CHAPTER VII

Summary and Conclusions
7.1 Summary

Agriculture is the backbone of Indian economy in the past, present and also in future. The pace of economic development of our country is significantly influenced by the pace of its agricultural development, as agriculture continued to be predominant sector of economy. It is harboring more than sixty percent of labour force and also contributing 17.8 percent (2007-08) to Gross National Product (GDP). In an agrarian economy, transformation of traditional agriculture to scientific agriculture is a pre requisite for development. The transformation demand a package of economically viable technology, improved infrastructural facilities combined with better extension services and effective economic policies.

The government of India is trying to eradicate poverty in the country particularly from rural areas as rural poverty in India is massive. Most of the rural poor depend on rain-fed agriculture. The irrigation was given preferential treatment during the last 63 years and with the result, the irrigation plays a major role in poverty alleviation and providing food security. Expansion of irrigation coverage in a sustainable way and at a fast rate is one of the priority agenda of the UPA Government. Out of the total cultivable land of 61.65 lakhs hectares, 46 per cent (28.3345 lakh. hectares) has been provided with irrigation facilities till March, 2009 (Department of Water Resources). The creation of irrigation potential has helped largely in increasing the food grains and other agricultural production which in turn reduce poverty.

Many studies that have tried to analyze the factors responsible for observed trends in the incidence of rural poverty in India have focused primarily on the question of whether or not agricultural growth trickle down to the poor through its indirect effects on income and employment opportunities. With few exceptions (Bardhan 1973; Griffin and Ghose 1979), most of these studies have found an inverse relationship between growth in agricultural income and the incidence of rural poverty. According to Ahluwalia (1978) the relationship between rural poverty and agricultural performance has been a subject of extensive empirical research. He observed an inverse relationship between the two variables and thereby asserted the existence of trickle-down mechanisms in the Indian rural economy during 1956-57 to 1973-74.
The existence of trickle-down mechanism has been further reinforced by the results of his subsequent study (1986) with expanded data set.

Alleviation of poverty is imperative national policy agenda in all over the world including India. The India has experimenting the same with several plans and policies since her independence, even much earlier ever since 1938 (Radhakrishna and Ray, 2004-05). But its success is not as per anticipation and the condition is again very worst in rural India. One way to achieve the desired objective of poverty alleviation is to understand the mechanization through which poverty can be reduced (Mirros, 1999). This necessitates the need to identify the determinants of rural poverty first and then go for its mechanism. For instance, since agricultural growth is to very responsive to poverty alleviation, the best mechanism is invest more in agriculture (Rudra Prakash Pradhan, 2008). Agricultural growth was a very responsive factor of rural poverty alleviation in the 1970’s, growth of rural nonfarm employment and increase of rural wage were the responsive ingredients in the 1980’s.

The empirical investigation of (Alston et al. 2000) suggests that agricultural research yield favorable economic returns and contributes significantly to reduce rural poverty (Hazell and Hadded, 2001; Kerr and Kolavalli, 1999) as well as urban poverty (Fan, 2002a; Fan et.al. 2001). Government spending can have direct and indirect effects on poverty. The direct effects are benefits the poor receive from expenditures on employment and welfare programs. The indirect effects arise when government investments in rural infrastructure, agricultural research, and the health and education of rural people stimulate agricultural and nonagricultural growth, leading to greater employment and income earning opportunities for the poor, and to cheaper food. There is need to quantify the effectiveness of different types of government expenditures in contributing to poverty alleviation.

Most of the studies are in the context of Indian economy but more or less varied with respect to different time period and across its regions. These studies are based on data set mostly up to 1990’s. Keeping in e view the above present study seeks to study trends in agriculture and rural poverty in India and major states and also to examine the effect of agriculture on rural poverty in India and major states, using the expanded data set up to 2004-05.
Objectives of the Study

1. To Study the growth pattern and extent of instability in area, production and productivity of food grains across the major states and at all India level.

2. To examine the trends in rural poverty in India as well as major states.

3. To examine the effects of agricultural performance on rural poverty in India as well as major states.

4. To study the determinants of rural poverty in India as well as major states.

Collection of Data

Thirteen (13) major states, namely, Andhra Pradesh, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal and have been chosen for this study. The period of reference for the study is 1970-71 to 2004-05.


Scheme of Chapterisation

The thesis is divided into seven chapters. The first chapter presents introduction, objectives etc. Second chapter deals with the review of literature. Methodology, data and various concepts used in the study are presented in the third chapter. The fourth chapter is devoted to an analysis of the trends in food grains Area, Production, Productivity. The trends in poverty and Employment are examined in fifth chapter. The sixth chapter deals Agricultural Performance and Rural Poverty. The last chapter summarizes the findings, conclusion and suggestions of the study. Selected bibliography is presented at the end.
7.2 Conclusions

7.2.1 Trends in Area, Production and Productivity

In the last 57 years, Indian agriculture has significantly contributed in terms of income and employment generations. Today 24 per cent of the total GDP originates from agriculture sector and 62 per cent of people find direct employment in the agricultural sector. Secondly policy implications have brought changes in India agriculture in terms of scale of production, cropping pattern and productivity in agricultural sector.

The food grains production increased from 51 million tonnes in 1950-51 to 234.48 million tonnes in 2008-09. But the agricultural growth rate has decreased from 4.72 per cent during Eighth plan to 2.44 per cent in Ninth plan and to 2.30 per cent in Tenth plan. The growth rate has slowed down due to reduction in production in this sector over years, the reason being that the average size of the farms is very small and also due to non-adoption of modern technology.

The economic status of a rural house hold is determined by the size of the land holding. It is observed that the average size of landings in India is 0.4 hectares in Marginal size group, 1.41 hectares in small group and 2.7 hectares in semi medium group, 5.80 hectares in Medium size and 17.17 hectares in large size group.

The average area under food grains has decreased in post-liberalization period when compared to pre-liberalization period in India and also in most of the major states. A negative growth rate of area under food grains has been observed in India and in most of the major states during the post-liberalization period and also during the overall period. This indicates that the area under food grains has been decreasing from the year to year from 1991-92 onwards.

The agricultural labour has increased from 27.3 millions in 1951 to 106.8 millions in 2001 with an annual growth rate of 2.73 per cent per annum. The state wise figures shows that Andhra Pradesh has the highest percentage of a agricultural labour (12.87 per cent), followed by Uttar Pradesh (12.67 per cent), while Punjab has the lowest percentage (1.40 percent).
The average food grains production in India has increased from pre-liberalization period to post-liberalization period. But the rate of growth in food grains production was low in post-liberalization period (1.1 per cent) when compared to pre-liberalization period (2.7 per cent). The overall growth in food grains production was found to be 2.1 per cent during the period of study. The growth rate of food grain production during the overall period is highly significant and positive in all major states except Kerala. This may be due to use of new technology, fertilizers and high yielding variety seeds. The food grains productivity at all India level has been increased from pre-liberalization to post-liberalization period. The situation is true in most of the major states of India. The rate of growth in food grains productivity is low during the post-liberalization period compared to pre-liberalization period. A significant growth in productivity of food grains (2.3 per cent) was observed at all India level during the period of study. The rates of productivity are also found to be significant in all the major states.

7.2.2 Trends in Poverty and Employment

In a developing country like India, with low level of income and high incidence of poverty, poverty has an impact on all aspects of development (social as well as economic). India has more poor people than any other country. By the World Bank standards of $1 per day per capita, India has 458 million poor people (52.5 per cent of its population) and accounted for 35 per cent of the World’s total in 1992.

The official’s counts of the latest quinquenial round (55th round) suggest considerable poverty decline from 1993-94 to 1990-2000. According to official estimates, the all India Head count ratio declined from 36 to 26 per cent over the period. It is observed from the various rounds of NSS that the overall poverty fell sharply from 52.88 per cent in 1970-71 to 27.5 per cent in 2004-05. There was a slight increase in poverty level up to 1973-74 and thereafter the poverty declined continuously.

Rural poverty in India declined from 54.84 per cent in 1970-71 to 28.30 per cent in 2004-05 where as urban poverty during declined from 44.98 per cent to 25.7 per cent during the same period. It is further observed that the rate of decline in rural poverty is more than the rate of decline in urban poverty. There are wide
differences in terms of rural poverty over time. By 2004-05, the rural poverty ratios in West Bengal and Tamil Nadu declined by more than half, but Bihar and Orissa continued to be the poverty states with nearly half of their population living below the poverty line. The states of Andhra Pradesh and Punjab achieved significant decline in the prevalence of rural poverty.

The data on net state domestic agriculture product and rural poverty ratios provide several interesting features. The states with high per capita net state domestic agriculture product have lower rural poverty ratios. The states of Punjab have the highest per capita net state domestic agriculture product with lowest rural poverty ratios and Bihar has the lowest per capita agricultural product with high rural poverty ratios. The states of Gujarat, Karnataka, Rajasthan and Andhra Pradesh have relatively high rural poverty ratios in spite of high per capita agricultural product. This indicates that agricultural product is not the only determinant of rural poverty.

An overall employment growth rate of 4.32 per cent per annum was registered in the country during the period 1972-73 to 2004-05. Deceleration in employment was noticed during the post-reform period (2.03 per cent) as compared to pre-reform period (2.83 per cent). The period 1999-00 to 2004-05 has registered a development in employment in all sectors except trade and transport.

Along with rapid increase in employment, there has also taken place a perceptible increase in unemployment during 1990-00 to 204-05. The number of unemployed in India rose from 3.98 million in 1973-74 to 9.15 in 1999-00 and further to 11.21 million in 2004-05. The state wise picture of employment growth is similar to the national picture.

7.2.3 Agricultural Performance and Rural Poverty

The estimated results indicate an inverse relationship between rural poverty and agricultural performance and rural poverty and wage rates. This observation is found to be the same during, pre-reform period, post-reform and overall period. This suggests that improved agricultural wages will tend to reduce the incidence of poverty in India. This asserts the existence of trickle-down mechanism in India. The results of the estimated relationships between rural poverty and the factors under consideration suggests that the incidence of rural poverty can be reduced significantly by increasing
agricultural productivity in rural areas and also by maintaining the rural wage rate at a reasonable level.

It is observed that the variables under consideration, viz. Wage rate, Per capita agricultural net Domestic product, Development Expenditure, Percentage of Cropped Area Under irrigation and Rural Literacy rate, have explained together the extent of 98.13 per cent of variations in rural Poverty at all India level. Similarly, all these variables also contributed to the extent of around 86 per cent to 98 per cent of the variations in rural poverty in different Major States. But none of the variables is found to be significant individually either at all India level or in different states. All the variables put together have made a significant contribution to the variations in Rural Poverty and not individually. This may be due to the inter correlation (Multicollinearity) that exists among the explanatory variables.

The step wise regression results indicate that the wage and rural literacy are the important determinants of rural poverty in most of the states. The other variables Agricultural Domestic Product, Development Expenditure, Food grains Production, Percentage cropped area under Irrigation are found to be the determinants of rural poverty in some of the states. These results suggest that the incidence of rural poverty in the country can be reduced significantly by increasing agricultural productivity maintaining the agricultural wage at proper level, providing irrigation and education facilities.

One significant observation in the post reform period is that rural literacy is the important determinant in almost all the states, whereas the same variable has significant effect on rural poverty only in two states in the pre-reform period. This suggests that rural literacy is an important factor in reducing the incidence of rural poverty in addition to agricultural performance and wage rates. Therefore lot of attention has to be paid on educating the rural poor by the government in order to reduce rural poverty.

At all India level Wages, Agricultural Net State Domestic Product, Development Expenditure and Percentage of cropped area are found to be the determinants of rural poverty with an explanatory power of 97 per cent. All the variables are significantly different from zero with expected signs, indicating that these variables have significant effect in reducing the incidence of poverty in India.