Chapter 9

APPROACHES TO AGRICULTURAL DEVELOPMENT IN MALAYSIA
The agricultural sector has contributed significantly to the Malaysian economy. The following provides the policy framework for future growth of the agricultural sector in Malaysia:

1. **3rd National Agricultural Policy (NAP 3) and its Action Plan,**
2. **National Development Policy**
3. **Second Industrial Master Plan**
4. **Science and Technology Policy** and
5. **National Biodiversity Policy**
• **NAP 3** covers the period from 1998-2010. It is largely guided by the National Development Policy.

• NAP 3 retains the objective of NAP 2 to maximize income through optimal utilization of resources in the sector.

• This includes maximizing agriculture’s contribution to national income and export, and income of producers.
This objective will be achieved with **two new approaches** to agricultural development:

1. **Agroforestry approach** which will increase limited resources including land and raw materials. Agroforestry development is compatible to sustainable agriculture.
2. **Product-based approach** which is to strengthen agro-industrial development as identified in the 2nd Industrial Master Plan (1996-2005)
Moving into the 21st Century, agriculture and forestry will be revitalized as a sector that:

1. supplies food for the population
2. provides raw materials for downstream manufacturing industries
3. sustain the environment.
• The government and private sector should work together for agricultural excellence by using modern technologies and approaches in production, processing and marketing.

• This is critical since the country is going through a period of increasing competitive environment, domestically, regionally and internationally.
TOPIC 1

NATIONAL AGRICULTURAL POLICY
• Agriculture in the 60s was focused on production of food and export-oriented primary (raw) materials for industrialized countries.

• Approaching the 80s, Malaysia embarked into the utilization of its own raw materials for its industrialization programme i.e. downstream activities.

• The era of agricultural development can be traced through three stages:
1. The Early Years (1960-70s)

- Bumiputras were traditional subsistence farmers working on smallholdings less than 5 hectares, either inherited or customary, growing a variety of crops.

- Colonials were owners of large rubber and oil palm plantations.

- Majority of Indians work on these estates as labourers while the Chinese operate as managers.

- The Chinese also acted as middlemen for agricultural produce, grew cash crops, raised livestock such as pigs and poultry, and work on rented land owned by Bumiputras.
2. The Awakening Decades (1970-80s)

- Although Bumiputras continued to work on their smallholdings, many migrated into new agricultural land development schemes (like FELDA) managed by government agencies.

- The Indians remained as estate workers although quite a number have started raising cattles and goats.

- The Chinese, while remaining as middlemen, moved a step further by opening rubber estates followed later by oil palm and cocoa.

- They also intensified raising pigs and poultry which then has become a big business.
The “Small Dragon” Era (1980s and beyond)

• In mid-1980, robust economic growth was stimulated by the manufacturing sector.

• The nation’s macroeconomy began to change, from agro-based to that of an industrialised nation, an economic dragon.

• The Far Eastern Economic Review (1983-84) had published an article relating to the transformation of Malaysia to an industrialised economy.
• Agriculturally-related manufacturing plants have begun to expand, in industrial parks and other designated centres throughout Malaysia.

• Government entered into the business and formed Malaysia Incorporated, consisting of government-linked companies, operating as the official government business arm.

• Malaysians bought over all the plantations from the British, eg Guthrie, Sime Darby, Dunlop (now IOI), Harrison and Crossfield

• Today, Malaysia is the major world producer of rubber and palm oil; IOI is the largest oil palm producer in the world.
• Agro-based manufacturing activities in rubber and oil palm have increased with many Malaysian products such as latex gloves and condoms dominating world markets.

• The nation’s industrialization has been catalysed by revenue earned from newfound “black gold” petroleum.

• However, the food crop sector still lags in terms of hectarage and export revenue. This sector badly needs support for its importance in food security.
Government support has led to emergence of new agricultural sectors:

1. **Fisheries** involving coastal riverine and deep sea fishing with new fishing harbours in Penang and Sarawak.

   Aquaculture inland activities have increased with cultivation of commercial species.

   Mariculture has also expanded in islands such as Langkawi.

   Recreational fisheries and aquariums are new business ventures.

2. **Tourism** industry has been given a new lease of life in the form of agrotourism involving tours to forests, nature reserves, farms and homestays.

Today, agriculture has again attained a position as an important 3rd engine for the transformation and growth of the Malaysian economy, and is no longer a sunset industry.
Evolution of Agriculture and Forestry Policies

- Malaysia has witnessed three agricultural policies:
  - NAP 1 (1984-91)
  - NAP 2 (1992-2010) and
  - NAP 3 (1998-2010).
NAP 1 (1984-91)

• In 1984 when NAP 1 was implemented, new agricultural lands were opened with emphasis on export crops, in particular oil palm and cocoa in order to increase foreign exchange, create employment and eradicate poverty.

• This period also saw the rapid expansion of the manufacturing sector at the expense of agriculture sector whereby labour shortages, rising wages and competition for land resulted.

• Subsequently, NAP 1 was reviewed and NAP 2 introduced.
NAP 2 (1992-2010)
This 2nd agricultural policy placed greater emphasis on:

1. sustainable agriculture
2. food production
3. agro-based industrial development
4. greater role of the private sector
5. biodiversity and conservation
• At the international level, the World Trade Organization (WTO) was established.

• Rapid liberalization of agricultural trade increased competition although new market opportunities arose.

• A financial crisis also occurred during this period which negatively affected Malaysia’s food security.

• NAP 2 did not anticipate such rapid and sudden changes in domestic and international economy and therefore unable to solve the issues. NAP 3 was therefore formulated.
NAP 3 (1998-2010)

Two new strategic approaches were:

1. Agroforestry approach in which agriculture and forestry are viewed as an integrated entity, providing a scope for joint development.

   For example, it allows for the production of both agricultural and forestry products on the same land such as rattan and bamboo together with rubber trees.

2. Product-based approach. Major products and markets are identified based on market demand.

   Enhances upstream agricultural production and downstream processing together with niche marketing. Not just conventional primary produce-based approach.
Mechanism for Implementation of NAP3.

- The previous two NAPs lack proper and effective mechanisms for their implementations.

- In NAP3, more concerted effort were made to strengthen both public and private sector participation.

The following mechanisms have been set up:

1. ACTION PLAN
2. IMPLEMENTATION
ACTION PLAN to implement NAP3:

1. Enhancing Food Security and Combating Inflation
2. Increasing Productivity
3. Promoting Private Sector Participation
4. Enhancing Agricultural Export
5. Human Resource Development
1. Enhancing Food Security and Combating Inflation:

Financial crisis has highlighted importance of food security:

1. Enhancing domestic food production:

   A. Focus on cost-competitive products eg fishery products, selected fruits, vegetables and livestock

   B. Zoning for food production areas

   C. Provision of infrastructure

   D. Promoting R & D and good agricultural practices (GAP)

   E. Increase yield and efficiency

   F. Establish stronger links between producers and market.
2. Strategic sourcing of essential food products:

A. Joint venture with low-cost countries eg ASEAN Growth Areas and Mekong River Basin

B. Government to government arrangement on food supply

3. Improving marketing efficiency:

A. Reduce market intermediaries with direct marketing and contract farming

B. Improve marketing infrastructure such as collection centres and wholesale markets in production areas

C. Improve market intelligence.
2. Increasing Productivity:

1. New products and future industries will focus on biotechnology products, chemical extraction from biological resources, flouricultural products and ornamental fish.

2. Reducing labour in agriculture:
   
   A. Reduction in rubber, coconuts and cocoa areas
   B. Cultivation of non labour-intensive new crops such as timber species, bamboo and rattan
   C. Use automated and mechanized systems

3. Intensification of R & D

4. Maximising land resource use:
   
   A. Promote agroforestry enterprises
   B. Integrate livestock with plantation crops
   C. Promote large, technology-intensive, mixed farming ventures.
3. Promoting Private Sector Participation:

1. Establishment of agrotechnology parks - high technology production systems

2. Establishment of incubation centres - technology transfer and commercialization of research findings by private sector

3. Land banks or land leases – from government to private sector

4. Enhancing Agricultural Export:

1. **International halal food hub** will be developed in Malaysia - inspection, standardization and certification of Malaysian halal standard.

2. **Market access** - bilateral arrangements and credit facilities for Malaysian made products such as palm oil.

3. **Direct marketing** – not marketed through third countries.

4. **Major regional distribution centre** - for tropical floricultural products and aquarium fish.

5. **Own brand products** - promoted internationally.
5. Human Resource Development

• Efforts will focus on producing more skill workers in:

1. biotechnology
2. precision agriculture
3. mechanisation and automation
4. engineering and computer
5. deep sea fishery
6. animal husbandary.
• **IMPLEMENTATION** of the action plan involves institutional arrangements being put in place.

• A public-private sector coordinating council and a high level planning and implementation committee will be established.

• Government institutions involved in agriculture will be reviewed and rationalized.

• Resources and manpower will be allocated in line with the new policies.
TOPIC 2
EDUCATION, RESEARCH & DEVELOPMENT INSTITUTIONS, AND EXTENSION SERVICES
Education

• There are centres and institutes that cater to the acquisition and dissemination of knowledge and skills in agriculture.

• These establishments include Universities, Colleges, Vocational Institutes, In-service Training Centres in various Ministeries (MARDI, FELDA, RISDA, FRIM) and Societies such as Incorporated Society of Planters.

• A degree, diploma or certificate will be issued on successful completion of the course pursued.
Research and Development Institutions

Agricultural R & D institutions can be found in both the public and private sectors.

1. Public Sector
   Institutions within the public sector engaged in R & D include:
   1. MARDI
   2. MPOB
   3. MRB
   4. MCB
   5. Farmer’s Organisation Authority (FOA)
   6. Federal Agricultural Marketing Authority (FAMA)
   7. Fisheries Development Authority of Malaysia (LKIM)
   8. Muda Agricultural Development Authority (MADA)
   9. Kemubu Agricultural Development Authority (KADA)
   10. Forest Research Institute Malaysia (FRIM)
   11. Federal Land Development Authority (FELDA) (Sungai Tekam)
   12. Malaysian Rubber Development Board (MARDEC)
   13. Veterinary Research Institute (VRI)
2. **Private Sector.**

Organisations include:

1. Golden Hope (OPRS, Banting)
2. Applied Agricultural Research (Sungai Buloh)
3. FELDA Tun Razak Agricultural Services (Jerantut, Pahang)
4. United Plantation Research (Teluk Intan, Perak)
5. Guthrie Research Chemara (Negri Sembilan)
6. Agricultural Chemical (Prai, Penang; Selama, Kedah)
7. Applied Agricultural Research (Sungai Buloh)
8. KLK & Boustead
9. DUPONT Malaysia Research (Prai, Penang)
10. Sime Darby EBOR Research (Klang, Selangor).
3. **Non-Government Organisation (NGO)**

Among the active organisations are:

1. Centre for Environment, Technology and Development Malaysia (Cetdem Organic Farm, Selangor)

2. Malaysian Environmental NGO (MENGO, Selangor)

3. Malaysian Nature Society (MNS, KL)

4. Southeast Asian Fisheries Development Centre (SEAFDEC, Terengganu).
Extension Services

• Extension services are provided for transfer of technology (TOT) in agriculture from research institutions to farmers.

• TOT is mainly the duty of the Department of Agriculture (DOA)

• However other Research Institutes also provide such service directly through training and outreach programmes. Such institutions are Pusat Latihan dan Pembangunan Pengembangan (Telok Chengai, Kedah), MARDI, MRB, MCB, FELDA, RISDA (Rubber Industries Smallholders Development Authority), MADA, KADA, LKIM, FAMA, and NASH (National Association of Smallholders)
TOPIC 3

LEGISLATIONS, POLICIES AND STANDARDS
1. Legislations and Policies

- Legislation is formulated to regulate the agro-forestry sector with respect to the environment and health of human, plants and animals.

- There are several Acts which have been enacted such as:

  3. Poison Act (1952)
  4. Food Regulation (1985)
  6. Quarantine Act (1976)
There are several other policies and legislations subscribed by Malaysia:

- Malaysia is a signatory to the Cartagena Protocol (May, 2000), concerned with biosafety

- Biosafety Bill (2005) governs release of genetically modified organisms (GMO) into the environment

- ASEAN Policy on Zero Burning (2003) that promotes zero burning by plantation and timber companies

- Biological diversity policy (1998) that governs conservation, research and utilization of tropical biological diversity

- Other similar legislations are the Wildlife Protection Act (1972), Forestry Act (1984), and Fisheries Act (1985).
2. Standards

For quality assurance and control in agriculture, several guidelines have been laid down in accordance with CODEX Standards.

A few examples of such standards, guidelines and certification agencies:

1. Good Agricultural Practices (GAP)
2. Best Management Practices (BMP)
3. Skema Akreditasi Ladang Malaysia (SLAM)
4. Skema Pensijilan Perladangan Organik (SOM)
5. Good Fumigation Practices (GFP)
6. Hazard Analysis Critical Control Point (HACCP)