Chapter -I

INTRODUCTION

1.1 PROLOGUE

Majority of economies in the world are either developing or underdeveloped nations. These economies have low productivity in agriculture for want of sufficient production technology and capital formation. Agricultural sector still occupies a key place in such economies, despite of poor resources and low capital investment capacity of farmers. Capital formation is the outcome of investment. As a matter of fact, investment refers to the flow of expenditure diverted to increase or maintain capital stock. In economic theory, it is the periodic addition to the capital stock in an economy, industry or firm that takes place in response to a gap between the actual level of capital stock and its desired level (Gandhi, 1996). More specifically, agricultural investment refers to changes in the level of all inputs that augment physical capital, enhance agricultural production capacity and the conservation of natural resources, knowledge and human capital development, rural infrastructure net-work and post-production equipments.

The growth and development of any enterprise as well as that of an economy are determined essentially by the level of technology and the efficiency of the market mechanism. But, it is the use of capital that makes the above two factors operational. Hence, capital is the most vital input required for achieving the much desired goal of growth both in the micro and macro units of the economy. Capital is one of the most crucial factors, which sets the pace and pattern of economic growth in any country. The importance of capital in economic progress has been recognized by development economists long back (Cairncross, 1955, Lewis, 1955, Rostow, 1960).
Economists have assigned a key role to investment in the process of economic growth due to two reasons: firstly, it creates income and secondly, it augments productive capacity of the economy by increasing capital stock (Kulshrestha, 2000). The vicious circle of poverty in underdeveloped countries can be broken through investment led capital formation. It leads to increase in the dimension of national output, income and employment, thereby, solving problems of inflation and balance of payments (Nurkse, 1962). It creates infrastructure and adds to the capacities of production units and leads to the development of all the sectors of the economy like manufacturing, agriculture, etc.

1.2 INVESTMENT AND AGRICULTURAL GROWTH

Since, majority of the people in developing countries like India are engaged in agriculture or related activities, therefore, for the development of Indian economy, agricultural sector has been assigned a major role. Its development has remained the major concern of government and policy makers in different plan periods. The policy makers claimed agricultural development in two ways, one, developing agriculture as a source of raw materials and food for industries and people, respectively (Government of India, 1959, Anderson and Lorch, 1994) and two, agricultural development as a means to achieve goals of employment led economic growth, poverty alleviation and self-reliance (Johnston et al., 1997, Desai, 1997, Desai and Namboodri, 1998).

In this context, Government of India (1998) observed that while the private investment has been the principal source of agricultural growth, particularly in the recent past, and will continue to be so in future, the public investment is essential to correct existing infirmities and to impart added dynamism to this sector. The new technology responsible for substantial increase in production is by and large capital
embodied, implying thereby, that the growth of agricultural sector depends substantially on the rate of investment and capital formation. Investment has been identified among various factors to affect adoption of improved package of practices in India (Dwivedi, 1972). The purpose of investment in agricultural sector is to generate capital in the form of infrastructure, improvement in quality of natural resources and creation of productive assets. Capital investment along with land resource account for the drastic improvement in agricultural output over time and it makes the difference in performance of economies across countries (FAO, 1999). The modernization of agriculture along with technical advances, therefore, necessitate a consistent and significant growth in the capital investment per unit of land, man and livestock.

In case of developing nations, the top most priority for agricultural development is likely to include the reform of policies and laws to improve poor people’s access to land, markets and services by creating an environment that encourages investment in agriculture and agricultural services by the private sector.

**1.3 AGRICULTURAL GROWTH AND RURAL DEVELOPMENT**

Process of development in the third world countries, in fact, is the process of rural development. In developing countries like India, rural development has been a theme of growing importance due to the fact that still a very large percentage of total population and those living below poverty line dwell in the rural areas and a large proportion of national income is generated in these areas (Gangwar and Pandey, 1998). Rural development is a comprehensive and multidimensional concept that encompasses the development of agriculture, poverty alleviation and employment generation. Agriculture is the bed rock of the India’s economic activity. Development of agriculture seems to hold the key to the progress of our economy in view of its
predominantly agrarian character as it continues to be the single largest contributor to the GDP of Indian economy. Agricultural development seems to have a definite influence on poverty reduction in rural areas (Ravallion and Dutta, 1996, Singh and Baleka, 1999). Being a dominant sector, the impact of its performance (good or bad) is not only confined to agriculture but is manifested in all the sectors of the economy.

Indian agriculture is now in the threshold of second phase of Green Revolution. The natural resource base of land, water, bio-diversity and other resources are under severe pressure of high population growth. In view of this, Indian agriculture is now poised for greater diversified technical transformation for (i) ensuring food security (ii) export earnings, and (iii) a decentralized development to reduce rural poverty. A diversified production plan in agriculture in order to meet these urgent needs is the first priority (RBI, 1989). Sustained agricultural growth, therefore, has been a central theme of our developmental planning since Independence, for simultaneously meeting both availability of and access to food. It required a consistent enhancement in public and private investment for sustained growth of agricultural sector of the country.

1.4 BEHAVIOUR OF AGRICULTURAL INVESTMENT

One of the remarkable achievements of the global food and agricultural system is that the huge investment experienced in the past three decades has been accompanied by progress in food security for many countries of the world. On an average, food available for human consumption has increased to the tune of 19 per cent in the developing countries (FAO, 1999).

In India, prior to the introduction of new farm technology (during 1950’s), Indian agriculture was trapped in the vicious circle of low productivity, low income, low savings and low investment (Sharma, 1987). Nurkse (1962) opined that in
developing countries, the incentives and ability to invest were weak because the domestic market mechanism was narrow and domestic savings were meagre. In this context, Lewis (1957) attributed lower investment in developing nations to the lower savings. Lack of investment opportunities was another reason, which inhibits the people’s desire to invest (Hanssinger, 1964). In general, the farm sector because of its peculiar characteristics of high degree of risk, low productivity, seasonal nature that coupled with fluctuations in input-output prices lacks incentives to allure the investors, resulted in lower investment rate in agriculture as compared to other sectors of the economy (Singh et al., 1996).

However, a substantial investment in agricultural sector during early sixties ushered in the Green Revolution, which in turn gave fillip to the farmers to make investment on irrigation structures, farm machinery and equipments. Since then, it has sustained the tempo of agricultural growth. The agricultural development strategies followed in the country since late 1960’s have paid-off handsomely. The trend growth rate of food production was maintained well above the population growth rate. The country was able to achieve self-sufficiency in food and sustain it too. It continued to employ two-thirds of the country’s labour force, even though its share in the real GDP has came down to below one-third (Mishra, 1997). Investment in Indian agriculture in real terms (at 1980-81 prices) went up from Rs 13 billion in 1950-51 to Rs 68 billion in 1998-99 (Central Statistical Organisation – CSO various issues). But, it has been observed that there was a deceleration of public investment in agriculture during 1980’s (Bhagwati and Srinivasan, 1993, Gulati and Bhidi, 1993). Thus, it is often argued that agriculture did not receive due attention as much as it deserved in terms of allocation of public resources (Shetty, 1990, Kumar, 1992, Alagh, 1997, Gulati and Bathla, 2001). Consequently, the growth of agriculture has
also tended to slacken during 1990’s. Moreover, the declining public investment in post-WTO era and inadequate incentives for the private investment may not be compatible with required growth rate for meeting demand of food for our growing population and alleviating poverty (Government of India, 1998).

The declining trend of public investment in Indian agriculture, its relationship with the private investment and the possible factors that affect agricultural productivity has generated considerable interest among researchers in recent years (Gandhi, 1990, Misra and Hazell, 1997, Gulati and Sharma, 1997, Karmarkar, 1998, Chand, 2000). These estimates, however, are subjected to debate for their limited scope and narrow coverage of public sector agricultural investment as well as for ignoring the two way causation between investment, productivity and other macro-variables (Rao, 1994, Kurain, 1987, Dev, 1997, Gulati and Bathla, 2001, Chand, 2001).

Almost all the studies on investment have used Central Statistical Organization (CSO) series on public investment in agriculture, which is narrow in its coverage as CSO series report that about 90 per cent of public agricultural investment is on major and minor irrigation (Rao, 1997). Since, infrastructure has important forward and backward linkages, it extends the horizon of market economy and monetization and thus, breaks the vicious circle of backwardness (Banerjee, 1996). The CSO series have completely left investment on several items of infrastructure. Thus, the trend of the investment revealed by the CSO series cannot be used as an adequate indicator of behaviour of public sector investment in agriculture. In the light of large number of factors influencing investment, an investigation needs to be conducted through a comprehensive framework.
1.5 RATIONALE OF THE STUDY

The process of investment in agriculture has not been a one-time phenomenon but, a continuous process and the public investment aimed at increasing agricultural productivity in country will have differential impact across regions, favouring some areas more than other. Therefore, the results of behaviour of agricultural investment at the country level is of little utility to hill state like Himachal Pradesh, as the hill agriculture is entirely different from that of plains due to several mountain specificities like undulating topography, inaccessibility and marginality, steep slopes, climatic and other edaphic factors, etc. and the sustainability of profitable mountain agriculture is highly dependent on the so termed specificities (Jodha, 1992).

Himachal Pradesh underwent many territorial changes after Independence and emerged as a full-fledged state in year 1971. Soon after it received statehood, government directed its efforts to the overall development of the state. The importance of agricultural sector and rural poverty alleviation has led the state government to pursue the strategies focused on reducing chronic food insecurity and poverty alleviation through increasing productivity. Himachal Pradesh is predominantly a rural state. About 90 per cent of the total population of the state (around 6 million) live in rural areas and are predominantly engaged in agriculture and related activities (Anonymous, 2004). Development of agriculture is essential for the development of state in general and rural masses in particular. Therefore, agricultural investment, a catalyst of agricultural growth, is more critical for development of rural masses.

So far, much work on agricultural investment have been done at the country level but, scanty work on this aspect have been conducted in Himachal Pradesh.
Therefore, it requires a separate and in depth analysis of the investment in relation to agricultural growth, poverty alleviation and rural development *per se*.

In the back drop of these facts, the present study is a humble endeavour to investigate the behaviour of investment in agriculture and its impact on agricultural growth and poverty alleviation in Himachal Pradesh.

1.6 OBJECTIVES

Specifically, the main objectives of the present study are:

i. To analyze the trends and composition of investment in agriculture and study its determinants.

ii. To examine the impact of investment on agricultural growth and rural development.

iii. To study the problems and constraints thwarting investment in agriculture and rural development and suggest policy options.

1.7 ORGANIZATION OF STUDY

The entire study has been systematically planned in six chapters. Chapter I (Introduction) elaborates the concept, importance and objectives of the study. Chapter II contemplates the critical review of work done in India and abroad, which is relevant to the present topic of investigation. The systematic methodology adopted for the selection of sample, collection and analysis of data has been described in Chapter III. The results of the study described under different sections have been presented in Chapter IV. Chapter V is devoted to elaborate discussion with logical conclusions and inferences drawn on the basis of the results. Finally, based on the findings of the study, the pertinent policy options have been summarized in Chapter VI. The illustrations, tables and figures have been extensively used to elucidate the results while, additional information has been given
under different appendices for further clarification, understanding and future use of the interested readers.

1.8 LIMITATIONS OF THE STUDY

The precision of the study depends upon the accuracy and reliability of data and their sources and methodological approach followed. All the scientific inquiries are subjected to few limitations, although these may differ with respect to magnitude of limitations. In the present study, few limitations were also observed particularly related with data. Though, due care was taken while collecting the data to minimize the bias on estimates, yet the findings of the present study are subjected to following limitations:

I. There were notable inconsistencies in the published data across the years and sources. However, efforts were made to collect data from original sources or nodal agencies. Again, since the expression in constant prices is a better measure, the available data were analysed at 1970-71 prices.

II. Multicollinearity was another problem, which resulted in dropping some important variables from the model. But, efforts were made to capture the effect of left-out variables in alternative way.

III. It was assumed that secondary information collected for the study is free from biases and errors. It was also assumed that scientific methodology has been adopted by the state agencies for collection of data at the state level.

IV. The study was constrained by non-availability of time series data on agricultural investment for the state. However, in this direction the study made an attempt to use alternative data sources such as, All India Debt and Investment Survey Reports of the survey conducted by Reserve Bank of India in collaboration with National Sample Survey Organization (RBI-NSSO), Financial Accounts of State
Government and other published/unpublished sources of Planning Department, Shimla (H.P.). Since, RBI-NSSO survey report is published after every ten years, the figures in the intervening years were appropriated by using interpolation.

V. A portion of the study was based upon the sample observations collected from 180 households of the selected villages due to limited time and other resources at the disposal of a researcher. However, random selection was done from different categories in different farming systems to get representative sample for the study.

VI. As no farm records were being maintained by the sample farmers, therefore, the data were collected by survey method based on their memory and past experiences. Though, due care was taken to extract accurate information, yet the possibility of few slips from the memory of the respondents could not, however, be ruled out.