in other comparable countries. Some rationalisation has also bee introduced in excise duty rates. However a major reform of excise duties is awaiting the completion of some ongoing exercises on the introduction of a Value Added Tax, its relationship with the existing state sales tax and so on.

4.3 Economic Reforms, Employment and Poverty

In assessing the effects of the reform programme on employment and poverty, it is useful to begin by discussing the effects of the short term macro economic stabilisation programme. The stabilisation phase is more or less over, as explained earlier, and it is possible to say something definite about its effects even though it will be some time before the relevant official statistics become available. The structural adjustment programme is still at early stages of implementation and an assessment of its impact inevitably has to be somewhat speculative.

The Effects of Stabilisation

Though the first formal stabilisation budget came only in July 1991, tentative measures for compressing expenditure, curbing imports, etc. had already been initiated during the financial year 1990-91. The country has thus entered the fourth year of stabilisation involving essentially aggregate demand compression. While currency devaluation did not lead to a spurt in exports until earlier this year, import growth was successfully contained at the cost of weakening industrial growth. This was compounded by the fairly drastic compression of central government expenditure during this period. Compared to 1989-90, the last pre-crisis budget, budgeted expenditure even for 1993-94 is only 40 per cent higher in nominal terms. But prices have meanwhile risen by at least 47 per cent, implying a decline in expenditure in real terms. The budget multiplier effect has therefore been very sharply contained, leading to a drastic curtailment in the growth of aggregate demand. This demand compression has been introduced in a context where agricultural outflow is inflexible within the year so that prices adjust to clear the market while in industry prices are largely administered on a cost plus mark up basis and output adjusts to clear the market. Hence even though food prices rose very sharply at first, demand compression combined with restraint in administered price increases in industry has now brought inflation down to single digit levels. But meanwhile industrial production has stagnated and aggregate growth has been very modest though not negative during this period.

What have been the effects of these developments on employment and poverty? Given the analysis in the two preceding chapters, the following conclusions seem warranted. Employment growth in agriculture is unlikely to have been affected much as, fortunately, the absence of drought has made possible a sequence of good harvests throughout the stabilisation period. Employment in the organised industrial sector may not have been affected very much, given the inflexibility of employment in a large segment of the sector, but it certainly has not grown since output has stagnated. Thus it is rural non-agricultural employment and urban informal employment which are most likely to have been adversely affected. As argued earlier, growing public expenditure was mainly responsible for rapid employment growth in the rural non-agricultural sector in the eighties. It is reasonable to suppose, therefore, that the fall in public expenditure (including that on anti-poverty programmes), associated with stabilisation, must have halted the growth, and may even have led to a decline, of employment in the sector. As for informal employment, the earlier analysis has suggested that its growth is linked to the pace of growth of the organised industrial sector. Thus the industrial recession, engendered by the stabilisation policies, must have halted the growth of informal employment.

Meanwhile, the labour force, of course, has continued to increase. The conclusion that both underemployment and open unemployment increased seems inescapable. Moreover, the

increase in underemployment would imply a fall in the real wage rate for casual labour in both rural and urban areas.

These labour market developments are, by themselves, sufficient reasons to expect an increase in the incidence of poverty in both rural and urban areas. But there is an additional factor which must have contributed to the growth of poverty in rural areas in particular. Food prices increased steeply, by over 45 per cent, in the three years between 1989-90 and 1992-93. The analysis in the preceding chapter has clearly suggested a strong positive relation between food prices and the incidence of rural poverty.

Stabilisation, therefore, has meant a few steps backwards as far as employment generation and poverty alleviation is concerned.

Medium Term Effects of Structural Adjustment

It is neither necessary nor possible to assess separately the effects on employment and poverty of each major component of the structural adjustment programme reviewed earlier. The impact of any one component will be contingent on the impact of other components of the programme, not to mention other factors which influence the performance of the economy. What matters is the net effect of the package and it is possible to form some broad judgements regarding this on the assumption that no major shocks will destabilise the economy.

Taken as a whole the structural adjustment programme is intended to replace a dirigiste policy regime with one where the allocation of resources will depend much more on market forces, discretionary direct controls being gradually replaced by non-discretionary fiscal and financial instruments. The economy is expected to be much more export-oriented and open in future, with domestic relative prices closer to international prices and a freer flow of commodities, technology and capital. The role of the public sector is likely to be curtailed, and confined primarily to social programmes and infra-structure. It is expected that these 'supply side' adjustments will make the economy much more cost efficient, reflect its true comparative advantages, integrate it better with the world economy and position it for high growth led by exports.

Growth prospects, nevertheless, remain difficult to predict. The expansionary macroeconomic policies of the eighties cannot obviously be reintroduced. Growth, therefore, will be critically dependent on the behaviour of two variables : exports and inflow of foreign direct investment. And the behaviour of both these variables depends not only on domestic policies but also on developments in the international economy and as such is inherently unpredictable.

However, analysis cannot proceed without some assumption about growth prospects in the immediate future. The most optimistic assumption, therefore, is made here, namely, that growth will be revived in the immediate future to the level achieved during the eighties.

Even on this assumption, the conclusion must be that employment in the organised industrial sector will tend to stagnate in the medium term. It will be recalled that the employment elasticity in the organised sector is very low and it has been declining. This trend may be arrested or reversed if relative factor prices give a better reflection of relative factor scarcities. It is likely that financial sector reforms will eventually reduce the element of 'financial repression'. However, this may or may not lead to a lowering of the relative price of labour. That will depend on what happens to wage rates. This in turn will depend on labour market reform as also on food policy.

But let us suppose that all of these factors will work towards a reduction of the cost of labour relative to capital and hence an increase in employment elasticity. Two other positive factors can also be counted. Growth of export-orientation may increase employment elasticity since exports tend to be more labour intensive than import substitutes. This increased employment elasticity, together with revived industrial growth, will have the potential for stimulating employment growth. However, at the same time, there will be factors which will have negative effects on employment growth. Restructuring of sick industries will lead to a fairly large number of job redundancies. Both competition from imports and inflow of foreign direct investment will encourage modernisation of technologies. The net effect of all these developments is uncertain but is likely to be a negligible growth of employment.

However, if industrial growth is revived, urban informal employment should grow rapidly; at least this is what is suggested by the analysis of the eighties' experience. Whether or not this results in a reduction of urban underemployment and a rise in the real wage rate for casual labour in urban areas depends on what happens to labour force growth. This, in urban areas, will depend not only on the overall rate of growth of the labour force but also on the rural-to-urban migration process which in turn will depend on employment generation and poverty alleviation process in rural areas.

There are reasons to believe that labour force growth will accelerate. Although the process of withdrawal of children and young persons from the labour force may well continue, the share of the working age cohort in total population will also increase. The labour force participation rate for women, quite low in the past, is also likely to go up. If the pace of rural-to-urban migration accelerates in this context, the growth of the urban labour force will accelerate very substantially.

This perspective brings out the criticality of policies towards the rural sector - policies which receive scant attention in the reform programme. Public expenditure (including that on anti-poverty programmes) in rural areas was reduced as part of the stabilisation package, agriculture's share in public investment has been declining for almost a decade and only half-hearted efforts have been made to cut subsidies on agricultural inputs. If these policies continue, rural employment conditions are most likely to deteriorate and that will mean an acceleration in the

pace of rural-to-urban migration. This in turn may lead to a deterioration, or at any rate will prevent improvement, in urban employment conditions. Thus a revival of economic growth will not be enough to improve or even to prevent deterioration of employment conditions if rural employment is ignored.

The employment and poverty alleviating impact of agricultural growth will depend on a restructuring of public expenditure in agriculture. Subsidisation of agricultural inputs leads to agricultural growth at the intensive margin, primarily in the traditional green revolution belt. The analysis in this report shows that this type of growth has little direct effect on agricultural employment and rural poverty. On the other hand, public investment in irrigation and land development, particularly in Central and Eastern Indian states, has the potential of increasing employment elasticity in agriculture. This kind of growth will also have the greatest poverty-alleviating impact as a large majority of the rural poor live in these states.

The eighties' experience shows that growth of rural non-agricultural employment is intimately linked to the level of public action in rural areas, not just in the form of anti-poverty programmes but also in the form of development of infrastructure and various social and economic services including primary education and health care, civil administration, etc. Here too a question of restructuring public expenditure arises.

What this discussion shows is that the evolution of employment conditions in the medium term will depend not only on factors (relating to behaviour of exports and foreign direct investment) which are beyond the control of the government but also on policies as yet unmade. A clear vision is needed here. The organised industrial sector cannot be expected to generate much employment in the medium term even in the best of circumstances. Growth of urban informal employment will be contingent on a revival of industrial growth which, therefore, also depends on factors the government cannot fully control. Under the circumstances, much attention needs to be paid to rural employment, the policies for which are yet to form major elements of the reform package.

Poverty alleviation essentially requires reduction of underemployment, not only through the growth process but also through the implementation of anti-poverty programmes. The foregoing discussion, therefore, already sketches out the possibilities of poverty alleviation in the medium term. But poverty alleviation also calls for attention to an additional area - that of food security. As discussed in chapter 3, there are important policy decisions relating to trade in agricultural products and price stabilising interventions by the government which are yet to be made.

To sum up, if adjustment is to acquire a human face, a good deal of attention needs to be paid to employment generation and poverty alleviation during the adjustment period. Early

revival of growth is undoubtedly of critical importance, but it cannot be assumed that this will be sufficient to take care of the problems of employment and poverty during the adjustment period. On the other hand, the analysis in this report shows that there are policies which, if incorporated into the reform package, can at least minimise social costs of adjustment even if growth remains sluggish for a while. And these policies certainly do not frustrate efforts to revive growth.

CHAPTER 5

Policies for Employment Generation and Poverty Alleviation

India's development experience in the 1980s holds important lessons for policy-makers. Expansionary macro-economic policies together with specific interventions succeeded in improving employment conditions and in reducing poverty. A reasonably high rate of growth of the economy provided the necessary conditions while direct employment generation and anti-poverty programmes provided the sufficient conditions for these desirable changes to materialise. The overall employment conditions improved even though the employment-generating capacity of organised industries declined quite drastically; underemployment declined in both urban and rural areas even though there was growing informalisation and casualisation of employment. Increased public expenditure in rural areas, including that on anti-poverty programmes, generated substantial amounts of non-agricultural employment, both regular and casual. The reasons for the improvement in employment conditions of urban informal workers are less well-understood, but a sensible hypothesis is that the generally high rate of growth of the urban economy together with the significant growth of incomes in the organised sector created favourable demand conditions for informal sector workers. The fact that regular wage employment in informal enterprises grew rapidly also indicates growth of activities in which informal enterprises, with flexibility of employment and low wages, have inherent advantages over enterprises in the organised sector. These trends implied a tightening of labour markets in both rural and urban areas and there was a substantial rise in the real wage rate for casual labour (and, by implication, in real income from self-employment). The incidence of poverty declined as a result.

The expansionary macroeconomic policies, however, proved unsustainable. Domestically, the rate of growth of food supply could not keep pace with demand; the terms of trade moved in favour of agriculture and the rate of inflation rose to unacceptable levels. The high rate of industrial growth required a high rate of growth of imports; as there was no matching growth of exports, the trade deficit reached unsustainable levels and India was fast becoming a highly indebted country. These developments forced the government to adopt stabilisation measures involving a squeeze on aggregate demand. The effects of these measures are not directly observable since the relevant data are not available as yet. The analysis in this report, however, leaves little room for doubting that the trends observed in the 1980s have been reversed.

The government has also been implementing structural adjustment policies designed to alter some basic features of the economy. The process of implementation of these policies is as yet incomplete. But the measures already implemented have so far failed to revive growth to an acceptable level. Since fiscal stimulation of aggregate demand has to be ruled out, revival of growth depends on the behaviour of two critical variables : exports and foreign direct investment. There are considerable uncertainties as to how these two variables will behave in the medium term.

A revival of growth obviously is a necessary condition for renewing the process of employment generation. In this sense, macroeconomic policies (i.e., policies relating to management of aggregate demand) are the primary determinants of employment growth. This indeed is the central message that emerges from the analysis of the experience of the eighties. It is also important to realise, however, that a mere revival of growth will not be enough. The challenge will be bigger in the nineties than it was in the eighties. Labour force growth, which slowed down in the eighties, is likely to accelerate in the nineties; while the process of withdrawal of children and young persons from the labour force may continue, the share of working-age population in total population will rise and the labour force participation rate for women is also likely to rise. On the other hand, the prognosis of this report is that organised industries cannot generate much employment in the medium term even if growth is revived. Employment, therefore, will have to be generated essentially in the unorganised sectors. Employment growth in these sectors is particularly contingent on government intervention policies. The focus of these policies will need to be on reducing underemployment. This, fortunately, is also important for reducing poverty.

Given this perspective and given the analysis presented in this report, the following areas can be identified as deserving special attention in the immediate future:

Food Policy

Stability of agriculture-industry terms of trade is of much importance in India for both employment generation and poverty alleviation. A shift in terms of trade in favour of agriculture increases the product-wage in industry and hence encourages growth of capital intensity thereby reducing employment elasticity. Such a shift also tends to increase poverty. A shift in terms of trade in favour of industry, on the other hand, hinders the growth of the domestic market for industrial products, thereby affecting growth of industrial employment.

In the past, low rates of inflation were associated with a shift of terms of trade in favour of industry and high rates of inflation were associated with a shift in favour of agriculture. All this

will change as the economy is opened up. In an open economy context, movements in the domestic terms of trade will tend to reflect the movements in international markets.

Food prices (as agricultural prices generally) tend to be much more volatile than other prices in international markets and this will pose a particular problem for India. Government intervention in the food market for containing price fluctuations within narrow limits will, therefore, remain important. On the other hand, in an open economy context, instruments of effective intervention will be scarce. All this argues against a wholesale liberalisation of trade in agricultural products.

A related point is that the procurement-public distribution system, as it has operated since the mid-sixties, is much criticised today for not being specifically targeted on the poor. While the criticism is valid, it is doubtful if it is at all feasible to operate a public distribution system targeted only on the poor. Studies have shown that the system has mainly served to reduce fluctuations in food prices and hence in agriculture-industry terms of trade and that this helps reduce poverty mainly by making the anti-poverty programmes effective. This report argues that reducing price fluctuations should continue to be seen as the central objective of government intervention in the food market. Operating a procurement-public distribution system as a nation-wide anti-poverty programme would involve large budgetary burdens as well as enormous administrative difficulties.

If this view is accepted, it must also be accepted that there are alternatives to the procurement-public distribution system. The government could, for example, engage in open market operations with the objective of containing fluctuations in the prices of basic foodgrains within narrow limits. The choice between these two options would have to be made on the basis of considerations relating to budgetary burdens on the one hand and effectiveness on the other. However, a modified public distribution system can be used as an anti-poverty programme in urban ares and this is an argument in favour of retaining the system.

The policy conclusions which follow are :

- For stabilising agriculture-industry terms of trade, it is important to contain fluctuations in foodgrains prices within narrow limits. A stable macro-economic policy regime is a necessary but not a sufficient condition for this.
- The procurement-public distribution should be viewed primarily as an instrument of price stabilisation and not as an anti-poverty programme.
- An alternative to the procurement-public distribution system is open market operation by the government.

- The procurement-public distribution system, suitably modified, may have an advantage in that it can be used to help the urban poor directly. The modifications required are as follows :
  - (i) the procurement prices should be the minimum support prices and not incentive prices;
  - (ii) the sale price should be set at the upper limit of the band within which the government intends to contain price fluctuations;
  - (iii) only the staple foodgrains should be channelled through the public distribution system which should be confined to urban areas;
  - (iv) the retail outlets, which need not be permanent, should be concentrated in poor localities of urban areas.
- Neither the procurement-public distribution system nor open market operations can be effective as instruments of price stabilisation if external trade in agricultural products is liberalised. If quantitative trade restrictions are regarded as undesirable and are replaced by tariffs, then tariff rates will have to be treated as instruments of price control. Two particular problems must be anticipated. First, tariff rates will have to be so designed as to leave the relative prices of foodgrains vis-a-vis non-foodgrains unchanged. Second, frequent alterations in tariff rates will be required to counter the effects of fluctuations in domestic food output.

Policies Towards Agriculture

The analysis in this report has shown that agricultural growth both generates employment and reduces poverty. It has also shown that growth at the extensive margin (e.g. that resulting from an extension of the gross cropped area made possible by irrigation development) is much more helpful than growth at the intensive margin (e.g. that resulting from increased application of fertilisers on the same gross cropped area).

Given that employment generation in unorganised sectors will be of critical importance and that agriculture is the largest unorganised sector, the focus of policies should obviously be on promoting agricultural growth at the extensive margin. This calls for increased public investment in irrigation development, particularly in Central and Eastern India where there is large untapped potential. Such a strategy would increase the employment elasticity in agriculture. It would also have a large poverty-reducing effect since the region accounts for a large proportion of the rural poor. Finally, the strategy has the potential of expanding food supply in the country at a rapid rate - an obviously desirable outcome.

To sum up the broad policy conclusions :

- Public investment will need to be reallocated in favour of agriculture.
- Emphasis should shift from subsidisation of agricultural inputs to investment in irrigation and land development.
- Concentrating public investment in Central and Eastern Indian states will yield maximum benefits in terms of employment generation and poverty alleviation.

Policies Relating to Organised Industries

The organised industrial sector faces two major problems at present : the existence of sick industries and the low and declining employment elasticity. Restructuring of sick industries, which has become necessary because they constitute a drain on investible resources, threatens to create a new group of "unemployed and poor". To prevent this, a National Renewal Fund has been established. However, issues relating to appropriate method of restructuring and proper use of the National Renewal Fund are still being debated. Unfortunately, it has not been possible to discuss these issues in this report. All that can be said here is that the problem requires intelligent and sensitive handling.

There is a tendency to view the problem of industrial sickness as being somehow linked to the existence of employment security regulations. The analysis in this report shows that the employment security regulations are not responsible for industrial sickness. Nor do they constitute real obstacles to restructuring of sick enterprises since the government has the power to retrench labour or close down enterprises. The real reasons for sickness lie in unsound financial structure of enterprises and, in the case of public enterprises, in inappropriate labour recruitment practices which led to substantial overmanning. Prevention of sickness requires reforms in these areas.

The declining employment elasticity in organised industries is attributable both to macroeconomic policies (causing a shift in agriculture-industry terms of trade) and to labour market behaviour (leading to an inappropriately high rate of growth of real wages). Adoption of policy measures to stabilise agriculture-industry terms of trade, as discussed above, will solve part of the problem. But labour market reforms will also be necessary. The fact that real wage growth has been the problem area suggests that the focus has to be on wage formation rules and the nature of industrial relations. The employment security regulations, if they have at all affected employment elasticity, have done so by influencing real wage growth. This again points to industrial relations as the problem area.

The employment security regulations, by themselves, do not seem to pose serious problems. If wages are flexible, employment security is compatible with flexibility of labour cost; there are also possibilities of adjusting overtime and other non-wage benefits. Rigidities associated

with employment security are really generated by the wage formation rules and antagonistic labour-management relations. Similarly, if recruitment practices do not lead to overmanning, the need for workforce adjustment through retrenchment will be minimal except perhaps in sunset industries. It is important to remember the positive aspects of employment security; a high rate of labour turnover is not in anybody's interest since it prevents skill formation and development of enterprise-loyalty among workers. Perhaps the real problem lies in the requirement of government permission for retrenchment or closure which tends to turn legal matters into political issues. It would be appropriate to take steps to ensure that implementation of the regulations is left to judicial rather than political authorities.

The following conclusions can be deduced from this perspective:

- Reform of the employment security regulations is neither necessary nor sufficient for preventing industrial sickness. Attention should instead be focussed on reforming financial markets and labour recruitment practices in public enterprises.
- Restructuring of sick enterprises and the use of National Renewal Fund require careful and sensitive handling. Further investigative work on the issues involved is necessary.
- As far as labour market reforms are concerned, attention should be focussed on reforming the wage-formation rules and the structure of industrial relations.
- Steps should be taken to ensure that implementation of the employment security regulations is left to judicial authorities.

Anti-poverty Programmes in Rural Areas

The analysis in this report shows that, in spite of their weaknesses, the rural anti-poverty programmes (JRY, IRDP and special relief programmes) played an important role in reducing both underemployment and poverty. It also shows, however, that the scales of the regular programmes (JRY and IRDP) were too small and there is a strong case for increasing budgetary allocations to them. The programmes are generally well-targeted but the administrative costs involved in their implementation tend to be high. It is to be hoped that the growing involvement of the Panchayat Raj institutions in the implementation of the programmes will help reduce these costs.

Recently, there has been much talk of using JRY for creation of productive assets in rural areas. This report argues that poverty alleviation, and not asset creation, should remain the primary objective of JRY. This does not mean that asset creation should not be attempted to all but it does mean that asset creation should be seen as an incidental benefit of the programmes. Setting asset creation as an objective of the programme will inevitably reduce the poverty-alleviating impact of the programme because the share of unskilled labour in total expenditure will

decline and the effectiveness of the programme will tend to be judged by its asset-creating capabilities.

Apart from these general considerations, two particular problems requires special attention. First, measures to remove labour market discrimination suffered by women are needed to address the special problems of female-headed households. Second, the ongoing process of impoverishment of the tribal population needs to be arrested in order to make the Tribal Sub-Plan effective.

The major policy conclusions are as follows :

- The scales of the regular anti-poverty programmes need to be increased substantially.
- There is a need to reduce the administrative costs associated with implementation of these programmes. Growing involvement of the Panchayati Raj institutions may help reduce administrative costs. Involvement of appropriate NGOs may also be considered.
- The past pattern of regional distribution of funds should be reviewed so as to ensure better targeting of the programmes.
- Measures should be taken to ensure that male and female workers are paid equal wages under the JRY.
- Asset creation should be seen as an incidental benefit rather than as a major objective of the anti-poverty programmes. Adequate involvement of the Panchayati Raj institutions in the implementation process may help to make asset creation and poverty alleviation compatible objectives.
- In order to increase the effectiveness of the Tribal Sub-Plan, three types of measures are necessary. First, commercial exploitation of forest resources needs to be regulated so as to prevent deforestation and further decline of the access of the tribal population to forest resources. Second, adequate attention needs to be paid to rehabilitation of the displaced. Third, agricultural development in tribal areas should be viewed primarily as a problem of shifting from seasonal crops to perennial crops.
- Increasing public expenditure for expanding primary education and health care facilities in rural areas will have two important effects. It will help improve employment conditions and hence reduce poverty in the short run. In the long run, to the extent that the children of the poor get access to these facilities, they will accumulate human capital. This will fundamentally alter the present situation where poverty tends to be hereditary.

Anti-poverty Programmes in Urban Areas

It is harder to design anti-poverty programmes for the urban poor. Since they are mostly self-employed, special employment schemes are unlikely to be very effective. Programmes for small enterprise development may help only if the urban economy as a whole is growing rapidly. Indeed, the experience of the eighties seems to show that when the urban economy grows rapidly, small enterprises develop on their own. Under the circumstances, policies for reviving industrial growth must be regarded as the major anti-poverty programme for urban areas. Additionally, a three-pronged approach should be considered.

- Public expenditure on the provision of public goods (primary education and health care, potable water supply, sanitation and sewerage, etc.) in shanty towns can be increased.
- Efforts should be made to protect food entitlements of the urban poor in bad crop-years through a revamped public distribution system as suggested above.
- Efforts should be made to develop an insurance system for the urban poor to protect them against loss of assets including labour-power.