CHAPTER-1
INTRODUCTION

Food Security issues have assumed global significance. It has been estimated that of about 6 billion people in world about 600 million people suffer from hunger. It is important to understand that no country has so far solved the problem of food insecurity by sole reliance and focus on agriculture. Income generation through non-agricultural endeavors, rural development programmes, government policies, aimed at providing food security nets etc. have their usual important role to play. Raising the agricultural productivities can do a lot of good to rural poor but only availability of food only is not sufficient. It takes purchasing power to gain access to food over and above the family production. In the global context, food security is mainly concerned with the world's farmers and food system, whether it can provide enough as more than twice or thrice, as much today, without any massive environmental damage and at no more higher real cost. Food Security at national level is being a problem of availability. It might be tackled through more land area under cultivation or plantation, control over post harvest looses, rise in per hectare yield and here massive environmental damages may become a major issue\(^1\). In most of Low Income Food-Deficit Countries (LIFDC) the status of food security is reportedly degraded by the problems of natural climatic disaster along with ever increasing number of refugees. Also, civil and ethnic wars have and still are devastating the economies of several African, Latin American and Asian countries making the matter worse\(^2\). The Asian countries have shown an impressive improvement in food availability, in feeding of an ever increasing population with limited land resources, at a rate over 3 per cent in food production, which kept pace with population growth by mid sixties. But despite this, food deficiency and insecurity is still there in number of low-income Asian countries\(^3\).

Agriculture and food security are the most important concerns at the threshold of the 21\(^{st}\) century. The population of India is expected to grow up to about 1.4 billion by of mid twenty-first century and this combined with static or declining growth rate of agricultural production makes the issue of food security an increasing concern. The problem is further compounded by resultant declining per capita availability of land.
for agricultural purposes. Further, it is apprehension that Inorganic Farming System (IFS) particularly more use of chemical inputs will lead to contamination and pollution of soil, water, air, and plants, crops having adverse repercussions for agricultural productivities and aggregate production. The damage it has already caused in the form of human health directly and through the human food-chain and sustainable agriculture and food security is irreparable. According to Economic Survey, the per capita availability of major constituents of consumption basket of an average Indian has sharply declined over the recent past decades. The per capita availability of wheat and rice were only 390.60 grams in 2001 as compare to 426 grams per day in 1999, with only 26.40 grams availability of pulses as compare to 32 grams in earlier period. A sharper drop in availability of edible oils has been recorded i.e. per capita availability of 9.10kg per year in 1999, which has fallen to 8kg in 2000-01, against the World Health Organization’s recommendation of at least 10 kg per year.

There are three pillars for food security and self sufficiency at national level namely production, procurement and distribution. During the 90’s, the growth of agriculture productivity and production decelerated as compare to immediate earlier decade. The growth rate of food grains production has declined to 1.32 percent as compare to 3.3 percent growth rate. Moreover per capita food grains production badly failed to keep pace with the population growth. During 90’s decade, population increased at the rate of 1.84 percent per year while food grains production per year increase by just 0.90 percent. The Per capita per availability of food grains declined from 177 kg in 1991-92 to 163.2 kg during 2000-01. This also reflects a decline in per capita food grains availability over the decade.

In India, rice and wheat are the two main staple crops, grown in widely diverse ecosystems and together cover a major chunk of gross cropped area. But the growth of area and productivity has almost reached to plateau like situation and thus system has become more vulnerable to uncertainty and instability. The deceleration of agriculture is a major concern because this sector engaged about 65 percent of work force the per capita availability of rice as well as other food grains is also decreasing over the recent of past. On other hand, cultivation of wheat is concentrated in few
states in India namely Uttar Pradesh, Punjab, Haryana, Bihar, Madhya Pradesh and Rajasthan. These states contributed about 93 percent of total wheat production in 2004-05. Despite the fact that these regions are fully and fairly equipped with effective irrigation infrastructure, efficient input supply, modern technology and good market network, farmers in these regions are subject to increasing production risk and agriculture is becoming less attractive day by day. Furthermore, rice is the staple food of nearly 65 percent of total population and its production has increased many folds since 1950. But the pace of increase in production and productivity has been uneven among the states over the time. In order to check the ever increasing food gap which is directly related with production with in the state and the availability from central pool through Public Distribution System could be managed by more efficient use of such poverty alleviation programmes. In India much of the food subsidy today pays for sustaining about 400,000 strong officials of the food corporation of India and helping the relatively well to do farmers of grain basket states namely Punjab, Haryana. Thus, the gains of various poverty alleviation programmes failed to trickle down up to the last needy man.

Food security is contingent on three parameters related to production, distribution and means to buy these products, namely availability, accessibility and affordability respectively. As an eminent scholar ‘Amartya Sen’ linked one’s capacity to buy food to endowment and exchange of resources. The World Bank defined Food Security in broader-way ‘access by all people at all times to enough food for an active and healthy life.’ The south Asian region is home to more chronically food insecure people than to any other region in the world. The number of hungry persons in South Asia rose from 290.4 million in 1990-92 to 298.5 million in 2001-2003 (FAO, 2004). The roots of concern with food security can be traced back to the world food crisis in 1972-74 and beyond that, at least to be universal declaration of human Rights 1948, with the recognisition of the right to food as a core element of an adequate standard of living. Various definitions of food security have evolved over the decades since 1970’s. Today food security concern includes not only the problem of physical availability of food stock as well as economic and physical access to stock, but also biological utilization of food consumed, i.e. environmental conditions such as availability of safe drinking water and sanitation as well as nutrition practices and
knowledge that can help or hinder the absorption of food in the body, form part of the more inclusive contemporary concept of food security. The term nutrition security is used to describe the condition of having access to all the food, health, social, economic and environmental factors necessary to achieve nutritional well being, in accordance with the prevailing cultured context. An individual’s actual nutritional status is thus determined by a number of factors. Of which food security is only one. According to Food Insecurity Atlas of Rural India 2001, the concept and definition of food and nutrition security has been an outcome of the Food and Agriculture Organisation (FAO) in the Rome declaration on world food security in 1996 which states that food security exists when ‘all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.’

1.1 BRIEF BACKGROUND OF THE STUDY

In Indian agriculture, average size of land holdings has been deteriorating from decade to decade. Now majority of minuscule marginal and small holdings have turned uneconomic, unviable and un-operational which poses serious threat in meeting out the food-feed requirements of the agrarian population at all sphere i.e. national as well as at the state level. In present context, it would be unfair to think about enhancing productivity and earnings on these farms and hence may increase the role of non-farm vocations for ensuring food security for rural food insecure and vulnerable groups. The state of Himachal Pradesh has attained the distinction of being role model of hill development. But, it is doubtful that gains of development were equally distributed, consequently, less privileged sections of farmer community may not have gained significantly and their status has remained more or less stagnant.

Although, since 8th Five Year Plan agriculture diversification has been adopted as a major strategy for income and employment generation in rural areas while crop diversification is certainly major component of the over all strategy. Other dimensions of diversification such as livestock, employment, apiculture etc. are also equally important. Therefore, another major question mark is the ever increasing numbers of marginal and small holdings and there gradually decreasing size which makes the food-feed problems of farm community more complex. The paucity of productive
resources, technical know-how, extension services, credit facility etc. hampers productivity and income of these groups.

This further leads to less availability, affordability and accessibility of quality food around the year. On other hand, use of modern agricultural implements and techniques is capital intensive involving higher level of risk and uncertainty along with long gestation period. It has again hindered the main streaming of food insecure and vulnerable groups of agrarian population. In the present scenario, agriculture and allied sector activities provides livelihood to about 71 percent of working population in the state which contributes about 22 percent to gross state domestic product while physiographic features of the state restricted the area under plough just to 10 percent of total area. Major food grain crops covered about 88 percent of total cultivated area in the state. The recent trend of decline of cereal intake has been observed in the country and the state of Himachal Pradesh is no exception to this phenomenon. The lack of off-farm employment, insufficient and insecure irrigation facilities are other major obstacle/barricade in the way attaining all times of food security for all.

1.2 CONCEPT OF FOOD SECURITY AND VULNERABILITY

1.2.1 Food Security

Food security is generally, equated with absence of hunger or involuntary starvation or at some time, provisions of predetermined numbers of calories intake at household level. In present context, the focus of food security has shifted from food availability to food affordability and accessibility to quality food by the underprivileged and poor groups of the society will marginal and small land holdings. However, in real sense, a household is food secure when it is capable to generate enough income to support and maintain his present consumption pattern of family, which is essential for a healthy and life.

Thus, the problem of food insecurity boils down for the level of income generation on different consideration. The factors like possession of productive resource, size of holding, productivity, location, access to natural resources i.e. irrigation and other public resources like forests, grass lands, cropping pattern and
land use pattern, technical know-how, off-farm employment etc. have direct impact on the food-security of households.

1.2.2 Vulnerability

The households which are at the edge of the poverty line, with slight adverse impact can…… their status change from food secure to food-insecure group. Such households are unable to produce or generate enough surplus over and above their consumption requirements from farm employment as well as from off-farm employment. All the natural and other factors i.e. natural calamities, monsoon, drought, crop failures, high risk and uncertainty, non-availability of credit, etc. have significant bearing on the status of household on the food security and vulnerability front.

1.3 COPING MECHANISMS

Refers to the Policy and Programmes (Instruments) designed by the Government of a country or of a state to achieve food security at national and household levels. Food security has been a major goal of development policy in India since the beginning of planning. There has been a shift in policy focus towards household food security and per capita or per consumer unit food energy intake is taken as measures to ensure food security at the household and individual level. The Public Distribution System (PDS), Food for Work Programmes (FFW), where people are paid partial or full in food grains for public works, targeted group programmes, viz., mid day meal scheme, Anganwari scheme, other employment generation programmes which aimed to enhance the purchasing power through income generation are the main instruments of government coping mechanisms to tackle the menace of hunger. Simultaneously, people also rely on natural resources to ward off food insecurity the dependence on wild vegetables, fruit resources etc.

Therefore, Government is also providing rural/household assets in shape of agricultural implements, i.e. Power-tiller, Tractors, small agricultural equipments, credit-facilities etc. at subsidized rate and also imparting extensional services through free workshops and seminars in the campus of various agro-university and institutions.
1.4 THE GOVERNMENT INITIATIVE TO ENSURE FOOD SECURITY

For the upliftment of under privileged food insecure groups the government has also worked to bring down the cost of a cultivation of marginal and small farmer through higher subsidies from 25 to 100 percent on seeds, fertilizers, implements etc. The varied agro-climatic conditions prevailing in the state have vast potential for the development of horticulture like fresh fruits, floriculture, apiculture, mushrooms, temperate vegetable etc. In order to harness this potential, the state government created needed infrastructure, facilities like grading, packing, processing, storage, transportation, credit services along with variety of incentive schemes for the development of horticulture.

The government has widened its net to indentify more families living below poverty line for subsidized households ration at BPL and AAY rates, to ensure all times food for all. It was ensured that at least ten such households must be selected from each Panchayat that food insecurity is rooted out at grass-root level. It consists of households headed by widows or terminally ill persons, disabled persons aged 60 years or above, single women, single men, agriculture labourers, marginal farmers, rural artisan, cobblers, fruit and flower sellers etc. have no assured means of subsistence and lack of social support.

1.5 AGRICULTURE DIVERSIFICATION AS A STRATEGIC TOOL FOR FOOD INSECURE GROUPS

The agro-climatic conditions and peculiar topography of the state limits the scope for production of field crops, but offers most suitable conditions for horticultural crops and off-season vegetables. Cereal cultivation, except some areas of the state, does not offer good potential to sustain economic well being of the agrarian population. Majority of marginal and small farmers cultivate mainly low value subsistence crops. Hence, there is need for commercialization and diversification of such miniscule size holdings, within and outside agriculture and their proper integration with local and global markets, in order to transform them into economic entities. Farm diversification can be adopted as a profit maximization strategy through reaping the gains of complementary and supplementary relationships or as risk minimization strategy or as a helper in stabilizing farm income at a higher plane.
In broad way, farm diversification would also mean undertaking of seasonal crop farming along with animal husbandry, fishing, agro-forestry, horticulture etc. and would take part in industrial activities for supplementing their economic status. This is surely intended not only to liberate underprivileged marginal and small farmers group from the poverty trap but it would also raise the availability of food and non-food items along with affordability, in shape of increasing levels of per capita income in the economy.

1.6 SUSTAINABLE AGRICULTURE DEVELOPMENT

The sustainable development rest on the Principle fulfilling the needs of present, without compromising the ability of future generations to meet their own needs. The agriculture in hills faces serious problems of dwindling crop yields accompanied with resources degradation. This state of affairs has been attributed to factors like unrelenting demographic pressure, unstable demand for hill produce from all corners and implementation of inappropriate development strategies in regions. This consequently led to deepening ecological degradation and low level of income manifested in endemic poverty and impoverishment in the mountainous regions. Resource poor farmers in some states in the country are already cultivating marginal lands with very low returns. The exploitation of such lands cannot be sustain them but extracting living from such soil, but in many cases, may degrade it completely within 10 to 20 years. The most of destructive land degradation is soil erosion that occurs on sloping land. It removes soil with nutrients from slopes and deposits it in valleys where sediments generally enhance agriculture production by improving soil fertility. Mountainous region constitute about 20 percent of the total geographical area of the country. Such areas are exposed to rapidly rising population pressure, pushing agriculture into hill side cultivation with soil degradation processes set in motion.

1.7 APPROACH TO THE PROBLEM

The concept of food security, as understood today is not of a recent origin, but has evolved over the last quarter of century at various levels i.e. global, regional, national, state, household and individual. Presently, main concern is at the household
and individual levels. Because, Food Security at all levels outside the household sector has a strong bearing on performance at household level.10

The World Bank has presented a modified version of food security as access by all people at all times to enough food for an active and healthy life, its essential elements are the availability and ability to acquire it. Thereafter a distinction has been drawn between chronic and transitory food insecurity while former indicated to continuous inadequate diet caused to inability to have it, either to buy it, or to produce. While latter is of temporary nature, caused due to fluctuation in prices, production or income of household. Thus, it is the income of household, which determines individual food security and agricultural production determining aggregate food security at household (individual), National and International level.

1.8 INDICATORS

The term ‘food security’ is multi-dimensional or multi-faceted one, as numerous interlinked variables are present making it difficult to evolve a single indicator to represent the concept of food insecurity. The quantitative (physical and economic access) and qualitative (nutritional quality of diet and consumption habits) indicators of food security at household level are related to the poverty, as being the major determinant of chronic food insecurity. Various indicators at national, regional and household level have been suggested. The present study has been focused on food insecurity at household level have the following indicators and determinants.

i. Dietary intake

ii. Demographic variables like family size, wage rate, employment and consumer prices.

iii. Access to services like health, education and public distribution system (PDS).

iv. Agricultural variables like land use and cropping pattern, crop productivities, status of irrigation, availability and location of market, production technology, utilization pattern of products etc.

v. Institutional variables like credit, technology, extension, infrastructure

vi. Policy variables like off-farm development programmes, employment generation programmes, welfare programs etc.
1.9 NEED OF THE STUDY

The average land holding size in Himachal Pradesh is declining continuously due to division of farming families indicating an ever increasing trend towards small and marginal holdings. This fact is amply substantiated by the data in this regard during the last twenty five years, numbers of marginal holdings have increased at a compound growth rate of 2.46 per cent per annum, whereas the small holdings have increased by 1.41 per cent per annum. Consequently, the average size of holdings in the state has declined from 1.5 to 1.2 hectares during this period. The increasing number of holdings and trend towards marginal holdings combined with poor yields from such holdings is leading towards un-sustainability of these holdings in terms of providing means of sustenance. It has been growing apprehension that the present trend may be leading to a situation where the output from farms may not be sufficient for meeting out food requirements and may be leading to hunger gap. Even if such groups are not food insecure but present scenario definitely makes them vulnerable to food insecurity in not so distant future. A slight shock can push such groups to realms of food insecurity although they may not be food insecure presently. Such shocks can be in the form of bad whether, adverse input prices, labour shortages or changes in policy regime. One of the most welcome changes in mitigating food insecurities is diversification of cropping pattern towards high pay-off commercial crops, the returns from such crops are higher than the traditional subsistence crops but the miniscule farm size off-sets the benefits of such cropping pattern and the marginal commercial farms may also be suffering from food insecurity. This fact is also substantiated by the fact that even the marginal commercial farmers may migrate during harvesting season to work as skilled workers on large orchards.

The above facts indicate that there may be prevalence of food insecurity on both, subsistence as well as in commercial farming scenario. It becomes, therefore, important to identify the farming groups which are food insecure or may be vulnerable to food insecurity. The outcome of the present study will provide input for devising ways and means to form measure for alleviating such food insecure groups from present situation. The intervention can be in the form of development programmes not only in the agriculture sector but also in health, education and rural development sectors etc.
1.10 OBJECTIVES OF THE STUDY

In the light of foregoing discussion the study is based on following specific objectives.

1. To develop a criterion for determining food insecurity and Vulnerability.
2. To highlight socio-economic conditions of food insecure and vulnerable groups.
3. To quantify the extent of food insecurity in terms of hunger gap among the agrarian population in Himachal Pradesh.
4. To highlight coping mechanisms adopted by agrarian population to mitigate the food insecurity.
5. To analyse the access to public, private and financial resources of food insecure groups and their dependence on such resources for avoiding the food insecurity.
6. To examine the role of government policies and programs for providing food security net to vulnerable groups.
REFERENCES


