An Economical Analysis of the Marketing System of Agricultural Production in the Mahaweli "H" Zone in Sri Lanka

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Summary

The Mahaweli river project is the largest agricultural scheme ever implemented in Sri Lanka since independence. Unfortunately, the project has contributed to dramatic increase in the displacement of people in the country. This study mainly focuses on three subjects within the Mahaweli "H" zone. Firstly, it will examine the operations of the existing private and the public marketing channels. Secondly, we will present an analysis of the trading competition among private and public marketing channels in terms of their behavioral patterns. Thirdly, it will also attempt to explore the extent in which the private trader has exploited the farmer in the Mahaweli "H" zone.

The master plan for this project was formulated in the 1960s by the United Nations Development Programme and the Food and Agriculture Organization, and was intended to be implemented over a period of 30 years. However, in 1977 the newly elected Sri Lankan government accelerated the programme and settled 100,000 families within a period of 6 years.

The main objective of diverting Mahaweli River, which is the longest river in Sri Lanka (335 km), was to maximize the country's agricultural production and to alleviate poverty in the rural sector. This project consists of 13 sub projects and it covers 40 % of agricultural land in the country. System "H" which provides irrigation facilities for nearly 70,000 acres, is one of the sub systems. In order to maintain price fluctuations for daily agriculture of the farming community, the government institutions came into operation in the field of marketing within the zone, by introducing buffer stock scheme and control price scheme for both paddy and subsidiary crops. However, due to the powerfulness of the private trader and some deterioration in the institutional sector, the private oriented marketing system was forced to play a significant role now. This situation has created additional burdens to the poor farmer.

With this development, reliance on the government institutions have significantly declined, although the government provided a package of benefits to the farmer. In 1998, closing of the Paddy Marketing Board of Sri Lanka, which had the authority of agricultural marketing, is an apt example of government apathy. The private trader gains his popularity among the farming community by giving generous options such as giving credit during the off season as well as for agriculture and personal purposes. In most cases the assistance given by the private trader is compensated by the farmer from his future harvest. At the time of repayment of credit, the

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normal circumstance is to undervalue the harvest by the private trader. The majority of the farmers repay their loans by giving 75 per cent of their harvested agricultural stock to the private trader normally valued a one-fourth times less than the existing market price. This situation represents the current relationship between the farmer and the private trader.

**Key words:** Fair system, marketing channels, price stabilization and exploitation

### Introduction

Since independence, industrialization was the theme of almost all the economic projects (except Galoya agricultural project) which were implemented in Sri Lanka.

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*2 Fair is an event where people sell their agricultural goods such as vegetables, fruits etc. at outdoor. This is being held periodically in a particular place.

*3 The Galoya agricultural project was the first agricultural zone implemented by the Sri Lankan government during the 1960s.
This was mainly because industrialization in the past, was the key factor in attaining economic development in almost all the developed countries. To achieve economic development goals for a country, mainly through industrialization, the needed ingredient is a sound industrial base. Sri Lanka in particular has limited advantages in this regard and a number of problems were faced with the initially implemented projects in the past decades. These have resulted to deteriorate the targeted development goals of the country. Efficient development of the agricultural sector which enables a country to reach its development goals has today become a generally accepted idea among development economists. Since Sri Lanka is rich in water and fertile land with regard to agricultural resources, investment on agricultural sector would be a short cut and an appropriate method of achieving the development targets. Even today about 70 per cent of the rural population is engaged in the agricultural sector. Developing the agricultural sector will invariably upgrade the quality of the living standards of the rural population.

Diverting the Mahaweli River, which is the longest river in Sri Lanka, developed this project and it consists of thirteen sub systems (see fig. 1) where credit assistance to this project is given by almost all the developed countries including the World Bank and the International Monetary Fund (IMF). The entire Mahaweli project covers 40 percent of the agricultural land in the country. The first system, which was implemented among the thirteen sub projects, was the Mahaweli “H” system to which this study focuses attention.

Fig. 2  Map of Mahaweli “H” agricultural zone.

* 4 Economists who are involved in developing economies.
The main objective of the Mahaweli project is to maximize country’s agricultural production in order to develop the agricultural sector thereby to save foreign exchange by reducing the agricultural import bill. As in the other developing countries, Sri Lanka’s agricultural sector too suffers from the problem of the intermediate personnel who create excessive profits in the marketing system between the farmer and the consumer. Under valuation of agricultural products has today become one of the main problems and this has led the private trader to dominate. In upgrading the agricultural sector, agricultural marketing plays a vital role. Therefore the main objective of this study is to evaluate how the marketing activities are operated in the Mahaweli “H” economic zone.

Marketing system of paddy rice in the public and private sectors

Different paddy marketing channels have been used in this agricultural zone. Government sector and the private sector have become the principal channels of purchasing paddy. The Purchasing system of the government is mainly based on the control price scheme, while the private purchasing system is mainly based on a number of other factors such as barter system etc. The Mahaweli “H” zone adopts the generally accepted paddy marketing system in Sri Lanka which is also the longest and the most popular channel of paddy marketing (see fig. 3).

The following system is being used in rare instances.
Farmers → Mill owners and shop keepers → Consumers
These two channels have been used to market paddy by the private sector in the zone.

Notes: Farm Gate Collectors purchase the harvest at the farmland
Unit Level Assemblers gather in small units and collect harvest within the zone

Fig. 3 Private marketing channels for paddy rice
Paddy Marketing Board (PMB) purchases paddy in co-operation with the agents, farmers, and farmer organizations in the zone. In some instances the PMB purchases paddy from commissioned agents too. Purchased paddy by the board is being collected and sent to its milling centers. Distributing paddy stocks to the private traders who do milling for the board is another way of milling. The rice stocks which belong to the board are sold first to the food commissioner and then to the co-operatives and finally to the authorized private dealers.

Stabilization of paddy price has become a principle activity of the PMB. For this purpose the board adopts the buffer stock scheme. On the one hand, if the demand for paddy becomes higher due to a downfall of price, the fluctuation is being settled by issuing more stocks from the warehouse of the PMB. On the other hand, if there is an excess supply of paddy, the downfall of the paddy price can be avoided by purchasing paddy in line with the demand. By adopting this system under the existing conditions, the board takes every step to maintain the price stability of paddy.

The private trader purchases paddy for a comparatively higher price than the government institutions such as PMB. This has led to create unpopular attitudes towards the PMB among the farmers. Figure 4 represents the PMB’s purchasing system. How the stocks come to the board’s centers is shown below.

Farmers → Private agents or Authorized government purchasing centers → Rice millers (Public or Private) → Co-operatives → Consumers.

Farmers, unit level assemblers and rice millers of the zone are the people who are involved in marketing of rice. After selling paddy rice to the board, the farmers receive a cheque equal to the amount of paddy sold to the board. The farmers are supposed to get this cheque realized at the bank to which they lend credit for crop activities. After
recovering the credit, the balance is being given to the farmer. After harvesting, most of the farmers take their produce to the farmland and store them in the warehouse, once cleaning and preserving methods are being taken to avoid perishability. The commonly practiced method of packing Paddy is to put them into 65kg gunny bags.

Transporting of paddy upto the place of purchasing (PMB) is a duty of the farmer. Generally this activity is done by using tractors (two wheel and four-wheel tractors), lorries, bullock carts, handcarts etc. At the purchasing place a quality control test for paddy is held in order to maintain the following conditions.

- Fulfill that there should not consist a moisture for over 15 per cent.
- Seedless paddy should not exceed 9 per cent.
- Mixture, which is free of insects, should not exceed 10 percent.

Because of the problems arising between the farmer and the PMB (at the initial transaction stage), the PMB changed the system so that, when the farmer sells paddy to the PMB, an amount worth 10 to 20 percent will be received by cash and the rest of the money will be received in the form of a cheque (Issued to the bank where he obtained credit for agriculture) by the farmer. To avoid repayments the farmer generally tries to sell the harvest to the private trader. To overcome non-payment of credit and to collect all the stocks of paddy in the zone, the PMB cancelled this method of payment since 1987 and took steps to give the entire money to the farmers. From this they got the opportunity of repaying the loan in small installments.

Notes: Mahaweli Economic Agency (MEA) Co-operative Wholesales Establishments (CWE) Marketing Department (MD)

Fig. 5 Private and public marketing channels for subsidiary food crops

* 5 Farmland is a place which is situated in one of the corners of the farmer's own agricultural land, where cleaning, packing etc. are being carried out.
Marketing of subsidiary crops in the public and private sector

Chillies are the most popular subsidiary crops in the zone while all the other crops play a secondary importance (see fig. 5 for the public and private marketing channels for the subsidiary food crops). From the subsidiary crops produced in the Mahaweli system, about 90 percent of the chillies, 85 percent of kawpi, 70 percent of red onions are being produced in the "H" system. The supply of chillies in Sri Lanka recorded a drastic decline due to civil riots in the eastern and western provinces. However the farmers of the Mahaweli "H" area took this as an advantage and tried to maximize the production.

For certain types of subsidiary crops the paddy marketing board*7 adopted a controlled price system*8 in relation to purchasing activities. This measure has been taken only for the subsidiary crops, which are consumed domestically. At the inception of the Mahaweli project, the Mahaweli Economic Agency (MEA) purchased subsidiary crops according to a minimum price scheme*9 in order to encourage the farmers in these activities. These purchases were done by MEA on behalf of the government and the other selling institutions.

The MEA had purchased the subsidiary crops until the government and the private traders came for purchasing activities. In 1985 the Co-operative Wholesale Establishment (CWE) was opened in the zone. As a result the MEA gradually stopped selling activities. MEA acted as the agent for collecting Corn and Soya Beans for the CARE*10 institution even after 1985. Normally the price paid by private traders for chillies is about Rs. 90 per Kg. The CWE has initially (in 1980s) planned to purchase red onions from the farmers at the rate of Rs. 10 per kg. However, the farmers have sold red onions to the private traders at the rate of Rs. 16 per Kg. Likewise most of the private traders have offered higher prices for almost all the subsidiary crops when compared with government institutions. As a result the reliability of government institutions had gradually declined among farmers. Agricultural crop collectors (unit level assemblers) or agents play a significant role in private purchasing system. These agents purchase stocks from farmers and for this, they keep a commission and resell to the crop sellers. The crop sellers sell the stock to the retailers and finally the retailers sell to the consumers. At this level, the commissioned agent pays to the actual farmer for the stock after keeping about 10 percent of retailer price as his commission.

The following is the pattern indicating how crops are marketed from farmers to consumers:
Farmers → Unit level assemblers → Agricultural crop collectors who come by vehicles → Village fair (a place where village level traders sell their products once a week) → Co-

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*6 Some kind of bean cultivated in Sri Lanka.
*7 As a service from a public marketing institution, PMB has purchased subsidiary food crops in the zone apart from paddy rice marketing activities in order to protect farmers from private traders.
*8 To encourage subsidiary food crop agriculture the control price scheme is being adopted as a minimum price security.
*9 Minimum price is the price, which has been set as a guaranteed price to encourage the farmer.
*10 CARE is one of the main industrial consumers of Mahaweli products.
operative Wholesale Establishment (CWE) → Paddy Marketing Board (PMB) → Co-operatives → Consumers.

In order to convert green chilies into red chillies (dried chilies), the green chilies should be dried outdoor for 7 to 8 days in the hot sun during daytime. To become perfect red chillies it should only permit 19 percent of raw substance. However within the zone chillies are dried for only about 5 days. Without the quality control test and by non-adopting of grading system, the stocks are handed over to purchasing institutions. Because of this reason the CWE gives a second class grading for these stocks and pay around Rs. 28 per kg. The CWE again takes steps to dry these stocks since it is not properly dried. Therefore, the CWE has to bear an additional cost for drying purposes apart from the initial purchasing cost.

The fair system plays a major role for day to day purchasing activities. Here the farmers sell their stocks and fulfil their basic needs. This is held once or twice a week. Since the institutional marketing channels are rare in numbers, fair system has become a useful channel of marketing the farmer production. It represents the cultural features of the village and has become a popular place where the farmers spend their leisure time. Currently there are about 650 fairs in Sri Lanka. Within the Mahaweli economic zones, half of the fairs have been placed in the Mahaweli “H” system and are placed in such a way that the distance between 2 fairs is about 20 km. Here bargaining has become the key factor in determining the price. However this is not an auctioning system and trading according to the commissioned-based system is the popular one. The commissioned agent purchases the stocks from the fair in order to sell them to the wholesalers. Generally the private trader has more capability of bargaining.

Compared to the farmer the trader has more knowledge regarding the outside activities, such as price, demand, transportation cost etc. This has led the private trader to purchase the agricultural stocks from the farmer at a comparatively low price.

Marketing practices adopted by the farmers in the zone are some what deteriorated. A very good example for this is the use of an improper weighing scale in order to weigh his stocks. Hence for weighing purposes the stocks are put into equal size bags.

The extent of assistance provided by way of marketing facilities

1. Credit burden

   The marketing officers of the MEA provide necessary information regarding prices and market situation to the farmers. However, only providing information to the peasant farmer* is not enough for his marketing activities. Collecting wrong information by officers, problems arising from intermediate traders are some of the problems. According to the information provided by the research division of the Peoples Bank of Sri Lanka, it is revealed that the influence of the private trader has made the peasant farmer to obtain incorrect information regarding trading activities. A research study done by this institu-

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*11 In the commissioned based trading the agent keeps certain percentage in each transaction.
*12 Peasant farmer is a rural farmer who is engaged basically in paddy cultivation in small scale.
tion states that, in 1978 about 90 percent, in 1982 about 64 percent and in mid 90s about 70 percent of the farmers in the zone purchased their equipment and consumer goods on a private loan basis. Especially during the off season, lending activities have become popular since the farmers do not have sufficient funds for existing purposes. This is because the private trader has the chance of purchasing the agricultural stocks at the harvesting season for reasonably low prices. Therefore, selling goods to farmers on a credit basis during the off season has several influences to the future harvested stock. Hence the traders normally have this type of trading transactions with the farmers. Because of the comparatively low knowledge and lack of information, they do not keep proper records of these transactions. This has worsened the problem further and the farmers have to depend more on private traders. Since the private trader sells his goods to the farmer on a credit basis, he normally sells his goods at a higher price, which is above the market price. After the harvest when the stocks are in the hands of the farmers, they are forced to give the produce to the private trader in order to settle their loans, which leads to a reduction of the real income of the farmer. These types of hidden disadvantages are not reflected and are not captured under normal marketing channels.

2. Mortgage of the yield

Mortgaging of the yield has become a new feature in selling the stock on credit. Most of the farmers, who receive a comparatively low income, face financial difficulties during the cultivation period and the harvesting period. As mentioned above, this type of peasant farmer gets money from the private traders with the understanding of settling the loan by giving the future yield to the private trader at a pre determined price level (at the time the loan was obtained). According to the information gathered*13 from this zone, it is ascertained that the majority of the peasant farmers repay their loans by giving 75 percent of their harvested agricultural stock. It has been found that under the system of mortgaging of the yield, the price of a bushel (20.87 kg) of paddy is normally determined as 25 percent less than the existing market price. Due to personal reasons*14 the farmers do not disclose the exact price at which they sell paddy to the private trader. The official prices are normally determined by considering the open market selling activities of paddy. It is being revealed that under this system the farmer receives money only to cover his day to day activities. Most of the farmer families keep around 50 to 60 bushels of paddy for their own consumption during the off season. However at the time when farmers do not have much money to purchase other food items and goods such as, bread, sugar, kerosene oil etc. they try to sell the stock of paddy in order to purchase these essential items. It is found that under bartering of the yield with consumer goods, price of a bushel of paddy is determined normally 50 percent below the prevailing open market price.

*13 In this particular field survey carried out in the Mahaweli “H” zone.
*14 Because at the time the farmer sells the paddy stocks, it is sold at a very low price and he does not like to disclose this fact.
3. Integration of the market

The main objective of the government was to exclude the intermediate private traders as much as possible from the farmer's marketing activities in order to prevent money exploitation. Since the accurate operations of the government institutions in the zone are at a minimum level, it has become easy for the private trader to have close relationship with the farmer in marketing activities. Implementation of the free market policies into the economy has resulted in the private trader becoming a significant person in marketing of agricultural stocks within the zone and this has currently become a serious problem. To overcome this problem, the PMB started a scheme to appoint private commissioned agents who will collect paddy from the farmers. However, according to this scheme the understanding was to charge a commission from the private agent at the time of handing over the paddy stocks to the PMB. It has been found that these appointed agents exploit the poor farmers and charge a higher percentage than the earlier agreed commission with the PMB. Hence this system also has failed to fulfil the objectives of the PMB.

**Conclusion and proposals**

The government institutions came into operation within the zone in order to upgrade the farmer's stability in their day to day agriculture by introducing a buffer stock scheme for minimization of paddy price fluctuations, control price scheme for subsidiary food crops, etc. However, in considering the marketing activities there is enough evidence to conclude that the private trader plays a vital role in comparison to the government institutions within the zone.

The poor farmers in the area at a loss when the marketing power is in the hands of the private trader. The role of the co-operative societies takes a paramount position in the socio-economic development. However, the co-operative societies have limited access to compete with the private traders. Therefore the government should establish a co-operative security system in order to protect farmers and certify their purchases at the market value and selling agricultural inputs at minimum rates, because this type of services will not be provided by the profit oriented private traders.

Lack of information to the farmers is another main problem. Providing information by the government authorized research unit will be an essential activity.

The government co-operative system can plan a system to prevent the marketing problems, and there by the poor farmers can receive a high level of income, which will be an ingredient to upgrade the quality of life and finally to reach economic development. By implementing such systems farmers can avoid mortgaging of their harvest and barter systems with private traders. The problem of non-payment of the agricultural loans by the farmers to the public banks can also be avoided greatly under such circumstances. Establishing an effective co-operative planning system by the government rather than promoting profit oriented private entrepreneurs is a very important condition for the development of agricultural production.

Improving the government infrastructural facilities and the competitive price mecha-
nism policy have recorded a positive trend of developing the private trader in marketing activities within the zone. Most of the co-operative societies and branches of the Marketing Development Department, which were efficient at the time of inception, have been abandoned at present. At the inception, one of the main objectives of the zone was to provide a separate institution for agricultural activities. Thus, the co-operative society acted as the chief institution for selling of consumer goods as well as purchasing of agricultural stocks from the farmers. In collaboration with the Peoples Bank the co-operative society had a financial assistance scheme for the farmers.

However with the implementation of the liberalization policies in 1977 the co-operative societies had difficulties in competing with the private trader. This had negative effects to proper functioning of co-operative societies. Initially at the time of purchasing the agricultural harvest from the farmer, the co-operative society offered a higher price than the private trader. Because of this, the farmers sold their stocks to the co-operative societies. However, later, the functioning of co-operative societies became inefficient in number of activities such as improper grading of paddy, corruption etc. This led the private trader again to become popular in marketing activities.

There is a gradual tendency by the private trader to offer higher prices for the harvest to the farmer. This has further weakened the efficiency of the co-operative societies. The marketing of subsidiary crops by the private traders has amounted as 70 percent higher than the purchasing done by selling outlets of the Mahaweli authority. In some instances the private trader purchases the harvest from the farmer, there after it is again sold at a higher price to the government outlets by the trader by taking the full benefit provided by the government to the farmer.

According to the information from the Mahaweli authority, in most instances the agricultural stocks which have been sold to the outlets of the authority have been sold by private traders and not by farmers.

On the one hand powerfulness of the private trader has further deteriorated the effective functioning of the institutional sector. On the other hand the private trader is becoming popular since he provides assistance to the farmer during the off season as well as the harvesting season. With this development, even though the government provides a package of benefits to the farmer, relying on the government institutions has deteriorated within the zone. Closing up of the Paddy Marketing Board of Sri Lanka in the recent past could be given as a very good example in this direction.

Most of the information for this study was obtained mainly through creating a friendly atmosphere with farmers in the zone which was built by living together with them for a considerable number of days during the study period. Without developing such personal relationships it was impossible to make them disclose extreme personal information such as mortgage activities or problems prevailing in the government institutional sector, which greatly affects the farmer’s life. Therefore, this study was based heavily on empirical and descriptive method. Our next step of this study will be to carry out a field survey in the future in order to get more detailed data likewise.
Bibliography

スリランカのマハベリ「H」農業地区における
農産物流通システムの実証的分析

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摘 要

本研究では、スリランカのマハベリH農業地区における農産物流通システムに関して、第1
に、農産物の私的公的流通チャンネルの実態を明らかにし、第2に私的公的流通チャンネル間の
取引競争をその行動様式によって比較分析し、第3に私的産地商人と農民間の取引上生じる経
済的観点の程度と範囲について実証的分析を行った。

研究対象である中部のマハベリH農業地区は、農業生産量の増加と農村地域における農民の
貧困層の解消を主目的に、スリランカ独立以来、最大規模の農業開発事業が実施されたところ
であり、当該地区への多くの農民の入植に寄与したところである。この地区は総農地の40％を
占め、約7万エーカーに灌漑施設を整備している。当地では、農業経営の安定性向上のために、
食糧備蓄、価格保障対象作物の価格調整、水稲価格変動の最小化などの施策がとられてきた。
しかしながら、その行政的施策の低調と私的産地商人の強い経営力とによって、その産地商
人による流通システムが拡充された。このことによって、農民に対する追加的負担が増大し
ていると考えられる状況にある。

ここで、研究対象地域の調査データをもとに分析した結果、判明したことを列挙すると次の
とおりである。第1に、政府はこの開発によって農民達に多くの益を得る条件を提供したけ
れども、前述したように施策への信頼が後退している。この施策後退傾向の最近の例として、
1998年に農業流通局のスリランカ水稲マーケティング・ボードの閉鎖がある。第2に、このような施策後退後、私的産地商人は農業期に農民達に対する次期農業生産資材購入や生活費など
の為の前借り資金貸与などによって、農民達の間で一定の評価を得ている。しかし、ほとんど
の場合、その産地商人による援助は債務者農民の未収穫物を担保されている。前借り資金の
返済時、その産地商人はその収穫物の価値を低く見積もってきた。多数の農民達が彼らの収穫
物の75％を納品して借金返済においてている現状がある。しかも、この収穫物は通常に現市場価
格の4分の1以下にしか評価されていない。第3に、このため、農民達は極貧状態であるほど、
さらに、その私的産地商人に対する依存を余儀なくされざるをえない状況にある。