INTRODUCTION
Introduction

Growth of the Indian economy in the last two decades has attracted the attention of both academicians as well as policymakers, not only in India but also internationally. Much of this is not an exaggeration, if growth performance of Indian economy is taken into account in the last two decades. The initial three decades of independent Indian economic growth (1950-80) were characterised by a low growth of output per capita at a modest 1.7% per annum with growth rate of output at around 3.6% per annum often referred to as the ‘Hindu’ rate of growth. Compared to this, the last two decades (1980-2000) had output growing at a rate of 5.66% per annum with per capita income growing at 3.8% per annum. This kind of high growth rate of the economy in the last two decades was surpassed only by China and some of the East Asian countries but more importantly the growth achieved by India was more stable and sustained even compared to China and the East Asian countries. Unfortunately, the euphoria on this count which was shared by most mainstream economists and policymakers was not convincing enough for the common masses of the country. The previous NDA government which sought to ride piggyback on this euphoria through their “India Shining” campaign lost the elections.

The reason for the unexpected behaviour of the electorate was not far from obvious. While the electorate managed to see through the smokescreen of the aggregate picture, it was not easily seen by most of the commentators on Indian economy. And this was the fact that behind the high growth rate of economy at levels not seen in the first three decades was also the reality that perhaps for the first time since Independence, the distribution of this growth of aggregate output was not so equal. This highly unequal nature of income distribution in the last decade was omnipresent in all spheres of the economy, be it, across rural and urban areas, across formal and informal sectors, across employment categories, across fractile groups, across household types, across states and even within states across regions. The message was clear that apart from high growth rate of output, what also mattered was the way the growth of output was distributed among the various sections of population.

While emphasising the limitation of growth alone without a redistributive component strategy with excessive reliance on ‘trickle down’ mechanism, it also called for a more detailed and disaggregated analysis of the pattern of growth generated in the economy and its distribution across various sections. Moreover, it also exposed the analytical limitation of looking at only the aggregate picture to understand the process of income generation and distribution in a large and heterogeneous country such as India. This heterogeneity was

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1 Apart from a number of academic papers which have repeatedly stressed India along with China as the new economic powerhouses, a number of international financial institutions such as Goldman Sachs, Moody’s, Standard and Poor have also projected these two as the emerging giants in World Economy.
2 The term was given by late Prof. Raj Krishna of Delhi School of Economics
3 GDP growth rate figures are based on Bhattacharya and Subhathivel (2004)
4 See Rodrik and Subramaniam (2004a, 2004b)
further magnified by the historical and institutional structures, natural factors such as weather, soil and resource availability and above all the different growth trajectories followed by the various state governments within the federal framework of our polity. However, an analytical exercise of this nature which takes into account all the factors at the level of the economy, although desirable, is beyond the scope of individual researchers. Such an exercise which extends the scope of such enquiry at further levels of disaggregation beyond the state boundaries such as districts and regions is also constrained by the availability of data at a fairly disaggregated level beyond the state boundaries for most of the variables. Nonetheless, this thesis is an attempt to undertake such an exercise at a limited scale for rural areas for the last two decades, which is 1980 to 2000. The primary motive for this choice was the fact that, even after half a century of Independence, India is still predominantly a rural economy. By the last census of 2001, more than 70% of country’s population resided in rural areas. Despite the declining share of the contribution of rural areas in the national income, rural areas are a good testing ground for some of the issues mentioned earlier. However, the limitations mentioned earlier regarding the availability of relevant variables is applicable to rural areas also. Nonetheless, given the dominant position of rural areas in the national economy such an exercise is worth attempting. But before outlining the basic propositions of the thesis, it is important to contextualise them in the background of some of the macro events in the last two decades.

India embarked on the process of economic liberalisation covertly since the 80s and more overtly in the 90s. As in other developing countries this policy in India has involved apart from fiscal compression, actual decline in central government revenue expenditure on rural development including withdrawal of rural employment and anti-poverty programmes. It also includes decline in public infrastructural and energy investments in rural areas, reduced transfers to state governments which have been facing a major financial crunch; financial liberalisation measures which have effectively reduced the availability of credit, especially to small borrowers particularly in the rural areas and also the reduced spread and rising prices of the PDS for food coupled with withdrawal of other subsidies. But even after a decade of reforms, much of the debate about the economic liberalisation and structural adjustment has been concerned with the level of fiscal deficit, privatisation, foreign reserves, foreign investment etc. The level and sectoral composition of income, employment and output which provides broad indicators of the structural changes taking place in the economy have been pushed aside to the status of secondary issues.

Proponents of economic reforms had argued that the reforms would lead the economy on a higher growth path and its effects will ‘trickle down’ to the poorer sections also, thus taking care of the distributional aspect of the reform led growth. Initial results from the NSS surveys after the reforms, however, belied any such hope and the retrogression in employment pattern as well as on rural income distribution as reflected by the poverty measures was clearly visible.
However, those in favour of the reforms argued against the figures based on the 50th round NSS survey as well as the intervening annual rounds on two grounds: firstly, the quinquennial round of 1993-94 was too close to the beginning of the reform period and hence not a correct measure of the exact impact of the economic reforms especially on the macro variables such as employment pattern and poverty measures. Secondly, the smaller rounds were questioned on the grounds of their small sample size and hence the data was not reliable enough to suggest any significant improvement or decline in the employment pattern or the poverty measures.

The macroeconomic adjustment as part of the structural adjustment programme was expected to be growth inducing as well as equitable in the medium to long run. Critics have debated and differed on the actual effect it has in the rural areas where bulk of rural poor live and which still accounts for more than 65% of employment generated in the country. In terms of a significant change in rural poverty and employment pattern, the real break came in the late 70s. Poverty in rural areas which had fluctuated between 50-65% prior to this began to decline reaching about 1/3rd of the rural population by end of 1980s (33.5% in 1989-90). The eighties saw a decline in rural poverty and in terms of employment, non-agricultural employment in the rural areas showed a positive increase in the growth rate. This coupled with growth in real wages was seen as a positive development. During the same period, there was also significant diversification of the Green Revolution to the eastern and other parts of the country and growth in agricultural performance was significant compared to the population growth rates. The agricultural performance, apart from spreading to other areas also saw an increase in growth for other crops other than wheat, for example, rice. The decade of 80s turned out to be the best decade since Independence as far as the rural areas are concerned. Not only poverty declined significantly, real wages grew and also non-agriculture employment growth was significant, thus taking away the excess burden from agriculture. A positive movement in terms of trade for agricultural produce coupled with continuing growth in productivity was the added bonus. This period also saw increased spending in the rural areas, both in terms of revenue as well as investment expenditure. Rural areas received government funds for infrastructure development, and also poverty alleviation programmes. However, much of the flow of funds in the rural areas as well as in other expenditure was borrowed internally and externally and in some ways was responsible for the financial crisis in the early 90s.

This also led to a change in the economic regime which had more emphasis on fiscal prudence and management than on actual development in the rural areas. The immediate effect of the structural adjustment policy was the retrogression in the rural areas with poverty showing an increase and non-agricultural employment showing a decline. This period also showed an increase in open unemployment. Agricultural performance was claimed to have been better if not worse compared to the 80s\(^1\). Real wages growth also decelerated. However, critics argued that

\(^1\) However, much of it is on account of the change in weights given to different crop groups by the national accounts.
short term shocks were transitory in nature and will soon be reversed. The official results from the NSS in the last quinquennial round (1999-00) were found to have boosted the predictions made by the proponents of the reforms with both poverty declining significantly and
non-agricultural employment increasing significantly. However, due to the changes in
methodology adopted by the NSS, the critics viewed these results with caution. But more
importantly, apart from the empirical inconsistencies, the question which has again come to focus
is the actual growth pattern taking place in the rural areas. The statistical inconsistencies have
only added to what is otherwise a mystery.

Nonetheless, dealing with these statistical inconsistencies was an essential
prerequisite for any understanding of the actual pattern of development in rural areas. These
statistical inconsistencies which affected almost all the broad indicators of rural growth and
well being such as agriculture, employment and poverty in the 1990s either due to change in
weights or due to change in methodology, sampling and concepts were a big obstacle to
developing any sound understanding on the growth process in rural areas. As a result, a
considerable amount of time and effort as part of this thesis was spent on dealing with these
inconsistencies and devising proper methodological corrections to make them comparable
across space and time. While a workable solution to some of these was worked out during the
course of the thesis, for some it was difficult to do so, but even these were highlighted and
brought into analysis. However, further work is needed to make sure that the analytical
understanding of the growth processes of the rural economy is not compromised due to
statistical inconsistencies.

In this context, the objectives of the thesis were threefold. Firstly, analysis was taken
to the last level of disaggregation at which statistically reliable data is available. The level of
disaggregation which was at the level of districts for variables on agricultural output and area
was aggregated to the level of NSS regions to ensure compatibility with other variables which
were mostly available at the level of NSS regions directly obtained from the unit level data
from the NSS socio-economic surveys. For analytical purposes, further disaggregation was
included at the level of households by occupational and income categories using NSS
household type classification. The impetus to go for a disaggregated analysis was the fact that
most often aggregate data are not able to capture the variations around the average for a large
and heterogeneous country such as India. This is particularly crucial for understanding of the
linkages between the various policy instruments and economic indicators. Secondly, every
effort was made to ensure that the data thus obtained were comparable over space and time. In
case there were problems of inconsistencies, these were corrected as far as possible. And
finally, the third objective was to look for various inter-linkages and processes which were crucial in influencing income distribution\(^6\) in rural areas through econometric exercise.

Mainly four sets of indicators were analysed extensively, which were agricultural crop output growth, employment pattern, wages and finally poverty and income distribution. Rural economy is still predominantly agrarian in nature with more than two-thirds of employment generated in agriculture. The performance and the nature of production in agriculture is a vital explanatory variable for understanding employment structure and income distribution in rural areas. Most of the early literature in this regard has relied heavily on developments in the agrarian economy to analyse trends and patterns of income distribution.

Apart from the nature of production in agriculture and its performance, other crucial variables which are largely relevant for the purpose of understanding income distribution are employment pattern and the income earned from such employment such as wages. The growing importance of these two indicators, that is, employment structure and wages was clearly brought out in the context of the sharp reduction in poverty and improvement in income distribution in the 1980s. While those arguing for the relatively growing importance of these channels were still debating as to whether these are influenced by developments in agriculture or not, there was unanimity at least in so far as the role played by these indicators in influencing overall well being of rural population. These three indicators of economic performance of the rural economy were extensively analysed and then brought together along with trends and patterns of income distribution to identify the channels and inter-linkages among these.

Apart from the two main sources of data which were the Ministry of Agriculture estimates for agriculture and NSS surveys for other variables, other sources such as Agricultural Wages in India, Cost of Cultivation studies and National Accounts were also utilised to validate some of these. This was supplemented by utilising available data on other relevant variables such as literacy, population, state finances etc from other sources such as those from Census and National Accounts. The basic propositions which are argued subsequently in later chapters are the following:

- The growth performance of agricultural crop economy in the last two decades has been a respectable 3% or more. However, there are signs of deceleration in the 1990s onwards, raising doubts on its sustainability in future.
- Even though, at the aggregate level, there is not much difference in the growth rate of aggregate output in the crop economy for the two decades considered in this thesis; the contribution of yield growth has come down in the 1990s compared to the 1980s while that of cropping pattern change has increased.

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\(^6\) The word 'income distribution' in thesis has a wider connotation and involves the relative distribution of income across regions and states as well as across various classes of households, apart from the usual connotation of the word in academic literature.
The 1990s are also characterised by spread of agricultural growth to other traditionally backward regions such as the rain-fed and arid regions and much of this has been accounted for by the change in cropping pattern towards high value crops away from cereals.

The primary reason for the slow growth of yields in the 1990s is the withdrawal of state support in terms of availability of credit, investment, price support measures and slowdown in research and extension services.

The pattern of agricultural growth has also affected employment patterns in rural areas and there is evidence of increasing share of labour households along with declining employment elasticity in agriculture.

The issue of comparability of the Employment and Unemployment Surveys of NSSO has largely been ignored till now and even though ensuring proper comparability is difficult, there is a need to take account of these issues to help unravel some of the inconsistencies evident in the employment trends.

High growth rate of output in both decades has been characterised by lower employment generation. In the 1990s, this has also been accompanied by increasing unemployment.

Non-farm employment needs to be looked into at a more disaggregated level to take into account its heterogeneous nature. The role of non-farm employment in affecting structural change in rural areas seems to be overplayed.

While wages are an important indicator of earnings of wage labour households, it needs to be supplemented with the availability of days of employment.

Trends and patterns of income distribution from the consumption expenditure surveys clearly point towards the worsening of income distribution in rural areas, both in terms of inter-personal inequality within household classes and also across household classes.

Large variations exist even within states across regions and there is tendency of growing divergence across regions in the 1990s by all indicators of economic development in rural areas.

These arguments are organised around four main chapters of this thesis followed by a brief conclusion. Each of these four main chapters is based on the four indicators of the working of rural economy mentioned earlier, that is, agricultural performance, employment/workforce structure, wages and poverty and income distribution. Each of these chapters then analyses each of these main indicators in detail at a disaggregated level both across geographical level of disaggregation as well as disaggregation by class of households.

The first chapter deals with performance of agricultural crop economy. The chapter starts with an overview of Indian agricultural performance since Independence. Next, the performance of the crop economy in the last two decades is considered in detail using all the available sources of data on performance of agriculture. Possible sources of divergence
between the different sources of data regarding agricultural performance at the national level are highlighted. This is followed by analysis by states based on data for almost all the crops included in the Index of Agricultural Production. The level of disaggregation is further carried on to region level performance of crop economy in the last two decades. The primary level of classification beyond the state level is done by classifying data at district level into regions suggested by National Agricultural Technology Project (NATP) classification. Relative contribution of different sources of growth such as yield growth, area growth and cropping pattern change are brought out through a multiplicative decomposition exercise. This is followed by an analysis of the trends and patterns of labour productivity across NSS regions.

Although, the purpose of the chapter is not to identify the determinants of agricultural growth across regions, some regression exercises are also presented to identify the relationship of land productivity with other variables from NSS socio-economic surveys. Finally, an attempt is made to situate the growth of crop economy in terms of its effect on the conditions of well being of farmers in rural India.

Chapter 2 deals with trends and patterns of changes in workforce structure in the last two decades. The primary data source for this chapter is the NSS surveys on employment and unemployment, but other data sources such as Census are also brought in wherever required. After an overview, the chapter discusses some important issues of comparability of the Employment and Unemployment Surveys from NSS over time which have been ignored until now in the discussion on this issue. After highlighting these issues for inter-temporal comparability, changes in workforce structure at the national level are discussed along with other indicators of workforce structure. Further disaggregation by occupational and industrial classification is introduced at state level analysis along with discussion on gender differential and age differential, wherever required. The issue of non-farm employment is then taken up for further discussion and the analysis is supplemented by data from other sources such as enterprise survey. Finally, regression exercises are presented to identify the determinants of regional variation in workforce structure.

Chapter 3 is supplementary to the chapter on employment and looks at the trends and pattern of wages using all available sources of data for the last two decades. All the sources of data are analysed in detail in terms of their comparability over time as well as among them. Some possible causes of divergence between various sources of wage data are highlighted to arrive at an aggregate picture of trends in wages. This is done by looking at the wage data by disaggregating it by industrial distribution in terms of agriculture and non-agriculture as well as by gender. Geographical disaggregation at the level of regions is also attempted and this is also supplemented by data from AWI at region level. Finally, determinants of cross-sectional variation in agricultural wages are identified through regression exercise.

Chapter 4 analyses the trends and determinants of poverty and consumption expenditure in rural areas. The chapter begins by looking at the issue of comparability of Consumption
Expenditure Surveys over time and a methodology towards resolving these issues is developed. After discussing the state and region level trends in consumption expenditure and poverty, the chapter analyses the determinants of variations in consumption expenditure at region level through regression exercises. This is done by bringing in the analysis developed in previous chapters and linking them together with the analysis in this chapter. This is done for all the household types separately and then by aggregating these household types by source of income before finally presenting the regression results for all households in rural areas. Finally, the concluding chapter summarises the discussion by linking all the chapters. Appendix A presents the data sources and the methodology of data aggregation over regions. Appendix B gives the region level estimates for some key variables. Appendix C gives region level maps for some key economic indicators for rural areas.