CHAPTER 6B

AGRICULTURAL PRACTICES IN MALAYSIA
INTRODUCTION
• 1957: Agricultural sector (AG) contributed 46% gross domestic product (GDP) and 80.3% employment

• Industrialization: AG declined to 7.52% and 11.8% employment

• However continued importance:
  
  1. earn foreign exchange through exports of palm oil, rubber and fruits
  2. contribute to employment
  3. ensure food security.

• 9th Malaysia Plan emphasizes agriculture as the **third engine** of growth
HISTORICAL DEVELOPMENT OF MALAYSIAN AGRICULTURE
• Pre-independence development of Malaysian agriculture: shaped by the interest of the British colonialist.

• Major development: Introduction of rubber by H.N. Ridley and the development of plantation agriculture. The British needed rubber for industrial expansion.
• Rubber plantations: Dunlop Plantations, Guthrie Plantation (now part of Sime Darby) and Harrisons and Crossfield (later forming Golden Hope which became part of Sime Darby)

• Malaysia became world’s top rubber producer
• Apart from rubber, due to high tea demand, tea plantations such as Boh Tea, were also established on Cameron highlands.

• Later on, other crops such as cocoa and coffee were also grown.

• However British agricultural policy neglected providing opportunities for locals in plantation agriculture.

• Hence they were left in subsistence agriculture producing rice, fruit and other food crops largely for domestic consumption while the British dominated the export economy.
• Post independence (1957-1970): Government set up the Federal Land Development Authority (FELDA) and the Federal Land Consolidation and Rehabilitation Authority (FELCRA).
• Enabled huge tracts of land to be cultivated with plantation crops by settlers.
• Smallholders were encouraged to switch from subsistence crops to cash crops such as rubber and oil palm.

• At the end of this period: 1,315,000 ha of rubber and 23,000 ha of oil palm planted
• Rice producers were favoured by price controls and provision of input subsidies. Middlemen were removed when Lembaga Padi dan Beras Negara set up their own rice mills.

• Rubber smallholdings were organized more efficiently through RISDA. At the end of period Malaysia was world’s top producer for natural rubber (39.8%) and palm oil (58.8%).
• 1984 onwards: Agricultural development was driven by the National Agricultural Policy (NAP).

• 1\textsuperscript{st} NAP (1984-1991): Linkage of agricultural production with agro-based industries.

• 2\textsuperscript{nd} NAP (1992-2010): Addressed challenges to agriculture such as competition for labour and capital with other sectors. Need to increase efficiency and productivity.

• 3\textsuperscript{rd} NAP (1998-2010): Revised NAP2, product-based approach, satisfying specific needs of niche markets and consumers world-wide and food security.
• At the end of 2004, a total of 6.4 million ha. of land were used for agriculture of which 60.6% was for oil palm and 20% for rubber.

This means about 80% of Malaysian agricultural land is dominated by these two industrial crops.
CHARACTERISTICS OF MALAYSIAN AGRICULTURE
The estate and smallholder subsectors:

Estate:
• Highly commercialized and efficiently managed by professionals.
• Larger than 40.5 ha (or 100 acres).
• Usually owned by private or public-listed companies
• Monoculture production of industrial crops such as oil palm, rubber or cocoa.

Smallholder:
• Less commercialized, average farm size is 1.45 ha.
• Estimated smallholdings operated by 1,033,065 farmers
• Crops grown include industrial crops, rice, fruits and vegetables
### LAND USE IN MALAYSIA

<table>
<thead>
<tr>
<th>Item</th>
<th>Area (‘000 ha)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total land area</td>
<td>32,855</td>
<td>100.00</td>
</tr>
<tr>
<td>Agriculture area</td>
<td>7,870</td>
<td>23.95</td>
</tr>
<tr>
<td>Arable land</td>
<td>1,800</td>
<td>5.48</td>
</tr>
<tr>
<td>(rice, vegetables, root crops)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent crops</td>
<td>5,785</td>
<td>17.61</td>
</tr>
<tr>
<td>(oil palm, rubber, coconut, cocoa, fruits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent meadows and pastures</td>
<td>85</td>
<td>0.87</td>
</tr>
<tr>
<td>Forest area</td>
<td>20,630</td>
<td>62.79</td>
</tr>
</tbody>
</table>
• Besides historical factors, equatorial climatic conditions also favour oil palm and rubber, hot and humid throughout the year, average rainfall 250 cm, average temperature 27 °C.

• Malaysia can be considered to be mountainous with more than half the land over 150 m above sea level, thus limiting area for arable (temporary) farming.
INDUSTRIAL CROPS
Malaysian agricultural land use has been and continues to be dominated by perennial industrial crops, chiefly oil palm, rubber, coconuts, cocoa, coffee and tea.

Oil palm and rubber alone occupies more than 80% of the agricultural land area.
1. OIL PALM

- Oil palm (*Elaeis guineensis*) occupies the largest area (≈ 60%) of crops grown in Malaysia.

- Palm oil is the top foreign exchange earner among all agricultural commodities and products.

- Malaysia accounts for 39% of the world’s palm oil production.

- Oil palm originated from Sierra Leone, Africa and was first grown in Malaysia in 1917 at Tenamarran Estate, Batang Berjuntai, Selangor.

- Besides plantation companies, FELDA also promoted its planting.

- Oil palm can be harvested 25-30 months after planting. Economic life of the oil palm tree is about 20 years
• Each palm can produce between 8-15 fresh fruit bunches (FFB) a year, each one weighing 15-28 kg.

• Oil is extracted from the pulp of the fruit (palm oil) or from the kernel (palm kernel oil).

For every 100 kg of FFB, typically 22 kg of palm oil and 1.6 kg of palm kernel oil can be extracted.
• Currently, 60% of oil palm grown by large plantations, 40% by small holders including FELDA, FELCRA, RISDA and state land schemes.

• In terms of exports, palm oil and palm oil products contribute 10% of Malaysia’s total export value
Area of Oil Palm in Malaysia in the Last 30 years.

Percentage of oil palm grown by estates and other entities
2. RUBBER

• Rubber (*Hevea brasiliensis*) was the 1st major plantation crop introduced into Malaysia in 1877 with seedlings brought in from Brazil.

• Rubber was then mainly planted by plantations including Harrison & Crossfield, Boustead, Sime Darby and Guthrie.

• Rubber was the dominant plantation crop for eight decades up to 1989, when oil palm (1.59 million ha) overtook rubber (1.55 million ha).

• Some factors causing the change from rubber to oil palm:
  (a) declining price of rubber brought about by competition from synthetic rubber
  (b) increasing cost and declining availability of labour.
From then on, most of the rubber is grown by smallholders which constitute over 97% of total planted area of rubber

<table>
<thead>
<tr>
<th>Year</th>
<th>Estate ('000 ha)</th>
<th>Smallholding ('000 ha)</th>
<th>Total area ('000 ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>348.70</td>
<td>1,487.96</td>
<td>1,836.66</td>
</tr>
<tr>
<td>2000</td>
<td>123.78</td>
<td>1,306.90</td>
<td>1,530.68</td>
</tr>
<tr>
<td>2005</td>
<td>57.37</td>
<td>1,213.93</td>
<td>1,271.30</td>
</tr>
<tr>
<td>2006</td>
<td>54.15</td>
<td>1,209.40</td>
<td>1,263.55</td>
</tr>
<tr>
<td>2007</td>
<td>53.40</td>
<td>1,194.70</td>
<td>1,248.10</td>
</tr>
<tr>
<td>2008</td>
<td>61.10</td>
<td>1,185.90</td>
<td>1,247.00</td>
</tr>
<tr>
<td>2009</td>
<td>61.10</td>
<td>960.44</td>
<td>1,021.54</td>
</tr>
</tbody>
</table>
3. COCONUT

• Coconut ranks the 4\textsuperscript{th} fourth most important crop in terms of hectarage planted, after oil palm, rubber and rice.

• 1981: 409,348 ha
  2007: 172,00 ha.

• The rise of oil palm as the major cooking oil is one factor that caused the decline.

• Smallholders (estimated 90,000 farms) dominate production with average farm size of 2.8 ha, producing 93\% of total.

• Most families cannot survive on the income from the coconut crop.
• A new value-added product that is currently enjoying good demand worldwide and could rejuvenate the coconut industry is “virgin coconut oil” or VCO. Prices range from RM40-150 per kg.

• VCO is processed using fresh coconut flesh without using chemicals and high heating in refining. This natural, pure coconut oil is very stable with a shelf life of several years and very high level of antioxidants. Used in skin and hair care as well as for general good health.
4. COCOA

- Cocoa commercially planted in Malaysia since 1950s while cocoa processing began in 1970s.

- Most of the plantations are in Sabah but most of the grinding and manufacturing in Peninsula Malaysia.

- Over the years, the planting has slowed greatly (400,000 ha in 1992 to 45,000 ha today) because of pests and poor cocoa price.

- But the processing sector has seen tremendous growth.

- Malaysian cocoa products (such as cocoa butter, cocoa powder and chocolate) are exported to over 80 countries.

- One of the special characteristics of Malaysian cocoa butter is the high melting point, which is beneficial for chocolate products in warm countries.
Hectarage of Cocoa in Malaysia
• Currently, Malaysia is the fifth largest cocoa processor in the world.

• A majority of cocoa is grown in mixed planting with coconuts.

• Continuous reduction in local production of cocoa beans resulted in the need to import raw cocoa beans to support the processing industry.
5. OTHER INDUSTRIAL CROPS

• Besides the four industrial crops mentioned there are other industrial crops that occupy a smaller planted area, namely coffee, tea and sugarcane.

**COFFEE**

• Coffee is mainly grown by smallholders particularly in Johor and Selangor.

• The major type of coffee grown is the Liberica coffee which is favoured by the local consumers. Only about 5% of the coffee grown is from the Robusta and Arabica types.
TEA

• The main tea growing areas are located in Cameron Highlands, Pahang. Here, tea is grown at an elevation of 1000-1700m above sea level.

• The favourable physical conditions present in the Cameron Highlands for tea - abundant rainfall, lots of sunshine and well-drained acidic soils.

• Remaining tea growing areas are found in lowland areas, mainly in the states of Selangor and Perak.

• The main type of tea produced in Peninsula Malaysia is black tea.
SUGARCANE

• Sugarcane is planted for processing into sugar only in Perlis and Kedah. Two sugar plantations in Chuping, Perlis, are owned by state companies, the Perlis Plantation Berhad and FELDA Plantations.

• Northwest suitable because distinct dry seasons enable sugarcane to mature and accumulate sugar.

• Local sugar production from sugarcane: 274,620 tonnes. Satisfies about 10% of domestic demand. Rest imported as raw sugar from countries such as Australia, Fiji and Thailand.
6. RICE

- Rice is the staple food of most Malaysians.

- Total area: 490,000 ha (300,000 in Peninsula Malaysia and 190,000 in Sabah and Sarawak), making padi the 3rd largest agricultural crop after oil palm and rubber.

- Currently, rice growing is concentrated in eight granary areas in Peninsular Malaysia where irrigation, drainage and rice-mills are provided and rice is grown in two or more seasons/yr.
Eight granary areas

1. Kuala Muda area in Kedah/Perlis (MADA)
2. Alluvial plains of Kemubu area, Kelantan (KADA)
3. Seberang Perai, Penang
4. Kerian/Sg Manik, Perak
5. Tanjung Karang - South west (Barat Laut), Selangor
6. Kemasin Semarak- plains of Kemasin River, Bachok/ Kota Bahru
7. Besut, Terengganu (KETARA)
8. Seberang Perak
• The eight main granaries contribute about 70% of national rice production.

• Together with secondary areas, they account for 85% of total rice cultivated areas.

• The remaining 15% of planted area represents the non-irrigated rice, which include rain-fed rice fields and hills or upland rice mainly concentrated in Sabah and Sarawak.
• Padi is a highly subsidized crop as cost of production is relatively higher than in neighbouring countries.

• Padi growers are given subsidies for purchase of seeds, fertilizers, herbicides and insecticides. Prices are guaranteed for growers and controlled for consumers.

• Currently, Malaysia produces 71% of rice consumed but targets for full sufficiency by 2015.

• Average yield per ha of padi is 3.6 tonnes.
Mechanized harvesting is practiced in rice production
7. FRUITS

- After padi, fruit crops occupy the largest cultivated area of food crop in the country.
- Over 375,000 ha. planted with various tropical fruits.
- Industry is a small holder-based industry involving 270,000 farmers.
- From 1985-1995:
  - Production of fresh fruits increased at 4.8% per yr from 638,100 tons to 1,019,900 tons.
  - Export values of fresh and processed fruits increased from RM182.4 million to RM335.6 million
  - Import values of fresh and processed fruits also increased from RM257.2 million to RM444.3 million
• Overall, Malaysia is still a net importer of fruits and fruit products.
• The major fruits being exported by Malaysia are watermelon, papaya, star fruit and durian.
• Most of raw materials for processing outsourced from other producing countries due to lower cost.
• Prospect for fruit and vegetable production bright due to expected increase in demand for domestic food.
• Per capita fruit consumption expected to increase from 49.9 kg in 1995 to 65.1 kg in 2010, representing an annual increase of 1.8 %.
• Area under orchards is expected to increase from 257,000 ha. in 1995 to 373,200 ha. in 2010.
## Hectarage Planted and Value of Products of Major Fruits (2010) cont’

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Hectarage</th>
<th>Value ('000 RM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durian</td>
<td>104,655</td>
<td>1,392,077</td>
</tr>
<tr>
<td>Bananas</td>
<td>29,790</td>
<td>476,255</td>
</tr>
<tr>
<td>Rambutan</td>
<td>25,460</td>
<td>171,685</td>
</tr>
<tr>
<td>Dokong</td>
<td>16,130</td>
<td>97,260</td>
</tr>
<tr>
<td>Duku Langsat</td>
<td>12,715</td>
<td>45,420</td>
</tr>
<tr>
<td>Watermelon</td>
<td>11,750</td>
<td>309,465</td>
</tr>
<tr>
<td>Cempedak</td>
<td>11,158</td>
<td>130,251</td>
</tr>
<tr>
<td>Mango</td>
<td>9,760</td>
<td>83,545</td>
</tr>
<tr>
<td>Mangosteen</td>
<td>7,685</td>
<td>79,703</td>
</tr>
<tr>
<td>Langsat</td>
<td>6,925</td>
<td>69,282</td>
</tr>
<tr>
<td>Duku</td>
<td>5,775</td>
<td>65,047</td>
</tr>
<tr>
<td>Jackfruit</td>
<td>3,962</td>
<td>63,155</td>
</tr>
<tr>
<td>Limau Manis</td>
<td>3,915</td>
<td>49,969</td>
</tr>
<tr>
<td>Papaya</td>
<td>3,403</td>
<td>68,419</td>
</tr>
<tr>
<td>Dragon Fruit</td>
<td>2,510</td>
<td>39,160</td>
</tr>
<tr>
<td>Guava</td>
<td>1,525</td>
<td>50,598</td>
</tr>
<tr>
<td>Starfruit</td>
<td>1,276</td>
<td>31,618</td>
</tr>
<tr>
<td>Salak</td>
<td>1,190</td>
<td>15,824</td>
</tr>
<tr>
<td>Sapodilla (ciku)</td>
<td>1,115</td>
<td>18,149</td>
</tr>
</tbody>
</table>
8. PINEAPPLE

- Pineapple industry is the oldest agricultural export crop.
- For economic reasons, pineapple farmers have changed to other crops particularly oil palm, which brings more income and use less labour.
- Pineapple cultivation can be grown in smallholdings and estates.
- Estates accounted for 62% of total pineapple area. In 1980, 7000 ha was planted with pineapple under the estate system. This was reduced to 4800 ha. in 1989 but has now stabilized at 5000 ha.
- Smallholder pineapple area is declining and stands at about 3000 ha.
9. VEGETABLES

• Vegetables are smallholder crops in Malaysia, with average farm size less than one hectare.

• Vegetable production is concentrated in Johor, Perak, Kelantan and Pahang (4 states contributing to 75% of total production in Peninsular Malaysia).

• Johor is the largest supplier of tropical vegetables while Cameron Highlands is the traditionally supplier for temperate vegetables such as cabbages, lettuce and tomatoes.

• Total annual production for all vegetables is only 330,000 tons while requirement is estimated at about 400,000 tons.

- Exports include cucumber, spinach, long beans, chilli, Chinese mustard (sawi) and kailan with main export market being Singapore.

- However, Malaysia imports about RM242 million worth of vegetables annually.

- Main imports are onion, shallot, garlic, potato, chilli, cabbage and processed vegetables.
• Industry faces several constraints including lack of good varieties, problems of pest and diseases, and problems of seed supply.

• Annual per capita consumption is expected to increase at a rate of 1.8 % per yr to 63.6 kg in 2010.

• To meet this demand, the area under vegetables production is expected to double from 1995-2010 resulting in a projected output of 1.6 million tons of vegetables in 2010.
10. FLORICULTURE

• Floriculture industry has contributed significantly to agricultural sector with net value of RM 290 million in 2010, about 0.15% GDP. Includes cut flowers, orchids and non-orchids for the domestic and export markets.

• Total area involved in floriculture industry was 2,421 ha. in 2010 compared to 1,780 ha. in 2007.

• About 50% of floriculture production located in Johor, 2nd is in Pahang (mainly Cameron Highlands), 3rd in Selangor especially near the Subang Airport, Sepang, Petaling and Kuala Langat areas.

• Orchid is the most planted commodity, grown mostly in Johor and Selangor which produced 173.6 million cut orchids valued at RM 104.1 million. The non-orchid sub-sector has a value of RM 129.5 million in 2010.
11. LIVESTOCK PRODUCTION

• Malaysian livestock production is characterized by two contrasting subsectors: Non-Ruminant and Ruminant.

• Non-Ruminant comprises Poultry and Swine production:
  – highly commercialized subsector where large corporations are involved
  – total supply of products more than enough to meet domestic demand
  – High technology systems are used for poultry production including closed housing and computerized ration formulations and feeding.
• In contrast, ruminant subsector is
  – mainly operated by smallholders
  – shown little progress over the last decade
  – self-sufficiency levels for beef, mutton and milk remaining at 28, 10 and 5%, respectively.

• In terms of monetary value, ruminant subsector contributes only 8% of the livestock production of the country while poultry and swine contributes 67 and 25% respectively.
Value of Livestock Products in Malaysia 2008

<table>
<thead>
<tr>
<th>Product</th>
<th>Value (RM '000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>683</td>
</tr>
<tr>
<td>Mutton</td>
<td>50</td>
</tr>
<tr>
<td>Pork</td>
<td>1729</td>
</tr>
<tr>
<td>Poultry meat</td>
<td>5162</td>
</tr>
<tr>
<td>Eggs</td>
<td>1917</td>
</tr>
<tr>
<td>Milk</td>
<td>77</td>
</tr>
</tbody>
</table>
• To reduce the level of importation of ruminant products, the government has targeted to increase beef production to 40.6% self-sufficiency by 2015.

• The national cattle herd size has to be increased through expanding cattle integration in oil palm, rubber and coconut plantations and using the feedlot system.
12. AQUACULTURE

• Aquaculture sector is an important supplier of animal protein.

• Aquaculture is the farming of aquatic organisms including fish, mollusks, crustaceans and aquatic plants.

• Also known as aquafarming.

• The term is distinguished from fishing, by the idea of *active human effort* as opposed to simply taking them from the wild.
• Subsets of aquaculture include:
  
  – fish farming (raising of fresh water and brackish water fishes, lobsters and prawns in ponds)

  – mariculture (aquaculture in the ocean which includes raising of mollusks)
– algaculture (production of algae and seaweeds)

– growing of cultured pearls.
• Species of fresh water fishes include river carp, catfish, giant fresh water prawn, tilapia and carp

• Brackish/marine fishes include sea bass, tiger prawn and crabs.

• Marine capture fishery is the overall major provider to the fisheries sector

• The prawn industry from both marine capture fisheries and aquaculture is the most important commercial commodity in terms of value in the export market.

• Considerable volumes of aquaculture are produced for export and local consumption.

• Deep sea fishing and aquaculture have received government incentives.
• Aquaculture production in Malaysia is showing steady growth over the last decade although capture fishing predominates.

• In 2009, about 24,000 producers were involved in aquaculture, producing 472,000 tons of fresh-water fish valued at RM 2.32 billion.
  In comparison, capture fishing landed 1.39 million tons valued at RM 6.29 billion.
  Marine capture fishermen numbered around 125,632.

• Seaweeds farming has contributed largely in providing income for the coastal communities in Sabah.
  Seaweeds are cultivated mainly in Semporna, Kunak, Kudat and Lahad Datu.
NEW SOURCES OF GROWTH
FOR MALAYSIAN AGRICULTURE:

Herbs & Spices, Pharmaceuticals,
Natural Products
• A new sub-sector in Malaysian agriculture that is currently experiencing rapid growth is the herbal industry.

• It is expected to grow at 10 to 15% per annum.

• Government has targeted the herbal industry to be another growth sector after information and communication technology.

• Market value of the industry at RM 7 billion in 2010 is expected to increase to RM 29 billion in 2020.

• Shift in health care awareness towards natural products with therapeutic value provides vast opportunities for Malaysia to become an important global player, with her rich biodiversity.
• While various herbs are grown by small holders all over the country. Government has embarked on large scale herbal planting with a East Coast Economic Regional Herbal Plantation Project. A plantation area of 406 ha. has been planted in Dungun, Terengganu and another 327 ha. planted in Lipis, Pahang as the initial herbal plantation projects.

• Some of the common species of herbs that are grown in Malaysia include tongkat ali (*Eurycoma*), hemedu bumi (*Andrographis*), kacip fatimah (*Labisia pumila*), misai kucing (*Orthosiphon*) and pegaga (*Centellia asiatica*)
AGRICULTURAL MARKETING
Export crop sector

- Agricultural marketing in Malaysia depends on the types of crops and commodities as well as the type of producer.

- In the case of palm oil production, there are three main types of oil palm producers:
  (1) independent smallholders, (2) producers in land development schemes, and (3) private estates.

- Independent smallholders are characterized by low productivity and dependence on private middlemen for the sale of their produce.

- In land development schemes such as FELDA, the agency is also involved in the marketing of produce. For instance, FELDA buys and sells fresh fruit bunches at the farm level, processes them into processed palm oil, and sells this to either local or foreign manufacturers.

  Similarly, other land development agencies such as FELCRA and RISDA are also involved in marketing of the produce of the settlers.
• The private estates have a highly organized marketing system. Each group of producers exhibit different production and marketing characteristics.

Generally, there exists a high degree of vertical integration.

A plantation firm not only has its production farms, but also milling and processing plants. Hence, raw materials are easily absorbed into their mills and refineries, before the processed products are sold to domestic industrial users or foreign manufacturers.

• A similar marketing framework also exists for rubber growers and producers.
Food Sector

• Food production in Malaysia is characterized by small farm size with minimal involvement of the private or corporate sectors.

• In the case of rice, average farm size for most farmers is 1.06 ha.

• Besides these there are also a few rice estates run by FELCRA (about 4000 ha) in Seberang Perak granary area.

• Rice is of strategic importance to the economy as it is the staple food of the majority of the population.

As such government intervenes to ensure “a sufficient level of rice to the country while ensuring high price to the producers and stable price and high quality rice to the consumers”.

• Intervention includes:
  – inputs subsidies
  – cheaper water irrigation rates
  – price subsidies
  – government-owned milling activities
  – price control (from farm to retail)
  – monopoly of rice imports.

• The monopoly of importing rice is given to BERNAS Berhad which is also given the task of managing the supply chain of rice in the country.
In a typical marketing system of fresh produce such as vegetables and fruits, most of the produce goes to multi-layered middlemen before they reach the consumers.

For instance, in the case of vegetables, the produce has to go through assemblers or transporters who normally work for wholesalers in the local market.

The bigger wholesalers, in turn, transport the produce to smaller wholesalers or retailers in the terminal market.

In other words, the produce is handled by four or more middlemen before it reaches the consumer.
• Farmers normally sell their produce to the local assemblers or wholesalers on a consignment basis. The farmers are paid after the produce has been sold which may take more than a week.

• Produce are generally not graded and post-harvest handling is still the weakest link in the system.

• Prices are not transparent at the farm level, in fact they are discovered through the “whispering system” between the buyer and the seller.

• Producers are normally in a weaker bargaining position relative to the buyers or wholesalers who are equipped with market information and networking.
• Under such a marketing landscape, there are minimal incentives for the industry to grade and standardize or even to innovate to create value added.

• Products are sold in bulk and undifferentiated and market prices do not reflect the quality and specifications.

• Post-harvest losses are in the range of 10% to 40% due to poor handling and with little incentives provided by the market for high quality produce.
The New Supply Chain for Agri-food

• The conventional agri-food marketing system as discussed previously is undergoing a transformation toward the “new supply chain” pushed by external and domestic “drivers”.

• The **external driver** is the rapid development of large retail chains from developed economies made possible by globalization and free flow of capital across borders.

• These large retail chains integrate the wholesale functions into their own company to become self-distributing chains.

  Operating on a large scale, they were able to introduce cost-saving innovations such as centralization of procurement, use of preferred supplier registries, formal contract with suppliers and promulgation of private quality standards.

• In 2005, there were 81 hypermarkets in Malaysia where 83% of them are foreign-owned. Among them are Giant (Hong Kong), Jusco (Aeon Group, Japan), Carrefour (France) and Tesco (UK).

  Local retail chains include Parkson, Ocean, The Store and Mydin.
• The **domestic drivers** are consumers’ income and changing consumption pattern and lifestyles.

• Malaysia is classified as an upper-middle income country, and considered as one of the most developed of the developing countries. Almost 2/3 of Malaysia’s population live in the urban areas.

• The industrial-urban expansion has created new consumers who have relatively more purchasing power and health consciousness. They began to dictate their strong influences on the agro-food system. These consumers demand high quality produce which are based on international standards.
Federal Agricultural Marketing Authority

- FAMA is an agency under the Ministry of Agriculture and Agro-based Industry.

- Set up as a statutory body in 1965, FAMA is responsible for supervision, coordination, regulation and improvement of marketing agricultural products, including fruits and vegetables, for domestic, export and import markets.

- As the Government’s marketing arm for agricultural products, FAMA organizes marketing activities, set targets and standards, monitor performance, develop marketing strategies and initiate innovative programs to promote Malaysian agricultural products.
• One of the marketing strategies developed by FAMA is the Farmers’ Market (Pasar Tani) where farmers bring their own produce and sell them directly to consumers in weekly open markets.

• FAMA targets to have 1,000 farmers' markets with about 60,000 farm producers by end 10th Malaysia Plan (2011-2015). Pasar Tani has been around for over 25 years and is one of the successful projects of FAMA.

• The latest innovation is to introduce the “Business on Wheels” where producers sell their products in the Farmers Market that are stored in specially designed caravans.