

REVIEW ARTICLE

A REVIEW ON MARKETING AND VALUE CHAIN OF NEPAL CARDAMOM (*AMOMUM SUBULATUM ROXB.*) IN THE EASTERN HILLS OF NEPAL

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ABSTRACT

Nepal cardamom (*Amomum subulatum* Roxb.) is one of the most precious commodities with considerable export potential, as well as one of our country's most valued crops and most essential cash crops. Large cardamom is primarily farmed in the eastern region of our country. This study focuses on the current state of massive cardamom marketing and the value chain in Nepal. The market for large cardamom is hampered by a variety of obstacles. The vast cardamom market and marketing are weak, and there is a post-harvest loss that inhibits the market. Nepal is the top exporter of large cardamom in terms of market share. The districts of Ilam, Taplejung, Pachthar, and Sankhuwasabha produce and export huge quantities of best quality cardamom. India is the largest market for large cardamom in Nepal. The spice is re-exported from India to Bangladesh, Pakistan, the Gulf states, and other international destinations through use of various transport systems.

KEYWORDS

Large Cardamom, Marketing, Value-chain, Nepal, Market.

1. INTRODUCTION

Large cardamom (*Amomum subulatum* Roxb.) is one of the oldest spices, native to the Eastern Himalayan region, most likely in Nepal, and so known as Nepal Cardamom. It is also known as the "Queen of Spices" and is called "Alaichi" in Nepali. It is a perennial herb in the Zingiberaceae family. It is one of our country's most important cash crops as well as a high-value spice crop that is grown in humid and sub-tropical regions. Large cardamom is a subtropical crop planted in sloping terrain, and the largest producers are Nepal, India, and Bhutan. It is considered as one of the important commodities in international trade and the eastern hills of Nepal are considered as one of the notable producers of Large Cardamom (Subedi, 1982). With high demand it is considered as the world's third most expensive spice crop. It is also called black gold because of its highest market value and can uplift someone's lifestyle. It was first started from the Ilam district of Nepal and spread over mid-hill of 765 m to 1675 m above sea level in 51 districts of Nepal. Nepal is one of the largest cardamom exporters in the world. Cardamom is one of the major export-oriented crops contributing about 7 percent export trade of agricultural commodities.

Only the eastern hills of Nepal generate about 97 percent of Nepal's large cardamom. Nepal produces 9,545 productions on a total area of 16,565 acres, according to the Ministry of Agriculture and Livestock Development. According to data, Taplejung produces the large cardamoms, with 2958 in total. In the first six months of last year, roughly 3.1 million kg of cardamom worth Rs 2.51 billion was exported, however in the same time this year, 4.7 million kg of cardamom worth Rs 3.81 billion was exported. Due to an increase in the price of cardamom, the income from its export has also increased compared to last year. Cardamom was sold at an average price of Rs 25,000 per quintal last year, but it was sold at an average price of Rs 31,000 per quintal this year. According to the center, the price has increased this year due to farmers' continued sale of

cardamom. Farmers were supplying cardamom to dealers until last month because they were experiencing financial difficulties because of the COVID-19 outbreak. Cardamom accounted for 6.28 percent of total exports. According to (MOALD, 2018), Nepal produced 7,954 tons of large cardamom in 2018-19, compared to an annual global production of roughly 12,000 tons (Varadarasan and Biswas, 2002). According to the market of 2019, the current price ranges from 40,000 to 50,000 per moan.

2. MATERIALS AND METHODS

2.1 Prospects of Cardamom Cultivation in Eastern Hills of Nepal

This crop flourishes in the dark, wet, and sloppy grounds where other crops are nearly difficult to grow, it is one of the most popular cash crops for utilizing such lands, which are abundant in the Nepalese mid-hills. The use of such unproductive regions and mid-hills to grow large cardamom will not only assist impoverished farmers to generate cash but will also help to minimize soil erosion and deforestation. Large cardamom has a direct impact on rural people's economies. Its growth has a substantial impact on the poverty reduction of individuals living in the mid-hill areas (George et al., 2007). Small and large farmers alike benefit from the cultivation of large cardamom in the highlands. Aside from the great economic return, it is also a significant source of foreign cash for the country; extensive cardamom farming has numerous environmental benefits.

The tree species planted with cardamom intercept rain and lower its intensity, reducing surface run-off and soil erosion while also fixing nitrogen in the soil and providing nutrients to the cardamom. Furthermore, the gross area under the tree/cardamom crop provides farm households with fuelwood and fodder (Shrestha, 2018). The nonperishable high value and low volume nature of giant cardamom's ultimate product (dry cardamom capsules) has a specific advantage for

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farmers residing in the inner hill areas of the eastern hills, as it can be readily transported to the major marketing towns. Cardamom cultivation also helps to maintain soil fertility and conservation, because its growth and development are closely linked to shade tree species (Kaplinsky and Morris, 2000).

2.2 Area of Production and Productivity of Large Cardamom in Eastern Nepal

Nepal is the world's leading producer and exporter of large cardamom. Around 65000 households are directly involved in large-scale cardamom

production. The Eastern Region of Nepal's key cash crop, large cardamom, has been highlighted as a priority commodity for the region (Bhusal et al., 2020). The below diagram depicts the region of production and productivity of large cardamom in Nepal's eastern part.

2.3 Marketing Channel of Large Cardamom in Nepal

The marketing method for large cardamom begins on the field, with growers sending large cardamom directly to district buyers or Birtamod traders, who then sell it on the worldwide market. The large cardamom's marketing route (Shrestha et al., 2018)

Table 1: Area, Production and Yield of Cardamom in Eastern Region of Nepal

District	Area (ha)	Productive Area	Production (mt)	Yield (mt/ha)
Taplejung	4,299	4,255	2,958	0.7
Sankhuwasabha	2,860	2,150	1,140	0.53
Solukhumbu	165	90	68	0.76
Pachthar	2,920	2,920	1,037	0.36
Ilam	1,695	1,495	810	0.54
Terathum	750	625	250	0.4
Dhankuta	315	160	91	0.57
Bhojpur	712	400	205	0.51
Khotang	1,402	1,064	540	0.51
Okhaldhunga	49	35	20	0.57
Udayapur	38	35	23	0.65
Jhapa	2	2	1	0.5
Morang	49	46	32	0.7
Sunsari	18	16	11	0.69
Total	15,274	13,293	7,186	8

Source: - (MOALD, 2018)

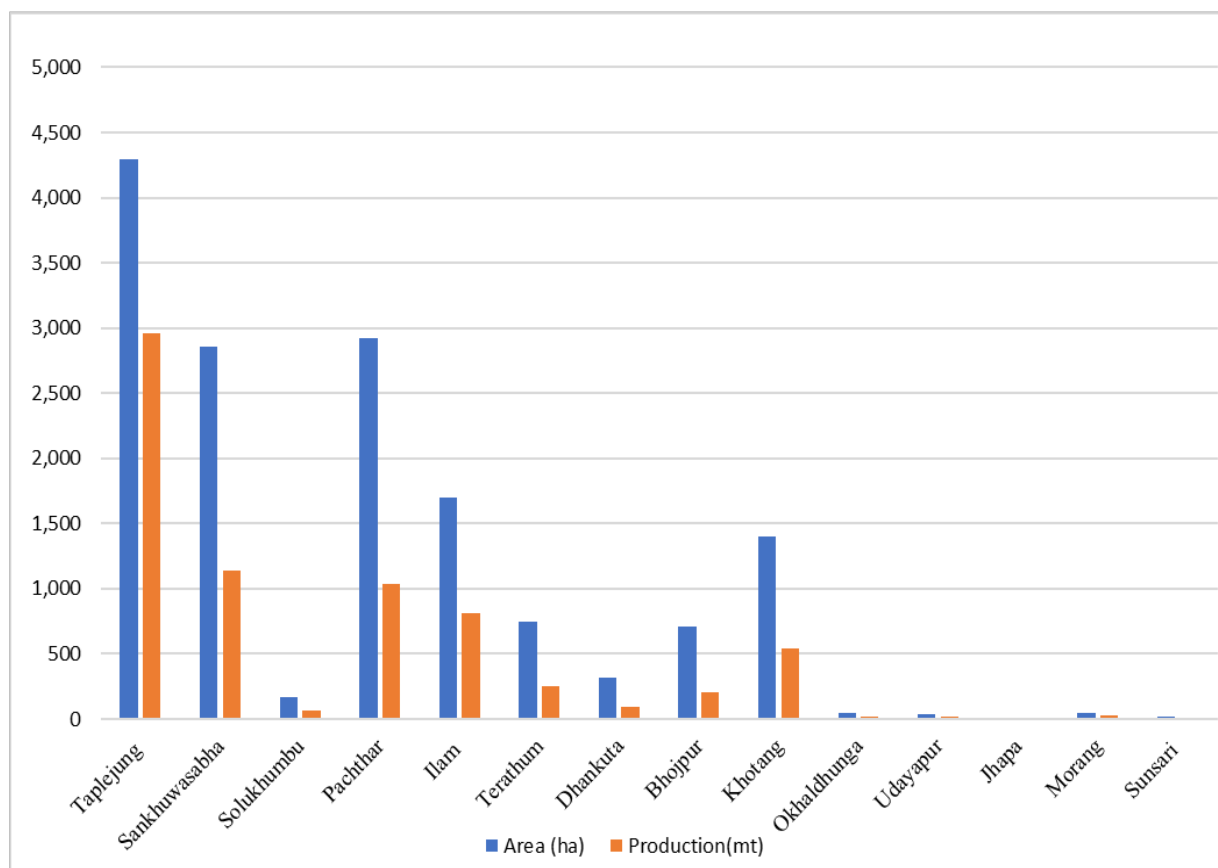


Figure 1: Area and Production of Large Cardamom of Eastern District of Nepal (Source: MOALD, 2018)

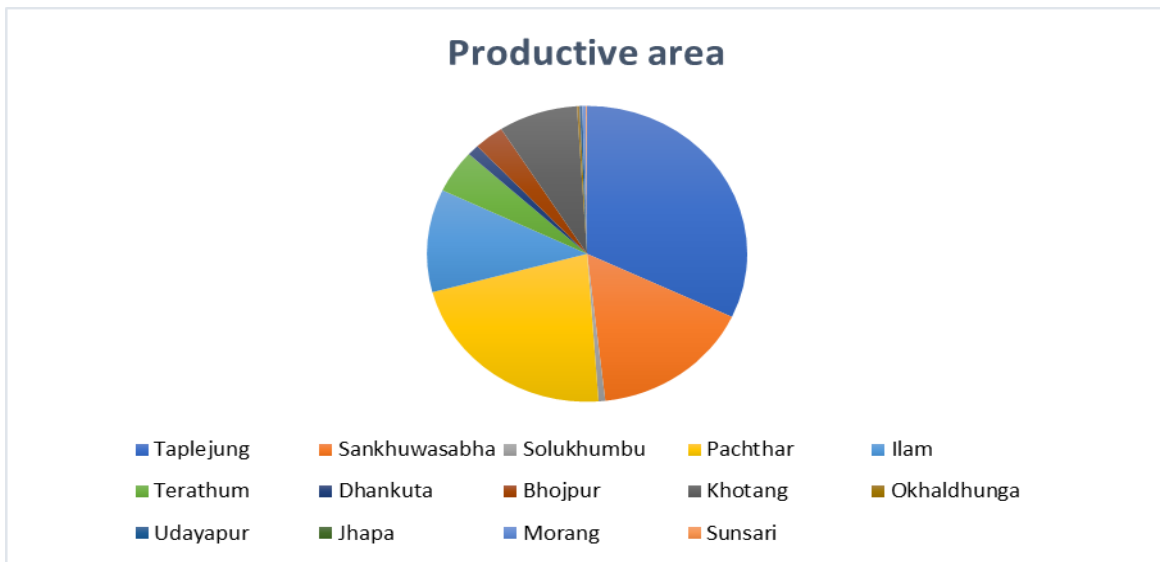


Figure 2: Total Productive Area of Large Cardamom in Eastern Hills (Source: MOALD, 2018)

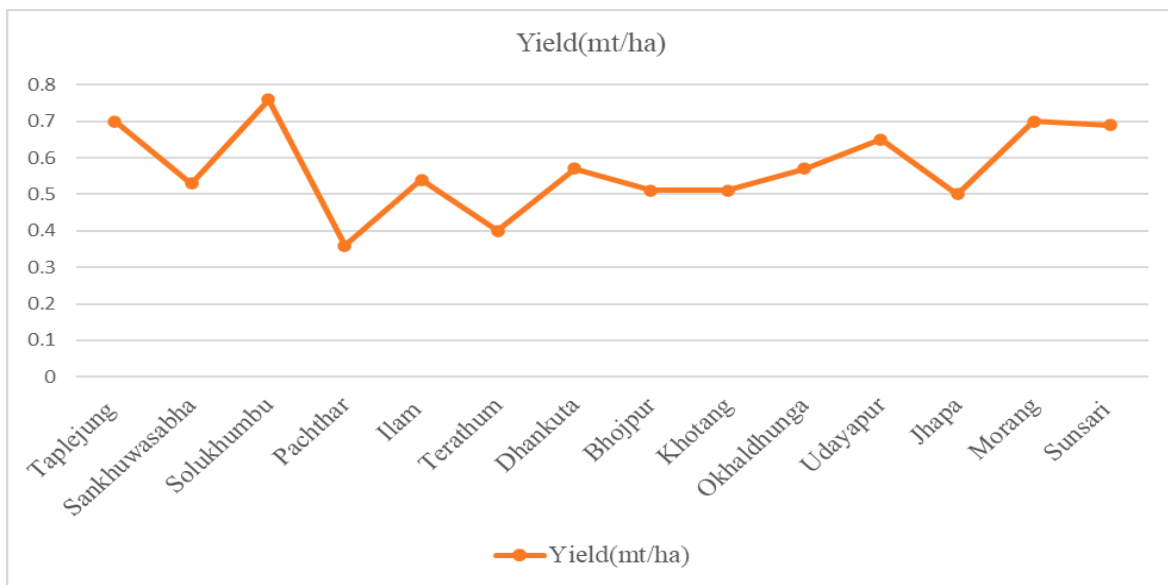


Figure 3: Total Yield of Large Cardamom Production of the Different Eastern District (Source: MOALD, 2018)

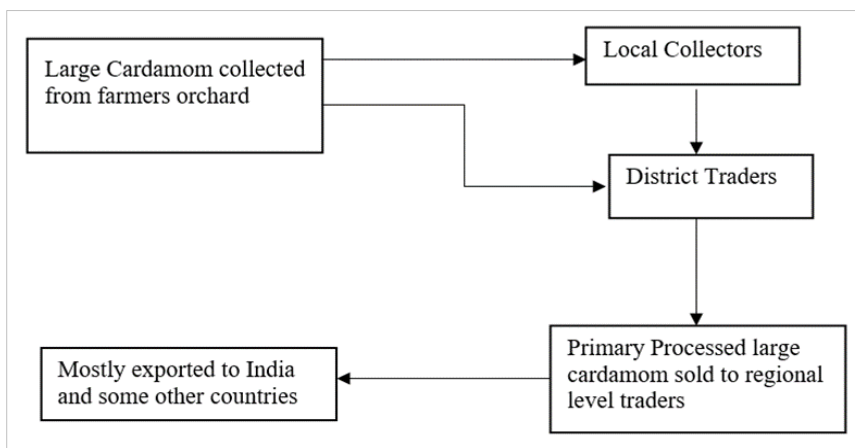


Figure 4: Marketing Channel of Large Cardamom in Nepal (Source: Prasai, et al., 2018; Timsina, et al., 2018)

Different marketing channels were discovered, with the distance between the producing location and the transportation facility increasing (Shrestha, 2018). The following are the primary marketing channels and steps:

1. Producer-Village Vendor-Road head trader-District Trader - Wholesale Trader-Exporter
2. Producer-Road head trader-District Trader-Wholesale Trader-Exporter
3. Producer-Road head trader-Wholesale Trader-Exporter
4. Producer-Road head trader-Exporter
5. Producer- District Trader-Wholesale Trader-Exporter
6. Producer- District trader- Exporter
7. Producer-Wholesale Trader-Exporter
8. Producer-Exporter

Most of the large cardamom is sold through middlemen or commission

agents. These individuals control operations so that they receive most of the consumer price; farmers receive only 20-25 percent of the consumer price. Cardamom growers sell their crop at a low price to local traders, who then sell it to India for an astronomically high price. The main suppliers of large cardamom to the world market are Nepal, Bhutan, and India, with Singapore serving as the international trade hub (Khatiwada, 2007). Birtamod is the major cardamom trading center in Nepal, with Dharan and Fikkal serving as sub-centers. Large cardamom is delivered to Birtamod from the key producing areas of Ilam, Sankhuwasabha, Terhathum, Taplejung, and Pachthar. Hile is the most convenient trading center for Sankhuwashabha, Terhathum, Bhojpur, and Dhankuta. Primary markets (Barhabise, Siddhakali, Rambeni, and Khandabari), secondary

markets (Basantapur and Hile), and terminal markets (Kakabhitta-Siligurhi or through Rani-Jogbani checks) are the principal marketing channels for large cardamom, according to (Khatiwada, 2007).

2.4 Global Marketing Channel of Large Cardamom

The export of large cardamom from Nepal is very high to the Indian market. The main importer of Nepali Large Cardamom is India. Pakistan is another major buyer of Nepal's large cardamom. Large cardamom from Nepal is in high demand (Shrestha, 2018). The value of Nepali large cardamom is highly regarded, and its flavor is believed to be the best and most exquisite.

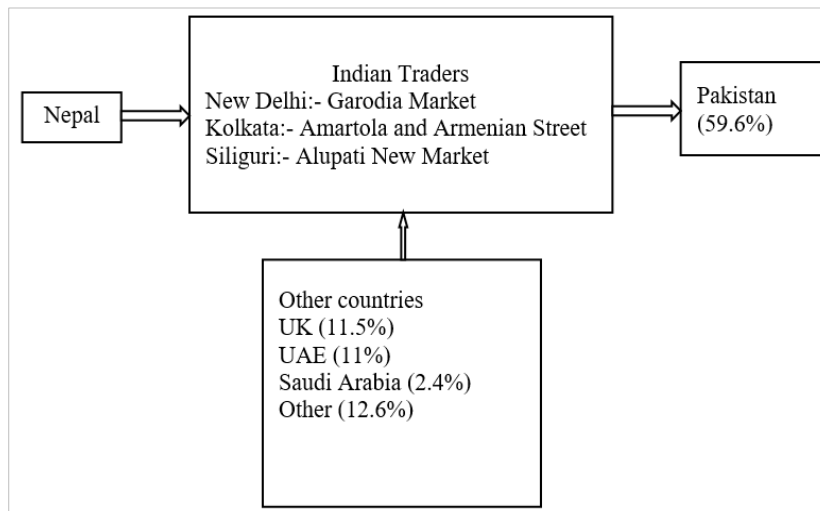


Figure 5: Global Marketing Channel of Large Cardamom (Source: ITPS, 2015)

The biggest Indian domestic markets are Delhi, Kolkata, Siliguri, and Guwahati. Except for India, less than 9% of the product is shipped directly to nations such as the UAE, Afghanistan, and others. Large cardamom is traded by a collection of people, from growers to end-users. In Nepal, the collector or dealer collects cardamom from the farmer's orchard and sends it to a regional trader, such as Biratnagar or Birtamod (Bhattarai et al., 2021; Kattel et al., 2020a). Before the harvest season, marginal farmers would borrow money from local traders and repay it with interest by selling their produce to them. Farmers used to sell the gathered produce after drying to local merchants under the dahadani method, which involves selling crops in the field to local merchants. These marketing strategies are widespread among Nepalese large cardamom growers who require cash in advance, but the price they receive is lower as a result (Shrestha, 2018).

2.5 Value Chain Analysis of Large Cardamom

The whole range of operations necessary to move a product (or a service) from creation to delivery to ultimate consumers and disposal after usage is referred to as the value chain (Kaplinsky, 2000; Kaplinsky and Morris, 2000). The value chain analysis relies heavily on the mapping of sectors and critical connections. On the other side, the value-added of the value-chain approach comes from studying these intra- and inter-actor relationships via the lenses of governance, upgrading, and distributional problems. Understanding these network connections makes it easier to prescribe policy ideas and, more crucially, to appreciate the consequences of such policies. Understanding these network connections makes it easier to prescribe policy suggestions and, more crucially, to appreciate their ramifications across the chain (Acharya et al., 2014).

As a result, it is recommended that a value chain assessment be conducted that includes both producer and consumer perspectives. Furthermore, for long-term sustainability, value chain analysis should encompass social, economic, and environmental components, as well as enabling settings. Changes in the value chain are required to improve the quality and sustainability of Nepal's large cardamom crop. Production benefits in the form of price increases and value addition as it passes from one chain actor to the next. Farmers, collectors, traders, and exporters make up the value chain actors after the enormous cardamom crop (Bhusal et al., 2020). When the capsules were fully ripe, large cardamom was gathered. Depending on the elevations and cultivars, this was normally done between September and November. Opening the uppermost capsule of a spike was a popular method of determining capsule maturity.

However, the ripening of large cardamom capsules on a spike was not uniform; the uppermost capsules ripened first, followed by the

bottommost capsules. The collected cardamom was largely dried in the traditional dryer, which was heated with locally available wood (Joshi and Piya, 2019). The dried cardamom's head and tail were cut off using scissors and sent to surrounding marketplaces. Growers, collectors, traders, and exporters make up the large cardamom postharvest value chain. Curing, tail cutting, and grading were the key processing stages required by the current market (Bhattarai, 2016). Farmers oversaw the curing, while wholesalers were in charge of the rest. Large cardamom was sold to village traders, road head collectors (local collectors), regional traders, national traders, or exporters, and then purchasers and consumers in other countries in Nepal.

2.6 Export Potential and Export Performance of Large Cardamom of Nepal

The production of large cardamom is expanding year after year, which will boost exports. Large cardamom from Nepal has also made its way onto the international market. Large cardamom from Nepal is currently exported to India, where it is re-exported to other countries. Bangladesh, Pakistan, Qatar, and Saudi Arabia are without a doubt the future importing countries for Nepal cardamom (Bhutia et al., 2018). Large cardamom imports are concentrated in a few countries, including Saudi Arabia, Kuwait, Bahrain, and other Gulf states in the Middle East, as well as the Nordic countries in Europe. Cardamom is one of the major species exported to international markets from Nepal. GON has identified the product as an export-oriented commodity along with orthodox tea and ginger (Bhattari, 2016; Rijal, 2013). Cardamom has become a significant source of revenue for Nepal. Being a high-value crop, the annual turnover has increased dramatically in monetary terms over this time. About 94 percent of the production comes from five districts: Taplejung, Ilam, Sankuwasabha, Panchthar, and Terhathum, and the income generated by large cardamom are astounding (Rijal, 2013). Large cardamom contributes significantly to agricultural export revenues, with an estimated 17 percent in 2003-04. Nepal currently has nearly half of the global market for large cardamom, and there is plenty of room for expansion (ITC, 2007).

2.7 Constraints of Marketing of large Cardamom in Nepal

The market for large cardamom has been hampered by several problems. The main problem are subsistence farming, a limited volume of product, and most individuals do not adopt the scientific manner of producing large cardamom. Buyer behavior and price determination are other main constraints. The export price of large cardamom is determined by competitors, the international market, and the time of sale (Bhattari, 2016). In comparison to Nepal, a nearby country sells identical product for half the price. High price fluctuation, most traders' attention being drawn

to the Indian market, old orchards, and a lack of communication among market actors are all problems that hinders the market (Bhattarai et al., 2021). Other main problems are Lack of infrastructure, a lack of market availability, a lack of suitable processing procedures, the use of disease seedlings, a lack of market information, and a lack of knowledge of post-harvest technology (Bhandari and Bhandari, 2018).

Limited information of international market pricing and prices, lack of access to market and other information are felt at all levels, from traders to farmers, and regional traders and exporters' tyranny are important barriers to cardamom marketing (Acharya et al., 2021; Paudel et al., 2020). Nepalese cardamom markets were still customary. Various unorganized markets existed. All internal markets had transportation issues, and there were a variety of marketing outlets, including farmers/producers, local businesspeople, moneylenders in the dohadani system, wholesalers, and international exporters (Singh and Pothula, 2013). According to a study, one of the problems to the commercialization of large cardamom in Nepal is the lack of forwarding and backward supply chain linkages (George, 2007). Multiple taxes, a lack of a plant quarantine office on the Indian side, difficulties obtaining a food safety analytical report, too many small traders for export, traditional Bhatti curing, non-availability of packing credit, no value addition, weak market information, and market intelligence are among the cardamom industry's major marketing issues, according to him.

3. CONCLUSION

It has been determined that Nepal's large cardamom is in high demand on the worldwide market, which can help us improve our livelihood. About 90% to 92 percent of Nepal's large cardamom is exported. The commodity's increasing trend in area, output, productivity, export shares, and export growth rate throughout the years indicates that it is a highly export-oriented cash crop in Nepal's eastern hills. Farmers face issues such as the lack of improved disease-resistant varieties, disease incidence, and a lack of price information, while local traders, medium traders, and large traders/exporters face issues such as the monopoly of traders on price fixation, and price fluctuation from the Siliguri border market.

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