Towards Effective Marketing Practice in Sri Lankan Paddy Market: Some Perspective

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Abstract

Paddy industry has a prominent place not only in the economic aspect in Sri Lanka but also in other aspects of the country. Even though the industry is in existence for quite a long time, it has not developed with the pace that other industries have developed. Many historical and technical factors have largely contributed for the stagnancy of the industry. However, the importance of developing industry has felt to a greater extent. Marketing has been considered as key imperative, if not the first imperative by virtually all the industries including agriculture all over the globe. The absence of marketing practice in Sri Lankan paddy industry has made to be congruence compared with other industries in terms of product quality, sophistication, marketing infrastructure etc. The ensuring discussion enumerate the plight of the industry, predicaments of participants in the industry, the current degree of marketing practice and the ways and means of enhancing different aspects of the industry by concentrating marketing philosophies and practices.

Background & Justification

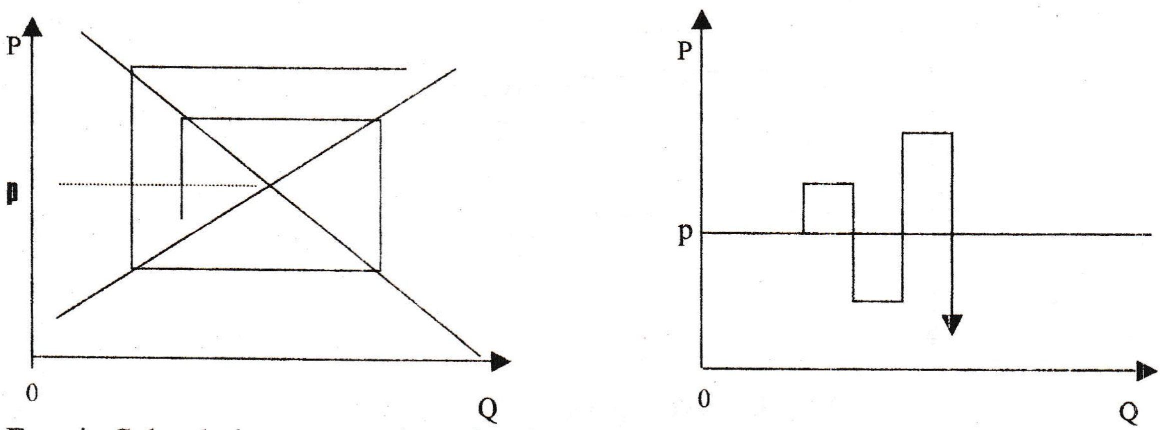
Rice is staple food of the people and paddy occupies the largest area of land under any crop. Paddy along with coconut, contribute slightly more of the GNP (Gross National Product) Thus increasing the local production of rice has been major objective of every government since independence. Paddy has been cultivated from time immemorial but has been produced essentially on a small scale for domestic consumption. Although in the past, it has become commercialized in the same areas, the scale of production continued to be small. Paddy is cultivated in nearly all parts of the country, except at very altitudes. Its cultivation is more widespread than any other crop, which is grown on large-scale paddy cultivation. It tends to be confined to the valleys and flood plains and does better on the alluvial soils found in such areas.

Therefore, the importance of agriculture in Sri Lanka cannot be underestimated. A prominent factor that is pointed out by analyzing the Sri Lankan economic and social environment is that a higher degree of industrialization can be achieved by improving Sri Lankan agricultural sector. Paddy production is the main contributor for the agricultural sector and the contribution of paddy production in Gross National Product in 1999 had been 3.5% and in 2000 it had been 3.2%. (Central Bank Report 2000) The total land occupation for the paddy cultivations in Sri Lanka had been 83000ha and total paddy production in year 2000 was 2850000metric tons (See appendix 01) The 1.8 million households are engaged in paddy cultivation and other related activities. (Abeysiriwardane, 2000) This mammoth amount of employment in this sector itself emphasizes the significance of paddy production in Sri Lankan economy. The final consumer product of paddy is rice, which has been staple food for approximately 90% of Sri Lankan Population. Rice has the potential for fulfilling an individual's daily protein requirement by 45% and calorie requirement by 40%. Per capita rice consumption amounts to 80 to 100 kilos. As there is a huge demand for rice, county needs to maintain much higher production of paddy. (Abeysiriwardane, 2000) Over the years the paddy producers are experiencing many problems especially in marketing of paddy and cultivating. It is not just the producers of paddy but all parties who are engaged in making the rice available to the final consumer from its origin are facing problems of many kinds. Specially paddy farmers are claiming they are not getting fair price for their products. Further middlemen are telling that they are facing a risk due to fluctuations in prices. The degree to which marketing concepts has been used in paddy industry, which is quite traditional in its activities is quite low. The key focus of the article is revolved around the ways and means of improving paddy industry by applying marketing concepts.

Philosophical Aspects towards the Paddy Market

Before going to finer details of agricultural marketing, it is important to understand the concepts of agriculture marketing. Agriculture marketing is the performance of all economic activities involved in the flow of agricultural products from the point of initial production to consumers, marketing agents or traders connect producers and consumers by willing to pay the farm gate price for the product for an economic return. (Rupasena, 1999; FAO(Food and Agricultural Organization),1989). However in developing a marketing practice in Sri Lankan paddy industry marketing philosophy and marketing concepts play a vital role. Sri Lankan paddy industry is more of a production-oriented industry than marketing oriented one. The production oriented business concentrate on achieving high production efficiency, low cost and mass distribution. (Kottler, 2000) But this is an old concept. Today the much-practiced philosophy by the business, which has reached the pinnacle, is societal marketing concept. The societal marketing concept holds that organization task is to determine the needs, wants and interest of target market and deliver the desired satisfaction more effectively and efficiently than competitors in a way that preserves or enhance the consumers and societies well being. (Kottler, 2000) The main players of paddy industry consist of farmers, collectors, millers, retailers and wholesalers. The societal marketing concept is a very important philosophy, which helps to these organizations or individuals to move from production orientation to customer orientation. Further having marketing information system and marketing infrastructure is also important in developing a conceptual framework. Marketing information system consists of people, equipment and procedures to gather, sort, analyses, evaluate and distribute needed timely and accurate information to the marketing decision makers. (Kottler, 2000) And also adequate and accurate information about the supply and demand condition of the market is necessary if the products are to be moved into consumption with the minimum waste, confusion and cost. (Kohls & Downey, 1972) One of the biggest problems faced by Sri Lankan agriculture industry is price fluctuation. The way the price is determine in Sri Lankan agriculture industry can be explained by Cobweb theory as majority of Sri Lankans are consuming rice the demand for rice/paddy has inelastic nature under this kind of situation. Farmers do produce their crops by taking previous years prices into account. Due to different influences of market it is difficult to arrive at equilibrium. This can be described by using centrifugal cobweb format as shown figure 01

Figure 01 Explosive Oscillations Cobweb Model



Even in Cobweb theory two other price determination models are discussed , (Damped Oscillations Cobweb Model & Perpetual Oscillations Cobweb Model) which are not more relevant to the price determination of Sri Lankan paddy/rice industry.

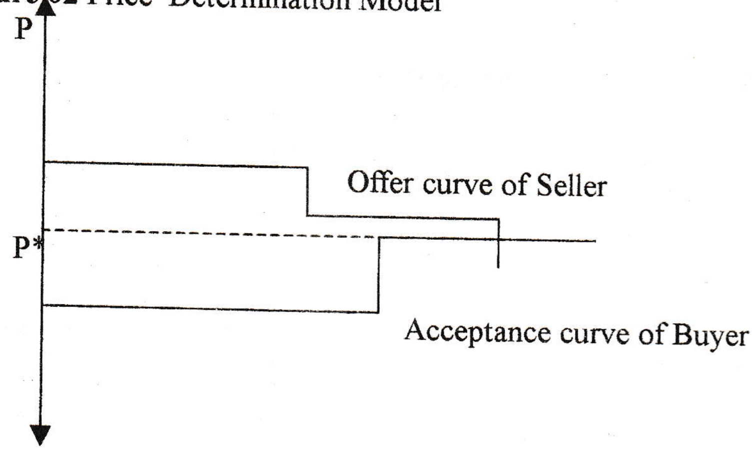
The current situation of Paddy Industry and Rice Market.

The Sri Lankan paddy industry is existing for quite a long time and the industry first encountered marketing problems in 1940's, by that time country was able to produce 40% of its rice requirements. At present 91% of countries rice requirement is produced locally (Central Bank Report 2000) and marketing has become a prominent problem. In analyzing current situation of Sri Lankan paddy industry and market, it is studied under different perspectives.

Self Sufficiency in Rice - There have been many measures taken to make sure that Sri Lanka is self sufficient in rice, the country fast approaching towards self-sufficiency in rice. However absence of appropriate pricing mechanism and effective application of marketing concepts have posted as obstacles for self-sufficiency. Further, problems related to irrigational activities and land utilization have made the realization target more distant. Hence improving the productivity is of vital importance. The maximum productivity level recorded for paddy production is 3.95 Mt/ha(Metric ton/Hectare) but this has to be increased up to 6.5Mt/ha as the county is expecting to achieve self-sufficiency by year 2020. (Abeysiriwardane, 2000)(See appendix 02) This is primary because, the present population of 19.36 billion is expected to increase at 1.7% in the future.

Paddy production by seasons & Price fluctuations - Primarily paddy is cultivated and harvested biannually. As in the harvesting seasons a supper flour level of production is issued to the market and price tend to be low. (Luxman W.D, Gunasekara H.M, 1998) Therefore, farmers have found it difficult to obtain good price for their production. Absence of proper and adequate storage facilities have worsened plight of the farmers. The step taken by the government to provide storage (Infrastructures) facilities is barely enough to meet the huge surplus. As there was no legal framework for price determination, the price is determined by way of a discovery price. (Bogahawatta, 1999).

Figure 02 Price Determination Model



P* = Discovery price

In this sort of price mechanism the bargaining power of the farmers is weak. Therefore, the prices paid to farmers are very much lower and greater in difference in average farm gate price. For example, the lowest average farm gate price of Rs.10.89 recorded from Anuradhapura whereas highest farm gate price of Rs.13.81 was recorded from Hambanthota in year 2001. (HKARTI(Hectic Kobbakaduwa Agrarian Research & Training Institute) (See appendix 03) The variance of regional price amounts to Rs.2.29. This is an extra ordinary variance with campaired to other consumer goods.

Public Trade policy - The Governments have made so far an unsuccessful attempt to address problems, which are faced by Sri Lankan paddy industry. In 1948 Government set a price floor (certified price) of Rs.8.00 per one bushel of rice, but in year 2000 the price floor is was Rs.13.00 per kilo of rice. (Appendix 04) The price mechanism, which was under the sales department, was subsequently taken over by board of paddy marketing established by No. 14 of Paddy Marketing Board Act in 1971. Today the board is a defunct. Therefore the CWE tried to maintain the pricing mechanism. In their attempt to do so CWE had incurred the total loss of Rs.75million. (Central Bank Report 2000) Even though the Government has given concessionary loans to CWE(Co-operative wholesale Establishment), The problem has not lessened.

The asweddumized areas for paddy cultivation - Paddy is an environmentally adoptable crop. It can be grown in the height range between 2750m from sea level and 3 m from below the sea level. Therefore, lands that are not used for the cultivation after some usage ("Puran") have to be carbonized in a way those lands can be used for the cultivation. Further with development of systematic irrigation management, more paddy fields can be utilized for the cultivation. However as the ownership of paddy field is splited among many individuals, it is difficult to have mass scale production. 75% of paddy cultivating lands are owned by the private individuals, 14% of the "Anda" system and 7% of the land is under the "partnership". When paddy cultivated lands are taken into account, the prominent characteristic that can be seen is average size of most of paddy fields are less than one ha. Against this background obtaining economies of scale is not possible. Therefore production cost tends to be at the higher side. The highest proportion of production cost is attributed to labour cost as there is a deficiency in specialized labour and price for the labour is also high. Further price of fertilizers, pesticides, weedicides are increasing because of the problem production cost is becomingly high.

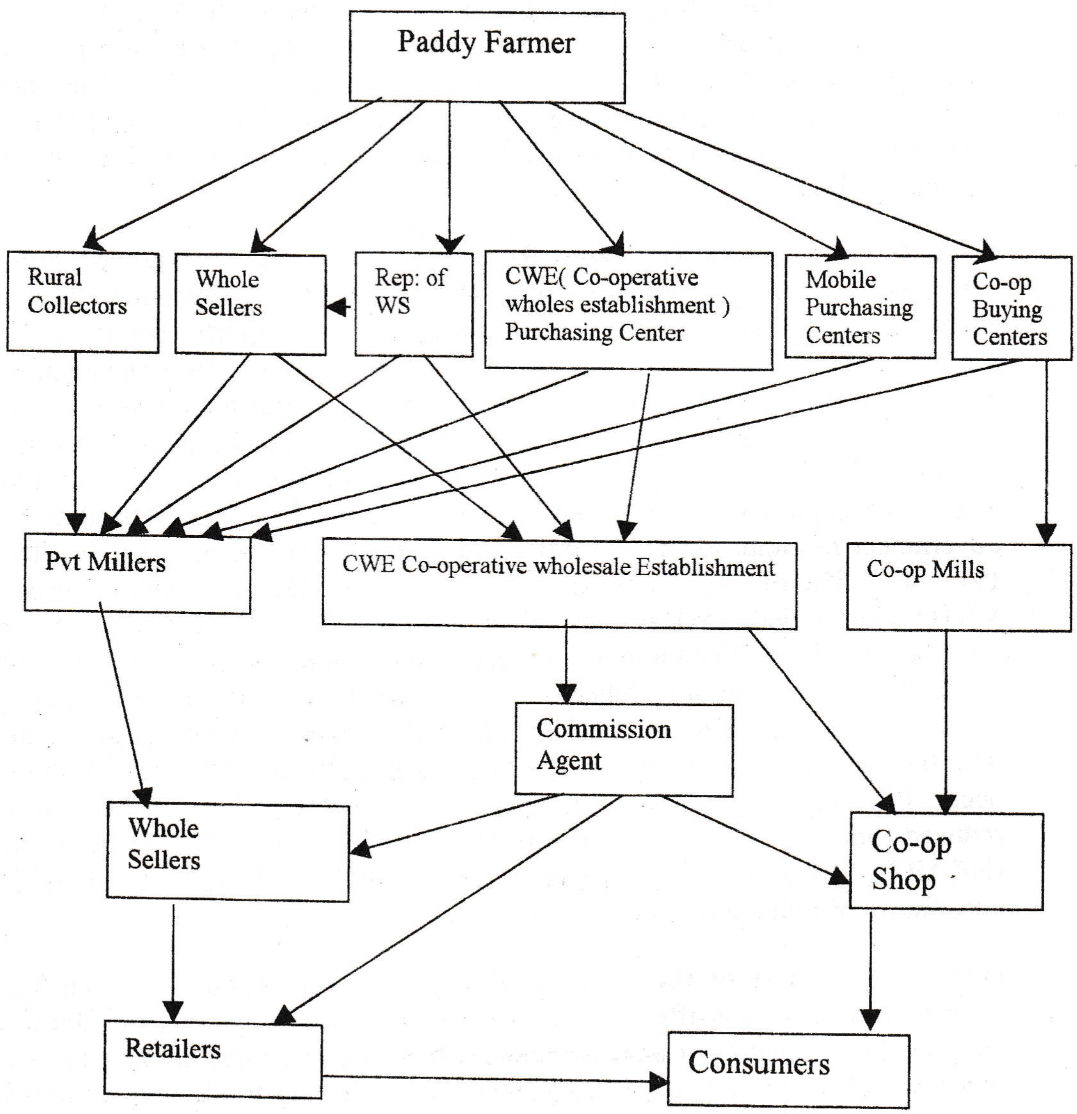
Price fluctuation of Rice and Rice imports - Even though country has witnessed decreasing rice imports in 1940's and 1950's the introduction of open economic system later on an increased the level of rice imports. But by year 1998 total rice imports have decreased to 108mt. However in the 1999 the amount has increased up to 214mt. An important consideration of rice importation is that the price of imported is much lower than that of locally produced rice. As per the statistics except for the year 2001, the CIF value of the rice has been at a lower level. (See appendix 07) In order to minimize impact on locally produced rice, government has imposed a 7.00 rupees duty per kilo of rice imports, port levy of 1% and 6.5% of NSL(National Security Levy) But the newly introduced VAT(Value Added Tax) system eliminates NSL of 6.5% the problem would arise again. Price fluctuations of retail and wholesale price of rice are a commonplace. Therefore miller and wholesalers are facing a higher risk. However it is important to consider whether changes in retail prices are in line with the changes in farm gate price. For an example from 1999 to 2000, there has been 21.7% reduction in farm gate price of long white paddy but the retail price reduced only by 17.62% in Nadu, 8% in Raw red 14.9% in Raw white. (HKARTI, 2000/1) (See appendix 05/06). Only middleman has enjoyed the advantages of reduction of farm gate price.

Diet consciousness of the people - Though the staple food is rice, changes in consumer behavior has affected the prominence of rice usage later on. Because of high level of employment and the busy life's style that people are having, we can observe that urban and sub urban population are having foods such as bread for their dinner and breakfast. This has led to reduction in market potential of rice. One of the positive aspects of current rice consumption is, people do prefer locally produced rice than imported rice. This of course provides an opportunity as well as a competitive advantage for locally produced rice over the rice imports.

Analysis & Recommendation

By considering the above-mentioned facts, it can be discerned that total economic deregulation does not help to develop marketing practice in paddy industry. This is because lack of advance marketing structure in the paddy industry has made it a vulnerable to a total liberalization in the paddy industry. Therefore state intervention is much essential till the paddy industry gets developed. The marketing structure of Sri Lankan paddy industry can be depicted in figure 03.

Figure 03,The Market structure of Paddy Market



Rep: of WS = Representatives of Wholesalers

The ways through which the government can intervene are illustrated below.

Reforming the Government trading policy - Even though government has tried to provide concessions to farmers, the poor implementations of these concessions have made them unsuccessful. The government policy on buying paddy from the farmers needs to be rethought. A responsible body has to be established and necessary resources should also be provided to see that storage facilities are provided and regional mobile purchasing centers should also be established. The rules and regulations have to be established in a way that ensures private sector is not buying paddy below price floor. By doing this the abnormal profit obtain by the middle men can be shared among the consumers and farmers. Further proper pricing policy has to be established so that farmer's will not base their production on the previous seasons price. In order to facilitate this sort of practice state has to make sure that farmers will believe in certified price system of the government. Further excess supply in the harvesting season should have to be distributed among private sector by having proper management. Thereby price determination on cobweb theory will be eliminated.

Introduction of proper rice imports policy - The policies adopted by different government hardly have similarities; therefore having a rice imports policy independent of changes in government is of vital importance. One of the major problems encountered in importation of rice is the cost of kilo of an imported rice is lower than whole sale price of a kilo of local produced rice. Therefore a policy on tariff and duties on rice importation has to be established. So that the price of locally produced rice and imported rice are more less the same. For example in addition to Rs.7.00 duty per kilo of rice and 1% of port levy, there should be proper percentage increment for the taxes.

To improve the productivity of paddy cultivation - By increasing productivity it will be able to enhance bargaining power of farmers, there are two ways a government can intervene. The first method is to minimize production cost. Generally the production cost per acre falls between 12000 – 15000 Rupees. 50% of total cost is consumed by labour cost. This is primarily because the paddy industry is labour incentive. In order to minimize this the government and Agricultural Department should take steps to educate and provide financial facilities to substitute machines and equipment over the labour. Further in order to reduce the cost of pesticides and weedicide, spices that take weeds and pests as their food have to be used. Secondly government can introduce ways to improve crops per ha. The best alternative on this respect is introduction of genetically modified paddy. For an example the hybrid rice introduced by China is capable of providing the harvest of 13 to 15 mt/ha.

Developing Market infrastructure facilities. - The important aspect in marketing infrastructure is storage and transportation. The deficiencies of these facilities have made farmers to sell their paddy at any price offered by the intermediaries. Therefore government should take steps, specially financial assistance, make observation whether standard storing facilities are used. Further by having mobile purchasing centers would be eliminated some of the problem faced by farmers with regards to transportation.

Expected Contribution from farmers.

The direct involvements of the producers are essential for development of systematic and proper marketing practice in an industry. However, current market situation has limited farmer's ability to develop such a practice. However educating them on the marketing concepts will help to minimize some of the problems faced by them. At present farmers do not think as to how they would be able to sell their products at point of the production. But they can plan their production according to consumer's requirements. For example buyers of farmers i.e. middlemen prefer to pay a higher price for short grain paddy therefore it is easy to select rice with higher demand. Further when there is an excess production Cobweb theory holds that there would be price disequilibrium. By cultivating seeds with shorter life would enable, farmers to sell their rice at a higher price before the excess supply of rice. Obtaining exposure on market information and taking steps to reduce production cost would facilitate application of systematic marketing practice.

Role to be played by intermediaries

It is private millers and rice traders who carry out special activities as middlemen. They can take steps such as maintaining a higher quality level and branding to obtain competitive advantage. Further as specified by societal marketing concept the middle men will have to take steps to see that they are societal conscious while maximizing their profits. Thereby middlemen will be able to have a greater consumer preference and a competitive advantage.

Conclusion

However the above discussion highlights importance and necessity of states intervention in developing an advanced & systematic paddy market structure. In addition to that other related parties such as farmers and middlemen will also have to do their best with the societal marketing framework to ensure that paddy industry is fully marketing oriented. Therefore, the all participants of industry have a responsibility to develop paddy as a self-sufficient industry in Sri Lanka.

Appendix 01

The Growth of Sri Lankan Paddy Industry

Year	Cultivated Lands (Ha, 000)	Harvest (Mt/ha)	National Production (Mt, 000)
1940	397	0.650	262
1950	393	1.730	687
1960	505	2.090	1065
1970	623	2.480	1564
1980	706	3.312	2372
1990	807	3.500	2460
2000	800	3.700	2850

Source : Amitiyagoda, 2001

Appendix 02

Future Requirements of Paddy Production

Year	Total Requirement (Ton Million)	Required Productivity Level (Mt/ha)
2000	2.9	4.12
2005	3.11	4.42
2010	3.46	4.92
2020	5.58	6.52

Source :Abeyasiriwardana, 2000

Appendix 03

Average Farm gate prices of Paddy – Long Grain (White)

Area	1997	1998	1999	2000	2001
Anuradapura	10.20	9.86	11.86	9.66	10.89
Pollonnaruwa	10.26	9.42	12.31	9.48	12.08
Kurunagala	9.87	9.15	11.98	9.24	11.59
Nikawaratiya	9.50	9.08	12.33	9.49	11.54
Thambuthtegama	10.07	9.13	11.97	9.31	11.83
Dehiattakandiya	-	9.31	11.58	8.76	11.40
Galgamuva	9.99	9.01	11.88	8.96	11.33
Hambanthota	11.23	10.93	12.96	10.36	13.35
Tissamaharamaya	11.64	11.12	13.43	11.13	13.81
Average	**10.35**	**9.67**	**12.25**	**9.60**	**11.98**

Source : HKARTI 1997/2001

Appendix 04

Government Certified Prices

Year	Certified Price per Bushel	Certified Price per 1Kg.
1948	8.00	0.40
1952	12.00	0.60
1967	14.00	0.70
1973 (Oct)	25.00	1.25
1978	40.00	2.00
1982	57.50	2.87
1983	62.50	3.12
1988	80.00	4.00
1990	136.00	6.80
1995	155.00	7.75
2000	260.00	13.00

Source : Eriagolla, 1996

Appendix 05
Average Whole sale price of Rice (Rs/65Kg)

Year	Samba I	Samba II	Samba III	Kora I	Kora II	Nadu I	Nadu II	Red Raw	White Raw
1996	1593	1494	1394	1242	1175	1228	1161	1332	1171
1997	1706	1606	1505	1306	1242	1302	1235	1393	1247
1998	1728	1627	1526	1290	1224	1289	1223	1355	1228
1999	1948	1848	1748	1622	1547	1621	1547	1676	1524
2000	1789	1689	1589	1285	1217	1277	1209	1502	1241
2001	1956	1857	1758	1550	1480	1550	1480	1561	1513

Source : HKARTI 1997/2001

Appendix 06
Average Retail price of Rice (Rs/Kg)

Year	Samba I	Samba II	Samba III	Kora I	Kora II	Nadu I	Nadu II	Raw Red	Raw White
1996	26.98	25.89	24.88	21.54	20.50	21.28	20.23	22.27	20.19
1997	28.90	27.84	26.85	22.58	21.49	22.49	21.56	24.53	21.50
1998	29.57	28.61	27.47	23.13	22.12	23.13	22.14	24.69	22.37
1999	33.54	32.46	31.41	28.40	27.36	28.40	27.36	29.34	27.03
2000	31.04	29.97	28.98	23.52	22.49	23.56	22.54	26.99	22.98
2001	33.36	32.37	31.39	27.20	26.19	27.22	26.20	27.30	26.34

Source : HKARTI 1997/2001

Appendix 07
Prices of Imported Rice (CIF Price, Rs)

Year	Brown Rice	Semi Milled	Broken Rice
1996	17.21	16.54	14.65
1997	16.41	17.43	14.90
1998	16.95	16.52	14.21
1999	15.14	18.38	13.33
2000	-	25.00	-
2001	-	30.05	36.56
2002	-	17.16	16.06

Source : HKARTI 1997/2001

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