### Chapter VI

#### CONCLUSIONS AND RECOMMANDATIONS

The main purpose of this study was to improve the performance of mung bean marketing system. It made suggestion for improving the welfare of farmers and providing the linkage between prices by marketing margin, suggestion the dissemination of market information in Myanmar and moreover, evaluation the efficiency of transmission of price information between the markets.

# 6.1 Marketing channels, costs and margins

On average farmers' break-even cost of production and marketing were 100.85 myk/kg and 98.65 myk/kg in Thonegwa and Pyinmana respectively. And the agents purchased mung bean for average town wholesalers in both study areas. So, the town wholesaler offered the buying price and the cost of transport, loading and unloading was paid by town wholesaler. On average town wholesalers' marketing costs were 26.32 myk/kg and 41.34 myk/kg in Thonegwa and Pyinmana. It can be concluded that the lower marketing and production costs would lead to reduce mung bean prices: increase production of and demand for inputs. Moreover, lowering of marketing costs potentially provided the most efficient. According to the calculation of marketing cost and the opportunity cost of farmers' labor, selling at the farm was more economical than selling to the traders' depot.

As the survey, the collectors in this study served as the agents for the local wholesalers. Therefore, marketing margin of the collectors was the commission fee for buying mung bean The results showed that the average total gross margins for all of the market participants excluding producers were found to be 43.54 percent for Thonegwa and 52.06 percent for Pyinmana.

According to the calculation, the producer received the largest net margin 44.99 percent followed by the exporter 23.62 percent, wholesaler in Bayintnaung 5.22 percent, town wholesaler 4.53 percent and finally by the primary collector 0.36 percent in Thonegwa. The market margins obtained through Pyinmana channels were reasonable in which producer received the largest net share of the export's price 36.78 percent, followed by the exporters 23.62 percent, town wholesalers 11.63 percent, wholesalers in Bayintnaung market 5.22 percent, and finally the primary collectors 0.36 percent.

For the average farmers' share, both the study sites was the highest among the marketing participants due to their low production costs and marketing cost for mung bean growing and marketing. It was therefore evident that there existed the marketing efficiency at the producers' level.

The average town wholesalers' net margin in both the study areas was the fourth share of the participants and they have to be allowed for the increase in storage cost with time and also the change in transportation.

Regarding with the average city wholesalers' net margin was the third share of participants. Because they would have to be covered the greater cost per unit arising from fixed costs when mung bean supply failed. Besides, they might not be fully transmitted to the marketing channel even if there was perfect pricing efficiency in the marketing system.

Among all intermediaries, the average exporters' margin was highest for mung bean although the other margins were reasonable. The marketing inefficiency existed at the exporters' level. It can be concluded that the lower marketing margin was the indicator of competitive and efficient market.

Marketing channel was observed based on a series of stages through which mung bean flew from each study areas. Marketing channels for mung bean in Thonegwa included four intermediaries such as primary collectors at village level, town wholesalers, wholesalers in Bayintnaung market and exporters. Both MAS and MAPT took as intermediaries for state own enterprise for exporting of mung bean. It was evident from the interview that not only some farmers but also some traders directly contacted with Yangon traders to sell their mung bean.

The channel of mung bean in Pyinmana area included many middlemen and two export markets which directed to China and India. The intermediaries are such as primary collectors, town wholesalers, Pyinmana wholesalers, Yangon wholesalers in Bayintnaung market and exporters. In this channel MAPT also served as an intermediary but the margin could not be measured due to lack of data available.

Mung bean distribution system was a bit difference in the two study sites. According to the survey, mung bean marketing channel in Thonegwa area where all collectors served as agents of town wholesalers. The marketing channel showed that almost all of farmers' products flew to the town wholesalers and consequently, the market power of town wholesalers were boosting at the farm-gate level. As Thonegwa area was located in the largest mung bean producing area, several intermediaries were participating in mung bean marketing channel. Moreover, because of the business integration of town wholesalers doing processing and trading of mung bean activities simultaneously by investing large amount of capital.

In Pyinmana area, almost all of farm products also flew to town wholesalers thus wholesalers in Pyinmana tend to have highest market power at farm-gate level than town wholesalers in Thonegwa. To sum up this, proliferation of marketing channels, inefficient and costly transportation, lack of storage facilities reflected the higher exporters margin share.

ights reserve

# 6.2 Market information system of mung bean markets

In deal with the survey, farmers complained that the information from the MIS arrived too late for them. The farmers were unlikely to fully understand why prices change from day-to-day or week-to-week or why prices in cities were much higher than the prices in their local markets. Most traders and many big farmers were most keenly interested in export possibilities and prices, the demand in neighboring countries and the costs and margins involved in overseas trade and border trade. There was also much interested in new processing, packing and storage techniques.

The flow of information under MIS was from the bottom to top, i.e., starting with the market collectors and ending at MIS unit in Yangon. There was only a limited flow of information in the other direction. The regional offices primary function as data processor; receiving information from the market and forwarding it to MIS unit, Yangon.

Weekly, fortnightly and monthly bulletin published by MIS were good for production planning for farmers but not for marketing. They reported prices for mung bean without marking it cleared to which variety the price referred. And they converted prices to standard weights (usually kilograms) which farmers might not be understood. They reported information of daily price in wholesale markets in city but farmers had no way of understanding what these prices meant to them.

#### 6.3 Price transmission

This study mainly focused on analyzing the efficiency of the function of mung bean markets that can be measured by assessing price transmission.

The first conclusion that results from each data series showed that there existed a non-stationary, but the first differences in price series were stationary. Engle and Granger co-integration analysis was employed to test the existence of market efficiency between markets.

The results indicated that market efficiency was less perfect in Yangon and Mandalay as well. Estimated elasticity of Yangon wholesale price was 1.11, it showed that if Mandalay wholesale price increased by 1 percent, Yangon wholesale price would increase by 1.11 percent. And the estimated elasticity of Mandalay wholesale price explained that if Yangon price increase by 1 percent, Mandalay wholesale price would increase by 0.82 percent. Since, 0.82 was not statistically different from 1.00, transmission from Mandalay was more efficient in sending the price signal to Yangon than vice versa.

The second conclusion was that short-run price transmission was affected by the transparency of prices, which can lead to inefficient price adjustment of the markets. The error correction terms were significant in the case. This showed that the short-run adjustment of price changed at the market reacted significantly on the deviation from the long-run equilibrium. The lack of reliable market information showed that the wholesalers' unawareness of equilibrium market price. This created uncertainty among all participants in the market.

Third conclusion was that the selected mung bean markets in this study reflected a working arbitrage system. Lack of adequate communication infrastructure between local and central markets distorted the price adjustment in the short-run. Moreover, the performance of market intermediaries and their supporting services affected the price signal transmission in domestic mung bean market.

The method used in this study demonstrated that price transmission models were useful for planners in formulating policies because the indications of where there was sub-optimal competition. This result was expected and demonstrated that market intermediaries performed a key function with their services. They directly affected the price transmission of the local and central areas. But, as in most developing countries, there were inefficiency. This inefficiency in price information leaded to price sluggishness.

#### 6.4 Recommendation

Mung bean has a higher economic value compared with other food crops. Income at farm level can be increased through the commercialization of mung bean. They can provide not only ample income to farmers but also generating significant export revenues for the economy. Therefore, one of the high priority agriculture subsectors expect to lay a big role in economic programs must be mung bean. Improvement of processing and storage facilities should also be placed under immediate attention for the development of an efficient and effective marketing system.

By allowing market forces to determine domestic price levels and private business to operate would reduce marketing costs and enable farmers to gain from the growth of external trade in mung bean. To make the business more profitable to producers with more stable price and supply, the establishment of farmers' organization as well as local assembly stations and efficient marketing infrastructure should be put into practice.

Physical barriers, infrastructural gaps, together with limited market size should be investigated in order to gain a wider understanding of the price transmission in mung bean markets in Myanmar.

The reflection of inefficient price transmission calls for further investigation on market structure and conduct of Yangon and Mandalay wholesalers. Thus appropriate measures could be designed and implemented for strengthening competitiveness and better price transmission.

# Recommendation regarding with Myanmar Market Information Service

- Radio and television should be the best forms of communication due to growing number of local FM radio station in Myanmar.
- 2. A price board should be used to disseminate market information with the help of extension service in the entrance assembly of markets when farmers will deliver their crops to sell in assembly markets.
- 3. National and local newspapers should be used to disseminate market information, which should be supply for farmers in time in rural areas.
- 4. Internet facilities should be used to obtain market information due to development of information technology.
- 5. Market Information Services should be designed to provide immediate, commercial and reliable information on a timely basis to farmers and traders.
- 6. If MIS will have any impact on the farming decisions of smaller farmers, a provision of market information must also be accompanied by a provision of advice to those farmers on interpreting that information.
- 7. Monitoring data and forecasts relating to mung bean supply, demand and prices produced by Market Information Service under Ministry of Agriculture and Irrigation should be passed on to producers and traders in timely and accurate fashion, so as to help them better understand production and market trends.

Therefore, we could say that market information systems need to be improved. Government needs to pay great attention to the development of price information systems and market transparency. Transparent markets can ensure traders complete and timely knowledge of mung bean quality, quantity and price. Finally, further research in the problems of agricultural marketing and agricultural price policy can pay large dividends and in these markets will show which types of market imperfections prevail, entry or exit barriers to get the complete picture of Myanmar mung bean market.

