SPICES IMPORTANT BUT NEGLECTED GOLD CROPS

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ABSTRACT

Spice crops are very important crops in terms of raising socio-economic status, lessening environmental degradation, as well as increasing export earnings. However, Nepal's status in spice trade is declining in overseas export. There are several factors associated with this decline in spite of having high potentials of various spice crop production. Research, development, and extension activities on spice crops need a special focus in agriculture sector.

Additional Key Words: Cash crops, cardamom, ginger, termeric, chillies

INTRODUCTION

The term spices applies to such natural plant or vegetable products or mixtures there of, used in whole or ground form for imparting flavor, aroma and piquancy and also for seasoning of foods (Pruthi, 1993). There is no clear-cut division between spices and condiments; hence, these words are used synonymously. Spices, therefore, are food conditioners or additives and are not classed as foods (Tabinga and Gagni, 1970). Nevertheless they contain appreciable amount of nutritive elements required for healthy human body. They give agreeable flavor and aroma to food, promote appetite and subsequently add to eating pleasure.

Spices contain volatile oils, proteins, fiber, starch, mineral matter, tannin, etc. The volatile oils in spices are responsible for their flavoring, preservative and antiseptic properties. They are largely used as seasoning and preservatives and also as flavoring agents in beverages, active ingredients in medicines, coloring agents, cosmetics and perfumery products.

Since antiquity spices have occupied important place in the lives of people. They have been mentioned in Vade and Bible too. Eventhough different species and varieties of underutilized spices certainly exist worldwide the International Organization for Standardization (ISO) has so far recognized 70 commercially cultivated spices for general trade. Pruthi (1993) reports that India alone cultivates and exports more than 45 type of spices. However, in Nepal, very few selective spices crops like Cardamom, Ginger, Garlic, Turmeric, etc. are cultivated and exported.

SOCIO-ECONOMIC IMPORTANCE

Obviously, spices have played an important role in the national economy of several spice producing, importing and exporting countries of the world. In our context too, undisputedly, spice crops are significantly contributing to socio-economic development. They are "high value" cash crops having wider adaptability with regards to climate, storage and transport, and farming systems. Some crops incurring low cost of production are perennial, some have short duration and some intensively intercropped with cereals wherein productivity

per unit area is immensely increased.

In Nepal, unfertile, sloppy, eroded waste lands are being utilized for cardamom cultivation. This farming distinctly demonstrates the model of nutrient recycling where natural regeneration and greening is very fast (Ojha, 1992, Sangraula, 1989, Niroula, 1994). This has directly contributed to lessening environmental degradation and also upcoming of some endangered wildlife. The author has observed the upcoming of "Rauchha" (Flying squirrel) in his native village of Panchthar in 1994. Thus, cardamom farming can be considered to be one of the unique example of sustainable agriculture systems in the world.

Similarly, ginger is intercropped with maize from which farmers are harvesting extra income from the same unit of land. Spice farmers but also regular source of foreign exchange to the nation. Available statistics shows that Nepal's annual export earning from spices exceeds Rs. 200 million (as reported by TPC and DOC in several years).

Apart from being environmental friendly, spice crops are contributing to boost rural employment through series of related economic and production activities. The underemployment situation in the production belts is observed to be lessening due to gainful extra activities. This, to some extent, helps to minimise the families migration from hills to terai and urban areas (Niroula, 1995).

NEPAL'S STATUS IN SPICE TRADE

Pruthi (1993) reports that world trade on spices in 1990 was estimated to be about 40,000 tones worth of US $ 1500 million. India is considered to be "House of Spices" and contributes about 10-12% of the world trade. It bags 3000 million Indian rupees annually from the export of spices and allied products. However, Nepal's share in the world market is very negligible. The value of spices annually exported from Nepal, on an average, has not exceeded US $ 4.18 million and therefore, its contribution to world trade is roughly 0.28%.

Table 1. Nepal's trade balance on spices (Rs. Mill).

	1991/92	1992/93	1993/94
a. Total export			
1. India	227.50	200.90	215.40
2. Overseas	0.01	NA	0.04
Subtotal	227.51	200.90	215.44
b. Total import			
1. India	NA	86.50	128.00
2. Overseas	NA	122.64	317.12
Subtotal		209.14	445.12
Deficit (a - b)		-(8.24)	-(229.68)

Source: Trade promotion center 1991 to 1994. NA means data not available.

Major commodities of export include cardamom, ginger and cinnamon where as turmeric, chilies and garlic are minors. The export volume is small and irregular too. Previously these commodities were exported to many overseas countries; but at present, the

volume of export to these destinations has decreased drastically and India is considered the single largest buyer of Nepalese spices. The declining overseas export may be due to lack of reliable and steady delivery of quality products at fair, and competitive prices.

The balance of trade on spices is very disappointing (Table 1). The imports have surpassed exports leaving a huge deficit in the balance. This trend is increasing. In the year 1993/94, it is embarrassing to note that import figures alarmingly doubled (Rs. 442.12 million) the export (Rs. 215.44 million) showing a deficit of Rs 230 million. This indicates that the horticulture sector is not having a healthy growth.

PRESENT IMPEDIMENTS

The HMG's Eight National Plan (1992-1997) has recognized spices as high value cash crop having the potential to increase farmers income and export trade. The crops emphasized by the plan include cardamom, ginger, turmeric, garlic, red pepper, betal leaf, black pepper and cumin. The plan has laid ambitious targets to expand the cultivation of spices. It has also conceived of establishing "Spices Development Program" as a functional unit responsible for promoting spice farming in the country. However, to date, a fullfledged program, division or institution devoted to spices research, development and promotion does not exist. Therefore, what is being done and how much has been achieved is still a question seeking evaluation and answer.

Despite the increased area, production as well as export volumes of the aforesaid crops in general, is not encouraging. There is a considerable decrease in the export of ginger. Similar is the case with cardamom and cinnamon. The export of garlic, red pepper and turmeric has almost ceased. The abrupt bloat in cardamom export in 1992/93 (Table 2) was probably due to higher export prices rather than big increment in production. The export prices depends on prevailing market prices in India which is usually unstable. In order to escape adverse market prices, producers usually retain their products during lean year and sell it next year when the prices are comparatively higher.

Table 2. Major export commodities (Rs. x 1000)

Commodities	1991/92	1992/93	1993/94
1. Cardamom	113700	108800	130800
2. Ginger	106500	86800	78200
3. Cinnamon	6000	5300	6400

Source: Dept. of Custom and Trade Promotion Center (DOC and TPC 1991 to 94).

Several problems have cropped up in the production areas. These "potentially manageable" problems are on the rise due to lack of proper interaction. In follow up/field visit reports from 1993 to 1996 it was observed that rhizome rot, a destructive fungal disease has become very prevalent in Dhankuta, Morang, Jhapa, Illam and Sunsari districts where more than 50% of the crop is reported to be destroyed year after year. Few instances of this disease have also been reported in other districts.

Cardamom farming has been under the constant threat of "Phoorkey" and "Chirkey" diseases. These persistent virus diseases are rapidly increasing in the cardamom farms of Mechi and Koshi zones. Cinnamon, that once abundantly thrived in the mid hill forests of

Nepal has all been destroyed in the process of trade. Now it is very difficult to find cinnamon trees and forests in natural state. Cultivation of this renewable resource has not gained any momentum owing to lack of development and commercialization of suitable production packages.

Cumin, a basic ingredient of our kitchen, that can be grown successfully in our agro-climates is also totally imported. Nepal's annual spending on official cumin import exceeds Rs.120 million. Apart from this, it is reported that a huge quantity enters the kingdom through "human carriers", Bimarsha weekly, 1994. It is estimated that the amount spent on this illicit trade may exceed half the official imports for which the government is deprived of revenue. On the other hand, some enthusiastic farmers who were successful to test and produce cumin in some districts have become very disappointed for being unable to avail market access, technical support and encouragement (Niroula, 1995; 1996).

Potentially important crops like black pepper, tumeric and betal leaf are still cultivated as minor cash crops for which research, development and extension activities are very weak or almost nil. Betal leaf farming that was once so popular in Jhapa and Morang districts has instantly disappeared. Consequently, "Agri development bureaucracy" is blamed for failing to provide encouragement and efficient technical services. Regardless of the outcome, innovative leader farmers in retrospect must be lauded for their interest, vision and dedication to introduce this very new crop to the farm communities. Had it been a success, the farmers would had undoubtedly harvested big incomes from Betal leaf farming.

FUTURE NEEDS: SYNOPSIS

Nepal is well known for diversity in altitudes and climates and it exhibits good potential for introduction, production and marketing of new spices in the kingdom. Present status of traditionally cultivated spice crops is unsatisfactory and declining. Escalating domestic demand is fulfilled through heavy imports. On the other hand, diverse and increasing use of spices in the household and industrial sector is opening up more avenues for marketing. As a result, global trade on spices is rapidly increasing. However, Nepal has a negligible share in the world market and trade balances are very depressive. At this juncture, therefore, Nepal must not lag behind to take this opportunity to expand its share in the world market by increasing volumes of export which obviously looks very feasible. Simultaneously, the plight of the farmers will be abated as well as trade deficits will also be corrected.

It is indeed awful to note that, in next 20 years, Nepal must double its food production to sustain its growing population. But on the contrary productivity is decreasing and dependency on imported food is increasing. Research and developmental works initiated since 1924 aiming to transform total agriculture, which have not yet brought out inspiring results. Hence, these facts lead us to say that agriculture sector is still lacking clear vision for its overall development.

Unfortunately, adjustment and reorganization of bureaucratic structures "Syndrome" in Agri administration changes from time to time. Definitely it has several advantages and drawbacks too. In reality, agriculture is a system embodying several sectors. Spices, fruits, vegetables and flowers all fall under "Horticulture" sector. This sector occupies 3% of the total cropped land and contributes over 20% to the gross value of total agricultural production. These vast potentialities of this sector only awaits exploitation. Contextually, it would not be unfair to stress that abased sector of "Horticulture" needs due recognition and status for its growth.

Commercial production of these forgotten "Gold crops" must be started and encouraged to do so immediately. For this, reliable research and developmental activities must reinforce commercial production system. Right at this moment, there is an urgent need to develop and improve production technology, disease and pest resistant high yielding varieties, plant protection measures and post harvest technologies.

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