Chapter -I
INTRODUCTION
1.1 Introduction

Agriculture is the sine qua non of an economy particularly in a developing economy as majority of the population depends directly or indirectly on it. In the annals of Indian economic history, it has a place of pride. People get their food from agriculture in various farms i.e. cereals, fruits, vegetables and livestock gets fodder. Many large and small industries depend on agriculture for raw material. Foreign trade also consists of many agricultural products. Hence, none can deny that the development of agriculture is the core of Indian economy. The growth of industry alone is not sufficient to provide employment to our teeming millions. It is, therefore, true that the increasing population can only be absorbed to larger extent in agriculture sector. The experiences and lessons drawn from the economic history of many advanced countries tells us that agricultural prosperity contributed considerably in fostering economic development. The history of England stands testimony to that agricultural revolution preceded the industrial revolution in that country. Even in U.S.A and Japan, agricultural development has helped to a greater extent in the process of industrialisation. Similarly, various developing nations have by now learnt the limitations of putting over-emphasis on industrialisation as a means to attain higher per capita real income. This theory is one of the early insights of classical political economy going at least as far back as Adam Smith (1776). It has been frequently restated during the past two centuries. Thus agriculture plays a crucial role in the life of an economy.

Agriculture is the backbone of Indian economic system. Though the contribution of agriculture to the overall Gross Domestic Product of the country has fallen from about 52 percent in 1960-61 to 14.1 percent in 2011-12 which is in tune with the growth process of developed nations i.e. the proportion of agriculture in U.K. was only 3.1 percent, in U.S.A it is 3.2 percent, 5 percent in Canada, 6 percent in Japan, 7.6 percent in Australia. Conclusion of all this is that more developed a country is, the smaller is the contribution of agriculture in national output. Though the share of agriculture is declining, it has been the major source of livelihood in our economy. Notwithstanding major diversification in the structure of the economy over the last few decades the dependence on agriculture continues unabated. Over the years 1921-2001, the size of the labour force dependent on agriculture had more than doubled and over the next decade is projected to go up by more than 25 percent. All
calculations indicate that 50 percent of the increase in the employment opportunities will have to come from agriculture. The forward and backward linkage effects of agriculture growth increase the income in non-agriculture sector. The growth of some of the commercial crops has significant potential for promoting exports of agricultural commodities thus bringing about faster development of agro-based industries. Thus agriculture not only contributes to overall growth of the economy but also reduces poverty by providing direct and indirect employment and food security to the majority of the population in the country and hence it is the most inclusive growth sector of the Indian economy.

Recent economic studies expressed serious concern about the declining share of the agricultural sector in GDP in which sixty five per cent of people depend for their livelihood. The dismal situation in which many farmers find themselves in India today is reflected in an alarming trend witnessed in recent years with rising rates of farmers committing suicide. Newspapers echoing the ‘crisis in Indian agriculture’ continue to report daily incidents of suicides in various parts of the country. Thus agriculture stagnation and agrarian distress is a subject of widespread discussion in recent years.

Several reasons that have been put forward as the causes of distress is mounting debt of farmers, crop failures, declining yields, unviable farm holdings, increasing cost of production, fluctuations in output due to natural disasters like cyclones, floods, and droughts and prices of major crops have witnessed wild fluctuations in recent years after opening the Indian markets to international markets. This has led to a high degree of instability in farm incomes. Reduction and wild fluctuations in agricultural incomes of the farmers has been manifested in the form of farm suicides.

Apart from the tragic suicides by farmers, the agrarian crisis has many other serious dimensions like increasing unviability of farming as consequence of steep increase in input prices and a large lag of output prices, almost virtual stagnation in agricultural growth, growing indebtedness of farmers, recent deceleration of non-farm growth, the irrigation crisis, the crisis in the development of rural infrastructure, the ecological crisis and so on.
The farmers are greatly affected by income vulnerability and poverty. Thus people living in agriculture on an average lag far behind the rest of the world in human well-being and development indicators. A large number of people depending on agriculture are characterized as most deprived lot. The farmers are caught in a dilemma whether to continue on Agriculture or not. In the past 30 years, the noble profession of Agriculture has become less remunerative and farmers are looked down in their social circles. An unfortunate consequence of the pattern of hardships faced by farm families is the growing number of suicides among farmers in thousands, which is not prevalent in any other profession.

Farmers in many regions in the country are under the grip of economic shock. Though the economic shock has affected entire population depending on the agriculture, its intensity is very high in some agricultural regions. The intensity of economic crisis among farm families found to be varied with the socio economic settings of the people depending on agriculture. Andhra Pradesh is one of the few states where the intensity of economic crisis in agriculture is found to be reflecting in growing number of suicides among farm families. Andhra Pradesh agriculture is prone to all types of disasters. However, major natural disasters like cyclones, floods, and droughts and have been playing havoc with the people living in agriculture sector especially the vulnerable sections of rural areas.

Looking at the economic policies, firstly, is the impact of the Green Revolution on agriculture in Andhra Pradesh which led not only to an economic crisis but also to an ecological imbalance. Green Revolution as a programme and a package has reinforced the allocation of resources, led to the loss of biodiversity, and to the dependency of agriculturists on external inputs such as that of fertilizers, pesticides, technology and capital. Further it widened the gulf between rich and poor farmers besides contributing to regional imbalances.

Linked to economic policies is the issue of shifts in cropping patterns. The cropping patterns have changed significantly over the past two decades. The thrust has moved away from food crops to cash crops. Increased emphasis on producing cash crops in cropping pattern has become one of the major factors causing the agrarian distress.
The most important among the economic causes is the role of institutional and non-institutional finance that led to agrarian distress. The indebtedness is one of the major causes behind the distress. The burden of indebtedness is very great and despite major structural changes in credit institutions and forms of rural credit in the post-Independence period, the exploitation of rural masses in the credit market is one of the most pervasive and persistent features of rural life in India. The National Sample Survey Organization, 2005, revealed that 82 percent of farmers in Andhra Pradesh are indebted and the state has the second highest debt liability to asset value ratio (7.14) in the country. The document prepared by the Planning Commission for the consideration of the National Development Council, titled The Agricultural Strategy for the Eleventh Plan—Some Critical Issues, admitted that the terms of trade also turned against agriculture during this period.

Moving on to the political dimensions, the major cause behind the distress has been the lack of political will to achieve sustainable development of the agricultural sector. This is paradoxical because most political representatives in Andhra Pradesh come from agricultural background. The problem lies in the fact that small farmers are excluded from the policymaking process and they lack unity to collectively bargain for their rights and benefits. The politicians offer short-term incentives to small and marginal farmers such as waiving of electricity dues and ex-gratia to the families of deceased farmers etc. However, owing to lack of genuine long-term commitment from the policy makers to alleviate their problems, farmers in Andhra Pradesh still continue to lag behind to their counterparts in other sectors.

Looking at the ecological causes, firstly we need to look into the environmental effects of the Green Revolution. Green Revolution technology which was introduced as a “land augmenting” technology has proved to be a land-degrading and land-destroying technology. The excessive use of chemical pesticides, fertilisers and groundwater has depleted the land quality and groundwater reserves. Unrestrained use of chemical pesticides and fertilisers made the crops susceptible to pest attacks as the pests became immune to the chemicals. Natural factors like frequent draughts and floods playing havoc in farm economy.

Thus the major factors responsible for the crises are economic, ecological and political which are inter-linked one with the other and combine to produce distress in
the region. This is seen from the levels of living in rural Andhra Pradesh. Therefore, there is a need to explore the causes behind the agrarian distress in rural Andhra Pradesh.

1.2 Research Problem

The governments at national and state level have undertaken numerous programmes over the years to mitigate the problems of distress among farmers. Massive investments on agriculture sector and schemes like debt waiver and monetary relief package programmes could not solve the problem. Several studies and non-government reports on the issue have identified the larger and broader factors that account for the onset of such distress. Some of the key structural issues that have been identified are: the impact of neo-liberal economic policies entered into the world market (Shiva and Jafri 1998; Patnaik 2004, 2006), increasing cost of production (Vyas 2004, Mohanty and Shroff 2004), inadequate institutional support including lack of availability of credit; deceleration in rural growth (Dev 2004, Rao and Gopalappa 2004, Ghosh 2004); decline in wages, growing indebtedness and unemployment (Patnaik 2004; Dev 2004; Sarma 2004) frequent loss of production and as the results of a triple crisis of economy, society and ecology (Vasavi 1991).

Due to the persistent problems and neglect has led to widespread disenchantment with agriculture as a livelihood and as a way of life. Many rural residents seek to have alternative livelihoods that are distanced from that of agriculture. Thus there is an urgent need to contain this crisis in agriculture and instill self-respect and self-reliance among farmers.

1.3 Research Justification

The problem of distress among farmers is a multidimensional one and compounding year after year. The government has taken many steps since the inception of planning to mitigate the distress of farmers and a number of schemes were introduced. However a little done and vast undone is the result of all these efforts. Much has been said and written on both brighter and darker sides of agricultural growth in our country. Though some light was thrown to probe the causes of slow growth, stagnation, problems of irrigation etc but area specific studies are less when compared with diversified geographical settings in the country. Hence an attempt is made in this study in both dry and wetland regions of Andhra Pradesh besides searching to find out the relation between the farming community, distress and deprivation.
1.4 Need for the study

Poverty, deprivation and social inequalities have been topics of social science research since decades. Needless to say, the mechanisms responsible for creating disadvantaged situations undergo modifications along with changing social and economic structures, altering the forms of disadvantages. Thanks to the social policies, inequalities had in fact been somewhat mitigated, but never eliminated, and they started to increase again in 1980’s and under the new regime of liberalisation. Andhra Pradesh is an agriculturally important state in India. It has been one of the front runners in reaping the benefits of green revolution. However, its vast dryland tracts could not keep pace with the better-endowed regions resulting in wider inter-regional disparities. In order to address the problems of agriculture the state has been implementing various schemes from time to time. Despite this, agriculture in the state has been exhibiting stagnation in growth resulting in keeping poor growth in the economy. Adequate expenditure on rural infrastructure like roads, markets, storage, communication, health, education and research apart from irrigation is a prerequisite for sustainable agricultural growth. Another important disturbing development in Andhra Pradesh agricultural sector over the last twenty five years has been declining in public sector capital formation. This has resulted in high poverty among rural masses who were completely dependent on agricultural sector for their livelihood. Thus state is marked by the notoriety of slow growth and perpetual poverty and backwardness. Another alarming feature is the declining living standards of the farmers compared to the people living on other sectors.

There are increasing concerns among policy makers, social scientists and the media about status of farming in rural areas of Andhra Pradesh. Various important economic factors that are responsible are weather condition, crop failure, dependency on volatile prices, missing or inappropriate irrigation facilities and failure of agricultural policy. These stress factors led to risks of income shortfalls and asset depletion resulting in distress and penury. Thus the situation in the farm economy in the state is compounded by deteriorating political and institutional support besides natural factors. Poor infrastructure, healthcare and lack of educational facilities thus aggravated situation from bad to worse keeping millions in poverty and backwardness. Under this scenario with the following objectives the present study is undertaken.
1.5 OBJECTIVES

1. To analyse the growth in area, production and productivity of crops.
2. To analyse the cost of cultivation in dry and wet land regions.
3. To analyse the socio-economic status of farm households.
4. To analyse the factors influencing poverty among farm households.
5. To examine the impact of debt waiver announced by the government of India on the farmers.
6. To analyse the causes that are responsible for distress and deprivation among farm households.

1.6 Hypothesis

1. Socio-economic status of farmers is declining.
2. The cultivation of crops is not economical.
3. Distress among farming community in dryland region is more.

1.7 Scope of the Study

Based on the objectives the study is limited to the analysis of status of farming in the state of Andhra Pradesh. The study area is represented by different agro-climatic zones. The study mainly focuses on the socio-economic conditions of the farmers during the years 2008-2009 and 2009-2010. The study area is selected through the broad spectrum of 600 sample farmers belonging divergent farming communities and from different socio-economic backgrounds of different agro-climatic conditions. Thus, these samples represent varied strata in the large total.

1.8 Research Methodology

Confining to the above mentioned scope of study the methodology has been designed to carry on the research work in a scientific way so as to cover comprehensive analysis of the problem. The methodology applied is the methods of sampling and way of determining sampling size is described in the following along with the methods and techniques used in the data collection.

1.9 Research Design

The theoretical frame work of the study combines economic as well as social aspects with the distress in wet and dryland cultivation. This deals with the
relationship between farming and poverty. An attempt is made to study in depth the evaluation of distress in the dry and wet land agricultural practices, regarding the sustainability of livelihood practices. Both quantitative and qualitative methods of research were applied in the study through collection of data by household survey and in depth interviews, site visits and field observations. The secondary data is collected from different sources.

1.10 Selection of Study Area

Andhra Pradesh is the fourth largest state with diversified regional dimensions where striking differences exist among the regions. We find unequal and uneven distribution of rainfall, natural resources, irrigation infrastructure and agro-climatic conditions which are the most important characteristics of the agriculture in the study area and these are very critical to appraise the performance of the agriculture. For a better and comprehensive understanding of the problems prevailing in the agriculture, a multistage random sampling method is employed. As first step two districts from each region of Andhra Pradesh i.e. Coastal Andhra, Telangana and Rayalaseema is selected through random sampling. In the next stage one mandal from each district is selected at random. In the final stage one village from each of the selected mandal is selected at random. Thus a sample of six villages was selected for the study. Farm households in each of the selected village were listed. Finally a sample of hundred farm households was selected randomly from total households whose main occupation is cultivation from each of the selected villages.

1.11 Data Collection and Statistical Techniques

As stated earlier the study is based on both primary and secondary methods of data. Structured questionnaire is prepared with all relevant questions pertaining to cropping pattern, farm income and expenditure and off farm income, input use, crop yield, cost and benefits of different on-farm activities and availability of institutional credit and utilisation of government schemes. Besides perception of farmers on various issues related to the government schemes, programmes, loans and problems in getting loans and government schemes as well as measures for their betterment are also included in the questionnaire. Thus all the sample households were interviewed personally to get the required primary data as mentioned above in addition to their
access to basic amenities like safe drinking water, sanitation, schooling, transport, market, communication facilities etc.

The secondary data is collected from Directorate of Economics and Statistics, government of Andhra Pradesh and from different standard journals. Besides village and mandal level data is collected from selected mandal revenue offices in the selected districts. The data thus collected has entered into the Statistical Package for Social Sciences (SPSS) for the quantitative data, basic tools and measures in statistics. Statistics for data analysis consisted of descriptive which include percentage values.

1.12 Techniques of Analysis

The analytical techniques used in the study are descriptive statistics and simple and Logistic regression analysis. Descriptive statistics were used to describe the basic features of the data which form the basis of quantitative analysis of data. Simple tabular analysis is used to provide simple summaries about the data. To verify the relationship between the variables, the simple regression technique is used. To analyse the factors influencing poverty among farm households the Logistic regression analysis is used. To analyse the economics of crop cultivation the cost of cultivation concepts of farm management studied were used. The detailed descriptions of the techniques were presented in respective chapters.

1.13 Limitations and Weakness of Study

The study primarily revolves around economic and social aspects resulting in substantial methodological problems. While in the field some of the problems encountered may be considered the weaknesses of the study. To get total information for better understanding of the research problem the questionnaire thus constructed has many questions to elicit information on socio-economic conditions of the farmers. As some of the farmers are illiterate, innocent and ignorant and hesitated or even afraid to divulge information pertaining to their earnings, expenditure etc., besides some information was given from their memory which may not be factually correct. Thus there are possibilities that the data particularly relating to their economic dealings may be incorrect to some extent.
1.14 Organisation of the Study

Introduction, problem of study, objectives and methodology are presented in Chapter I. Chapter II provides a review of the past studies related to irrigated and dryland agriculture on various aspects made so far in different states of India. Agro-economic profile of the study area is presented in Chapter III. Socio-economic dimensions of sample households are presented in Chapter IV. Economics of cultivation is analysed in Chapter V. Chapter VI analyses indebtedness of farm households in the study area. Levels of deprivation of farm households is analysed in Chapter VII. Summary, conclusions and suggestions are presented in Chapter VIII.