

# IMPACT ASSESSMENT OF PRICE FORECAST: A STUDY OF CARDAMOM PRICE FORECAST BY AMIC, KAU



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September 2010

**Impact Assessment of Price Forecast:  
A Study of Cardamom Price Forecast By AMIC, KAU**

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August 2010

250 Copies

NAIP on Establishing and Networking of Agricultural Market Intelligence  
Centres in India

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Cover Design and Lay Out: Turbosoft, Thrissur

Printing: Ebenezer, Thrissur



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**FOREWORD**

Market transparency is a pre-requisite for any efficient agricultural marketing system. Up-to-date intelligence on prices and other market related inputs enable farmers to take informed decisions to negotiate with the traders on a level playing ground. The asymmetry to agricultural marketing information and intelligence has been a major handicap to farmers in planning and marketing their produce effectively. A successful marketing plan of high value plantation crops, spices and other commercial crops necessitates a fairly good understanding of constantly changing markets, prices and consumer preferences on a regular basis. It is against this backdrop that the launching of the Agricultural Market Intelligence Centre (AMIC) under NAIP Component I on 12<sup>th</sup> October 2009 at the Department of Agricultural Economics, College of Horticulture is to be viewed. Within a short span of one year, the Centre could make notable progress in providing price forecasts for its three mandate crops, viz., coconut, pepper and cardamom. As on date, the Centre has released 9 price forecasts, which were disseminated through 65 paper releases in both regional as well as national dailies, 45 TV telecasts, 16 Radio broadcasts and 6,34,000 Voice SMS through tie up with the IFFCO Kisan Sanchar Ltd. via their Green Card Mobile connections. In order to improve capacity building to absorb market intelligence, the Center could organize 4 training sessions to the Officers of the Department of Agriculture and 11 farmers' training programmes in various districts of Kerala.

The Project Monitoring and Advisory Committee (PMAC) evaluation held by the ICAR on 17<sup>th</sup> April 2010 at TNAU, Coimbatore, and the World Bank Mid Term Review held on 23<sup>rd</sup> May 2010 at CMFRI, Kochi had appreciated the progress made by AMIC KAU. It was suggested by these evaluating bodies that the Centre may carry out an impact analysis of its price forecasts. I am happy to state that the Centre has conducted an Impact Assessment of its cardamom price forecasts released during the crop season 2009-10 at the shortest possible time in a simple and lucid manner. It is with out any rigors associated with such studies so that persons with out any formal training in economics can also understand and comprehend the findings. I am also happy to note that the Centre has come out with a publication of this nature, which I am sure this would serve as a benchmark information to Researchers, Policymakers, Extension Personnel and Students alike.

  
4/16/10

T.R. Gopalakrishnan

## Executive Summary

The Agricultural Market Intelligence Centre under the NAIP Component I, attached to Kerala Agricultural University, Trichur made the first price forecast on cardamom on 17-12-2009, which highlighted the possibility of cardamom price crossing Rs.1000/ Kg range after Christmas 2009, when the prices were ruling at Rs.650/ Kg. The forecast had therefore, urged the cardamom farmers to retain the crop beyond December for better price realizations. The cardamom markets in Kerala and the neighboring Tamil Nadu witnessed unprecedented price volatility thereafter. The speculators and the traders started spreading the news that such record breaking prices would not last, and urged producers not to retain their stock. In its second forecast released by the Centre on 12-04-2010, it was made explicit that the firming up price was not a temporary phenomenon as apprehended, but cardamom prices would continue to remain volatile till the fag end of the 2009-10 season due to limited supply of cardamom and robust demand. The present impact assessment is an attempt to capture the impact of these price forecasts made by the Centre. Personal interview was held using a pre-tested, structured schedule of enquiry among 30 cardamom growers selected at random from *Pampadumpara* and *Kattappana* villages in Udumbanchola taluk of Idukki district, the major

cardamom growing tract in Kerala. The farmers were asked to specify the actual quantity of dried cardamom that was retained and carried over from December to January or subsequent months in anticipation of better prices after coming to know about the possible increase in price after Christmas of 2009. The incremental value of this quantity was worked out at the pre December and post December price realizations. This is taken as the impact value of the information provided. It is estimated to be Rs. 13.19 Lakhs, which on per ha basis works out to Rs. 13,814/-. Assuming that a modest of 10 per cent of the total cropped area under cardamom is benefitted in Idukki alone, the impact of the information under consideration is found to be in the range from Rs. 3.29 – Rs. 4.54 crores at a per unit incremental benefit of Rs. 10,000 – Rs. 13,814 per ha.

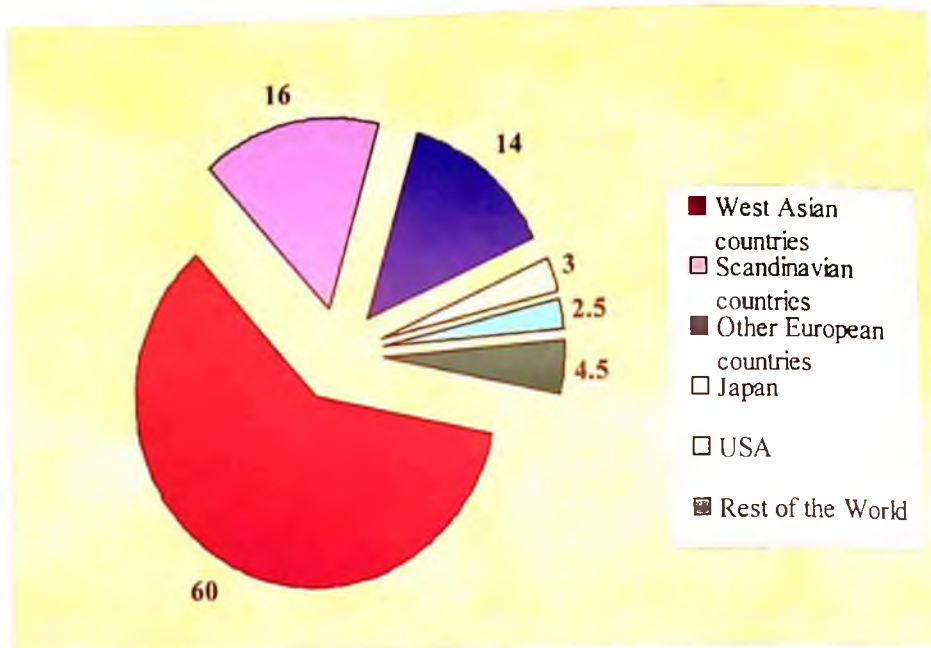
## Introduction

Small Cardamom (*Elettaria cardamomum*) occupies a unique position in the global spice trade. It is no exaggeration that the trade of pepper (the “King of spices”) and the aroma of cardamom (the “Queen of spices”) had a decisive role in the search for a short “spice route” to India, and thereby far reaching consequences not only in the commercial relations with the Arabs, Portuguese, Dutch, French and the English but also in redefining the socio-political destiny of the country for many years to come.

The world production of cardamom is estimated to be around 35,000 MT. India was a leading producer of cardamom until Guatemala overtakes India in 2000-01. Nearly two-third of the total global production of cardamom is attributed to Guatemala and hence Guatemala’s cardamom production sets the trend for the global prices of this commodity. Among the Indian states, Kerala has a dominant role as a cardamom producing area. It accounts for 59 per cent cultivated area and 78 per cent of total production in cardamom. Idukki district in Kerala accounts for 79 per cent cardamom area (32850 ha) and 90 per cent of total production (9080 MT).

The major cardamom consuming countries are Saudi Arabia, India, Pakistan, United Arab Emirates, Norway, Sweden, Denmark, Finland, Germany, Russia, England, United States and Japan. A broad consumption pattern is depicted in Fig. 1.

**Fig. 1. Percentage share of cardamom consumption**



West Asian countries: include Saudi Arabia, Kuwait, UAE, India, China etc.

Scandinavian countries include: Denmark, Finland, Sweden, Norway and Ireland

Other European countries include: Germany, England, France, Italy and Russia.

Cardamom's reputation as a spice is unmatched, and it has a variety of uses as a flavouring agent in tea and dishes, processed food, tonics and perfumes and as a therapeutic agent. It is a low volume, high value commodity in domestic as well as international trade. It is one of the highly priced and expensive spices and rightly called as the "green gold".

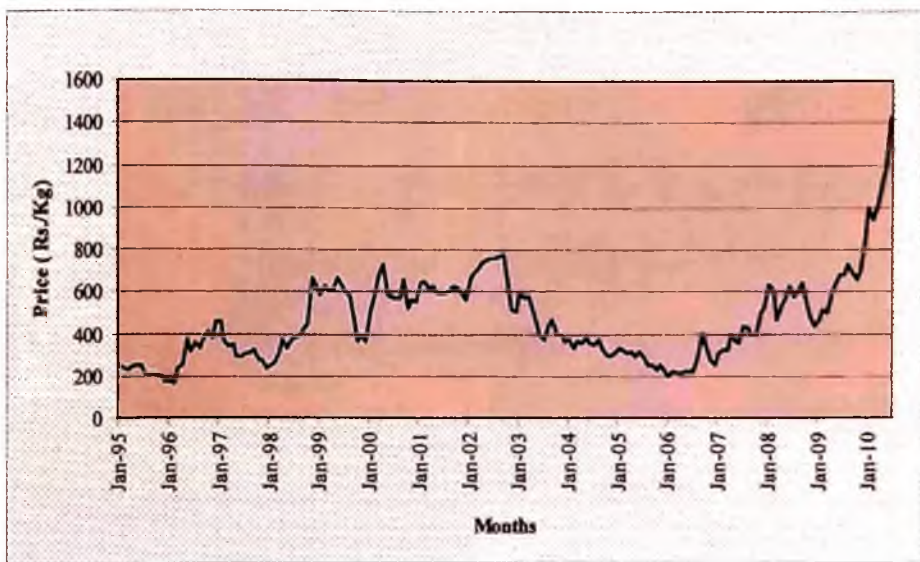
## **Pricing of cardamom**

Though cardamom is a major Foreign Exchange earner for India, it is not a free traded commodity. As per the Cardamom (Licensing & Marketing) Rules, 1987, all the producers of cardamom should sell their produce only through a licensed auctioneer/dealer and the auction



system came into existence since then. The cardamom auction centers are organized by the Spices Board (the erstwhile Cardamom Board), who issues License to the cardamom traders. The auctions followed an “open-out cry” system before it was converted into an electronic auction system in August 2007 at Bodinayakkanur in Tamil Nadu, followed by Vandamedu in Idukki District of Kerala in December 2007. The major cardamom trading centers in Kerala are Vandamedu, Puttady, Puliyanmala, Kumily, Thodupuzha and Cochin.

**Fig. 2. Trends in Cardamom Prices at Vandamedu**



Cardamom as an internationally traded commodity is subjected to considerable price fluctuations (Fig. 2) based on crop prospects in India, Guatemala; domestic as well as global demand; carry over stocks with the consuming countries; as well as seasonal elements like Diwali and Dusserah festival season in Northern India, the onset and severity of winter, and Ramadan period in the gulf countries, especially in Saudi



Arabia, Kuwait and UAE. For instance, the coefficient of variation of prices from January 1995 to July 2010 showed that the price of cardamom was subjected to an instability of more than 46 per cent.

### **Statement of the problem**

It was against this background that the NAIP on “Establishing and Networking of Agricultural Market Intelligence Centres in India” under Component I attached to the Department of Agricultural Economics, College of Horticulture, Kerala Agricultural University, Trichur made two price forecasts for cardamom during the production year 2009-10 (both the forecasts are reproduced as Appendix I and II). The first price forecast released on 17-12-2009 highlighted the possibility of cardamom price crossing Rs.1000/ Kg range after Christmas 2009, when the prices were ruling at Rs.650/ Kg, and urged farmers to retain the crop beyond December for better prices. The price of AGEB grade of cardamom was Rs, 999/kg on 24-12-2009. There was no market transaction on 25-12-2009, being the Christmas day. The price of AGEB grade was Rs. 1000/ Kg on 26-12-2009. The price of non graded (bulk) cardamom also crossed Rs.1000 on 03-01-2010.

The cardamom markets in Kerala and the neighboring Tamil Nadu witnessed unprecedented price volatility thereafter. The speculators and the traders started spreading the news that such record breaking prices

would not last, and urged producers not to retain their stock. The second forecast released by the Centre on 12-04-2010 clearly indicated that the firming up price is not a temporary phenomenon as apprehended, but cardamom prices would continue to remain volatile till the fag end of the 2009-10 season due to limited supply of cardamom and robust demand. The present impact assessment, being carried out by the Agricultural Market Intelligence Centre, Kerala Agricultural University is an attempt to capture the impact of price forecasts released.

## **Methodology and sampling design**

*Udumbanchola* taluk, the major cardamom growing tract in Idukki district was purposively selected. A total of 30 cardamom growers were selected at random from *Pampadumpara* and *Kattappana* villages in the taluk (the name and address of the farmers are furnished in Appendix III). The information required for the study was collected from the sample farmers through personal interview, using a pre-tested, structured schedule of enquiry (Appendix-IV). The primary data under investigation pertains to the agricultural year 2009-2010. Simple tabular analysis was carried out to arrive at the estimates. The farmers were asked to specify the actual quantity of dried cardamom that was retained and carried over from December to January or subsequent months in anticipation of better prices after coming to know about the possible

increase in price after Christmas of 2009. Only this retained quantity is taken into consideration to quantify the impact of the price forecast. The incremental value of this quantity was worked out from the pre December and post December price realizations.

### **Background of the study area**

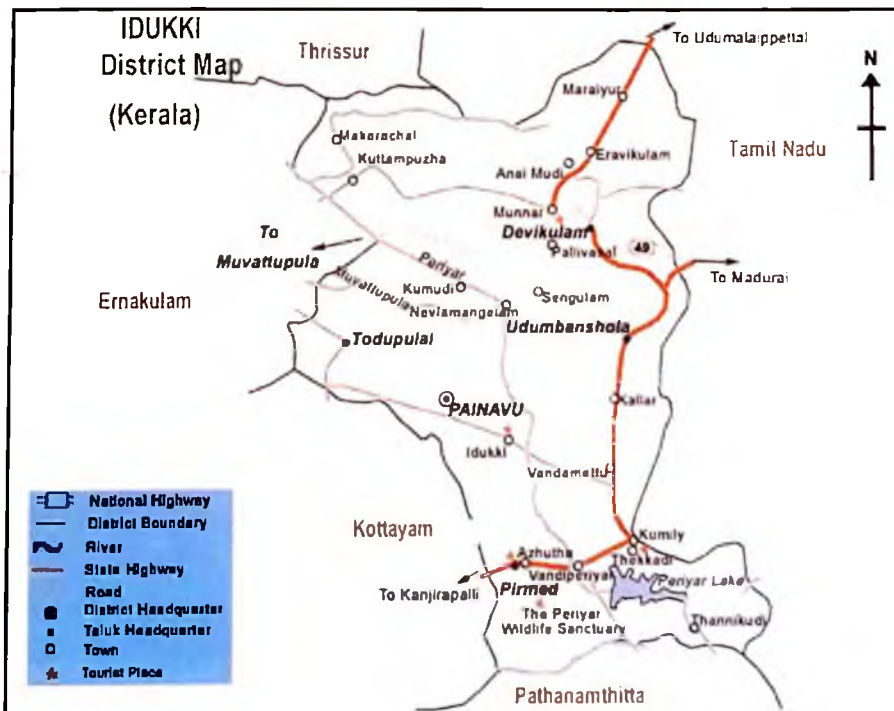
Idukki lies between 9 degree 15' and 10 degree 21' of north latitude and 76 degree 37' and 77 degree 25' of east longitudes. It is bound on the East by Theni district of Tamil Nadu, Ernakulam and Kottayam districts in the West, Pathanamthitta district in the south, and Trichur and Coimbatore districts in the North( Fig.3 a and b).

Idukki is the biggest district in Kerala with an area of 5,087 sq.km. The district consists of Devikulam, Udumbanchola and Peermedu taluks. About 97 percent of the geographic area of the district is covered by rugged mountains and forests. There is only a strip of Middle land (3%) in the western part of the district, with virtually no low land. More than 50% of the area of the district is covered by forest. The district receives plenty of rains from both the South- West monsoon during June-August and the North- East monsoon during October - November. The normal rainfall is 3265 mm.

**Fig. 3 a. Location of Idukki District**

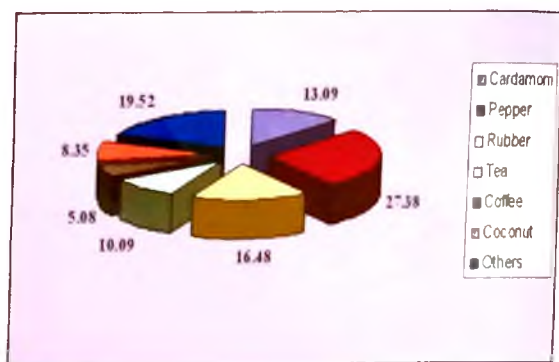


**Fig. 3 b. Map of the study area**



Agriculture is the main occupation of the people in the District. The agro-climatic conditions are ideally suitable for the cultivation of cash crops like cardamom, pepper, tea, coffee, rubber, coconut, etc. The Tea Gardens are concentrated in the north while major hilly areas have Cardamom plantations. The cropping pattern of the district is depicted in Fig. 4.

**Fig. 4. Cropping Pattern of Idukki District**



Pepper is the major crop, occupying 27 per cent of the total cultivated area. Cardamom accounts for 13 per cent of the cropped area (32850 ha). The rest of the cropped area is occupied by Rubber (17 per cent), Tea (10 per cent), Coconut (8 per cent), Coffee (5 per cent) and the remaining crops accounts for 20 per cent. Pepper and

Cardamom together accounts for 40.47 per cent of the total cropped area. Idukki District alone produces around 7800 MT cardamom annually, which is 91.40 per cent of the total production in the state. Hence, the district is aptly known as the 'Spices District' of Kerala.

### **Impact of the Price Forecasts**

The sample consisted of 8 marginal farmers (<1ha), 11 small farmers (1-2ha) and 11 large farmers (>2ha). The average operated holding size of the sample farmers was 3.18ha. Though 9 farmers only (30 per cent) had irrigation facilities, 50.05 per cent of the cardamom areas were under irrigation. The production and price related information pertaining to the respondent farmers are presented in Table 1.

The average price during the agricultural year 2008-09 was fairly stable. It varied within Rs.443-Rs.473 per kg. The situation during the agricultural year 2009-10 changed drastically due to the supply constraints. As a result, the prices reacted sharply. The average price realized during the harvest season 2009-10 in the period prior to December was Rs.671 per kg. The average price realized increased to Rs.1093.53 per kg in the post December period, registering an increase by 62.97 per cent.

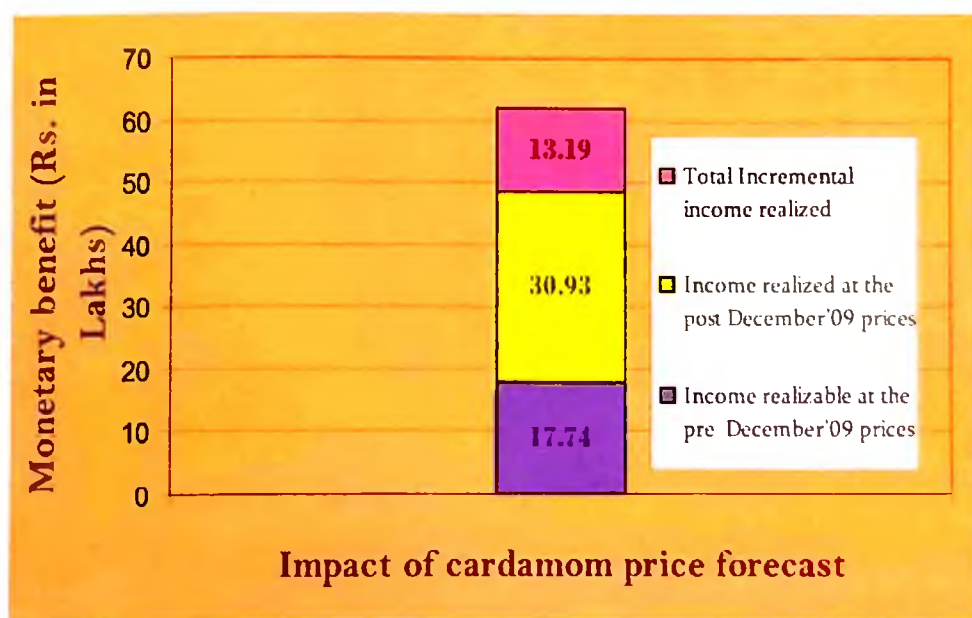


Table 1. Production and details of retention of the sample farmers

| Sl.No | Particulars                                     | Value          |
|-------|---|----------------|
| 1     | Average Land Holding Size                       | 3.61 ha        |
| 2     | Average operated holding under Cardamom         | 3.18 ha        |
| 3     | Total Production during 2008-09                 | 85450 Kg       |
| 4     | Average Price received during 2008-09           |                |
| 4a.   | Prior to December                               | Rs. 443.33     |
| 4b.   | After December                                  | Rs.473.33      |
| 5     | Total Production during 2009-10                 | 81065 Kg       |
| 6     | Average Price received during 2009-10           |                |
| 6a.   | Prior to December                               | Rs.671         |
| 6b.   | After December                                  | 1093.53        |
| 7     | Quantity retained beyond December'09            | 2543 Kg        |
| 8     | Income realizable at the pre December'09 prices | Rs.1774350     |
| 9     | Income realized at the post December'09 prices  | Rs.3092920     |
| 10    | Total Incremental income realized (9-8)         | Rs.13.19 Lakhs |
| 11    | Incremental income realized on per ha basis     | Rs.13814.25    |

Once the price forecast by the Agricultural Market Intelligence Centre of Kerala Agricultural University indicated a possible hike in prices due to mismatch in the demand-supply position, farmers started retaining the harvested crop in December '09 to subsequent months. It may be noted from table 1 that 2543 kg was retained in such manner by the sample farmers alone, anticipating higher prices in January '10. The incremental income realized was estimated at the pre December and post December price realizations on this retained quantity. It amounts to Rs.13.19 Lakhs, which on per ha basis works out to Rs.13,814/-.

**Fig. 5. Impact of Cardamom Price Forecast**



Assuming that a modest 10 per cent of the cropped area in Idukki were benefited due to the information under consideration at a level ranging from Rs.10,000 – Rs.13,814 per ha, the incremental benefit is reckoned at Rs.3.29 – Rs.4.54 crores.

The source of accessing price forecast by the sample respondents during the crop season 2009-10 is depicted in Table. 2.

Table.2. Source of accessing price intelligence by the sample farmers

| Sl. No | Source of Information | No. of farmers |
|--------|-----------------------|----------------|
| 1      | News paper            | 18<br>(33.96)  |
| 2      | Radio                 | 0<br>(0)       |
| 3      | TV                    | 19<br>(35.85)  |
| 4      | Traders               | 12<br>(22.64)  |
| 5      | Others*               | 4<br>(7.55)    |

Note: - Figures shown in parentheses indicate percentage to respective totals

\* Others include the Cardamom Growers Association, friends, neighbours and relatives.

It may be noted that most of the farmers depended on mass media like regional Television channels and news papers for accessing the price forecast. Once this information was available, the farmers shared and discussed among, friends, neighbours and relatives. The Cardamom Growers Association also disseminated this information to their members.

## APPENDIX I

First cardamom forecast released on 17.12.2009

### CARDAMOM MARKET TO REMAIN BULLISH ON PRODUCTION SHORTFALLS

Small Cardamom (*Elettaria cardamomum*), described as the "Green Gold" is undoubtedly the "Queen of Spices". It is the world's third most expensive spice after saffron and vanilla. Cardamom is used as flavorings in both food and drink, as cooking spices and as confectioneries. It is also used as a masticatory, and finds quite a number of uses in medicinal formulations. The oil contained in the seeds and pods are used in perfumes and as a stimulant. It enjoys an enviable position in the international trade of spices.

Guatemala, India, Sri Lanka, Tanzania, El Salvador, Vietnam, Laos, Cambodia and Papua New Guinea are the major cardamom growing countries in the world. The world production of cardamom is around 36,000 tonnes per annum. Guatemala leads the global production, with an annual production of around 23,000 tonnes (approximately 64 per cent of the total world production), followed by India and Tanzania. The West Asian countries like UAE and Saudi Arabia, Denmark, Finland, Norway, Japan and USA are the major consuming countries.

Kerala is the major cardamom producing state in the country, having a share of around 56 per cent area, 76 per cent of the total production.

and a productivity level of 207 Kg/ha. Idukki district accounts for the lion's share of cardamom produced in Kerala. Cardamom is extremely rain and temperature sensitive. It needs low temperature, high humidity and incessant drizzles.

Table I. Area, Production and Productivity of Cardamom in India (2006-07)

| State        | Area<br>(in Hectares) | Production<br>(in Tonnes) | Productivity<br>(Kg/ha) |
|--------------|-----------------------|---------------------------|-------------------------|
| Kerala       | 41362                 | 8545                      | 207                     |
| Karnataka    | 26611                 | 1725                      | 65                      |
| Tamil Nadu   | 5255                  | 965                       | 184                     |
| <b>Total</b> | <b>73228</b>          | <b>11235</b>              | <b>153</b>              |

Source: Spices Board, Kochi

- The Cardamom harvest season in India spreads from August to March, and the peak harvest season synchronizing with the bulk market arrivals are expected from October to December.
- Traders' survey at Vandanmedu and discussion with knowledgeable sources in the Spices Board indicated that there is a reduction in crop output amounting to 15-20 per cent as compared to the last year owing to the pre-dominant dry spell in the summer months of 2009.
- Trade reports also indicate a substantial reduction in cardamom production in Guatemala due to adverse weather conditions and

subsequent poor crop stand. Thus, the competition from Guatemala appears very weak during this year.

- The heat is turned on the global market due to the deficit production in two major producing and exporting countries, resulting in a bullish phase for the Cardamom prices. The average price which was hovering around Rs.500 per Kg during October, November, December last year has crossed Rs.800 per Kg during December 2009. The auction average price on 16/12/2009 at Vandanmedu was Rs.957/Kg. There is every possibility that the export grade viz., AGEB may cross Rs. 1000/Kg during this harvest season itself.
- This is reflected in the futures market also where the price is floating around Rs. 1050 per kg for the months of January, February and March.

It is against this background that the NAIP- Agricultural Market Intelligence Centre (AMIC) functioning in the Department of Agricultural Economics, College of Horticulture, Kerala Agricultural University analyzed the past 13 years' average weighted price that prevailed in Vandanmedu market and also conducted a traders survey in this market in order to assist the farmers in better decision making. The average weighted price forecasted for the months of January, February and March 2009 based on Vandamedu prices will be as follows:



| Month        | Rs/Kg   |
|--------------|---------|
| January '10  | 860-950 |
| February '10 | 870-975 |
| March '10    | 850-900 |

Trade sources informed that arrivals may pick up if good monsoon showers are received during January or else the production deficit that may go up to 30 per cent than the previous year. However, sources in the Spices Board admitted that they anticipate a production fall within 20 per cent than the previous year. Viewing all these estimates and speculative activities indicated by the futures price coupled with our own price analysis, farmers are advised against immediate disposal. Farmers enjoying good storage facilities can expect a better price beyond December end through storage.

## APPENDIX II

### Second cardamom price forecast released on 12.04.2010 CARDAMOM PRICES TO REMAIN VOLATILE

The Agricultural Market Intelligence Centre (AMIC) of Kerala Agricultural University under the ICAR assisted NAIP project had released its first price forecast for cardamom (bulk) for the months of January, February, March' 10, based on their analysis of cardamom prices at Vadanmedu market for a period of 15 years from August 1996 to December 2009. The study had clearly indicated that the cardamom prices in the State may firm up in January, February and March 2010 due to global and domestic supply constraints. A summary of the price range predicted and its validation based on actual prices that prevailed at Vadanmedu market during the reference period is given below:

| Commodity Form  | Month         | Forecasted   | Actual        |
|-----------------|---------------|--------------|---------------|
|                 |               | Price(Rs/Kg) | price (Rs/Kg) |
| Cardamom (Bulk) | January 2010  | 850-950      | <b>1015</b>   |
|                 | February 2010 | 870-975      | <b>960</b>    |
|                 | March 2010    | 850-900      | <b>1003</b>   |

The Centre is now releasing its prediction for cardamom for the month of April-June 2010, based on new trade inputs and new market sentiments:

- The small growers have by and large released their cardamom output in the face of the attractive price and the lack of scientific storage facilities. Only the big farmers and estates who possess their own curing and scientific storage facilities are releasing their stock slowly, but cautiously.
- Due to the long dry summer spells from January onwards, additional outputs realized are low.
- 39,047 kg and 865 kg of cardamom was brought to Vandanmedu Auction Centre on 11/04/2010 and 12/04/2010, and the average prices realized were Rs. 1128 and Rs. 1006 per kg respectively.
- Even though prices are ruling high, trade circles indicate good demand for cardamom from North India and Export Houses.

As limited supply of cardamom and robust demand could further push up prices, the analysis by Agricultural Market Intelligence Centre (AMIC) shows that the cardamom prices may go up by another 10-15% in the next few months as shown below:

| <b>Commodity Form</b> | <b>Month</b> | <b>Forecasted price<br/>(Rs/Kg)</b> |
|-----------------------|--------------|-------------------------------------|
| Cardamom (Bulk)       | April 2010   | 1020-1075                           |
|                       | May 2010     | 1050-1100                           |
|                       | June 2010    | 1075-1125                           |

### APPENIDX III

#### Name and Address of Respondent farmers

| SI No. | Name            | Address                                       |
|--------|-----------------|---|
| 1      | K.P.Surendran   | Charuvila Puthen Veedu,<br>Pampadumpara (P.O) |
| 2      | P.V.Varghese    | Puthuparambil (H), Pampadumpara (P.O)         |
| 3      | Joseph          | Mundakkal (H), Pampadumpara (P.O)             |
| 4      | Gandhi          | Gandhi Illam, Pampadumpara (P.O)              |
| 5      | Joychan         | Padinjaremuriyil, Pampadumpara (P.O)          |
| 6      | K.M.James       | Kochupurackal (H), Pampadumpara (P.O)         |
| 7      | Benny.T.J       | Thakazhipurath(H), Pampadumpara (P.O)         |
| 8      | T.J.Skariah     | Thakazhipurath, Pampadumpara (P.O)            |
| 9      | Joji            | Kochupurackal (H), Pampadumpara (P.O)         |
| 10     | Georgekutty     | Kochupurackal (H), Pampadumpara (P.O)         |
| 11     | James           | Kunnathupurayidam, Chembalam (P.O)            |
| 12     | Varghese        | Kunnathura, Chembalam (P.O)                   |
| 13     | Jamaludeen      | Perumpattikattil, Chembalam (P.O)             |
| 14     | Ashley Cheriyan | Thenammakkal, Pampadumpara (P.O)              |
| 15     | C.Thomas        | Kottapurath (H), Pampadumpara (P.O)           |

|    |               |  |
|----|---------------|--|
| 16 | Vamarajan     | Malayil (H), Pampadumpara (P.O)                          |
| 17 | Rajasekharan  | Gurumangalam (H), Pampadumpara                           |
| 18 | Kuriakose.C.N | Chinthamaniyil (H),Pampadumpara (P.O)                    |
| 19 | Kuttichan     | Thekkil (H), Pampadumpara (P.O)                          |
| 20 | Chandran Nair | Thadathil (H), Pampadumpara (P.O)                        |
| 21 | Shiji         | Ooriyakunnath (H),Kochuthovala (P.O),<br>Aanakuthy       |
| 22 | Sakthivel     | Kombangal (H), Pampadumpara (P.O)                        |
| 23 | P.M.Mathew    | Pokkamthodiyil (H), Kadamakuzhy (P.O)                    |
| 24 | Georgekutty   | Amaravathy Estate,<br>Kochuthovala (P.O),Anakuthy        |
| 25 | Muneeshwaran  | Renjith Bhavan Estate,<br>Thovalakavala (P.O), Aanakuthy |
| 26 | Jose Mathew   | Pottenanikkal (H),<br>Kadamakuzhy (P.O), Valakadavu      |
| 27 | Sukumaran     | Ottukunnel (H),<br>Kadamakuzhy (P.O), Valakadavu         |
| 28 | Reji          | Njellaniyil (H), Kattapana (P.O), Parakkadavu            |
| 29 | Robbins       | Ozhakkal(H), Kadamakuzhi                                 |
| 30 | Shaji         | Kadaplakal (H), Vallakkadavu                             |

## APPENDIX IV

### KERALA AGRICULTURAL UNIVERSITY ESTABLISHING AND NETWORKING OF MARKET INTELLIGENCE CENTRES IN INDIA (NAIP -AMIC) IMPACT STUDY (CARDAMOM)

Zone:

District:

Taluk:

Village:

1. Name of the farmer & address with pin code:

Phone No:

Mobile No:

2. Date of interview :

3. Size of land holding :

5. Area under cardamom :

6. Area irrigated :

7. Production details during 2008-09: Total Production:

Total Qty Sold :

| Months                       | Aug'<br>08 | Sept'<br>08 | Oct'<br>08 | Nov'<br>08 | Dec'<br>08 | Jan'<br>09 | Feb'<br>09 | Mar'<br>09 | Apr'<br>09 | May'<br>09 |
|------------------------------|------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Qty<br>produced              |            |             |            |            |            |            |            |            |            |            |
| Qty sold                     |            |             |            |            |            |            |            |            |            |            |
| Price<br>received<br>(Rs/Kg) |            |             |            |            |            |            |            |            |            |            |



8. Sources of market and price information

|                  |  |
|------------------|--|
| <b>Source</b>    |  |
| News papers      |  |
| Radio            |  |
| TV               |  |
| Others (specify) |  |

9. Production details during 2009-10 : Total production:  
Total Qty Sold :

| Months                 | Aug' 09 | Sept' 09 | Oct' 09 | Nov' 09 | Dec' 09 | Jan' 10 | Feb' 10 | Mar' 10 | Apr' 10 | May' 10 |
|------------------------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| Qty produced           |         |          |         |         |         |         |         |         |         |         |
| Qty sold               |         |          |         |         |         |         |         |         |         |         |
| Price received (Rs/Kg) |         |          |         |         |         |         |         |         |         |         |

10. Quantity retained in anticipation of price hike and the price received

11. Sources of market and price information

|                  |  |
|------------------|--|
| <b>Source</b>    |  |
| News papers      |  |
| Radio            |  |
| TV               |  |
| Others (specify) |  |

12. How the price information was useful in taking marketing decision in cardamom



**Plate. 1. Sri. Munneshwaran, a progressive cardamom farmer  
in Idukki District**



**Plate. 2. Sri. Sukumaran explaining the functioning of the  
cardamom drier**



**Sri. Reji with the “Njallani Green Gold”, a National Award winning variety evolved by him**



**Sri. P.C. Punnoose, General Manager of Kerala Cardamom Processing and Marketing Co-operative Society (KCPMC), a leading Auctioneer interacting with the AMIC, KAU Team**



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Dear Satheesh,

Wish you and your team a happy onam. I have gone through the impact report. It is nice. Could you get the break up that how many farmers in different size groups stored the product. What is their perception about your forecast?. Are these farmers fully aware about amic forecasts?

Regards  
Ajjan

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Greetings I

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Dear Dr.Sathish

Greetings.

I have gone through the price forecast for Pepper. Its ok I have made some grammatical corrections. Kindly go for dissemination.

The impact assessment on cardamom is very excellent. kindly send a copy to Dr.Yaduraju also

With Regards

Yours sincerely  
Dr.N Raveendaran  
(National consultant)

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---

AMIC KAU to TNAUDEMIC 10:03 am (4 minutes ago) [Reply](#)

Dear Raveendran Sir,

Greetings!

Thanks for the final output of Pepper forecast. I will be awaiting for its dissemination today itself

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Dear Dr Satish,


I am extremely happy to see the impact of ur forecast and media coverage Congratulations to the team

YS

SL Mehta

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**AGRICULTURAL MARKET INTELLIGENCE CENTRE (AMIC)**  
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