3rd Training and Study Tour for Agricultural Machinery Manufacturer and Distributors & The 3rd Member Meeting of ReCAMA

Mat Zani Bin Mohd Yusof
Engineering Division,
Farmers’ Organization Authority,
Ministry of Agriculture and Agro-based Industry Malaysia
Contents

- Overview of Malaysia
- Overview of Agricultural Sector in Malaysia
- National Agro-food Policy
- Overview of Farmers’ Organization Authority (FOA)
- FOA – Farm Machinery Centre
- Issue and Challenges
- Moving Forwards
- MAHA 2018
- Conclusion
Overview of Malaysia
The Eastern and Western regions of Malaysia
Map of Malaysia
KLCC
KUALA LUMPUR TWIN TOWER

ICON OF MALAYSIA
## Malaysia at A Glance

### Malaysia at the Glance

<table>
<thead>
<tr>
<th>Coverage</th>
<th>300,803 KM²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>31.6 m (Yr 2016)</td>
</tr>
<tr>
<td>Capital City</td>
<td>Kuala Lumpur</td>
</tr>
<tr>
<td>Administrative</td>
<td>Putrajaya</td>
</tr>
<tr>
<td>No. of States</td>
<td>14 States</td>
</tr>
<tr>
<td>Religion</td>
<td>Islam, Buddhism, Hinduism</td>
</tr>
<tr>
<td>Race</td>
<td>Malay, Chinese, Indian, Others</td>
</tr>
</tbody>
</table>

*Source: Department of Statistic Malaysia*
Overview of Agricultural Sector in Malaysia
Agriculture Sector in MALAYSIA

MINISTRY OF AGRICULTURE & AGRO-BASED INDUSTRY

1. Food Subsector
   - Crop
   - Livestock
   - Fisheries

MINISTRY OF PRIMARY INDUSTRY & COMMODITIES

2. Industrial Commodities
   - Palm Oil
   - Rubber
   - Cocoa
   - Wood & Timber
   - Pepper
Scenario of the National Agricultural Sector

Total land area - 33 million ha.

Agricultural area - 7.9 million ha (24% of total area)

Industrial crops - oil palm, rubber, cocoa, tobacco and pepper – cover about 77% of total agricultural land

Other crops - paddy, fruits, vegetables & coconut – cover 16% of total agricultural land

Contribution to GDP
- Manufacturing sector accounts for 28%
- Service sector contributes 57%
- Agricultural sector at 7%
Paddy in Malaysia

Area of paddy plantation in Malaysia

- Peninsular Malaysia: 76%
- Sarawak: 18%
- Sabah: 6%
National Agro-food Policy
NATIONAL AGRO-FOOD POLICY
(2011-2020)
NATIONAL AGRO-FOOD POLICY (2011-2020)

Will be a reference and guideline in the transformation of national agro food industry.

GENERAL OBJECTIVES

• To ensure adequate food security that is safe to eat;
• To make agro food industry as a competitive and sustainable industry
• To increase agro based entrepreneur’s level of income.
NATIONAL AGRO-FOOD POLICY (2011-2020)

ST 1: ENSURING FOOD SECURITY / SUPPLY

ST 2: INCREASING AGRO-FOOD INDUSTRIES CONTRIBUTION

ST 3: FOCUSING ON VALUE CHAIN DEVELOPMENT

ST 4: STRENGTHENING CAPACITY BUILDING

ST 5: SUSTAINING INNOVATION, R&D AND TECHNOLOGY BASED APPROACH

ST 6: SUPPORT PRIVATE SECTOR LEAD BUSINESS ENVIRONMENT

ST 7: ENHANCING DELIVERY SYSTEM SERVICES
Overview of Farmers’ Organization Authority (FOA)
FARMERS ORGANIZATION AUTHORITY MALAYSIA
FUNCTIONS OF FOA

1. To boost, encourage and strive for economic and social progress of Farmers’ Organisations (FO)

2. To register, control and supervise FO and making provision to related matters

3. If a declaration was made through announcement under section 10, to design and implement any agricultural development in FO of those are, and

4. To control and coordinate the implementation of the activities
VISION AND MISSION

Vision

To be the Leader in the Transformation of the Farmers' Organisation and Productive Farmers in the Agriculture Sector.

Mission

To Develop Farmers's Organisation as and Effective Service Provider in the Creating Productive Farmers.
FO STRUCTURE

FARMERS ORGANIZATION AUTHORITY
[REGISTRAR]

Functions of Farmers Organization Authority (FOA)
- Under Act 110 (established 14 February 1973)

FO’S Three Tiers Structure
- Under Act 109

14 State Farmers Organization

278 Area Farmers Organization
(905,424 Members)
THE MAIN ACTIVITIES UNDERTAKEN BY FOs TO PROVIDE SERVICES TO MEMBERS

- **Provide Social Services**
  - Educational
  - Recreation facilities

- **Promote Stimulate Group Action**
  - Community projects
  - Facilitates leadership development

- **Assists Members**
  - Acquiring land to undertake land development projects

- **Extension Services and Training Facilities**
  - Agriculture
  - Horticulture
  - Animal husbandry
  - Home-economics
  - Agri-business
  - Other commercial enterprises

- **Expanding Agricultural Productions**
  - Diversification and commercialization of agriculture
  - Agribusiness

- **Providing Farm Supplies**
  - Farm mechanization services
  - Credit facilities
  - Facilities for rural savings
  - Marketing
  - Transportation facilities
  - Processing facilities

- **Participation in Commercial and Agri-Business Ventures**
  - Facilitate capital formation
  - Promote investment
FOA – Farm Machinery Centre
FARMERS’ ORGANIZATION AUTHORITY (FOA)
FARM MACHINERIES SERVICES

PPN JENTERA
PPN JENTERA
PERLIS

PPN JENTERA
ASUN

PPN JENTERA
PENDANG

PPN JENTERA
LANGKawi

PPN JENTERA
PULAU PINANG

PPN JENTERA
PERAK UTARA

PPN JENTERA
PERAK TENGAH

PPN JENTERA
HILIR PERAK

PPN JENTERA
KELANTAN: MACHANG

PPN JENTERA
BESUT

PPN JENTERA
KUALA TERENGGANU

PPN JENTERA
PAPAR

PPN JENTERA
KOTA BELUT

PPN JENTERA
KENINGAU

PPN JENTERA
PEKAN

PPN JENTERA
PEKAN

PPN JENTERA
KUALA PILAH

PPN JENTERA
MELAKA

PPN JENTERA
PAGOH

PPN JENTERA
SELANGOR
SERVICES POLICY

To provides basic services such as land preparation, crop establishment & maintenance and harvesting.

To provides repair and maintenance services for farm machineries and implements.

To gives emphasizes on paddy area due to large paddy area and to increase paddy yield.

FOA gives farm machineries services to only 40% of total paddy area.
FOCUS

To increase services quality and efficiency
Good farm machineries services will help in increasing yield

To gives priority to the problem area
FOA will gives services to all area including problem area

To stabilise services rental
Offer reasonable rental to the farmers
<table>
<thead>
<tr>
<th>BIL</th>
<th>PPN(J)</th>
<th>AGE (YEAR)</th>
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<tbody>
<tr>
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<tr>
<td>19</td>
<td>KENINGAU</td>
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<td></td>
<td><strong>JUMLAH</strong></td>
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## NO. OF PADDY COMBINE HARVESTER OWNED BY PPN JENTERA 2017

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<td>4</td>
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<td>5</td>
<td>PULAU PINANG</td>
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<td>13</td>
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<td>9</td>
<td>MELAKA</td>
<td>-</td>
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<tr>
<td>10</td>
<td>JOHOR</td>
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<td>4</td>
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<td>3</td>
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<td>14</td>
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<td>15</td>
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<td>KENINGAU</td>
<td>-</td>
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<td>-</td>
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<tr>
<td></td>
<td><strong>JUMLAH</strong></td>
<td><strong>28</strong></td>
<td><strong>151</strong></td>
<td><strong>72</strong></td>
<td></td>
</tr>
</tbody>
</table>
Machinery Usage

Land Preparation

Transplanting

Land Levelling

Crop maintenance

harvesting
Machinery Usage

Bulk handling

High Contact Pressure Prime Mover
LAND PREPARATION FOR PADDY – Tractor

New Holland 7066S

Fiat 7066S

New Holland TD90

Kubota
PADDY HARVESTING – Combine Harvester

Dashmesh M7000

New Holland 1545S

New Holland 8060

New Holland 8080
PADDY CROPS – Impliment

- FeLeSe
- Plastering Machine
- Rotary Tiller
- Box Leveller
- Lime Sower
Issue and Challenges
Irrigation infrastructural density for the granary areas in Malaysia

Comparison of canal density between various rice granary area in Malaysia

<table>
<thead>
<tr>
<th>Granary</th>
<th>Canal density (m/ha)</th>
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<tbody>
<tr>
<td>MADA</td>
<td>18</td>
</tr>
<tr>
<td>KADA</td>
<td>24</td>
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<tr>
<td>KERIAN</td>
<td>31</td>
</tr>
<tr>
<td>KEMASIN SEMARAK</td>
<td>33</td>
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<tr>
<td>TRANS PERAK</td>
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<tr>
<td>PULAU PINANG</td>
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<tr>
<td>SUNGAI MANIK</td>
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<tr>
<td>BARAT LAUT SELANGOR</td>
<td>43</td>
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<tr>
<td>BESUT</td>
<td>48</td>
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</table>
### Status Of Farm Infrastructure

<table>
<thead>
<tr>
<th>Issues &amp; Challenges</th>
<th>Major Infrastructural Support</th>
<th>Result / Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low density of farm road, irrigation &amp; drainage of paddy field</td>
<td>Continuous improvement &amp; maintenance</td>
<td>Rice double cropping &amp; PH - bulk handling</td>
</tr>
<tr>
<td>Soft soil in paddy field</td>
<td>Research on soft soil issues is on going</td>
<td>??</td>
</tr>
<tr>
<td>Peat soil</td>
<td>No mechanization activities</td>
<td>??</td>
</tr>
</tbody>
</table>
1. **Soft soil:** Total area of soft soil is 8,107 ha
   - factors contribute to soft soil:
     » unsuitable farm machinery utilization
     » low drainage density
     » climate change
     » in adherence to paddy planting schedule.

2. **Grain losses during harvesting:** 3.5% to 13.5% as reported by MARDI, 2007
   - Efficiency of threshing mechanism is the main factor that influencing the percentage of grain losses.

3. **High capital investment and production cost faced by small-scale & aging farmers**
Effects of Soft Soil
Moving Forwards
1. ENCOURAGE INSTALLATIONS OF AUTO GREASING SYSTEM TO THE FARM MACHINERIES

A systemic problem
When lubrication is done inconsistently or done incorrectly, it negatively impacts machine condition and reliability plant wide. Major studies and independent sources prove this.

The Society of Tribologists and Lubrication Engineers report more than 50% of all bearings failures are due to lubrication practices that don’t measure up. In addition, Kenneth Bannister states 60% of all mechanical failures stem from inadequate or improper lubrication. The bill for wear and tear and the resulting loss of production is $240 billion annually – and that’s just in the U.S.
REASON’S FOR BEARING FAILURE:

- Inadequate Lubrication (34.4%)
- Lubrication Related Failures: 54%
- Contamination (19.6%)
- Installation Errors (17.7%)
- Overload (6.9%)
- Storage and Handling Errors (2.8%)
- Other (18.6%)
## 2. REDUCING POST-HARVEST LOSSES

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>PERCENTAGE OF LOSSES</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1985 (Baseline)</td>
</tr>
<tr>
<td>1. Harvesting</td>
<td>9.00</td>
</tr>
<tr>
<td>2. Transport</td>
<td>6.00</td>
</tr>
<tr>
<td>3. Drying</td>
<td>3.50</td>
</tr>
<tr>
<td>4. Milling</td>
<td>6.00</td>
</tr>
<tr>
<td>5. Storage</td>
<td>4.00</td>
</tr>
<tr>
<td>Losses (%)</td>
<td>28.50</td>
</tr>
<tr>
<td>Paddy production (million ton)</td>
<td>1.95</td>
</tr>
<tr>
<td>Paddy losses (thousands ton)</td>
<td>555.75</td>
</tr>
<tr>
<td>Paddy Price (RM/ton)</td>
<td>496.00</td>
</tr>
<tr>
<td>Losses (RM million)</td>
<td>276.00</td>
</tr>
</tbody>
</table>
3. INVEST IN NEW ACTIVITIES

GRAIN CORN

Mobile Dryer

Seeder/Planter

Harvester
CASAVA CROPS

Kubota

Seeder/Planter

Champ

SAM

Harvester
ENCOURAGE ZERO-WASTE MANAGEMENT
MAHA IS A BIENNIAL EVENT WHICH BE HELD ON NOVEMBER IN MAEPS, SERDANG, SELANGOR.

MAHA STANDS FOR MALAYSIA AGRICULTURE, HORTICULTURE & AGROTOURISM AND IT IS THE LEADING AGRICULTURAL SHOW OF ITS KIND IN MALAYSIA AND INDEED IN THE REGION.

This 11-day event is filled with showcases and activities that will appeal to those involved in agriculture, business owners and investors as well as the general public, including:

- Main event areas/state pavilions
- Business seminars and workshops
- Networking opportunities
- Product presentations and launches
- Agriculture technological and innovation demonstrations and competitions
- Agro bazaar
- Competitions and award presentations
- Field demonstrations
- Agrotourism activities
- Agro-product promotions
- Cultural performances
- Traditional cuisines and cooking demonstrations
- Pet shows, fishing contests, wellness programmes and many more
One of the largest exhibition complexes in Asia, MAEPS boasts a total floor space of 42,000 square metres spread across several exhibition halls. Its comprehensive range of facilities and services includes various agricultural showgrounds and park attractions.
Thank you