

Roles of Cooperative Movement as Middlemen to Increase the Efficiency of Agricultural Marketing in Malaysia¹

Syahrin Suhaimie, Noorlidawati Ab Halim, Mohd Hafizudin Zakaria, Mohd Syauqi Nazmi,
Rawaida Rusli and Rozhan Abu Dardak
Malaysian Agricultural Research and Development Institute (MARDI),
Serdang, Malaysia

e-mail: syahrin@mardi.gov.my

ABSTRACT

This paper aims to illustrate the participation of farmers and fishermen associations in substituting the role of middlemen in Malaysia. “War” against the manipulated middlemen program was launched to establish and support farmers and fishermen associations to reduce dependency of them with middlemen. It focuses on three sectors which are rice, fruits and vegetables, and fishery. This paper discusses activities and initiatives under this program to achieve targeted objectives, taken by government through farmers and fishermen associations and related government agencies. Short-term impact of the program were evaluated in this paper. Overall, farmers and fishermen in every sectors received benefits from this program, although facing some issue and challenges when implementing the activities and initiatives. Some of the initiatives have proven to contribute in improving efficiency of marketing system. At the same time, some other effects have occurred throughout the implementation of the program.

Key words: cooperative, marketing, efficiency, supply chain, middlemen

INTRODUCTION

Agricultural marketing system covers all business activities from producers to consumers that consist of marketing channels, middlemen, marketing activities that facilitates the flow of the system and ensuring nation's food supply. Between the two sides - farmers and consumers - lying the physical, technological and economic activities that involved in a series of actions that needed some sequence to make it works. Whether it is small or large countries, agriculture industry contributed the economy in terms of the employment, inflation, interest rates and others. It has evolved and increase in size with the influenced by social resources, technology, regulations, and changing needs of farmers, consumers and society, including the emphasis on profit incentives and efficiency in order to sustain the business and food production (Kohls, 2002).

Due to globalization, modernization and migration of people from rural to cities, there are recent changes in demand from consumers that affect the way retailers marketing their products. Demand was expected higher in the urban areas since the urban population

accounted for 54% of the total global population and it is expected to increase by another 60% by 2020 (United Nations, 2014). The distribution of foods in the urban areas has changed. More foods have to offer to the consumers by creating new outlets and producing more. Rising consumers' prosperity and demands required more efficient distribution system.

Agriculture Marketing System and Supply Chain Management in Malaysia

The agriculture sectors mainly are rice, fruits, vegetables, fisheries and livestock industry. All of this industry plays an important role in distributing and providing the agriculture produce to the end users. All of the agriculture marketing commodities in Malaysia involving several stages of the chain before it end up to the consumers. In Malaysia, Federal Agriculture Marketing Board, or known as FAMA is a marketing agency which had established in 1965 to coordinate agriculture marketing, improve marketing system, collaborate, develop and involved directly in the selected sub sector for the efficient and effective agriculture marketing system. All of these agriculture commodities have been emphasize in the National Agrofood Policy (DAN 2011-2020) on the producing of national food with focusing on the increasing of efficiency on agrofood industry along the whole of food chain to make the industry more productive and competitive.

According to Fatimah et al. (2006), the major differences between the traditional agricultural marketing system and the new supply chain system can be summarised in terms of the major marketing functions such as production, buying and selling, procurement, product development, pricing, processing, logistics, Information Communication and Technology (ICT) applications and market information. It can be summarised as follows:

1. The new supply chain focuses on the process rather than the economic agents as in the traditional marketing paradigm;
2. The focal intermediaries are the retailers as compared to the wholesalers in the conventional system;
3. The production marketing network is closely knitted and based on value-chains;
4. The marketing channels are short of well-defined functions;
5. The production and processes are driven by technology in order to customise products;
6. Private labeling is available for food safety; and
7. Logistics is the backbone of the new supply chain.

From a policy and institutional standpoint, most government interventions and programmes in Malaysia are invariably overtly 'production-centric' so much so that the farming/production sub-system is not well linked or integrated (and often 'out-of-sync') with the post-harvest sub-system. The power of supply chains is the value-adding potential at each level of the chain when agriculture is viewed in its broader and more holistic, agribusiness perspective. This will offer the basis for agriculture to drive overall development by leveraging on the inherent advantages and potential of nations at the inputs, processing, wholesale and retail trade as well as international trade levels. In so doing, agriculture via its linkages in the supply chain, will also contribute to the overall national economic growth from agro-based industries and value adding as well as agro-based services and consultancies at all levels of the supply chain (Wong, 2007). Agriculture supply chain in Malaysia involved several stages of actors in the chain as depicted below for each of the sub sector.

Paddy and rice supply chain in Malaysia

According to Tengku Ariff and Ariffin (1999), paddy and rice supply chain in Malaysia is quite straightforward and very well defined. As illustrated in the Figure 1, the farmers sold their paddy directly or through the paddy buyers to the Padi Beras Nasional Berhad (BERNAS) and private rice mills. Based on the paddy production survey report 2011 by the Department of Agriculture, it is found that most farmers prefer to send their paddy to private mills due to the several factors such as easier logistics, reasonable price and mills' proximity. The paddy will be process and later distribute the rice to Padiberas Nasional Berhad (BERNAS)' subsidiaries and wholesalers before passing to the retailers. BERNAS is responsible in ensuring fair and stable paddy prices for both farmers and consumers and also to provide sufficient rice supply from the farm to the wholesale level. In the farming level, BERNAS plays an important role as the buyer of the resort which and has to accept the paddy regardless of its condition from the farmers. Besides, BERNAS also deals with extensive responsibilities given such as rice price control, rice stockpile management, distributing paddy price subsidies to the farmers and Millers Scheme to the millers on behalf of the government. In addition to that, BERNAS is also responsible to produce the low grade rice namely ST15%¹ for low-income consumers. In fact, BERNAS is the only body that is licensed to import rice as to regulate and maintain the domestic price.

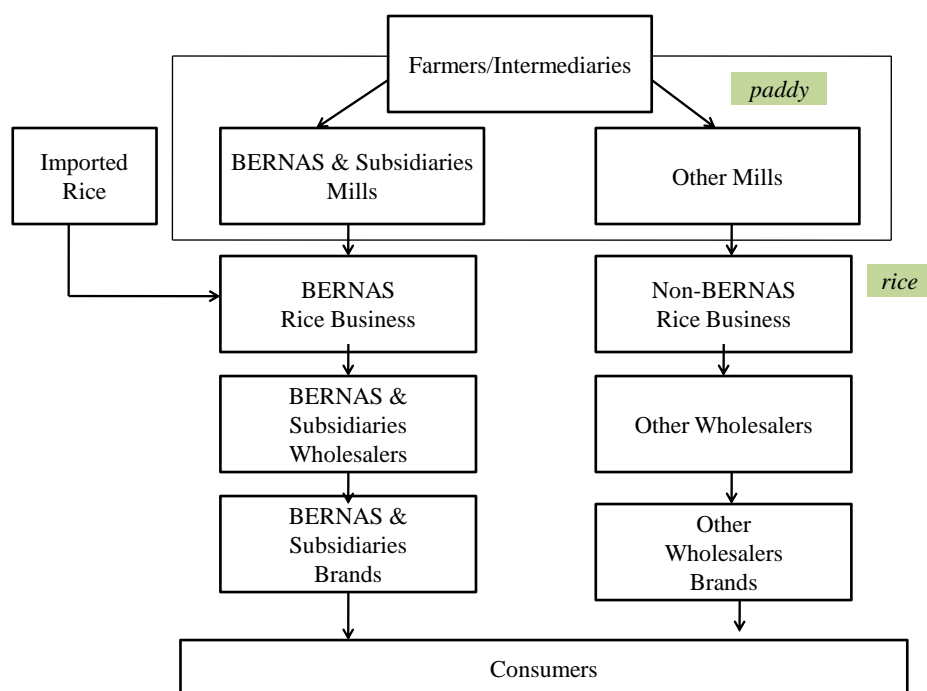


Fig. 1. Paddy and Rice Supply Chain in Malaysia

Source: Tengku Ariff and Ariffin Tawang (1999)

Fruits and vegetables supply chain in Malaysia

Fruits marketing in Malaysia is multi-layered and not coordinated or spatially inefficient (Fatimah, 2005) (Figure 2). The fruits and vegetables move from the producer to the

¹ ST15% is low grade rice which includes the 15% of the broken rice.

consumer through a number of different routes or marketing channel (Fatimah, 2005). Fruits are usually picked at the farm in the bulky types such as durian, melons, jackfruit and mangosteen. From the fruits farm, some fruit growers sold to agents or directly to the private traders. Farmers can also market directly to the consumers in Farmers Market (*Pasar Tani*) which is administered by Federal Agricultural Marketing Authority (FAMA). According to Fatimah (2005), about 31% of the farmers involved in direct marketing which selling their farm outputs by their own at Farmers Markets and others. The wholesalers turn to sell the fruits produce to the retailers before going to the consumers. The retail sector is comprised of three sectors which are super/hypermarkets, the small retailers and the “mobile” market (Farmers Market). Fruits and vegetables mostly sold through the wet retail markets and only 20% are distributed through super/hypermarkets (Fatimah, 2005).

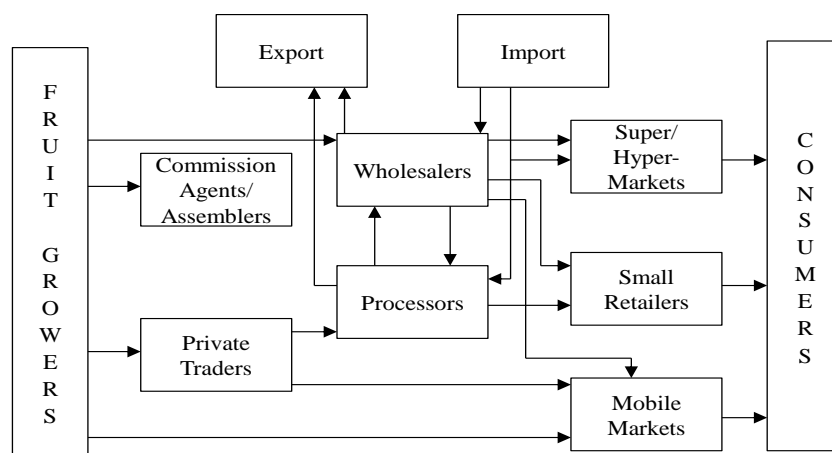


Fig. 2. Marketing Channel of Fruits in Malaysia
Source: Fatimah (2005)

Fisheries supply chain in Malaysia

For the fisheries sector, the marketing channel involves two ways which the first involving the traditional marketing channel started from the fisherman, middleman, wholesalers, retailers and finally to the consumers. The second way is through the Fisherman’s Market (*Pasar Nelayan Kawasan*) which is directly sold to the consumers. The fisherman’s market was established to provide the opportunities to the fisherman to market their catch directly to various levels of consumers as well as reducing the role of middleman.

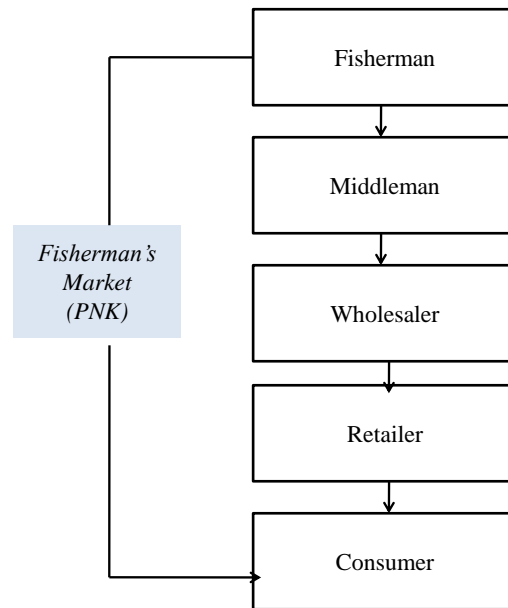


Fig. 3. Fish Supply Chain in Malaysia
 Source: Fisheries Development Authority of Malaysia (LKIM)

Role of FAMA

Federal Agricultural Marketing Board or known as FAMA, is responsible to monitor, coordinate, control and develop agriculture product marketing in Malaysia including export and import. FAMA was established on 30 September 1965 has played an important role in coordinating agriculture marketing, improving marketing system, collaborating, develop and involved directly in the selected sub sector for the efficient and effective agriculture marketing system. It covered the four sub sectors which are (1) vegetables, (2) fruits, (3) grain and herbal and (4) livestock and aquaculture. Various of programs has been created in order to achieve its objectives such as Rural Transformation Centre (RTC), contract farming, collection centre and distribution centre, Malaysia's Best, Mega Farmers Market and Fresh Fruits Stall (GBBS), system development and market control and AGROMAS product. Several activities had been develop to improve system and marketing practices such as grading and determining quality, establishing market infrastructure, market control and conditioning market development. Besides, FAMA also improving its marketing information by ensuring the information on supplies, demands, prices of agricultural products and educating on the venturing into manufacturing and marketing their agricultural products.

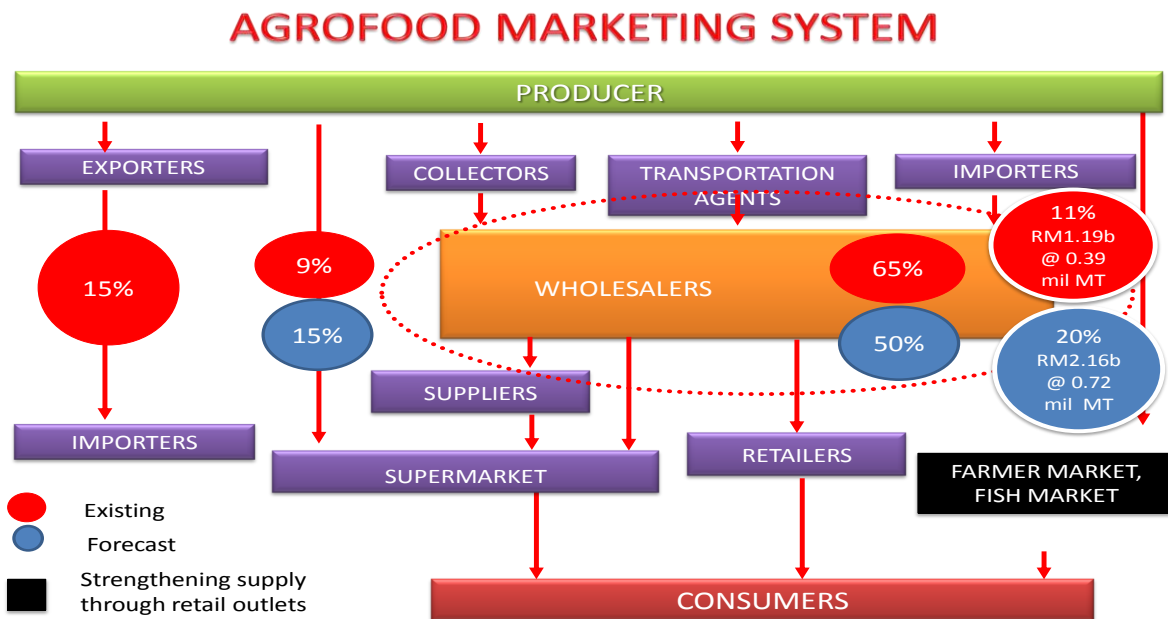


Fig. 4. Agrofood Marketing System in Malaysia
Source: FAMA, 2014

Issues in agriculture marketing

Problem facing by the Malaysia's agricultural sector are many and varied. Some are inherent while others are circumstantial. There are some of the constraints faced by agriculture especially farmers' and agribusiness sector.

a. Structural Issues

Uneconomic, small or medium sized of farm owned by farmers, and enterprises whose operators are unorganized characterize the agricultural sector in Malaysia. Besides that, an outdated, traditional and semi-commercial technology used often led to inefficient operations affecting quality of products. Inherently, the private sector's poor commercial investment response especially in food production led the sector's growth to be largely slow. Very little integration between food production and downstream food chain activities was also resulting in an inefficient market. Unsustainable food production practices leading to issues on food security, nutrition and food safety.

b. Low Prices of Commodities and Volatility

Major export commodities in Malaysia such palm oil, rubber and cocoa faced steep price decline. This is due of slowdown in economic growth faced by certain importing countries. Unbending and highly competitive internationals market such rubber; Malaysia has to compete with Thailand and Indonesia who are relatively lower cost of producers. Our palm oil needs to compete with not only other producing countries but also with other edible oil products such as soybean, sunflower and corn. These entire scenarios made agriculture worse if these countries have a bumper harvest. Furthermore, non-tariff trade barrier pulled so many instances when professional international lobbyists were paid to run down oil palm, claiming dubious side effects and health hazard potentials. Price in agricultural

market frequently associated with more volatile than other industries. As example, when the food price crisis happen in 2008, rice price in the international market increased to more than triple to US\$1,200 per tonne from US\$ 335 per tonne in 2007 average. This was a result of the global supply crunch which only 7% of the world's rice production traded internationally. Supply of agriculture output is inelastic since it takes time to plant and harvest, thus it could not easily respond to increase in price. On the other hand, price is inelastic in the demand side. Changes in price do not affect the pattern of consumer buying food. Most of the agricultural products are basic necessities so consumer will not buy more food if the price fall. Due to this reason, farmers face "uncertainty" producer price when coming to the harvesting season. Farmers received low ex-farm producer price since they have no bargaining power to ensure their agricultural produced being sold. The financial commitment when paying agriculture input and labor force farmers to sell farmers outputs immediately to pay off current debts although the offer price is very low. This situation will keep the farmers in the poverty condition.

c. Competition

Agriculture remains an important part of the national economy for the increasingly growing population with the challenges issues of capital, land and labor. Because of better, higher and steadier return by the manufacturing sector and other sectors, preference for capital to be invested in the manufacturing opposed agricultural sector are quite obvious. Vagaries of weather, diseases, price fluctuation and perishability in its goods were among the factors to hinder the development of agriculture industry. Besides that, land suitable for agriculture also was getting scarce. This is because much of the land once utilized for agriculture had been converted to other more profitable use. Return land for agriculture has always been low priority when compared with other undertakings. Abandoned farms were a common feature and the labor lots that remain these days are mostly elders who are now well into their 50s. The Malaysian agricultural sector is presently facing acute shortage of labor. Now, the sector is highly dependent on foreign labor. However, they prefer to be employed in non-farm sector.

Marketing Intermediaries – Middlemen

Historically, middlemen have fulfilled an important role in getting goods from the manufacturer to the end user, such from farmers to broker to distributor to food store and finally, consumer. The only function they seem to perform is moving information, because these middlemen don't change the physical attributes of an item. Middlemen are individual or business firms that help the company find customers and/or close sale with them. They fall into two types, agents' middlemen and merchant middlemen (Kohls, 2002).

Types of middlemen

Middlemen are those individuals or business concerns who specialize in performing the various marketing functions involved in the purchase and sale of goods as they are moved from producers to consumers. Marketing middlemen can be classified as: merchant middlemen – retailers and wholesalers, agents' middlemen – brokers and commission men, speculative middlemen, processors and manufacturers, and facilitative organizations.

a. Merchant middlemen

Merchants' middlemen – such as wholesaler and retailers – buy and resell merchandise (often called resellers). Retailers' purchased and merchandised products for final consumers. Their task is to provide a wide variety of products at a single location, making it convenient for consumers to assemble a desired market. Retailers may include supermarkets, restaurants, convenience stores, and/or specialties stores. Wholesalers sell to retailers, other wholesalers, and industrial users, but do not sell significant amounts to final consumers. Two types of wholesalers, local buyers who buy in the producing area directly from farmers and ship the products to the larger cities where they sell to others wholesalers and processors, and full line wholesalers, located in the large city, handle many different products or those who specialize in handling a limited number of products. They could be cash and carry wholesaler, who will extend credit and offer delivery or others. Merchant retailers and wholesalers receive their incomes from a margin between the buying and selling prices.

b. Agents middlemen

Agent middlemen – such as broker and manufacturers' representative – find customers and/or negotiate contracts but do not take title to the merchandise. They provide services to buyers and sellers, act as representative of their clients. Their services are often retained by buyers or sellers of good who feel that they do not have the knowledge to bargain. Agents' middlemen received their incomes in the form of fees and commission. There are two major group of agents such brokers and commission men. Broker do not have physical control of the product, they follow the direction of buyers and sellers, and have less influence in price negotiations. While commission men usually granted broad power and normally take over the physical handling of the product, arrange it for sale, collect, fee deduction, and remit the balance to the seller.

c. Speculative middlemen

Those who are buy and sell products with the major purpose of profit from price movements. On the other hand, they seek out and specialize in taking the risk and usually do a minimum of handling and merchandising. These groups are often earned their profit from short run fluctuations in prices.

d. Processors and manufacturers

They are among the best and specialize in adding time, form, place and possession utility to raw farm products. Food processors perform a number of marketing functions. They are important buyers of farmers' product and must wholesale their finished products to food retailers. Their packaging, branding, and promotion activities may be viewed as a form of market information as well as important influence on consumers' choices.

e. Facilitative organizations

This group of middlemen may furnish the physical facilities for the handling of food products of bringing of buyers and sellers together. They also aid in grading, arranging and transmitting payment. They received their income from fees and assessments from those who use their facilities.

Roles of middlemen

Middlemen perform several roles and functions in the market place. Their utility is best judged from commodity markets. Besides making the product available to the customer, they also take the responsibility for the payment from the buyer to the seller. Some of their key roles are summarized below:

a. Information

Middlemen have a role in providing information about the market to the manufacturer. Developments like changes in customer demography, psychology, media habits and the entry of a new competitor or a new brand and changes in customer preferences are some kind of information that all manufacturers want. Since these middlemen are close to the customer and present in the market place they can provide this information at no additional cost.

b. Price Stability

Maintaining price stability in the market is another function a middleman performs. Many a time the middleman absorbs an increase in the price of the products and continues to charge the same old price to the customer. This is because of the intra middlemen competition. The middleman also maintains price stability by keeping his overheads low.

c. Promotion

Promoting the products in his territory is another function that the middlemen perform. Many of them design their own sales incentive programs aimed at building customer relationship.

e. Financing

Middlemen finance producers operations by providing the necessary working capital in the form of advance payments for goods and services. The payment is in advance even though credit may be extended by the producer, because it has to be made even before the products are bought and consumed and paid for by the ultimate customer.

f. Title

Most middlemen take title to the goods and services and trade in their own name. This helps in diffusing the risks between the manufacturer and middlemen. This also enables middlemen being in physical possession of the goods, which enables them to meet customer demand at the very moment it arises.

Thus, the role and functions of any marketing channel can be viewed from five different perspectives or marketing flows. The definition of a channel member goes beyond the traditional one of middlemen. Today it has come to include even suppliers of inputs (like raw material, components, capital and even labor) and other institutions like transport companies and banks that facilitate the distribution process could be a middlemen. It is in this sense that the marketing channels have to be viewed as sets of interdependent organizations involved in the process of making a product or service available for use or consumption.

Marketing Institutions

Marketing institutions are the wide variety of business organizations that have developed in the agricultural marketing system. The institutional approach considers the nature and character of the various middlemen and related agencies, and also the arrangement and organization of the marketing activities. The institutional approach also could help us to understand why this various middlemen and agencies are specializing in the food industry.

Farmers' and Fishermen's Organization as Middlemen

Farmers' Organization Authority in Malaysia

The Farmers Organisation established under the 1973 (Act 109). Farmers Organisation Act is an Institute owned by the farmers. According to Section 7(3) of the 1973 Farmers Organisation Act, FOA Director who is also the Registrar of the Organisation have appointed part of his powers to the Permanent Registrar, Ministry of Modernization of Agriculture Sarawak for the state of Sarawak, General Manager of Muda Agricultural Development Authority (MADA) and the General Manager of Kemubu Agricultural Development Authority (KADA) except the power to establish, register and suspension and revoking FOA. Overall performance presented until 31 December 2008, are the only FO achievements under the supervision of FOA that involved a National Farmers Organisation (NAFAS), 12 State Farmers Organisation (SFO) and 206 District Farmers Organisation (DFO). The objective of the FO establishment is to improve the social and economy standard, increase their knowledge and skills, increase revenue and income and to improve the way of life of its members and to create a progressive, independent, prosperous and integrated farming community. Among the role of FO is to improve the productivity of farmers through the provision of services, enhance the rapid growth of the agricultural sector through restructuring of agriculture. In addition, FO role is also to enhance business and investment growth in agriculture, improving the socio-economic status and the quality of life for the farmers and to balance the agro-industrial development in the rural areas.

Table 1. Information of Area Farmers' Organization, 2012 - 2014

State	2012		2013		2014	
	PPK	Member	PPK	Member	PPK	Member
Johor	29	85,629	29	90,236	29	91,909
Kedah	20	51,145	20	52,523	20	53,467
Kelantan	21	62,532	21	59,183	21	60,500
Melaka	5	18,774	5	19,199	5	20,181
Negeri Sembilan	11	26,045	11	22,923	11	27,100
Pahang	21	54,849	21	56,453	22	59,526
Pulau Pinang	9	20,455	9	20,534	9	21,773
Perak	30	94,668	30	97,988	30	99,277
Perlis	6	13,065	6	13,453	6	13,511
Selangor	14	45,194	14	46,835	14	47,500
Terengganu	15	42,917	15	43,589	15	37,897
Sabah	25	56,814	25	54,557	25	64,640
Sarawak	28	163,241	28	162,773	28	162,640
W.P. Labuan	2	2,456	2	2,590	2	2,810
MADA	27	49,300	27	49,800	27	49,929
KADA	13	39,529	13	38,860	13	39,254
TOTAL	276	826,613	276	831,496	277	851,914

Source: Agro Food Statistic, 2014

Fishermen Organization Authority in Malaysia

National Fisherman Association of Malaysia (NEKMAT) was established and incorporated under Fisherman's Association Act 1971. The objectives of NEKMAT was to uplift the economy and social well-being of the fisherman's community, to increase yield and income of the fisherman's community through increase in production, skills and initiative and to give a tranquillity to the members and to develop a progressive, dependent, united and dedicated fisherman community. NEKMAT is responsible for 12 State Fishermen's Association (SFA) and 87 Area Fishermen's Association (AFA) that represent for each state in Malaysia. Basically, the SFA and AFA would be functioned as supporting NEKMAT agenda's.

In line with its establishment, NEKMAT had played huge roles to carry out projects and activities that benefited fisherman's. There are eight projects are currently under responsibility of NEKMAT to carry out. The first project is to supply fresh products under government contract. This project involves the contract that supplies fresh products such as fresh fish, vegetables, fruits and others to the government institutions like military body, hospitals, prisons and schools in Peninsular Malaysia and Sarawak. This project is individually operated by NEKMAT where supply of the material comes from their own source. The facilities for the project is provided by NEKMAT to ensure smooth operation such as storing facility that would be able to sustain as long as 3 months.

The second project is to supply diesel and lubricants. This project started in 1987 with its main objective is to supply diesel to fisherman through the Area Fisherman's Association (AFA) in Peninsular Malaysia and Sarawak. The main diesel suppliers are Shell Malaysia Trading and Petronas Dagangan Berhad. In December 1997, sales of free duty diesel were started and received overwhelming respond among fishermen. Since then, NEKMAT was

given the responsibility by the government to supply subsidised diesel to the fisherman. This project has successfully given direct benefit to the fishermen community.

The third project is producing and marketing ice cubes. This project was initiated at Chendering, Terengganu in April 1987 under Lembaga Kemajuan Ikan Malaysia (LKIM) privatisation programme. The ice cubes production capacity at that time was 220 metric tonne per day. NEKMAT has opened another ice cubes factory in Kuantan, Pahang. The factory was bought from LKIM since 2000. The sale of ice cubes is good and received positive feedback from the fishermen. The objective of the project is to supply ice cubes directly to the fishermen for deep sea vessel and inshore fishing vessel.

The fourth project is marketing of fish. The marketing and selling of fresh fish in the wholesale market was started since 1990. The first operation was setting up at Selayang Wholesale Market, Kuala Lumpur started in 1990 followed by Pandan Wholesale market in Johore Bahru, Pasar Besar Klang and Pasar Borong Puchong in Selangor. The operation starts from 1.30 am till 8.00 am. This project aims to get fresh fish supply from local fishermen including Area Fishermen's Association. The objective of the project was to supply fish to wet market, grocery shops and supermarket but buying and selling activities mostly happened in the wholesale market.

NEKMAT fifth project is processing and marketing of fish products. NEKMAT is capable of processing fish products like fish burger, premium beef burger, fish nugget, fish finger, fish ball, and squid ball under the brand "ENNA". ENNA is being marketed throughout Malaysia. These products were certified Halal by Halal certification body in Malaysia.

The sixth project carry out by NEKMAT is supplying of inputs to the fishermen such as fishing nets and spare parts, outboard motor and plastic crates. NEKMAT is the main supplier of fish plastic crate in Malaysia. It is specially design to reduce post-harvest losses, operational cost, pollution and enhance security. The design made the crate is easy to clean, durable and provides highest cubic space.

Next project undergone by NEKMAT are providing logistic services. This project was initiated in 1992 and started with 7 trucks to transport fish from north to south and east to west Peninsular Malaysia. The main activities are to transfer fresh fishes from fish landing jetty to wholesale market. These trucks are vary in size, from 7 ton to 26 ton and it is capable of carrying fresh fish, processed food and frozen food.

Also, NEKMAT is providing insurance package which name Fisherman's Protection and Welfare Scheme to their members. It would be a good effort to ensure full protection cover that benefited to fishermen when they are no longer involves in fishing activities.

In 2014, Sarawak has recorded highest fishermen AFA members with more than 19,000 members (Table 2). Then, followed by Sabah with more than 16,000 AFA members and Perak 14,256 AFA members. Total number of AFA members were 102,670 members. The number of farmers become a AFA member has shown an increasing trends.

Table 2. Information of Area Fisherman's Association (AFA), 2011-2014

State	2011		2012		2013		2014	
	AFA	Members	AFA	Members	AFA	Members	AFA	Members
Johor	9	9,264	9	9,437	9	9,525	9	9,927
Kedah	5	8,947	5	8,563	5	9,114	5	8,980
Kelantan	4	5,720	4	5,290	4	4,907	4	4,874
Melaka	2	1,695	2	1,261	2	1,135	2	939
Negeri Sembilan	2	628	2	656	2	668	2	708
Pahang	4	3,610	4	3,161	4	3,024	4	2,899
Pulau Pinang	4	6,881	4	6,122	4	6,008	4	5,937
Perak	7	12,769	7	13,371	7	13,903	7	14,256
Perlis	2	3,318	2	3,200	2	3,482	2	3,352
Selangor	5	7,499	5	5,184	5	5,016	5	4,956
Terengganu	10	9,302	10	8,982	10	8,754	10	8,507
Sabah	14	12,371	14	13,973	14	15,703	14	16,836
Sarawak	18	16,428	18	17,672	18	18,663	18	19,695
W.P. Labuan	1	735	1	755	1	778	1	804
Total	87	99,167	87	97,627	87	100,680	87	102,670

Source: Fisheries Development Authority of Malaysia (LKIM)

Sarawak has recorded highest traded value members with more than RM178 million in 2014 followed by Kedah with more than RM24 million and Pulau Pinang RM13.3 million traded value (Table 3). From 2009 to 2014, total traded value members showed increasing trends and expected to be increase in the next 5 years.

Table 3. State Fisherman Association (SFA) trade value by state, 2009-2014

State	Trade Value (RM'000)					
	2009	2010	2011	2012	2013	2014
Johor	3,301.82	4,158.74	5,492.62	5,368.68	7,667.86	8,569.60
Kedah	3,207.02	8,877.65	18,789.49	22,262.64	23,261.79	24,978.51
Kelantan	1,284.95	3,375.21	2,164.22	2,988.79	4,740.09	6,155.96
Melaka	285.54	713.05	919.37	1,152.78	1,227.72	1,351.97
Negeri Sembilan	27.36	9.77	56.11	75.97	91.3	107.38
Pahang	1,403.26	2,222.54	3,188.22	4,316.09	4,983.80	5,827.06
Pulau Pinang	5,928.86	7,210.03	6,598.47	6,387.92	11,182.68	13,333.11
Perak	5,329.83	4,401.94	6,792.97	6,003.73	9,409.41	10,488.67
Perlis	3,397.51	3,094.96	2,496.22	2,372.11	4,042.32	4,746.90
Selangor	1,860.43	2,088.12	2,293.19	2,287.36	2,014.55	1,929.33
Terengganu	3,410.56	2,035.94	2,539.72	2,207.96	2,423.25	2,385.69
Sabah	634.66	973.8	463.26	286.75	1,012.54	1,314.07
Sarawak	158,600.1	174,619.0	170,580.0	170,015.9	176,242.6	178,163.6
	3	4	2	1	2	7
Total	190,680.9	215,790.7	224,384.8	227,738.6	250,312.9	261,365.9
	3	9	8	9	3	2

Source: Fisheries Development Authority of Malaysia (LKIM)

"War" against (manipulated) middlemen program (JMOT)

Ministry of Agriculture and Agro-based Industry has launched "War" against manipulated middlemen program (JMOT) in January 2014 by Agriculture Minister. This program comes to attention since the government feels that farmers and fishermen have been manipulated by middlemen when dealing in buying agriculture outputs from them. Farmers and fishermen are too much dependent on the middlemen especially on getting financial assistance to buy agriculture inputs. The financial assistance, sometimes, extended for personal use such as paying children's school fees, booking payment for a new car, and buying household items. Farmers and fishermen feel comfortable dealing with middlemen – no proper attire when meets, no paperwork, no agreement, meeting at any place e.g coffee shop, own house, and middlemen can provide 24 hours financial assistance if they need money in emergency situation. Due to this thrusts and strong dependency, middlemen started to manipulate them when buying their farm outputs and control price along the supply chain.

Objectives of this program is to increase income of farmers and fishermen, to ensure reasonable price to consumers, to ensure local food supply, to shorten supply chain tier by establishing current marketing channel, and to reduce dependency on middlemen.

Rice Subsector

As we know middleman is a person who buys goods from the producer and resells them to retailers, wholesalers or consumers. However, the middleman in Malaysian rice industry is not only buying rice and reselling them but they also provide services to farmers such as transportation, fertilizers, harvest and mill. These are one of the contributing factors that contribute to the increment of production cost since their prominent role in the rice supply chain. The government believe that with this program, some of the services provided by the existing middle man will be handed over to government agencies and registered farmer associations.

To ensure the objectives of JMOT can be achieved as targeted, several main initiatives and activities under rice cluster have been planned to be implemented starting in 2014 as shown below:

- a) **Creating Rice Collection Centre (RCC);**
Area Farmer Association has been appointed to manage Rice Collection Centre to buy rice directly from farmers and send to any chosen millers. This initiative is to substitute the role of middlemen play with farmers. A total of 36 RCC have been created, instead of 37 RCC being targeted to establish in 2014. By end of 2015, 49 RCC were targeted to be established. Creating RCC could also improve process of quality determination to become more transparent.
- b) **Providing Farmers Welfare Fund;**
Every RCC is providing welfare fund to give soft loans to farmers in emergency case. Farmers is eligible to apply a loan up to RM2,000 (US\$500) per request. It is expected to reduce the dependency of farmers on middlemen since they have alternative to ask for financial assistance. Each RCC has been allocated RM100,000 (US\$25,000). In 2014, 2,114 farmers benefited from this initiative with RM1.6 million (US\$400,000) total disbursement.
- c) **Extending machinery services through Farmers Association;**

Middlemen have monopolized as a provider of machinery service at very long time in all rice areas. Currently, only 30% of the machinery service provides by Farmers Association. By increasing the coverage of machinery service by Farmers Association, it could help to reduce monopoly practice among middlemen. Under this program, it has been targeted to achieve 40% coverage by 2018. To make it happen, additional 300 tractors, 200 combined harvester, and 500 trucks are needed by Farmers Association.

- d) Promoting of Malaysian Certification Scheme for Good Agricultural Practice (MyGap); MyGap is a comprehensive certification scheme that awarded farmers who follow agricultural practice that emphasis on environmental friendly, economic and social, to produce a quality and safety products. Implementation of MyGap could assist farmers in producing high quality rice - reduce impurities and increase yield. Farmers could not easily being manipulated by middlemen if their rice field received MyGap certification that reach high standard of rice farming. Nevertheless, none of the farmers yet to participate in MyGap under this program.

All of the initiatives planned for the rice cluster aims to reduce the dependency of farmers and to eliminate manipulation of middlemen who charge an extreme charge for services offered.

Fishery Subsector

Under these program, several initiatives were established to strengthen fishery industry to be more effective and efficient. The initiatives were as follows:

- a) Establishing Collection and Distribution Centre by NEKMAT and AFA
Direct purchase of fish from fisherman were considered as new initiative introduces under this program. NEKMAT and AFA will be acting as the driving agent for marketing activities that offering competitive price to fishermen. This initiative succeeded to break the middlemen monopoly. NEKMAT and AFA would continue their services as a direct purchases fishery from Zone A fishermen. In 2014, 3,062 fishermen benefited by increasing their income within RM150-RM300 (US\$37-75)
- b) Creating Welfare Fund for fishermen
To ensure smooth operation in purchasing fish directly from fishermen, the government has provided special fund to NEKMAT and AFA. This fund was mainly purposed to help NEKMAT and AFA to strengthen their capital and increase their facilities in order to deal with fishermen. This special fund would consider as zero interest loan. Total fund disbursement in 2014 were recorded at RM400,000 (US\$100,000) by six AFA.
- c) Taking over fishermen debt from middlemen with free interest
Based on the information obtained from previous research and investigation found that many fishermen have bad debt with middlemen. It happened because of their dependency to middlemen many years ago. They always asking loans from middlemen when they had short of money especially during monsoon season. High interest was given to fishermen because of their difficulty to be freed from middlemen debts. The purpose of this initiative is to take-over fishermen debts from middle men with interest free and successfully assist 19 fishermen to settle debt from middle men with total debts RM150,000 (US\$37,500)

- d) Increasing number of fishermen market
In line with an effort to reduce middlemen monopoly in fishery sector, creating new fishermen markets were among the practical solutions. The concept of fishermen market is well-known among fishermen which fishermen must sell their own fish to the consumers. No middlemen involved in the fish-selling transactions. Although fishermen market has started in every states, there is a need to add more fishermen market especially in every districts. Government has put an effort to build more fishermen market in order to increase fishermen income. As a result, 49 new fishermen market were established with 524 fishermen involved in selling fish directly to consumer. Total sales was recorded at RM33.7million (US\$8.4million)
- e) Encouraging participation in farmer markets
Instead of selling at fishermen market, fishermen were also encouraged to participate in selling fish at farmers market. In 2014, 63 fishermen associations had been participated in farmers market with total sales estimated at RM41.2 million (US\$10.3 million).
- f) Strengthening logistic service
Logistic is the important components in marketing activities. It is an integral of key success factors of companies operation and has direct impact to sales. Empowerment of logistics along with the fish value chain had been implemented in 2014 with the purposed of strengthening logistics along the value chain. Logistics for fishery industry including cool room facility, transportation and outlets. Under this initiative, six cool rooms, nine trucks and 45 outlets had been setting up in order to assist fishermen market their fish.

Fruits and Vegetables Sub Sector

The total of fruits and vegetables producers is about 307,268 throughout Malaysia. Producers in this sector is also being manipulated by middlemen when they offering low ex-farm price and/or accepting only high quality farm outputs. Activities and initiatives have been planned under this program for fruits and vegetables sector as follows:

- a) Increasing number of farmer markets
Adding new farmer markets could give more opportunity to the farmers in selling their farm outputs directly to the final consumers. Although it is not all farmers are interested participating in selling their farm outputs at farmer markets, they could pass or sell their farm outputs to the Farmer Associations. The responsible Farmer Associations, usually Area Farmer Associations, appointed selected farmers among members that interested and capable in handling and marketing their farm outputs, and participating in farmer markets. Number of farmer markets created in 2014 was 577 and it was targeted to establish 1,000 farmer markets by 2020. With the sales value of RM743 million (US\$185 million), 25,607 farmers joined and participate in farmer markets. Price of the products may be the same with other markets, sometimes lower by 5%, but the quality of the products is guarantee.
- b) Increasing number of Agrobazaar and Karavan Tani
Other than farmer markets, government has also created Agrobazaar, which has similar concept with grocery shop, and Karavan Tani, selling goods in caravan at any place (mobile). In 2014, 309 Agrobazaar had recorded RM31 million (US\$7.75 million) sales value in fruit and vegetables sector. Sales value of Karavan Tani was higher than Agrobazaar, with RM14.8 million (US\$3.7) from 140 Karavan Tani.

- c) **Creating Agrobazaar portal**
 Agrobazaar.com.my was created to promote people especially young generation buying agriculture and food products directly from producers. It is certainly eliminate middlemen since producers and consumers will be contacted through website. Participants from farmers have reached 1,336 with RM2 million (US\$50,000) business transaction.
- d) **Providing truck service**
 Middlemen in Malaysia is also acting as service providers that offer transportation from farm to any desire place including input suppliers, machinery providers, and wholesalers. Various government agencies including Farmer Associations have taking part to provide truck service to farmers. The total number of trucks provided was 841 units, where 63% of them belong to Farmer Association.
- e) **Distributing canopy tent**
 To encourage farmer participating in selling their farm outputs near their farms, government has distributed 1,000 canopy tent to the interested farmers. Each farmers need to sign a loan agreement between entrepreneurs and FAMA. Sales volume from farmers that using canopy tent was RM26.9 million (US\$6,725 million) in 2014, with 64,320 metric ton sales quantity.
- f) **Establishing collection center**
 Creating farm collection center was intended to increase participation of Farmer Association in marketing activities. Farmers received extra incomes when receiving higher ex-farm price. Based on the achievement in 2014, 20 existing collection center have been upgraded and another 16 collection center were newly created. Another 89 collection center are currently under development.
- g) **Providing credit facilities**
 To reduce dependency of middlemen in giving credit to farmers, Agrobank, a government-related bank, is providing RM120 million (US\$30 million) allocation for farmers that interested on getting loan. Nevertheless, only RM13 million (US\$3.25 million) have been distributed.

Impact of the program

Activities and initiatives in the JMOT program began in early 2014 and still continued until today. Although the implementation of this program is just recent, there has been some impact resulting from the implementation of this program. For example in rice cluster, some granary areas under MADA, some field activities, e.g., transportation and harvest which were carried out by middle men (service providers) were taken over by Area Farmer Associations.

In fruit and vegetables cluster, before the implementation of the program, majority of farmers facing a problem to send their products to collection centre due to transportation problems. However during the implementation of JMOT, this problem has been overcome by FAMA and Farmer Associations by increasing the number of trip and trucks carrying agricultural product from farm to collection centre. In addition, a number of the collection centre has opened in agricultural areas which further facilitate the delivery process to collection centre.

In fishery cluster, before the implementation of the program, majority of fishermen sell their catch to middlemen without knowing the quantity and grade of fish. It has been manipulated previously. However, within the implementation of the program, fishermen

began to sell their catch to the Fishermen Associations and observe the total quantity of fish they selling and classification of fish grade and types, made directly in front of the fishermen. If fishermen are satisfied with the process, then the transaction will be made.

This program is contributing positive impact to farmers, fishermen and their associations as shown in the table below:

Table 4. Short-term impact of the “War” Against Manipulated Middlemen Program

Cluster	Before program	During program
Paddy	<ul style="list-style-type: none"> • Most of service in rice production offered by middlemen. • Only middlemen purchase rice from farmers • Less hands-on training given to farmers. • Farmer debt levels to the middlemen are very high. 	<ul style="list-style-type: none"> • Farmer Association started to serve a service with more reasonable fees. • Rice Collection Center was established by Farmer Association to facilitate farmers in selling rice. • Farmers often invited for training. • Farmers can pay-off their debt with middlemen through funds allocated by the government
Fruits and Vegetable	<ul style="list-style-type: none"> • Low ex-farm prices of fruit and vegetables offered by middlemen • Few numbers of collection center and located far from farms • Farmers have issues to bring their agricultural product to collection center. 	<ul style="list-style-type: none"> • Prices of fruits and vegetables purchased by FAMA and Farmers Association are more reasonable with the introduction of a floor price • Many of the collection center were established on the site of production area of fruit and vegetable. • FAMA provides more transportation trip and increase the number of trucks
Fisheries	<ul style="list-style-type: none"> • High dependency on middlemen due to bad debt • Poor jetty condition and need to upgrade • Not many opportunity or place for fishermen to sell their catch directly to consumers. 	<ul style="list-style-type: none"> • Financial assistance to fishermen to help them pay off their debt to middlemen • Most jetties were upgrade for the convenience to the fishermen. Some jetty provides accommodation to fishermen. • Drastic increasing of fishermen market in many areas.

The Challenges against Middlemen Program

During the implementation of the program in 2014, the Ministry was faced with a number of issues and constraints. Comprehensive improvement measures were implemented in order to overcome the desire for manipulation and monopoly. Intermediaries program can be effectively implemented with maximum impact on the target groups and all stakeholders if these issues and constraints identified could be work out.

Issues and constraints in rice subsector

- i. Farmers are still using machineries from middlemen due to the limit number of machineries and equipment in the area of Farmer Associations concerned. Farmer Association had to compete with the middlemen who have long pioneered in this service;
- ii. Strong dependence on the middlemen was still existed among farmers in the value chain due to ease advance of money with middlemen and accessible at all times;
- iii. None of the farmers who have been certified MyGAP. It is due to adoption of a voluntary farmers in good agricultural practices through My GAP in ensuring a quality product be produced is still in the primary stage. However, there is an increasing of awareness of this in comparison with the past, before this program had been implemented.

JMOT Program for Fishery Subsector

- i. Fish business is a free enterprise. This will led towards a Fishermen's Organization to compete with the existing middlemen for sourcing supply of fish from local fishermen. The role and relationship of fishermen with middlemen were longstanding and deeply rooted over the years lead the strong dependence on the middlemen along the value chain sub sector. It was also found that the crisis towards fishermen confidence to the Fishermen Association to take over the task of middlemen; and
- ii. Perception of fishermen undertaking acquisition debt of the middlemen seen as not in their good turn. Often comparable debt taken over by the government will not bring any profit to the fishermen (no cash in hand).

JMOT Program for Fruits and Vegetables Subsector

- i. Overlapping roles of agencies as collectors and marketers; and
- ii. Coordination of logistics assets operation was not held regularly based on the level of density transaction.

CONCLUSION

This program which started in 2014, had contributed significantly to increase the farmers' income in reducing the layer of middleman. Services provided by the government agencies for the each agriculture sub sector serves as an alternative to reduce the "bad" middlemen and increase the profit margin obtained by the farmers. The role of the government agencies and farmer/fishermen associations are very important to the farmers as well for the sustainability of the industry in the future and for the nation itself.

The removal of market intermediaries and a reduction of marketing margins could improve market efficiency. Improving marketing systems will be instituted by reducing market intermediaries and improving parallel market systems such as the farmers market, direct marketing and contract farming. Establishing more farm collection center, packing house facilities, trading and wholesale markets in the production areas will minimized the transaction time and post-harvest losses. Furthermore, market intelligence will be further improved so that the producers can make better marketing and production decisions.

A focused production on major food items that are competitive including fisheries, livestock, fruit and vegetables need some of the rectifying measures employed. Zoning some areas for specific food items production will create in seasoning supply and decrease dumping. Specific focused in research and development intensification programs which aimed at increasing production will make agriculture more competitive amongst others.

REFERENCES

- Federal Agricultural and Marketing Authority (2015). Agrofood Marketing System. Retrieved from <http://www.fama.gov.my>
- Fisheries Development Authorities of Malaysia (2015) Fish Supply Chain. Retrieved from <http://www.lkim.gov.my>
- Fatimah Mohamed Arshad (2005). The fruits industry in Malaysia: Issues and challenges. Universiti Putra Malaysia, Serdang Press
- Fatimah M.A., Zainal A.M. and Ismail A.L. (2006). Changes in Agri-food Supply Changes in Malaysia: Implication on Marketing Training and Needs. Paper presented at FAO/AFMA/FAMA Regional Workshop on Agricultural Marketing, Kuala Lumpur, 22-24 November.
- Kohls, R. L. and Uhl, J.N. (2002) Marketing of Agricultural Products 9th ed. Prentice Hall: New Jersey
- Tengku Mohd Ariff Tengku Ahmad and Ariffin Tawang (1999). Effects of trade liberalization on agriculture in Malaysia: Commodity aspects. Working Papers Series No.46, CGPRT Centre, Bogor.
- Mahfoor H., Mad N.S., Ismail A.L. (2001). Challenges for Agribusiness: a case for Malaysia. Multiple Cropping Center, Chiang Mai University, National Chung Hsing University and the Ministry of Agriculture and Cooperatives
- Norsida M., Nolila M.N., Mohd M.I. (2009). An Overview of the Supply Chain Management of Malaysian Vegetable and Fruit Industries Focusing on the Channel of Distribution, Journal of Agribusiness Marketing, Volume 2
- United Nations (2014). World Urbanization Prospects. The 2014 Revision. New York: United Nations
- Wong L. C. Y. (2007) Development of Malaysia's Agricultural Sector: Agriculture as an Engine of Growth. Paper presented at ISEAS Conference on Malaysia Economy: Development and Challenges, Singapore, 25-26 January
- Ministry of Agriculture and Agro-based Industry (2014) Agro-food Statistics. Putrajaya.

Submitted as a resource paper for the FFTC-NACF International Seminar on Improving Food Marketing Efficiency—the Role of Agricultural Cooperatives, Sept. 14-18, NACF, Seoul, Korea