CHAPTER 1
INTRODUCTION

1.1 Background

Nepal is a small Himalayan kingdom wedged between two emerging economic powers of Asia, China in the north and India in the east, west and south. The total geographical area of the country is 147181 sq. km. Despite its size, it has diversified climatic condition, which is suitable for growing a large valuable species of crops. The country is administratively divided into five development regions and seventy-five districts. Ecologically, Nepal has been divided into three regions the terai, the hills and the mountains. These regions differ greatly from one another in topography climate and population density.

The agricultural sector, which dominates the economy of Nepal, accounts for about 38 percent to the national Gross Domestic Product (GDP) and provides direct employment to about 76 percent of the economically active population (CBS,2001). There is considerable degree of regional specialization among cash crops due to ecological conditions, transport and marketing considerations, locations of processing facilities and socio-economic factors. Sugarcane, tea, tobacco, potatoes, oil seeds, ginger, cardamom and jute are the principal cash crops grown in Nepal (Adhikari, 2002).

Agriculture, in spite of the top priority accorded by government plans and programs, remains a subsistence sector with low productivity. Agricultural

diversification and commercialization have drawn attention of the planners and policy makers in terms of generating more income, employment opportunities and biodiversity conservation. Because of poverty of the farmers and geographical impasse, the traditional agricultural practices have undergone little changes. As agriculture has been a key sector in Nepalese economy, agricultural sector has to be developed and commercialized to raise the living standard of rural people by providing employment opportunities (Adhikari, 2002). The living standard of the farmers can be raised by identifying high-value low-volume crops, which have launched comparative advantage, and by optimally utilizing the available resources for sustainable development. To accelerate the growth in agriculture sector, the government of Nepal has 20 years strategic plan, Agriculture Perspective Plan . APP has emphasized agricultural growth through agricultural productivity, crop diversification and commercialization of high value agricultural commodities. APP seeks to raise agriculture GDP growth from 2.96 percent in 1992-1995 to 4.88 percent by 2011-2015 (APROSC,1995). Likewise, APP aims to uplift farmers' status by including high value crops on a commercial basis in hills of Nepal.

Ginger is a member of the Zingiberaceae family and it originated in South-East Asia. It grows best in tropical areas that have high rainfall and hot and humid conditions. Ginger is cultivated mainly for export and major production areas are Syanja, Palpa and Tanahun districts in Western Development Region and Salyan district in the Mid Western Development Region and Morang, Taplejung, Panchthar, Tehrathum in Eastern Development Region. Production of ginger in 1981/82 was 1648 mt. whereas recent area occupied by ginger is 8956 ha with the productivity of

8.42 mt/ha (GCDS, 2000). It has been estimated that out of the total production 60 percent is exported particularly in India (KC, 2002).

Involvement of women in agriculture plays an important role in agricultural production and marketing processes in Nepal. In Nepal, female population constitute 50.50 percent of the total population and 98 percent of them are engaged in agriculture (Adhakari, 2002). In much of the communities throughout Nepal, the women carry out much of the agriculture work and almost all household activities. The contribution of Nepalese women to economic activities in various fields is not less than men though they were not completely deprived of economic right, yet they are not given equality to it.

Nepalese women are still confined to their traditional roles. Activities like fuel wood and water collection, food preparation, giving birth, child care, and washing clothes are seen as non-economic activities are performed by women where as men are involved in marketing activities and social gathering .

Women's role is very crucial for promoting of high value crops production and marketing. As women comprise 76 percent of the total labor force in ginger production, women should be targeted as the key players to promote agribusiness of high value crops to increase household income (KC, 2002).

1.2 Focus of the Study

Demand for spice crops are increasing day by day in the country because of population growth, increase in external market demand and also

increasing in the local spice industries (GCDS, 2000). His Majesty's Government of Nepal in its Tenth Plan has emphasized on the commercialization of ginger in the identified pockets through pocket package strategy. This strategy not only improves the income of the farmers but also promote agribusiness.

Efficiency of marketing is crucial in determining the profits from the production. Ginger marketing system and most of the market centers are poorly organized. It is therefore, this study was conducted to examine the marketing situation of ginger including marketing system, pricing mechanism, gender decision making, production and marketing problems and export potentiality of ginger in Morang district.

1.3 Statement of Problem

Nepal's excellent topographical variation provides vast opportunities for growing and exporting a variety of High value cash crops. However, the government has been focusing to invest on the traditional pattern of research focusing on a few cereal crops like rice, maize, wheat and legumes (Adhikari, 2002). Ginger is one of the most feasible high value crops of export potentialities. Because of various problems related to agricultural marketing in Nepal like long marketing channel, large number of middleman, bio-physical and socio-economic constraints, farmers are not able to trap the expected opportunity from ginger cultivation. One of the problems of often expressed by the ginger growers is the fluctuation in the availability of market as well as market prices that resulted in heavy exploitation by the traders. Problems like collection centers are not organized and supported with necessary infrastructure and market/price

information. Farmers are lacking essential services (inputs/outputs marketing, credit, market/price information year round irrigation facilities and farm road) at all the production pockets. Transportation is very difficult owing lack of transport vehicle/ vans around the production areas and road heads. Porters and farmers and traders are having no access to ginger marketing information, knowledge and market extension services.

Due to these problems farmers are not able to trap the opportunity from ginger cultivation. To cope with these problems, Nepal should prioritize the commercialization of ginger through efficient marketing facilities to accelerate economic growth of the rural communities in the hills. It is necessary to develop marketing information system at pocket sites/level. Even it is necessary to operate vans through cooperatives and market committees where felt necessary.

The gender disparity in farm related decisions is common in our society. Though women have significant role in farming men make more decisions about farm related activities. The legal provision regarding the right of women has been accepted now. However, women are still far behind men.

1.4 Rationale of the Study

Agriculture, in spite of top government priority, continues to be largest sector with a low productivity and traditional farming system. Traditionally, Nepal's hill farmer have had limited access to the marketing network for the commercialization of their production, thus limiting the

commercialization of hill agriculture as well as farmer's income generating potential.

Agricultural perspective plan (APP) has recognized the importance of ginger as the high value spice crop in Nepal. Hilly region is found more suitable for high value commodity production. Some hilly VDCs of Morang district is important ginger growing district in the Eastern Development Region of Nepal. The total area under cultivation, production and productivity of ginger in Morang district in 2001\2002 were 995 ha., 13541.95 mt. and 13.61mt/ha. respectively (DADO, 2008). In absence of sufficient information about pricing mechanism and market planning, the farmers of this district are facing difficulty in obtaining remunerative price of their product. Efficient marketing system may help them in fetching better prices for their produce.

Women play a vital role in the production of all high-value commodities. However, they have little access to alternative means of earning income. In view of the government's present policy of encouraging women in the agribusiness sector, there is considerable need for research on gender analysis that encourages women's involvement in socioeconomic activities.

Under these circumstances it is important to understand production and marketing situation of ginger as major exportable cash crop. This study has made an effort towards this direction.

1.5 Objectives of the Study

The general objective of this study was to assess the production and marketing dynamics of ginger with special reference to ginger in Morang district. The specific objectives were -

- To identify the marketing practices, marketing channel and business tradition of ginger.
- To analyze the gender role in household decision making process with regard to ginger production and marketing of ginger.
- To assess the export potentiality of ginger.
- To identify the major constraints of production and marketing.

1.6 Scope of the Study

It is expected that the output of the proposed study will help the farmer to remove the weaknesses and make effective production and marketing plans of ginger. This will also help the ginger-producing farmer to reap a maximum profit and rise in standard of living. This study will also be useful for policy makers and planner in formulating policies and guidelines regarding production and marketing of ginger.

1.7 Limitation of the Study

The present study may have the following limitations.

The study was limited to Tandi and Jante Village Development Committees (VDCs) of Morang district. As this study has not covered all the agro ecological zones of Nepal its findings may not be representative of hills of Nepal .Despite the several spices grown in Nepal including Morang district, this study covers only one spice i.e. ginger. Even this research was done on sample basis due to which exact figure may not be disclosed. These VDCs may not represent the ginger marketing of the morang district truly.

CHAPTER 2

REVIEW OF LITERATURE

This study intends to analyze the production and marketing dynamics of ginger in Morang district of Nepal. Therefore, this chapter briefly reviews the earlier studies carried out on different aspects of production and marketing of ginger inside and outside of the country, which are relevant to the present study.

2.1 Marketing: Concept and Definition

Marketing is considered as an integral part of any policy for agricultural development. Marketing is a process that makes goods and services available to the consumers. Success of any production-oriented program depends upon the efficient of produce.

Marketing comprises all the activities aimed at satisfying the customers through the exchange relationship to achieve organizational objectives with social responsibility (Agrawal, 1999).

Kohls and Uhl (1985) defined marketing as the performance of all business activities involved in the flow of product and service from the point of initial agricultural production until they are in the hands of consumers.

2.2 Marketing System and Marketing Margin

In a dynamic and growing economy, the agricultural marketing system provides important linkages between the farm production sector and the non-farm sector. A part from performing physical and facilitating function of

transferring the goods from the producers to consumers, the marketing system also perform the function of discovering the prices at different stages of marketing and transmitting the prices signals in the marketing chain (MDD, 1999).

Efficient marketing system is a prerequisite for development of agriculture sector. A well developed and efficient marketing system promote and provides extra leverage to the overall growth and development of an economy by facilitating optimal product mix and planning and its efficient distribution (Thapa, 1995). In developing countries agricultural marketing systems have been characterized by a diversity of structure often involves arrangements for credit, storage and transport as well as network of intermediaries that include large and small traders, cooperatives and government agencies resulting the higher costs of assembling and transporting farm products (Yanagi, 1996). This is relevant in the marketing of ginger in Nepal as well. So there is a need to improve marketing arrangement so that the consumer may benefit from stable delivery of products and farmer may receive higher returns. An efficient marketing system is essential for timely delivery and reduces marketing cost.

A marketing system is a network of subsystem, which is linked by corresponding changes of information, products and money. In marketing system producers, traders, transporters, wholesalers, retailers and consumers are the main actors involved to carrying out different activities (MDD, 1999). Lower marketing margin and higher production share on the retail price ensure efficiency of marketing system..

The most of the benefits were reaped by the middleman as the majority of farmers were forced to accept the value offered by the traders through middleman due to unawareness of market trend. Farmers were compelled to sell their produce at any price because of perishability of the produce (fresh ginger), cash need and dependence on middleman to market the produce. It was suggested that the sales should be done through government agencies like state cooperative marketing and consumers' federation. This would help in minimizing the margins of the intermediaries and ultimately ensure better producers share in the consumers' rupees.

2.3 Spices in Nepalese Agriculture

Varieties of spices are traditionally grown in Nepal. Spices are very popular in the Nepalese cuisine and kitchen for flavoring the delicious food. Major spices grown in Nepal include large cardamom, ginger, cinnamon, chilies, turmeric and garlic (GCDS, 2000). With the view In Nepal the engine of economic growth is agriculture as it share the major part of the export earning. Nepal is blessed with the favorable geographical and agro climatic diversity providing the scope for producing export potential high value cash crops. High value cash crops accounts for 8 percent of the total cropped area of Nepal. Species, especially cardamom and ginger, are most important and highly commercialized to increase export earning and farmers' income, spices have been considered as priority high value cash crop for hill farmers (APP, 1995). At present, Nepal is earning more than 45 corer rupees annually from the export of spices (MDD, 1999).The area under the spice crops is gradually expanding due to government effort (MDD, 1999). Considering this, the income from high value crops is expected to triple over the courses of the APP (APP, 1995). This can be possible only by making

spices cultivation as profitable enterprise to the farmers. An efficient and organized marketing mechanism, which provides incentives for farmers to get reasonable farm get price, is helpful for the promotion of both export and domestic marketing of spice (Chitrakar, 2001).

2.4 Production and Marketing of Ginger in Nepal: A brief Scenario

Very few formal researches have been carried out on production and marketing aspects of specie crops however, the relevant research output is cited under three major areas namely ginger in mid hill of Nepal, production trends of ginger and marketing of ginger.

2.4.1 Ginger in Mid Hills of Nepal

Ginger (*Zingiber officinale* Rosc), one of the most important spices as well as cash crops particularly in the mid-hill of Nepal, is grown as mono-crop or mixed crop with maize planted in April and harvested in December (GCDS, 2000) .Ginger, a popular spice in culinary preparation, grows at an altitude of 600 to 1600 meters from the sea level. Due to favourable climate conditions and increased demand in domestic and export market, ginger farming has gained popularity among farmers in mid hills. Ginger has emerged as a potential agriculture export produce to India in recent years (GCDS, 2000). Morang, Ilam , Panchthar, Terhathum, Kavre Palanchowkk, Palpa, Nawalparasi,Kaski, Dang, Sallyan, are top districts in ginger production in the country. Fresh gringer are graded, cleaned, packed in jute or plastic sack for export. Some farmers have also attempted to undertake value addition of Ginger by converting it into Ginger Powder (Suntho).

Ginger contributes the hill economy in the number of ways. Ginger cultivation can improve the socio-economic situation of rural people by providing high economic return to the farmers. Therefore the cultivation of ginger in the hills is highly remunerative to small as well as large farmers. In addition to the high economic return, it also reduces the environmental degradation, provide food security from income generation provides employment opportunities to women and helps in bringing diversification and commercialization in hill agriculture. In Nepal ginger contributes 0.44 percent of the agricultural GDP (MDD, 1999). The Mid-Western Development Region (MWDR) shares about 17 percent of the total ginger growing areas and about 21 percent in total production. . The highest shares in areas and production is occupied by Morang district as it occupies about 52 percent of total area and about 65 percent in total production (MDD, 1999). The area coverage and the amount of production under ginger are increasing in recent years. Despite the fact the ginger production program should be linked with well-organized marketing for the promotion of both production and marketing.

2.4.2 Production Trend of Ginger in Nepal

Ginger is a highly potential spice crop being grown in commercial scale for cash income due to its climatic suitability across the whole mid-hill ranges extending upto the altitudes of 1500 meters in Nepal. It can be grown in the uplands of Terai also. Nawalparasi had the highest area coverage of 1255 ha of ginger in the year 2007/08 and Palpa had the highest production at 18452 mt achieving the productivity level of 15.9 mt/ha as compared to 9.7 mt/ha in nawalparasi. The ginger production in Syanha was 3201 mt from 380 ha and in Tanahu it was 4280 mt from 305 hectares (DADO, 2008).

The willingness of Nepalese farmer in ginger cultivation is increasing gradually due to large export opportunities to India, which has caused the rapid increment of the area under ginger cultivation (MDD, 2001). The total production and area under ginger cultivation in Nepal is estimated as 8551.15mt and 7051 ha respectively during 1996/1997 which increased to 792265 mt and 8551.15 ha during 1998/99 (MDD, 2001). The highest share in area and production is occupied by Western Development followed by Eastern, Mid-Western, Central and Far-Western Development Region.

2.4.3 Marketing of Ginger in Nepal

After production, marketing is the most important function, which involves assembling, processing and distribution. Ginger marketing includes all the business activities involved in moving ginger from producers to the market centre and ultimately to the consumers.

In Nepal, fresh and dried form of the ginger is marketed through different marketing channel. However, fresh ginger has been the dominant form in which ginger is marketed in the domestic and Indian market (GCDS, 2000). Generally, producers bring the ginger to the primary collection centers, repack and makes ready for dispatch to long distance market. In some cases, collector themselves come to production packets to collect ginger. The most common marketing channel found in Nepal for marketing of ginger is: farmers – Assembly traders – wholesalers/ Indian traders – Export market (MDD, 1999). High marketing cost and margin, lack of market information and market price fluctuations are common features of ginger marketing in Nepal, which reflects the inefficient marketing system. Unless and until

marketing system is improved, no incentives to increase the production will benefit the growers.

2.5 Production and Marketing Problems

Adhikary,2002 in his research study of vegetable marketing found that the major constraints which confronted by the farmer of Palpa district in the economic production and marketing of ginger were lack of proper transport, communication, suitable organizational and marketing set up, weak cooperative organization, lack of literacy and education; and deplorable condition of the primary markets.

Thapa *et al.*, (1995) in their study on constraint in agriculture marketing in Nepal pointed out the poor institutional, legal and marketing infrastructure as the major constraint of agricultural marketing in Nepal.

Ginger is mainly grown under rain fed conditions in mid hills on sloppy lands of the hilly terrain. Due to lack of appropriate technology and available inputs, cultivation harvesting, sorting, grading, washing and processing (making Sutho) are done by hand by rural people which has resulted low production, low quality (KC, 2002).

Farmers limited technical know how about the development of enterprises, unavailability and scarcity of porter resulting in high labour cost for transporting, unavailability and scarcity of transport vans, sutho of no good quality, collection centers not linked with wholesale market centres, solar drier available in the market but not with the affordable reach of the micro producers and enterpreneurs .

2.6 Export Market of Nepalese Ginger

2.6.1. The World Market Scenario

Globally ginger is traded in three basic forms, namely, fresh, preserved and dry. However, preserved and dried gingers have been dominating form, particularly when these are internationally marketed. Dried ginger is used directly as spice as well as ginger oleoresin preparation from its extraction (KC,2002).

It is estimated that India is the largest producer of dry ginger in the total ginger production in the world. India's contribution to the world trade is around 15% and brings more than 3 corers Indian rupees annually (MDD, 1999). However, Nepal's share in the world market is negligible in terms of volume of production and export. The volume and value of spices exported from Nepal is small and therefore its share is less than 0.5 percent both in terms of value and volume. (MDD,2001) reported that China, India and Nigeria are major ginger exporting countries whereas America, Britain, Japan, Canada, Saudi-Arabia and Singapore are major ginger importing countries.

India has been the traditional market for Nepalese spices (TPC, 2000). Primarily, Nepalese ginger is exported to Indian markets such as Silguri, Patna, Gorakhpur Varanasi, Lukhnow and Delhi. Nepal’s overseas export has ceased since 1990 due to which India is the single largest importer of Nepalese spices (TPC,2000). .

2.6.2. Nepal in World Trade Organization (WTO)

A ray of hope for boosting export of ginger, Foreign trade is an important factor of economic development of any country. Nepalese economy has encountered serious economic problems as its foreign trade has tremendously been suffering from growing trade deficit (TPC,2002). Nepal's trade, in the past was confined to India because of limited transit facilities provided by India, which had constrained its trade with overseas countries.

Nepal has adopted the different policies in different time to promote the foreign trade. Nepal has started the process of economic liberalization program . There are diverging opinions among the economist about liberalized economic policies. After the introduction of a liberalized economic policy, the government has withdrawn subsidies in agricultural sectors; farmers are losing their control on the domestic markets which has created today's agricultural issues more serious than yesterday (Koirala, 1995). (Shrestha,2003) argued that because of liberalized economic policy there is a vast opportunity to rapidly stimulate agricultural led growth using the private sector through their involvement and investment in high value cash commodities.

Agriculture has always been a subject of major concern for the developed countries as well as the developing countries with respect to World Trade Organization (WTO). Nepal's membership to WTO is inevitable to integrate into global mainstream and also a matter of national pride to be recognized as, it's independent entity capable to trade (Shrestha, 2003).

The main thrust of WTO's Agreement on Agriculture (AOA) is to remove production and trade distortion practices and to facilitate trading system (Shrestha, 2003) The Agreement on Agriculture (AOA) requires WTO member countries to undertake a number of measures towards liberalizing agricultural trade. There are three major areas of commitments namely market access, domestic support measure and export competition. All WTO members except Least Developed Countries (LDCs) were required to make commitments in all these areas in order to liberalize agriculture trade (Shrestha, 2003).

Developed Countries have to reduce import tariffs on agriculture products by average of 36 percent (across the board) over six year's period from 1995 with a minimum of 15 percent tariff reduction for any one product. Developing countries have to reduce import tariffs by average of 24 percent over a ten years period fm 1995 with a minimum of 10 percent tariff reduction for any one product $LDCs_s$ are not required to follow these provisions (TPC, 2002).

Least developed countries like Nepal, have been provided the special provisions by WTO for promotion of trade without distorting the domestic market. Such provision includes: preference for export of LDCs, protection of domestic market by tariff, safeguard from permitted subsidies, and safeguard against unilateral decisions, positive discrimination and assistance for capability (Shrestha, 2003).

India is the major market for Nepal's agriculture as it shares about 80 percent imports (TPC,2002). Membership of Nepal to WTO will be beneficial to

boost the Nepal's export not only to India but also overseas countries. WTO membership means not only opportunities but also big task ahead for Nepal. It is important to note that in the context of WTO, market access is about both giving and taking. Nepal gives access to its own market to other WTO members in return for access for Nepalese goods to the markets for these countries. It shows that there is a possibility of overflow of cheaper farm products threatening the Nepalese agricultural sector. This situation reduces the export potential, as local producers are unable to compete with the cheap imports. Some of Nepal's agricultural production enhancement program had faced the setback due to increasing flow of cheaper imported farm products. If this situation prevails continuously, no one can deny that there will be considerable reduction of export market potential of agricultural commodities like ginger.

Before 1980, Nepal used to export considerable amount of dry ginger to the overseas countries especially in Japan, the Federal Republic of Germany, the Netherlands, The United Kingdom and Singapore. At the same time it was reported that high stocks and the availability of cheap sliced ginger from Indonesia made it difficult for Nepalese ginger to penetrate the markets in United Kingdom (ITC, 1980). There is an ample scope for Nepal to export ginger to the international markets. The government of Nepal should explore and find the ways and means to take the advantage of WTO membership. For this Nepal should increase the exportable volume of ginger and the exportable ginger should be competitive in global market both in terms of price and quality.

2.7 Gender Role in Production and Marketing

The term gender refers culturally specific set of characteristics that identifies the social behavior of women and men and relationship between them. Traditionally women do house work and remain responsible for the reproduction of labor force as housewives. Gender is taken as relatively a new approach emerging to complement in Women in Development (WID) approach that was adopted in 1970s (Basu, 2000). The low representation of women social activities is more acute in developing countries .

Gender differentiated decision marking is common in South Asian Countries. Agriculture production depends on availability, access and control of production resources. One of the major factors influencing low productivity and income of women is unequal access to productive resources such on land, capital, credit, and technology and extension services. Women farmers often do not obtain much benefit of agricultural and rural development programmes because of their lack of access to membership, in cooperative in the south Asian countries (UN, 1996).

Gender issue in agricultural development has become an area of global concern. Women constitute an integral part in the socio-economic life of any country in the world however their role in economic development has not been considered seriously. Though women are taking more active part in production than before, almost everywhere they are paid less than men (Basu, 2000). Even in U.S.A. women are typically paid less than male by 10 percent and single women earn 88 percent as much as men in the same age group (Basu,2000).

The constitution of the kingdom Nepal, 1990 states that all citizens shall be equal before the law and no discrimination shall be made in the application of general laws on the ground of sex. It also includes that special provision may be made by law for the protection and advancement of the interest of women (Constitution of the Kingdom of Nepal, 1990). Despite these facts, the gender differential in the decision-making is common in male dominated society of Nepal.

Gender issue in agricultural development has become an area of global concern. Nepal so far is a predominantly agrarian society where women contribute almost 60 percent of the agricultural labor force (FAO, 1999). 57.8 percent of the economically active female is mostly involved in agriculture where as 46.7 percent in case of male (CBS, 2001).

Gender involvement in agriculture varies according to location, class, culture and ethnicity of a society. Rural women play multiple roles in the world's agriculture system. Rural women in developing countries play important role both in their communities and in national economies as producers, traders and marketers, street, vendors and caretakers of their families (FAO, 1999). In spite of women's major role in agriculture, they still remain largely ignored by government extension services and benefit programs. The farmer's decision making regarding production and marketing affects in farm production.

Women have a comparatively more involvement in the production of minor crops whereas for major crops grown for cash earning the decision was made solely by the men (FAO,1999). In Nepal, women are involved in all the aspects of crop production except ploughing.

It has been observed that women are becoming increasingly conscious of their rights and capabilities. However, the inequalities still exists in the Nepalese society.

CHAPTER 3

RESEARCH METHODOLOGY

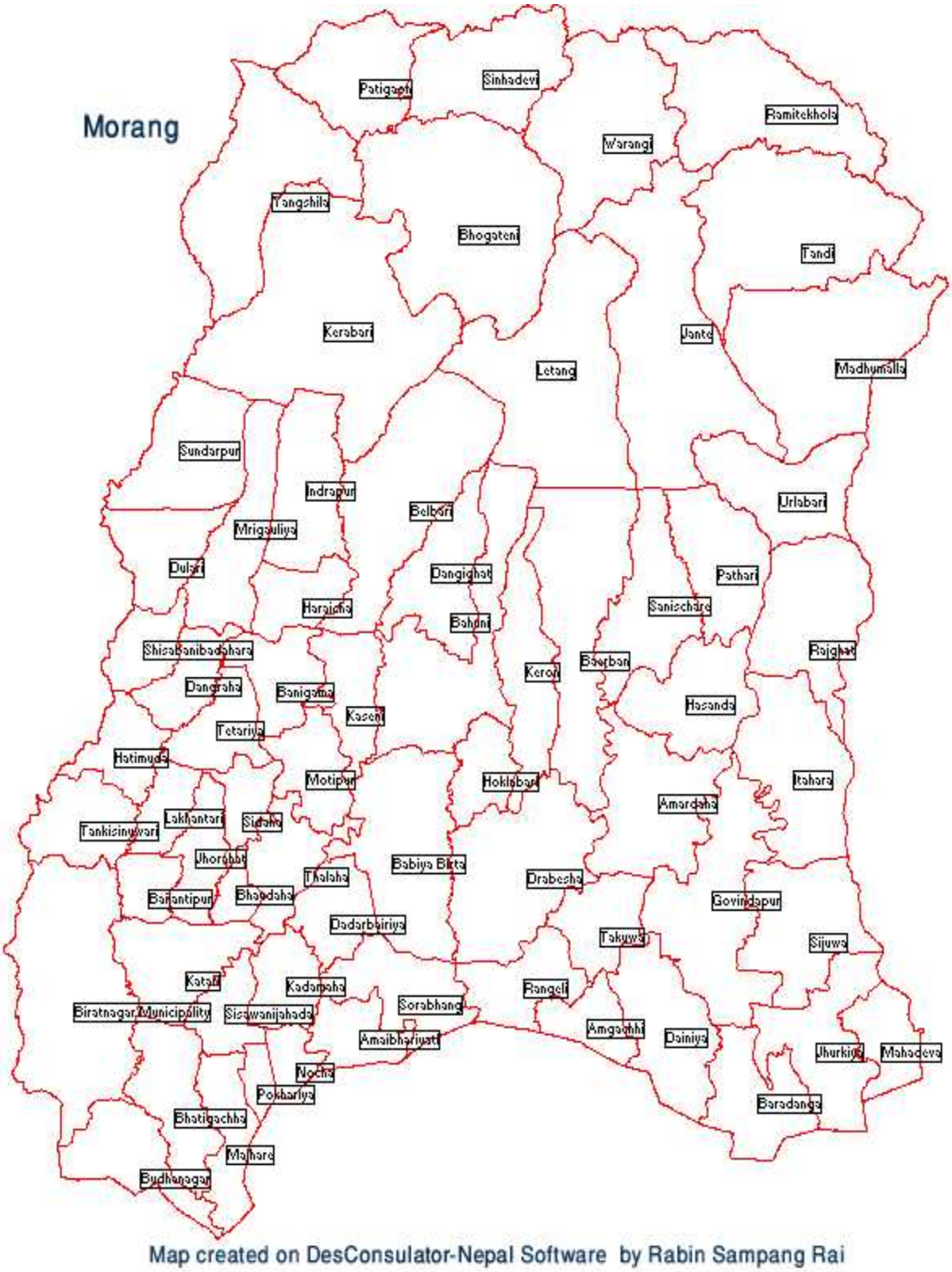
3.1 Research Design

Research Design is the overall framework of study plan for the collection and analysis of data during the research study. This study is marketing of the ginger in Morang district. The design of the study was historical and descriptive in nature. The research design uses both quantitative as well as qualitative aspects.

3.2 Selection of the Study Area

This study was conducted at Morang district of Eastern Development Region. Morang district of Koshi Zone was purposively selected as it is the potential /major ginger growing pocket area of Morang. Similarly, the pocket areas with in the district were selected purposively based on area coverage, production and access to road facility. Based on this, Tandi and Jante VDC were selected for the study. The map of Morang district showing the study sites is presented in Figure 1.

Figure 1: Map of Morang District



3.3 Population and Sample

The study population was the ginger growers of Jante & Tandi VDCS. Most farmers in these areas had ginger in their farms. Population of the study constitutes 135 ginger growers.

However in order to facilitate measurement of interest variables, commercial ginger growers were considered as survey population and were thus included in the sampling frame. For the sample selection, the major list of the ginger growers was obtained from District Agriculture Development Office (DADO), Morang and concerned VDC offices. Altogether 75 and 60 households respectively from Jante and Tandi were listed meeting the criteria of sampling unit.

A sample size of 60 ginger growers, 30 from Jante VDC and 30 from Tandi VDC were selected randomly for this study by using Lottery Method.

Table 1

Sample Size Distribution by VDC in the Study Area

VDC	Total Ginger Growers (No)	Sample Size(no)	Percent
Jante	75	30	40
Tandi	60	30	50
Total	135	60	44.44

3.4 Sources of Information/ Data

Various sources and techniques were used for collection for necessary information. In this study, both the primary and secondary data were collected and analyzed.

Ginger growers were the major sources of primary data. Besides, the information obtained through observation, group discussion, key informant surveys were also given due consideration.

The secondary data on ginger were obtained from different publications of different institutes and organization such as Marketing Development Division, Ministry of Agriculture and Cooperatives, Central Bureau of Statistics, Agro Enterprise Center, District Agriculture Development Office and Federation of Nepalese Chamber of commerce and Industries.

3.5 Data Collection Procedure

This section deals with the designing of interview schedule and data collection procedure employed during field works in Morang district.

3.5.1 Interview Schedule

Interview schedule was designed for primary data collection. Interview schedule was prepared to collect information from ginger growers. With the help of the interview schedule information regarding respondent's introduction, land holding and its utilization pattern, sources of income, ginger cultivation, production and marketing system, and production and marketing problems, price fixation were recorded.

3.5.2 Pre-Testing

The interview scheduled was pre-tested prior to administering to the actual respondents for checking the reliability and content validity of interview schedule. The pre-testing was done on 5 respondents of Jante & Tandi, who were not included in the sample. The corrections made during the pre-testing were incorporated in the final interview schedule.

3.5.3 Techniques of Data Collection

In order to carry out any research and draw reliable and meaningful conclusion, it is very much essential that the methods and techniques of data collection be precise and accurate. Different techniques such as interview, group discussion, and informal interaction were used for the collection of necessary information, which has been briefly discussed below.

Interview

The respondents were interviewed for the collection of primary data. A Pre-tested and semi structured interview schedule was administered to them. The data regarding the, prevailing marketing system and different problems of production and marketing of ginger in the study area were collected from the ginger growers by interview. Information on farmers view regarding the export potential of ginger was also obtained through group discussion. The secondary data were also obtained from FNCCI regarding export potential of ginger.

3.5.4 Field Survey

Field survey was undertaken during May- June 2011. The respondents were interviewed visiting at their house. The collected data sets were cross-checked and edited regularly.

3.6 Methods and techniques of data analysis

Both the primary and secondary information collected from the field survey and other methods were coded, tabulated and analyzed by Micro-Soft Excel.

3.6.1 Socio Demographic and Economic Variables

Socio demographic and economic variables were used for descriptive analysis of the study sites and the study population. Variables like family size, occupational pattern, educational status, and size of holding were analyzed by using simple descriptive statistics such as frequencies, percentage, mean and standard deviation.

3.6.2 Indexes

Indexes were formed mainly taking into account of qualitative data. On the basis of response frequencies, weighted indexes were calculated for the analysis farmers' perception on the farm gate price fixation and extent of production and marketing problems of ginger growers.

a) Index of Influence

Farmers' perception on influence of various agents on farm gate price fixation of ginger was measured by five point level of influence comprising very high influence, high influence, normal influence, low influence, and no influence. Various agents like producers, traders, farmers group and neighboring farmers' influence on price fixation of ginger was measured.

Scale value of 5, 4, 3, 2, and 1, were assigned for very high influence, high influence, normal influence, low influence, and no influence respectively. The index of influence was computed as follows:

$I_{inf} = (s_i f_i / N)$

I_{inf} = Index of influence

$\sum$ = Summation

s_i = Scale value

f_i = Frequency of influence given by the respondents

N = Total numbers of respondents

b) Index of Importance on Production and Marketing Problems

Farmers perception on the importance given to the different production and marketing problems was analyzed by using five point scale of problems comprising very high importance, high importance, normal importance, less importance and the least importance by using 5, 4, 3, 2, and 1 respectively. The index of importance was computed by using the following formula:

$I_{imp} = (\sum s_i f_i / N)$

Where,

I_{imp} = Index of importance

$\sum$ = Summation

s_i = Scale value

f_i = Frequency of importance given by the respondents

N = Total numbers of respondents

CHAPTERN 4

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation of results obtained through the analysis of the collected information and the discussion thereof under the following subheadings.

4.1 Description of the Study Area

This section deals with the general overview, geographical situation; land utilization pattern, marketing environment and institutions development and population status of Morang district.

4.1.1General Overview

Morang district is one of the Terai district of Koshi zone in the Eastern Development Region of Nepal. Morang district shares its border with Jhapa and Ilam district in the east, Sunsari district in the west, Dhankuta and Pachathar districts in the north and India(Bihara) in the south. The district headquarter is Biratnagar.

The major ginger production areas of this district are Jante, Tandi, Bhogateni, Ramitekhola, Belbari, Birtamod, and Madumalla.

4.1.2 Geo-Physical Situation

Geographically, the district lies between 26^0 20" to 26^0 53'north latitude and 87^0 16"to $87^0$41" East longitude with an altitude ranging from 60m to 2410 m above mean sea level. The district comprises 65 VDCs. The total area covered by the district is 1855square k.m. The district is divided into two

parts with respect to its geographic situation, which are mid hill and Terai. Bakraha and Lohandrar Rivers of this district.

4.1.3 Land Utilization

The land use pattern of the district shows that the total land is 185500 ha, among them 105270, 55500,15602,5059 and 4069 is cultivable land, forest land, barren land, residential land covered by rivers, streams respectively (DADO, 2008).

4.1.4 Land Holding

Out of total 115162 farmers, 1425 farmers' families are landless and 113737 farmers' having land ranging from less than 0.1 hectare to more than10 hectare (DADO 2008).

4.1.5 Climatic Condition

Subtropical climate is prevalent in this district. Annual average temperature varies from a minimum 8^0 c to a maximum about 41^0 c. Average annual rainfall in this district is 1100mm (DADO, 2008).

4.1.6 Population Status

The total population of Morang district was 843220, of which 420325 were males and 422895 females. The average family size was 5.6. The average annual population growth rate was 1.63 percent (DDC, 2005).

4.1.7 Farming Situation

Agriculture is the only means of livelihood for majority of the households in Morang district as 89.63 percent of active population is engaged in agriculture. Crop- livestock integrated farming system is common in this district. The major cereal crops grown in this district are wheat, maize and rice. Besides cereals, ginger, vegetables, potato and citrus fruits are also grown. Considerable farmers in the hilly VDCs of district are growing ginger as major cash crops (DDC, 2006).

4.1.8 Marketing Environment and Infrastructure Development

As Morang is a hill district, most of the villages are not accessible and most of the development programs are concentrated in limited accessible pockets in the district. Biratnagar, the headquarter of Morang district, is the major market of the district. Besides, there are other small markets such as Letang, Urlabari, Madhumalla, Kerabari, Belbari, Ramete Khola in the District. Organizations like District Agricultural Development Office (DADO), District Livestock Development Office (DLDO), District Soil Conservation Office (DSCO), Agricultural Development Bank (ADB), and District Co-operative Office (DCO) are providing services in the development of agricultural sector.

4.2 Socio-Economic Characteristics of the Respondents

The socio- economic characteristics of the respondents include total population, gender distribution, family size, economically active population, education, occupation, ethnicity, land utilization and cropping pattern. These characteristics are described below.

4.2.1 Population Distribution

The total population of the 60-sampled house was found 387 out of which 48.32 percent were from Jante VDC and 51.68 percent from Tandi VDC. The male population was found higher than female in both VDC (Table 2).

Table 2

Demographic Distribution of Sampled Household by Gender and VDC

Gender	Frequency	VDC				Total
		Tandi		Jante		
		Percent	Frequency	Percent	Frequency	Percent
Female	187	47.5	95	49.20	92	48.32
Male	200	52.5	105	50.80	95	51.68
Total	387	51.68	200	48.32	187	100

4.2.2 Family Size

Family size is an important variable as it reflects the availability of labour force to the farm. The average family size of the respondents was found 6.45, relatively high in comparison to the national average of 5.44 (CBS, 2001; MOAC, 2002). The average family size of Tandi was slightly higher than of Jante (Table 3)

Table 3

Distribution of Family Size of Sampled Household by VDC

VDC	Sample Household	Average Family size	Maximum	Minimum
Jante	30	6.23	10	2
Tandi	30	6.67	11	3
Total	60	6.45	11	2

4.2.3 Economically Active Population

The total populations of the sample households were categorized into three age groups. Among them the economically active population in this study refers to the population belonging to the age group of 15-59 years. Economically active population was 61.24 percent. This is an active labor force seeking employment in the labor market. Similar distribution pattern was found in both VDC. However, Tandi had relatively more economically active population as compared to Jante. Similarly, the Tandi had more young members and Jante had relatively more people of older age (Table 4).

Table 4

Distribution Sample by their Household's Age and VDC

Age group	VDC				Total	
	Jante		Tandi			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 15 Years	56	29.94	60	30	116	29.97
15-59 Years	113	60.43	124	62	237	61.24
More than 59 Years	18	9.63	16	8	34	8.79
Total	187	100	200	100	387	100

4.2.4 Educational Status of the Family

It is believed that education would create employment opportunity and generate human and leadership needed for the development of a country. The educational status of the farmers would play a significant role in adoption of modern technology in agricultural sector and dissemination of the new technologies as well. In this study, the education level is categorized into six groups. Illiterate refers to those who can neither read nor refers and has no formal schooling. Primary level refers to those who have attained formal schooling up to 5 class. Similarly, lower secondary means up to 8 class, secondary upto School Leaving Certificate (SLC), intermediate refers two years study after SLC and University Level, more than Intermediate Level. From the result, it was found that 36.43 percent of the total

population was illiterate. In comparison with VDC, 40.64 percent people in Jante and 32.5 percent in Tandi were illiterate (Table 5).

Table 5

Distribution Sample by their Household's Level of Education

Education level	VDC				Total	
	Jante		Tandi			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Illiterate	76	40.64	65	32.5	141	36.43
Primary	50	26.74	43	21.5	93	24.03
Lower Secondary	35	18.72	48	24	83	21.45
Secondary	15	8.02	20	10	35	9.04
Intermediate	7	3.74	15	7.5	22	5.68
University	4	2.14	9	4.5	13	3.36
Total	187	100	200	100	387	100

4.2.5 Education Status of household head

A majority (48.33 percent) of the household heads were found to be illiterate. Particularly, 53.33 percent of household heads were illiterate in Jante whereas 43.33 percent in Tandi

Table 6

Education Level of Household Heads of the Sampled Households by VDC

Education level	VDC					
	Jante		Tandi		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Illiterate	16	53.33	13	43.33	29	48.33
Primary	7	23.33	8	26.67	15	25
Lower secondary	3	10	3	10	6	10
Secondary	2	6.67	3	10	5	8.33
Intermediate	1	3.33	2	6.67	3	5
University	1	3.33	1	3.33	2	3.33
Total	30	100	30	100	60	100

4.2.6 Occupational Pattern of the Family

The occupational pattern showed that 54.43 percent of the economically active population was employed in agriculture. The distribution of occupational pattern by VDC showed that 64.6 percent of the economically active population in Jante and 45.16 percent in Tandi were employed in agriculture (Table 7). It clearly revealed that agriculture is the main occupation for the majority of the population in the study VDC.

Table 7

Major Occupation of Economically Active Population of the Sampled Households by VDC

Occupation	VDC				Total	
	Jante		Tandi			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Agriculture	73	64.6	56	45.16	129	54.43
Service	15	13.27	21	16.94	36	15.19
Business	3	2.65	12	9.68	15	6.33
Student	20	17.7	32	25.81	52	21.94
Others	2	1.77	3	2.42	5	2.11
Total	113	100	124	100	237	100

4.2.7 Occupational Pattern of Household Heads

Majority of the household heads (71.67%) were found having agriculture as a main occupation (Table 8). In Jante, 80 percent household heads had agriculture as major occupation where as 63.33 percent in Tandi. It revealed that the occupational pattern of the household head was slightly different by location. However, agriculture remained major occupation of the farmers of the study area.

Table 8

Major Occupations of Household Heads of the Sampled Household by VDC

Occupation	VDC				Total	
	Jante		Tandi			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Agriculture	24	80	19	63.33	43	71.67
Service	4	13.33	4	13.33	8	13.33
Business	2	6.67	4	13.33	6	10
Student	0	0	1	3.33	1	1.67
Others	0	0	2	6.68	2	3.33
Total	30	100	30	100	60	100

4.2.8 Ethnicity

Ethnicity plays an important role in structure of socio-cultural setting. Various ethnic groups were found in the study area. In total majority of the respondents were Brahmin (23.33%) followed by Magar (20%), Jogi (18.33%) and other castes(13.33%) and lower caste (10%). Particularly, in both of Jante and Tandi VDC majority of the people belongs to Brahmin and Magar castes (Table 9).

Table 9

Distribution of Respondents by Ethnic Group

Ethnicity	VDC				Total	
	Jante		Tandi			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Brahmin	6	20	8	26.68	14	23.33
Limbu	5	16.67	4	13.33	9	15
Magar	6	20	6	20	12	20
Lower Cast	4	13.33	2	6.67	6.0	10
Rai	6	20	5	16.67	11	18.33
Others	3	10	5	16.67	8	13.33
Total	30	100	30	100	60	100

4.2.9 Land Holding

The results showed that the average land holding size of the overall sample was 15.8 ropani. Comprising the land holding of respondents it was observed that the farmers of Tandi had larger holding than that of Jante (Table 10).

Table 10

Distribution of Land Holding in the Sampled Household by VDC

VDC	Land Holding (Ropani)			Standard Deviation
	Average	Maximum	Minimum	
Jante	13.29	29.49	2.95	8.38
Tandi	18.3	44.24	5.9	11.3
Total	15.8	44.24	2.95	9.84

4.3 Marketing System

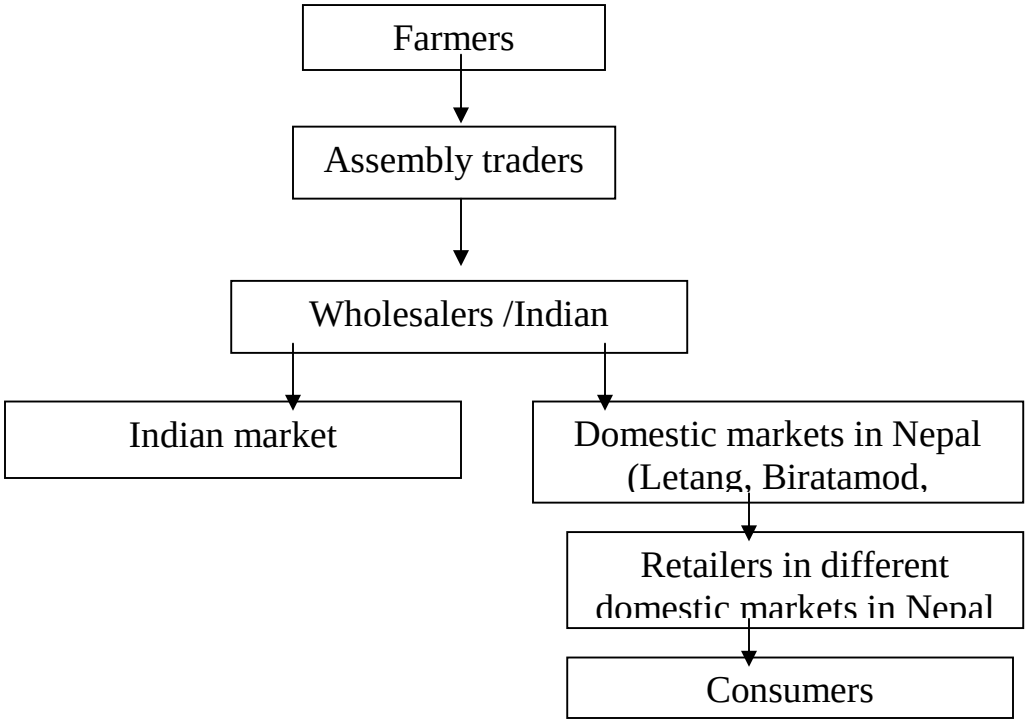
Ginger marketing includes all the business activities involved in moving fresh and dried ginger from widely scattered producers to the export market and ultimate consumer. In marketing system, producers farmers, traders, wholesalers, retailers and consumers are the main actors involved in production consumption chain.

4.3.1 Marketing system in Jante

The marketing system for ginger of Jante was purely a private phenomenon. Producers and traders were the main actors of marketing system. Producers, the major sellers, were compelled to sell mostly on the price fixed by the traders in the production sites and the market center. Both fresh and dried form of ginger passes through different channels. However, almost all farmers were found selling their products to the assembly trader in the local market without any intermediaries. Due to inaccessibility of road facility the farmers themselves transported the ginger in bamboo basket (Doko) and jute sac. The farmers took ginger in the local market such as Letang, Biratamod and Rametekhola, from where in turn deliver to traders in the Indian market operating on commission basis. The information regarding marketing channel received from DADO. The common marketing channel found in the flow of ginger from producers of Jante is presented in Figure 2.

Figure 2

Marketing channel of Ginger in Jante



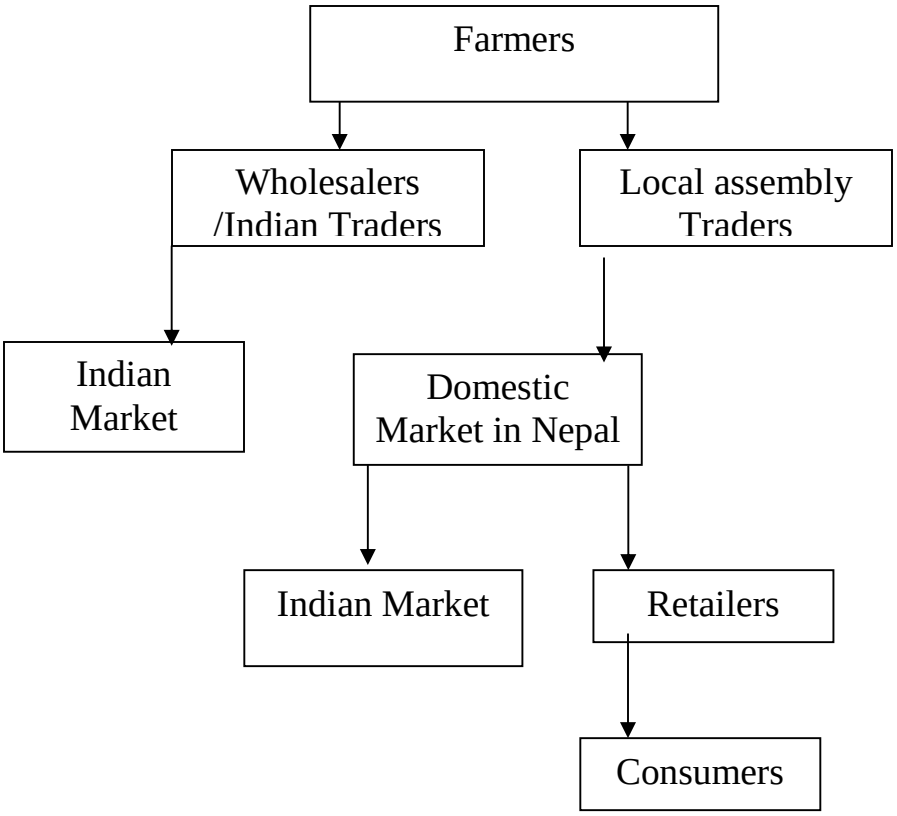
4.3.2 Marketing System in Tandi

Like in Jante, the marketing system in Tandi was also a private phenomenon. Most of the farmers in this area sold ginger in the local market i.e.,Urlabari to the assembly traders. Due to accessibility of road, the traders and collectors also approached to the farmers to collect maximum quantity of ginger. However, most of the farmers found selling their product to the assembly traders in the local market. The farmers in this area were compelled to sell mostly on the price fixed by the collectors and traders. Assembly traders purchase and supply to the wholesalers or Indian traders in Biratamod and Biratnagar Market who in turn deliver to traders in the Indian

market operating on commission basis. The information regading the marketing system and channel received from DADO. The common marketing channel found in the flow of ginger from producers of Tandi is presented in Figure 3.

Figure 3

Marketing Channel of Ginger in Tandi



4.4 Marketing Margin and Producers Share

Marking margin and producers share reflect the efficiency of marketing system. Lower marketing margin and higher producers share on retail price ensure efficiency of marketing system. Table 11 depicts the marketing margin and producers' share in marketing of ginger. The result showed that

overall marketing margin was Rs 19 per kg of ginger. Similarity the average producers share was 66.18 percent. In particular marketing margin of ginger was Rs 20 in Jante and Rs 18 in Tandi. Likewise producers share was 61.53 percent in Jante and 70.83 percent in Tandi. The result clearly revealed that efficiency of marketing in Tandi was higher due to lower marketing margin and higher producers' share as compared to Jante. This result may be due to the accessible condition, presence of alternative market and comparatively less involvement of intermediaries in Tandi.

Table 11

Marketing Margin and Producers' Share in Ginger by VDC

VDC	Marketing Margin (Rs/Kg)	Producer's Share (%)
Jante	20	61.53
Tandi	18	70.83
Average	19	66.18

Source DADO, 2005

4.5 Farmers' perception on farm gate price fixation

Survey finding revealed that farmers' perception on influence of various agents on price fixation of ginger was different (Table 12). The index of influence calculated showed that traders had high influence on ginger price fixation(4.45) followed by neighboring farmers (2.86), producers (2.15) and farmers group (2.05). Thus the finding clearly revealed that the traders had dominating role in ginger price fixation due to which farmers are compelled

to sell their products whatever price fixed by the traders. The reasons behind this fact might be less bargaining power of the farmers, lack of alternative market and inefficient marketing mechanism.

Table 12

Index of Influence on Ginger Price Fixation

Influencing Agent	Level of Influence					Total	Index	Ranking
	5	4	3	2	1			
Producers	2	7	10	20	21	60	2.15	III
Traders	40	10	7	3	0	60	4.45	I
Farmers group	2	5	10	20	23	60	2.05	IV
Neighbouring Farmers	4	15	20	11	10	60	2.86	II

4.6Gender Involvement in Decision-Making

4.6.1 Gender Decision on Production of Ginger

Result showed that gender decision regarding the production of ginger was independent of the location (Table13). Overall result from both VDCs indicated that 41.67 percent of male, 16.66 percent of female and 41.67 percent of both male and female involved in decision making. It clearly revealed that male played the dominating role, as female involvement in decision-making was less than male. It may be due to the male dominated society in the surveyed sample VDC.

Table 13

Gender Decision on Production of Ginger between Different VDC

Decision maker	VDC				Total	
	Jante		Tandi			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Male	8	26.67	17	56.67	25	41.67
Female	6	20	4	13.33	10	16.66
Both	16	53.33	9	30	25	41.67
Total	30	100	30	100	60	100

4.6.2 Gender Decision on Marketing of Ginger

The result showed that gender decision on marketing of ginger was independent of location (Table 14). It was found that majority of the household, male decided on the different activities on marketing this might be due to the lack of education in male dominated society in the surveyed VDC.

Table 14

Gender Decision on Marketing between Different VDC

Decision maker	VDC				Total	
	Jante		Tandi			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Male	15	50	12	40	27	45
Female	5	16.67	6	20	11	18.33
Both	10	33.33	12	40	22	36.67
Total	30	100	30	100	60	100

4.7 Production and Marketing Problems of Ginger Growers

Ginger growers in the study area have faced several problems related to production and marketing of ginger. This section includes the production and marketing problems of ginger in the study area.

4.7.1 Production Problems

This study showed that unavailability of necessary inputs was the major production problems perceived by the ginger growers in Jante VDC. This may be due to the lack of transportation facility and ineffective government policy to supply required inputs to the farmers. The second most important problem as indicated by the farmers was the lack of irrigation facility followed by lack of technical know-now, unavailability of loan and pest problems. In Tandi VDC also, the unavailability of the necessary inputs was the major problem. This may be due to the ineffective government policy to supply necessary inputs. The second most important problems as indicated by the ginger growers was the unavailability of loan followed by lack of irrigation facility, lack of technical know-how and pest problem (Table 15).

Table 15

Production Problems of Ginger Growers

VDC	Problems	Level of Problems					Total	Index	Ranking
		5	4	3	2	1			
Jante									
	Pest Problems	5	3	10	2	10	30	2.7	V
	Lack of Irrigation Facility	20	5	3	2	0	30	4.433	II
	Unavailability of Necessary Inputs	25	1	3	1	0	30	4.666	I
	Lack of Technical Know-How	20	2	5	2	1	30	4.266	III
	Unavailability of loan	10	2	8	5	5	30	3.233	IV
Tandi									
	Pest Problems	4	2	8	5	11	30	2.433	V
	Lack of Irrigation Facility	10	4	7	4	5	30	3.333	III
	Unavailability of Necessary Inputs	20	3	5	2	0	30	4.366	I
	Lack of Technical Know-How	10	2	5	8	5	30	3.133	V
	Unavailability of Loan	12	6	3	9	0	30	3.7	II

4.7.2 Marketing Problems

Like production problems, marketing problems are the most important factors hindering the growers of high value commodity like ginger (APP, 1999). In spite of the great potentiality and importance of ginger in the study area, farmers faced several problems regarding marketing which has limited the economic return to the farmers.

The study showed that lower market price of ginger was the major marketing problem perceived by the ginger growers in Jante VDC. The second most important problem perceived by the ginger growers was fluctuation in market price followed by lack of organized market, lack of transportation facility, lack of market information, lack of processing facility, lack of storage facility.

Like in Jante, lower market price of ginger was the major marketing problem perceived by the ginger grower of Tandi VDC. The second most important problem was fluctuation in market price, followed by lack of organized market, lack of market information, lack of transportation facility, lack of storage facility and lack of processing facility.

The majority of the ginger-growing farmers were illiterate and resource poor. As a result they have less bargaining power. Farmers were compelled to sell ginger taking the price fixed by the handful of traders. So, lack of education, lack of effective marketing policy of government, and lack of transportation facility might be the reason for lower price of ginger. In both VDCs of the study area, lower price, fluctuation in market price and lack of organized market were the major problems as perceived by the farmers (Table 16).

Table 16

Marketing Problems of Ginger

VDC	Problems	Level of Problems					Total	Index	Ranking
		5	4	3	2	1			
Jante									
	Lower Price	28	1	1	0	0	30	4.90	I
	Lack of Organized Market	20	5	3	2	0	30	4.43	III
	Lack of Transportation Facility	18	5	3	4	0	30	4.23	IV
	Lack of Processing Facility	10	5	8	6	1	30	3.57	VI
	Fluctuation in Market Price	25	3	2	0	0	30	4.77	II
	Lack of Storage Facility	12	5	3	2	8	30	3.37	VII
	Lack of Market Information	15	5	5	2	3	30	3.90	V
Tandi									
	Lower Price	25	5	0	0	0	30	4.83	I
	Lack of Organized Market	15	5	6	4	0	30	4.03	III
	Lack of Transportation Facility	10	5	5	2	8	30	3.23	V
	Lack of Processing Facility	5	3	2	10	10	30	2.43	VII
	Fluctuation in Market Price	25	1	2	2	0	30	4.63	II
	Lack of Storage Facility	5	6	4	10	5	30	2.87	VI
	Lack of Market Information	10	5	5	6	4	30	3.37	IV

4.8 Export Potential of Ginger

This section includes discussion based on both secondary as well as primary sources. Farmers' experiences and perceptions on export potential of ginger were gathered through group discussion. On the other hand literatures related to the research on export potential were critically reviewed and tried to link with the finding based on group discussion.

Ginger is one of the major spices grown in Nepal and established as a commercial crop and an exportable commodity. Since 1990, Nepal's overseas export of ginger has drastically reduced to other countries except India since then India has become the largest importer of ginger exported from Nepal (Niroula, 1998). However export of ginger from Nepal to India has increased for few years (Table 17).

Table 17

Export of Fresh and Dried Ginger from Nepal to India

Year	Commodity		Total
	Fresh Ginger("000" Rs)	Dried Ginger ("000" Rs)	
1997/98	167200	41500	8794400
1998/99	151700	41100	12530700
1999/2000	161500	59500	21220700
2000/01	161800	61000	26030200
2001/02	207900	80500	27956200

Source: FNCCI, 2003.

Nepal has adopted liberalized economic policy since 1992. After the introduction of a liberalized economic policy the government has withdrawn

subsidies in agricultural sectors; farmer are losing their control on the domestic markets which has made today's agricultural issues more serious then yesterday (Sedhain and Aryal, 2000). These issues are relevant with the finding of group discussion, as the government and trading firms have shown no initiative to capture the overseas market for Nepalese ginger in farmers' perceptions.

According to the farmers, there is potentiality of ginger production if they are assured to the market of their produce remunerative price. It was also found that dependency on Indian market for ginger export has discouraged the Nepalese growers and traders particularly when Indian officials in the customs overcharged them.

Nepal has entered in World Trade Organization (WTO) with the objective of improving it's foreign trade (Shrestha, 2003). Chitrakar (2003) suggested that Nepal should increase its exportable items to take advantage of WTO membership and the exportable items should be competitive in international market in terms of price and quality.

Overall study on the export potential of ginger revealed that weak production frontier; low export volume, inferior quality, ineffective government trade policy and lack of competitiveness were the major challenges for promoting ginger export. Under these circumstances, export can be encouraged by improving the quality of products, reducing costs of production, generating export surpluses, liberalizing exports and encouraging research and development.

.

CHAPTER 5

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIONS

This section deals with the summary of finding of this study and conclusion derived based on the finding. Besides these this section also deals with the some suggestions made for policy implications.

5.1 Summary

Varieties of spices are traditionally grown in Nepal. Ginger is one of the important high value spice crops for the mid-hills of Nepal as identified by APP. Nepal's varied climatic nature and soil type offer a wide potentiality for cultivation of ginger. Ginger has been emerging as potential export products of Nepal. Despite the considerable increments in the area as well as production, farmers are not getting reasonable price for there produce. Keeping in view these situations, this study was designed to analyze the marketing system of major exportable spices in Nepal with special reference to ginger in Morang district. The specific objectives were to identify the marketing system and business tradition of ginger, to analyse the gender role in household decision making process related to production and marketing of ginger, to identify the production and marketing problems of ginger and to assess the export potential of ginger.

The study was conducted in Morang district of Eastern Development Region, which shares considerable area and production of ginger in Nepal. Jante and Tandi VDCs of Morang district were purposively selected for the study. A representative sample of 60, 30 from Jante and 30 from Tandi were

selected randomly. Producer farmers were the main source of primary data. Besides this relevant and necessary information were collected from the secondary sources.

Descriptive analysis of the survey results revealed that the male population was higher than female in both VDC. The average family size of the respondents was found 6.45, relatively higher than national average 5.44 in 2001. Particularly the average family size was higher in Tandi as compared to Jante. The economically active population was found 61.24 percent in the study areas. The educational status of the respondents showed that literacy rate was low. Majority of people, 40.64 percent in Jante and 32.5 percent in Tandi were illiterate respectively.

The occupational pattern showed that 54.43 percent of the economically active population was employed in agriculture. Likewise majority of the household heads (71.67 percent) were found having agriculture as the main occupation. Ethnicity showed that Brahmin and Magar dominated other castes in both VDCs.

The average land holding were 13.29 and 18.3 ropani in Jante and Tandi respectively. The average land holding was higher in Tandi. However the respondents of Jante cultivated ginger in relatively larger area (6.15ropani) as compared to respondents of Tandi. In the study area, ginger was mainly grown as monocrop in unirrigated area.

The ginger farmers and the traders were the main actors in marketing system of ginger and the marketing system was purely private based. The majority of the farmers sold fresh and dry ginger in the local market. Most of the

farmers sold their product to the assembly traders in the local market who in turn deliver to the domestic markets and the traders in to Indian market. The marketing channel was farmers – Assembly traders – wholesalers and Indian traders – Export market and domestic market.

The average marketing margin in the study area was Rs. 19/kg of ginger providing 66.18 percent share to the producers. However, the average marketing margin in ginger was Rs. 20/kg in Jante and Rs. 18/kg in Tandi. Similarly producers share was 61.53 and 70.83 percent in Jante and Tandi respectively. Lower marketing margin and higher producers share in Tandi showed the higher marking efficiency compared to Jante.

Gender decision on production and marketing showed that female involvement in decision-making was less than male in both VDCs

Among the several production problems of ginger, the unavailability of required inputs was the major production problem. Likewise, the major marketing problems were lower price of ginger, fluctuation in market price and lack of organized market. Besides, lack of transportation facility, lack of market information, lack of processing plants, and lack of storage facility were also the important problems related to marketing as perceived by the respondents in the study area.

Finding on export potentiality of ginger revealed that ginger is a upcoming export items of Nepal if existing problems related to quality and quantity of ginger along with government trade policy are given due consideration for improvement.

5.2 Findings

Based on the findings of the study following are the major finding were made that may useful to farmers, policy makers and other concerned agencies in order to improve the production and marketing of spices especially ginger in Nepal.

- Research in ginger sector is in infancy stage. So development of appropriate package of practices and transfer of technology to the farmer should be done so that they can manage their crops and produce in such a way that it can fetch better market price.

- Marketing is the integral part of production. So collaboration on production, research and marketing research should be emphasized.

- Emphasis should be given to provide quality inputs in time.

- Irrigation facility should be improved.

- Provisions should be made for co-operative farming and marketing.

- Training on quality improvement of products along with grading and packaging of ginger

5.3 Conclusion

The following conclusions are drawn based on the finding of the study. Jante and Tandi VDCs of Morang district are potential pocket areas for the ginger. The marketing system in the study area was poorly organized. Farmers were not getting reasonable price for their produce for few years. The existing marketing system was not in favour of ginger growers, as they were not getting reasonable price for their produce. Pricing of ginger was highly influenced by traders. The farm gate price of ginger was mainly affected by volume of sale and location. Production volume and location played the important role in determining the selling time of ginger as well. Among different problem regarding production and marketing of ginger, unavailability of necessary inputs was the major production problem whereas low price of their produce and fluctuation in market price were the major marketing problems.

Gender decision on production and marketing was independent of location. In both VDCs, female involvement in decision-making was less than male.

Despite adoption of different economic reform, export of ginger was not improving as expected. Serious attempts to explore export market are lacking.

5.4 Recommendations

Based on the findings of the study following recommendations were made that may useful to farmers, policy makers and other concerned agencies in order to improve the production and marketing of spices especially ginger in Nepal.

- Research in ginger sector is in infancy stage. So development of appropriate package of practices and transfer of technology to the farmer should be done so that they can manage their crops and produce in such a way that it can fetch better market price.

- Marketing is the integral part of production. So collaboration on production, research and marketing research should be emphasized.

- Emphasis should be given to provide quality inputs in time.

- Transportation facility should be improved.

- Irrigation facility should be improved.

- Provisions should be made for co-operative farming and marketing.

- Training on quality improvement of products along with grading and packaging of ginger should be organized to enable the farmers to obtain maximum profit.

- Government should encourage Nepalese exporters by formulating export mechanism.

BIBLIOGRAPHY

Adhikari, A. (2002). Analysis of Vegetable Marketing Practices in Palpa District. A Thesis submitted to Tribhuvan University as a partial fulfillment of the Requirements for the Degree of MBS.

Agrawal, G. R.(1999). Marketing in Nepal. Mk Publishers & Distributors, Bhotahiti, Kathmandu.

Agresti, A. and Finlay, B. (1986). Statistical Methods for the Social Sciences (Second edition). Dallen Publishing Company, San Francisco.

APROSC and JMA. (1995). Nepal Agriculture Perspective Plan (APP). National planning Commission Secretariat, Singha Durbar, Kathmandu.

Awasthi, B. D. and Adhikari. S.K., (2003). Domestic Support Measure. A Paper Presented atTechnical Workshop on Implication of WTO Membership on Nepales Agriculture. November 12-13, 2003, Kathmandu,

Basu, S. (2000). The Role of Women in Economic Development. In: Banerji,A and Sen (eds.) R.K., Women and Economic Development. Deep and Deep Publications Pvt Ltd. New Delhi.

Chitrakar , R. C. (2001). Marketing Strategies for Small and Medium Enterprises Development. In: Maskey(ed.) B. K., Small and Medium EnterprisesDevelopment in Nepal- Emerging Issues and Opportunities. Center for Development and Governance, Kathmandu.

Constitution of the Kingdom of Nepal. (1990). Janasewa Parakashan, Kathmandu. .

DADO. (2008). Annual Agricultural Development Program and Achievement: A Glimpse.His Majesty's Government Ministry of Agriculture and Cooperative, Agriculture Department, District Agriculture Development Office, Morang..

DDC (2002). District Profile of Morang. District Development Committee, Morang.

FAO. (1999). Gender Analysis of Agricultural Production System. FAO, Kathmandu,

FNCCI. (2003). Nepal and the World. A Statistical Profile. Federation of Nepalese Chambers of Commerce and Industry. Kathmandu.

GCDS. (2000). Annual Report on Spice Crops for 1999/2000. Ginger and Cardamom Development Section, Khumaltar, Lalitpur.

ITC , (1980). Marketing of Nepalese Ginger in Japan, The Federal Republic of Germany, The Netherlands, The United kingdom and Singapore. International Trade Center.

KC, G. 2002. Ginger Cultivation Technology. Ginger Research Program, NARC, Kapurkot, .

Kohls, R. L. and Ohl, J.N. 1985. Marketing of Agricultural Products. Macmillan Publishing Company Inc, New York.

Nepal, Marketing Development Division. (1999). A Study on Ginger and Cardamom Marketing in Nepal. Harihar Bhawan, Lalitpur,

Nepal, Central Bureau of Statistics. (2001). Gender Statistics at a Glance: A Fact Sheet. Kathmandu. CBS Publication.

Nepal, Marketing Development Directorate. (2001). A Study on Ginger and Cardamom Marketing in Nepal. Harihar Bhawan, Lalitpur,

Parajibi, B. (2002). Planned Development in Nepal and Tenth Plan. Bhabuk Parajuli Prakashan, Kathmandu

Shrestha, P. M. (2003). Nepal's Terms of WTO Membership. A Paper Presented in the Seminar on WTO and Agricultural Business in Nepal Narayangarh, September 20, 2003. Federation of Nepalese Chambers of Commerce and Industry, Narayangarh.

Thapa, G. B., Koirala, G.P.., Gill, G.J. and Thapa,M.B. (1995).Constraints on Agricultural Marketing in Nepal. Research Report series No 29. Winrock International, Kathmandu, .

TPC. (2002). Export Directory of Nepal. Trade Promotion Centre, Pulchowk.

UN (1996). Gender Dimension of Rural Poverty. In: Rural Poverty Alleviation and Sustainable Development in Asia and the Pacific. Economic and Social Commission for Asia and the Pacific, United Nations, New York. .

Yanagi, K. (1996). Marketing System of Agriculture Products in Developing Countries. In: Tokyo Seminar on Marketing System for Agricultural Products, Tokyo, Japan, and May 14-24, 1996. Asian Productivity Organization, Tokyo.

APPENDIX

1 Questionnaire

Questionnaire for Ginger Marketing at Morang District
Of Tandi & Jante VDCs.

A. General Information:

Respondent's Name: Nature:

Male/Female:

Family Head Name : Nature:

Male/Female:

Address:

Ward:

District:

VDC/ Municipality:

Family no.:

B. Family Details.

S.N.	Name	Relation with family head	Sex	Age	Education Level	Occupation
		Head:				
	Self:					

Education Level: 1. Literate, 2. Primary, 3. Lower secondary, 4. Secondary, 5. Intermediate, 6.University

Occupation: 1.Agriculture 2. Business, 3. Service, 4. Abroad employment, 5. Self employment, Student, 8. other

C. How much does you hold land(Ropani)?

D. Where do you sell your product(Ginger)?

1. Local Market ( ), Place……..

2. local Trader ( )

3. Outside within Nepal ( ), Place/ District……

4. International Market ( ), Country……

E. What is the average farm price of ginger?

F. Farmer's Perception on farm gate price fixation:

Level of Influence

Infuencing agent:

1. Producers: 5 ( ), 4 ( ), 3 ( ), 2 ( ), 1 ( )

2. Traders: 5 ( ), 4 ( ), 3 ( ), 2 ( ), 1 ( )

3. Farmers group: 5 ( ), 4 ( ), 3 ( ), 2 ( ), 1 ( )

4. Neighbouring farmers: 5 ( ), 4 ( ), 3 ( ), 2 ( ), 1 ( )

G. Gender Decision making in the production of ginger.

Male ( ) Female ( ) Both ( )

H. Gender Decision making in the marketing activities of Ginger.

Male ( ) Female ( ) Both ( )

I. Production problems of ginger growers:

Level of Problems.

1. Pest Problems: 5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

2. Lack of Irrigation facilities5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

3. Unavailability of necessary inputs: 5.( ), 4.( ), 3 ( ), 2 ( ),1.( )

4. Lack of technical know-how: : 5.( ), 4.( ), 3 ( ), 2 ( ),1.( )

5. Unavailability of Loan: : 5.( ), 4.( ), 3 ( ), 2 ( ),1.( )

J. Marketing Problems of Ginger:

Level of problems

1. Lower Price: 5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

2. Lack of Organized Market: 5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

3. Lack of Transportation facility: 5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

4. Lack of Processing Facility: 5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

5. Fluctuation in Market Price: 5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

6. Lack of Storage Facility:5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )

7. Lack of Market Information: 5.( ), 4.( ), 3 ( ), 2 ( ), 1.( )