Chapter – 1
Introduction

In India most of the people live in rural areas and earn their livelihood primarily from agriculture and thus, the development of rural economy is directly associated with the development of agriculture. In the pre-independence era, India had to depend heavily on imported foodgrains to feed its growing population, because both the productivity and production in agricultural sector were very low and insufficient to meet the domestic demand. However, the foodgrain situation in India has undergone a substantial change during the last forty years. The new strategy of agricultural development based on high-yield varieties (HYV), seed-fertilizer technology, popularly known as Green Revolution, has contributed profoundly to the growth of production and productivity. Initially the revolution came in Punjab and Haryana and was mainly confined to wheat and rice cultivation. The unprecedented increase in yields and output of wheat and rice in the north-western states not only resulted in increased labour productivity in agriculture but also led to impressive improvement in crop production. During the decade of seventies the new technology spread to new areas of coastal Andhra Pradesh, Tamil Nadu, eastern Uttar Pradesh and parts of Rajasthan. A major development occurred in the decade of eighties when the green revolution extended to the eastern Indian states of Bihar, Orissa and West Bengal. This has resulted in increase in productivity and output levels in the densely populated eastern states of the country.

From the eastern region, West Bengal presented the most outstanding performance with the highest acceleration in the growth rate of agricultural production during the post-green revolution period. During 1960-80, the agricultural output was estimated to grow at 2.64 per cent per annum (Boyce, 1987). The rate of growth soared
to a high level during the eighties. The average annual compound growth rate attained during this period was 6.4 per cent per annum\(^1\). Though the state gathered momentum in agricultural production during the eighties, the growth rate started declining after 1992 and thus raised the question of sustainability (De, 2003). Again the success achieved so far only in terms of foodgrain production, especially in paddy crops. The performance of the state in respect of pulse production is not at all satisfactory. The state also lags behind the optimum need in respect of production of oilseeds. There are several reasons for this temporary setback. According to Sawant (1997), weather aberrations were the primary cause of these decelerations in the decade of nineties.

During the last thirty five years there have been some important changes in agrarian situations of West Bengal. One such important change occurred when the land reforms programme, popularly known as 'operation barga' was implemented in the late seventies by the Left Front Government. Under this policy, the ceiling-surplus agricultural land from the big land-lords were acquired by the government and redistributed this surplus land among the land-less agricultural labourers and/or bargadars (share croppers). This land reforms policy has been successfully implemented in West Bengal and has some definite impact on the agricultural production and productivity. In fact, a significant positive impact of the policy of 'operation barga' on the agricultural production and productivity during the decade of eighties has been observed. The growth rates of production of major crops were increased significantly. The state has been able to solve the problems of food security and became one of the leading food producing states in the country. The rapid growth of production and productivity in the agricultural sector has reduced the level of rural poverty significantly as the weaker section of the society benefited a lot by the new

\(^1\)Growth rate is estimated for the period 1981-82 to 1990-91
agricultural policy, especially in the eighties.

However, the growth momentum of the eighties could not be maintained in the subsequent periods. In fact, in recent years a decelerating trend in growth rates in agriculture is a vivid realization. So, the important questions that have emerged: what are the causes of this decelerating trend in agricultural growth in West Bengal? Does institutional change in the form of 'operation barga' fail to provide incentives to long term productivity growth? Can effective utilisation of resources and appropriate change in cropping pattern have any bearing on agricultural productivity?

Cropping pattern means the proportionate distribution of the Gross Cropped Area (GCA) under the different competent crops at a point of time. A change in cropping pattern means the proportionate change in the area share of competent crops or crop-mix over time. However, the term 'diversification' has a broader meaning than cropping pattern. At the national level, it means a movement of resources from one sector to other (especially from agriculture or primary sector to the industry and service sectors, a sort of structural transformation). Again there is the concept of diversification within agricultural sector itself. Within agricultural sector, however, diversification is considered as the shift of resources from one crop or crop-mix (or livestock) to a larger mix of crops and livestock, keeping in view the varying nature of risks and expected returns from each crop/livestock activity and adjusting it in such a way that it leads to optimum portfolio of income. Historically, the cropping pattern of West Bengal agriculture is foodgrain dominated. The climate, soil conditions, and agricultural infrastructure of the state favours a foodgrain dominated cropping pattern. The set of questions that obviously arises are: What is the pattern of cropping pattern in the present state of agriculture? Is there any change in the cropping pattern of the state over time? Does the existing cropping pattern of the state guarantee the optimum
growth of the agricultural sector? If not, then what should be the desired cropping pattern suitable for the acceleration and achievement of the optimum growth of the agriculture of the state? Thus, it is desirable to investigate nature of crop diversification that took place in West Bengal in recent past.

Based both on macro-level secondary data and micro-level primary data the present study intends to analyse the agricultural performance. The content of the study has been captured in eight chapters. Excluding the introductory chapter, the next two chapters have been devoted respectively to the literature survey (Chapter 2) and the data and methodological aspects of the study (Chapter 3). The performances of the agriculture of state in respect to growth analysis during study period have been discussed in chapter 4. The decomposition of crop-wise output growth rate into its components (such as area and yield) both at the state and district levels for different sub-periods have also been estimated and presented in this chapter. The variability in the production of major crops across the districts of the state during the three different sub-periods is also analysed in this chapter. Chapter 5 discusses the issue of decomposition of total agricultural production growth rate into its various components (such as area, productivity and cropping pattern effects) extending for all the sub-periods. The analysis of agricultural output growth decomposition is also extended for the districts of the state. Chapter 6 is devoted to investigate the nature and changes in the cropping of the state. Based on primary field survey, chapter 7 provides a micro analysis of the determinants of agricultural growth in West Bengal. This chapter specifically, focuses on the determinants of farm mechanisation, diversification of cropping pattern and fertilizer consumption in the modern agricultural practices. The final chapter summarises the findings of the whole study and illuminate the policy suggestion.