

## Factors Influencing Crop Specialization: A Case Study of Shimla District

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### Abstract

### Original Research Article

The economy of Himachal Pradesh moves around agriculture sector and most of its population is primarily dependent on agriculture and its allied services. Agriculture in the state was quite diversified until 19<sup>th</sup> century, however post 19<sup>th</sup> century and in 20<sup>th</sup> century it has been shifted towards moderate level of diversification or crop specialization. This shift in the number of crops has affected the economy of the state in many ways. This makes it very important to understand the reasons behind this process of crop specialization. Therefore the present paper will highlight major reasons behind the process of crop diversification in the state in general and specifically in Shimla district.

**Keywords:** Crop-Specialization, Shimla, Agriculture, Himachal Pradesh.

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## INTRODUCTION

‘Specialization’ in general means ‘mastery of something’ and “crop specialization” in simple agriculture terms means “monopoly or dominance of single crop” in any area or agricultural field. The trend of this type of agriculture practice was started with the introduction of green revolution in late sixties with crops like rice and wheat in India, especially in the states of Punjab, Haryana and Uttar Pradesh, lately which has diffused to other parts of the nation. At that time motive of green revolution was to make India food surplus from food deficit and also to lower food prices post-independence. However with the passage of time many other cash and non-cash agricultural crops were also introduced to increase dietary benefits to the population.

In the state of Himachal Pradesh the influence of green revolution i.e. rice wheat cultivation was much evident until it became an independent state in 1971. In this period apple was introduced in few parts of the state to diversify its agriculture as its climatic settings favour the cultivation of variety of crops. Lately apple cultivation started diffusing towards other districts of the state as well with its visible advantages. Much in late eighties and early nineties vegetable cultivation was also introduced in the state to diversify its agriculture in every significant manner. The process of diversification was at its peak in the early phase of twenty first century. However due to various hindering factors like climate change, change in food demands, decrease in soil fertility, adversities of climate etc. the state has started

experiencing decline in the area of various crops and even in some parts crop specialization has been started pondering. Therefore it is important to highlight the factors responsible for the process of crop specialization. Therefore this paper will highlight the factors influencing the process of crop specialization in Shimla district of Himachal Pradesh.

### Objectives

The present paper will serve the following research objective:

- 1) To highlight the factors influencing crop specialization in district Shimla, Himachal Pradesh.

### Study Area

Shimla district is one the largest district of the state of Himachal Pradesh and also the summer capital of the state. The district lies in the south east part of the state. Geographically this district falls within 3°16’12” North Latitude to 77°10’20” East Longitude with an area of 5,131 kilometres square. District Kullu and Mandi borders it from north-west direction, Kinnaur from north-east direction, Solan from west direction and Sirmour from south direction, however Uttarakhand state borders it from east and south-east direction. According to Census 2011 it has population of 8,14,010 people. District Shimla is also famous for its various tourist destinations.

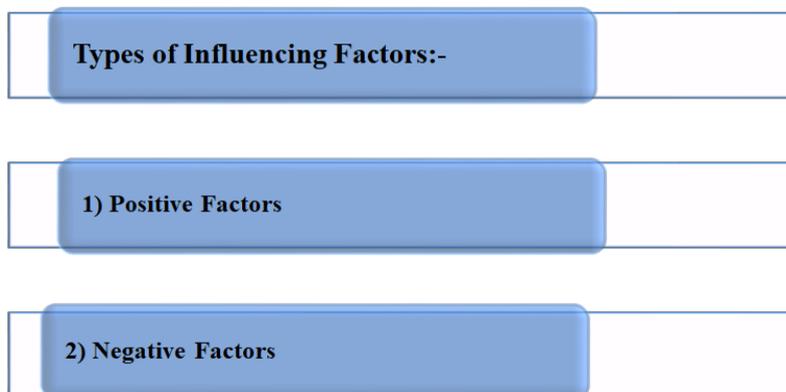
## DATA SOURCES AND METHODOLOGY

This research paper is solely dependent on secondary data and more precisely on literature available regarding the factors influencing the practice of crop specialization in Shimla precisely and around world broadly. Then these various factors will be divided in negative and positive factors category to make them

more understandable. Simultaneously these factors will be discussed in details under the following section

## RESULTS AND DISCUSSIONS

After citing various literatures available online and offline, the major factors which influence the process of crop specialization in Shimla are categories under the following categories:



### 1) Positive Factors

The cultivation of single crop is mostly a outcome or result of multiple negative factors, however there are few positive factors which directly or indirectly

control the cultivation of single crop. As figure 1.2 clearly shows the positive factors which results in the cultivation of single crop in the study area, these factors are further discussed briefly in the following sections:



#### ➤ Open Markets

After 1995 reforms of WTO (World Trade Organization) various trade markets were set to sale farmers produce directly without any hustle. These reforms have also replaced the concept of middle men from farmer's income. As earlier these middle men use to get hefty amount of farmers produce to sell their produce in the market. After which the farmers in the study area are more focused on crop production and profits.

of people has given rise to the demand of multiple crops and fruits are high in the demand post Covid-19 epidemic. This pattern of changed food demands and increased nutritional crops has been similar in the district Shimla, which ultimately has led to the growth of apple crop in the area.

#### ➤ Demand of Multiple Crops

With the passing time people in and around the world are getting more aware and conscious about their dietary habits and nutrition. This change in the lifestyle

#### ➤ Proximity to Main Markets

After the WTO reforms, as discussed earlier have provided open markets to the farmers to sell their produce without any middle men, the proximity to the main markets is also a bug concern. However in case of Shimla the main markets of Chandigarh, Haryana, Panjab, Delhi and Himachal Pradesh itself is a big reason to produce those crops which have high demand in these

markets i.e. fruits (especially apple). These markets entertain a huge number of population every day which ultimately results in the high demand of crop from the neighbouring states.

➤ **Role of Government**

The major role in the cultivation of any crop in any area is played by the state and central government; however the role of state government is more important than the central government. As the state government and their representatives are more aware about the demands, problems and requirements of the local farmers they have to deal with. Therefore the government can play active role by listening and solving the problem faced by the farmers in particular area.

The state of Himachal Pradesh is mainly an agrarian state therefore most of its policies or programs revolve among the farmers, which help them by various subsidies, soil testing facilities, trainings, subsidies seeds, fertilizers, pesticides etc. Beside these discussed factors both the governments always try to find better solutions to solve the problems farmers have to face.

➤ **Development of Better Transport Facilities**

In the past few years the development of hustle free transportation system is the main agenda of Ministry of Road and Railway networks. This is evident from the increased road length and better conditions of the roads in the state and India itself. This has provided farmers with the facility to transport their produce specially the perishable ones to the neighbouring markets.

➤ **Advancement in Communication Facilities**

Human race have done enormous advancements in its technological sector and communication is one of its major sector. With various developments in the field of technology the commutation facilities have also developed like availability of mobile phones have increased, their costs have decreased etc. all

these developments have made it easy for farmers to communicate and to explore other areas as well. Along with mobiles availability of internet, various government sites and development of many other communication facilities have helped farmers to advance their agriculture and sell their produce accordingly.

➤ **More Profits from Single Crop**

Due to high demand of apple in its near and far flung markets fetch high price and profits for farmers. Due to which farmers in Shimla prefer to cultivate only this crop. Many varieties of apple trees with good maintenance and care survive more that hundred years with good produce. Therefore farmers prefer to cultivate this crop due to various reasons like they are terrace farming friendly, produce good quantity of crop from one tree, stop soil erosion, maintain soil quality and many more.

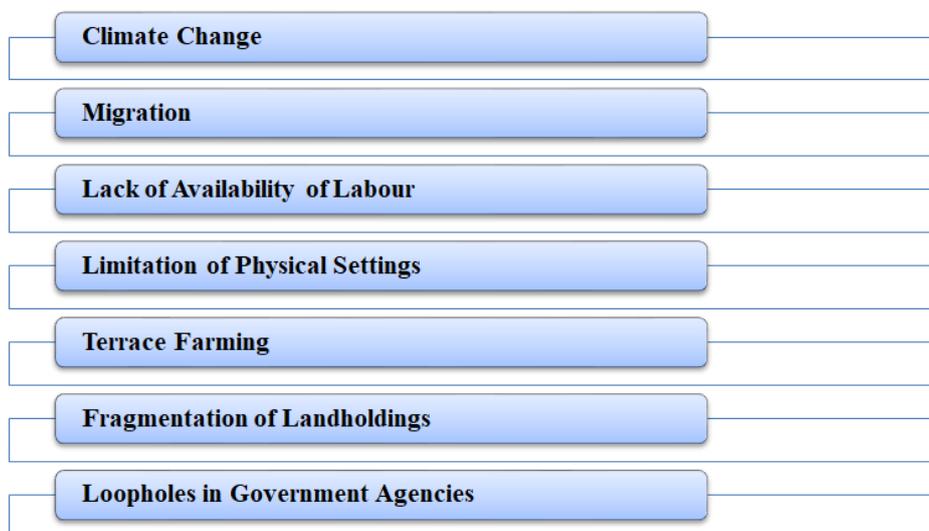
➤ **Role of Various Research Institutes**

In the cultivation of apple crop main role has been played by few specific research center i.e. Regional Horticultural Research and Training Station, (Mashobra, Shimla), (Temperate Horticulture Research Station Kotkhai, Shimla). These two research stations which are situated in Shimla district itself have enabled farmers to cultivate varied varieties of apples. Simultaneously these research institutes also help farmers with training and subsidized samplings.

➤ **Introduction of Apple at Initial Phase**

In the early phase of apple cultivation i.e. in early seventies apple was introduced in the four districts of the state and Shimla was one of them. This single factor has influenced the cultivation of apple positively in the whole district. Major area of agriculture in this district is primarily devoted to apple due to its various advantages which have been discussed earlier.

**2) Negative Factors**



### ➤ **Climate Change**

In the twentieth century the climate and its related adversities has increased exponentially which has resulted in the various unchangeable impact on environment and its dependable components like agriculture. Due to on growing changes in the climate the temperature of many parts of the world has increased from one degree to two or three degrees on an average. Simultaneously it has also changed the patterns of rainfall in almost all the countries of the world.

### ➤ **Migration**

Migration of people specially youth to other places or states or other parts of the worlds is also an accelerating problem in many parts of Himachal Pradesh. This migration is an outcome of better education, employment, health and other aspects of life in other parts of the nation and world. Due to migration of this specific age group the older population is relying on labourers and others for agriculture and in case of non-availability of all these they are obliged to cultivate few number of crops or only one crop.

### ➤ **Lack of Availability of Labour**

In a state of Himachal Pradesh where lifestyle is very different as well as difficult; availability of labour is a hard task; as these labourers come to this state for a very short period of time and to very few locations (where they get high wages). Unavailability and shortage of labour throughout the year is also a prominent reason in cultivation of single crop.

### ➤ **Limitation of Physical Settings**

Physical settings especially terrain is very rugged, uneven, prone to soil erosion etc. which makes it difficult to practice agriculture in the state. This single factor has led top small size of land holding which further enable farmers to cultivate few number of crops rather that multiple crops; as multiple crops needs large size of landholdings, flat land etc.

### ➤ **Terrace Farming**

Terraced farming is a very big disadvantage of state's agriculture as it forces farmers to become selective in cropping their fields. These farms hinder the use of machinery and make it difficult for farmers to cultivate variety of crops. Therefore to overcome this hindrance farmer here cultivate single crop as it produce more and even save farms from getting eroded.

### ➤ **Fragmentation of Landholdings**

Due to increased number of population the size of landholdings is continuously getting fragmented as it is getting divided among its owners. This has led to decreased size of already small sized land holdings, therefore these fragmented land holdings allow farmers only to cultivate single crop to fetch more produce and profits.

### ➤ **Loopholes in Government Agencies**

The central and state government in India have made many facilities, programs, schemes etc. for farmers. However their implementation is totally on government agencies end, who are not more concerned about every area. The government agencies have failed badly to implement these government programs, schemes etc. in many area. This big loophole in the government sector has also resulted in the cultivation of single crop of apple in district Shimla.

## CONCLUSION

To conclude the above discussion it can be said that in Himachal Pradesh, especially in district Shimla various positive and negative factors have led to the process of crop specialization. When it comes to positive factors open markets, demand of multiple crops, proximity to main markets, role of government, more profits from single crop, advancements in communication facilities, development of better transport facilities, role of various research institution, introduction of apple in initial phase etc. are the major contributors. However the number of negative factors is also almost equal to the positive ones i.e. climate change, migration, lack of availability of labour, limitation of physical settings, terrace farming, fragmentation of land holdings, loopholes in government agencies etc. All these multiple factors have directly or indirectly have resulted in crop specialization in Shimla district.

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