R&D needs to adopt MSPO sustainability standards in Malaysia

Presented at ARPOS Network, Annual General Meeting, Faculty of Engineering & Built Environment, Universiti Kebangsaan Malaysia.

9 Oct 2017
OUTLINE

➢ A little something about Oil Palm
➢ 100 year journey
➢ Economic standing
➢ Global emerging challenges & external pressures
➢ MSPO Certification Scheme, Standards
➢ What’s next?
➢ R&D needs to adopt MSPO certification
# Global edible oils

<table>
<thead>
<tr>
<th>Major oils</th>
<th>Nut oils</th>
<th>Other edible oils</th>
<th>Food supplements</th>
</tr>
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<tbody>
<tr>
<td>Coconut oil</td>
<td>Almond oil</td>
<td>Amaranth oil</td>
<td>Acai oil</td>
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<tr>
<td>Corn oil</td>
<td>Cashew oil</td>
<td>Apricot oil</td>
<td>Blackcurrant seed oil</td>
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<tr>
<td>Cottonseed oil</td>
<td>Hazelnut oil</td>
<td>Argan oil</td>
<td>Borage seed oil</td>
</tr>
<tr>
<td>Canola oil</td>
<td>Macadamia oil</td>
<td>Artichoke oil</td>
<td>Evening primrose oil</td>
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<tr>
<td>Olive oil</td>
<td>Pecan oil</td>
<td>Avocado oil</td>
<td></td>
</tr>
<tr>
<td><strong>Palm oil</strong></td>
<td>Pistachio oil</td>
<td>Babassu oil</td>
<td></td>
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<tr>
<td>Safflower oil</td>
<td>Walnut oil</td>
<td>Ben oil</td>
<td></td>
</tr>
<tr>
<td>Sesame oil</td>
<td></td>
<td>Borneo tallow nut oil</td>
<td></td>
</tr>
<tr>
<td>Soybean oil</td>
<td></td>
<td>Buffalo gourd oil</td>
<td></td>
</tr>
<tr>
<td>Sunflower oil</td>
<td></td>
<td>Carob pod oil</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Coriander seed oil</td>
<td></td>
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<td></td>
<td></td>
<td>False flax oil</td>
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<tr>
<td></td>
<td></td>
<td>Grape seed oil</td>
<td></td>
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<td></td>
<td></td>
<td>Hemp oil</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Kapok seed oil</td>
<td></td>
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<td></td>
<td></td>
<td>Lallemandia oil</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Meadowfoam seed oil</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mustard oil (pressed)</td>
<td></td>
</tr>
</tbody>
</table>

16 GLOBAL COMPETING EDIBLE OILS AND FATS
Products that contain palm oil
Palm oil is cholesterol-free and nature’s richest source of anti-oxidants

Pro-Vitamin A carotenoids and Vitamin E.

Palm oil is naturally semi-solid, it can be separated into liquid portion (olein) and solid portion (stearin).
Oil Yield per Crop (mt/ha)

- Palm oil vs other vegetable oil productivity
Key facts about Malaysia’s Oil Palm

• Plays a critical role in providing affordable, quality and nutritious food to more than 3 billion people worldwide.

• 8-10 times more productive than other major oil seed crops as well as highly efficient as denoted by its high output-to-input energy ratio.

• Has a theoretical productivity of 18.5 tonnes of oil per hectare; making it potentially the crop in which the future of global food security might rely on,

• Highly versatile in uses including its waste, which can be converted to value-added products.

Source: MPOC & MPOB
Use of palm oil in antiquity suggested by samples of oil present in an Egyptian tomb, chemically similar to palm oil

100 years of Agriculture in Malaysia

- Cocoa
- Sago
- Coffee
- Coconuts
- Pepper
- Rubber

Rubber Ridley
100 years of Oil Palm in Malaysia

**Historical records**

1887  Oil palm was first introduced as ornamental palm

1903  Identified as ‘plant of economic importance’

1910  Oil palm first planted at Kluang, Johore

1914  Trial plots planted in Rantau Panjang, Kuala Selangor

1917  Commercial planting in Tennamaram Estate, Selangor

1920  First hydraulic press system in Mengkibol, Johor
Henri Fauconnier

**Born**: February 26, 1879, Barbezieux-Saint-Hilaire, France

**Died**: April 14, 1973, Paris, France
Merdeka (31 Aug 1957) and Crop diversification

Led to rural development, crop diversification from rubber to oil palm
The oil palm was introduced to **MALAYA** in the **1870s** by the British.

The **first commercial planting** of the oil palm in Malaysia was carried out at the **TENNAMARAM ESTATE** in Selangor.

www.mpo100years.org
Economic standing
Over the last 100 years ... Malaysia’s success story

• Since the 1\textsuperscript{st} commercial oil palm planting (1917) by Frenchman, Henri Fauconnier ... **steady growth** to 5.7 mil ha

• William Middleton **Sime**, Henry d’Esterre **Darby** and Herbert Milford Darby founded Sime, Darby & Co in Malacca (1910)

• **FELDA** Scheme introduced in 1961 by the late Tun Abdul Razak, the then Prime Minister of Malaysia, to **eradicate hard-core poverty in rural areas**
  • Poverty reduction from 58% to less than 2% today

• At present, Malaysia is a **major global palm oil producer**
• How much is enough?
• What’s next?
• How much is enough?

• What’s next?

Courtesy of MEOA, MPOB
Oil palm and GDP, Malaysia (2015)
- Agriculture/Plantation/Forestry Sector

- Oil palm: 47%
- Livestock: 11%
- Rubber: 7%
- Fishing: 11%
- Forestry: 17%
- Other agric: 17%
Palm Oil

Globally, oil palm is grown on >18 million hectares (FAOSTAT, 2017), which represents 0.4% of global agricultural land.

Source: GreenPalm and Oil World June 2016 database
Volume made up of 13 other major fat sources.
Global emerging trends/challenges
World population and growth rate

• With this trend, is sustainable way of life still possible to all of us?
GLOBAL BIODIVERSITY HOTSPOTS

- Much of globally biodiverse areas are in the tropics

Source: Conservation International
# Global land use and oil palm land area

## Land Use

- **Global Land Area**: 13.4 billion hectares
  - **Pasture**: 3.45 billion hectares (69%)
  - **Arable Land for Crops**: 1.55 billion hectares (31%)

- **Global Palm Oil Land**: 18.87 million hectares (0.38% of Global Agriculture Land)

- **Malaysia Palm Oil Land**: 5.74 million hectares (0.11% of Global Agriculture Land)
Area and yields of major oil crops

2 Harvested area and yield obtained from the four major oil crops in 2016

- **Oil palm**
  - Harvested Area: 9.2% of 18,114,000 ha = 1,641,707 ha
  - Yield: 38.6% of 58,306,000 MT = 22,429,152 MT

- **Rapeseed**
  - Harvested Area: 16.9% of 33,256,000 ha = 5,556,674 ha
  - Yield: 16.5% of 24,940,000 MT = 4,040,140 MT

- **Soya**
  - Harvested Area: 61.2% of 120,203,000 ha = 74,439,996 ha
  - Yield: 34.1% of 51,502,000 MT = 17,479,183 MT

- **Sunflower**
  - Harvested Area: 12.7% of 24,897,000 ha = 3,170,165 ha
  - Yield: 10.8% of 16,360,000 MT = 1,765,680 MT

**Total Harvested Area**: 196,470,000 ha

**Total Yield**: 151,108,000 MT

Source: Oil World Annual 2016
### Impact on forest loss due to moratorium on oil palm expansion from 2013-2023

<table>
<thead>
<tr>
<th>Crop</th>
<th>2023 - Without Moratorium (m ha)</th>
<th>2023 - With Moratorium (m ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil palm</td>
<td>8.8</td>
<td>0</td>
</tr>
<tr>
<td>Soya</td>
<td>29.2</td>
<td>97</td>
</tr>
<tr>
<td>Sunflower</td>
<td>49</td>
<td>33</td>
</tr>
<tr>
<td>Rapeseed</td>
<td>17.7</td>
<td>58</td>
</tr>
</tbody>
</table>

Source: James Fry
Oil Palm Area Harvested Increases, While Total Forest Area Decreases (1990 - 2013)

Oil Palm Fruit Yields, Selected Major Producers (2004 - 2014)
Sustainability certification
Why Sustainability Certification is needed for Oil Palm?

• Addressing issues on:

  • **Deforestation**
  
  • Biodiversity loss
  
  • Conservation of High Biodiversity Value areas
Why Sustainability Certification is needed for Oil Palm?

- Addressing issues related to:
  - **Climate change**
  - Planting on peat lands
  - Fire
  - Haze
  - Green House Gases
Why Sustainability Certification is needed for Oil Palm?

• Addressing issues on:
  • **Social**
  • Employment & work conditions
  • Child & forced labour
  • Communal (NCR) land & ownership rights
What does sustainability certification and labels mean?
Standards Map! ([www.sustainabilitymap.org](http://www.sustainabilitymap.org)) provides information on standards, codes of conduct, audit protocols addressing sustainability hotspots in global supply chains.

Filter for Palm oil (private) resulted in 15 standards:

| 1. Alliance for Water Stewardship       | 9. ProTerra Foundation               |
| 2. BioSuisse Standards for Imports     | 10. RSPO – Supply Chain Certification |
|    Social Practice (GRASP)              | 15. Sustainably Grown                 |
| 7. ISCC EU                             |                                         |
| 8. ISCC PLUS                           |                                         |
Recent trends

- Amsterdam Declaration – 7 Dec 2015
  
  (Denmark, France, Germany, The Netherlands, United Kingdom, Norway, Italy)

  - Towards eliminating deforestation from agricultural commodity chains within European Countries
  - In support of a fully sustainable palm oil supply chain by 2020, and
  - In support of an end to illegal deforestation by 2020
Recent trends

• EU Parliament resolution – 4 April 2017
  • On Palm Oil and Deforestation of Rainforests
  • EU Parliament voted on the ENVI Report
    640 approved, 18 objected, 28 abstained

• Deforestation causes climate change, and brings along economic, environmental and social problems
• The Resolution identifies oil palm cultivation as the biggest contributor to deforestation
• The Resolution calls for among others:
  • Development of a single certification system for CSPO
  • Ensuring imports of CSPO into the EU by 2020
  • Phasing out vegetable oils, including palm oil from biofuel programme
Recent trends

• Major importing markets demanding for Certified Sustainable Palm Oil (CSPO)

• **UK procurement initiative ~ 2010**
  • Voluntary measure by Dept of Environ, Food & Rural Areas (DEFRA), with aspirational targets to have all palm oil imports to the UK as certified sustainable by 2015. The initiative fell short of its target and was disbanded after 3 years

• **Similar to the UK, the Dutch Task Force on Sustainable Palm Oil**
  • Led by Dutch Product Board for Fats & Oils (MVO), relied on significant Dutch, Danish and Swiss govt funding via IDH (Sustainable Trade Initiative)

The Dutch Task Force pushed for similar goals to the UK measures, i.e. to have all palm oil imported into the Netherlands to be CSPO. The Dutch Alliance Sustainable Palm Oil (DASPO) is the successor.
Similar Action by others on use of palm oil

- **Singapore**: Health Promotion Board, to subsidise canola & olive but not palm oil
- **US**: impose higher duties on imported bio-diesel from Indonesia & Argentina
- **US**: Department of Labour includes palm oil produced in Malaysia under the list of goods produced by forced and child labour
- **Norway**: Parliament voted to ban use of all palm oil-based bio-fuels
- **France**: proposal to restrict use of palm oil based bio-fuels on sustainability grounds
Malaysia’s response
Malaysian Palm Oil Certification Council (MPOCC)

➢ Incorporated on December 2014 under Companies Act 1965
➢ Tasked to develop and operate **Malaysian Sustainable Palm Oil (MSPO) Certification Scheme**
➢ Started operations in October 2015
➢ Governed by 13-Member Board of Trustees

Representatives from:

- Oil palm industry associations
- Academic and R&D institutes
- Smallholders organisation
- Government
- NGOs
What is MPOCC?

- **Independent body** responsible for the development & operation of the MSPO Certification Scheme
- Responsible for **standard setting & standard review** with relevant stakeholders
- Responsible for **training** of auditors & assessors
- Promote **recognition & acceptance** of the MSPO Scheme

Assurance through 3rd party independent audits
MSPO Certification Scheme
Promoting Values & Benefits through MSPO Certification

- Increased productivity
  - Optimise yields and profits, protects the environment, workers and affected communities
  - Effective cost management
  - Better waste management
  - Fair work conditions

- Traceability
  - Known FFB origin
  - Farm details & yield records
  - Addresses concerns of affected stakeholders

- Positive impact
  - Increase awareness
  - Legality compliance
  - Reduced work accidents
  - Best agriculture practices
  - Tax breaks & incentives
  - Market access
  - Meets demands from environmentally sensitive markets for CSPO
  - Negates negative perception
  - Enhances Malaysian palm oil competitiveness and acceptance in global market
MSPO Certification Scheme

• MSPO is a **home grown** initiative & a national agenda
• Bottom line of **3 Pillars** of Sustainability
• MSPO subjects to legislative checks & balances
More on MSPO Certification Scheme

- **MSPO Standards**
  - Sets the requirements & which must be met when audits are done

- **Certification System**
  - Defines the operations of the scheme, implementation agreement with accredited CBs

- **Accreditation Programme**
  - To ensure that organisation who undertake audits are credible and have competent auditors
Institutional Arrangement for MSPO Scheme

Board of Trustees

Scheme Owner

Accredited Certification Bodies (CBs)

National Accreditation Body

Accreditation CBs are required to be accredited to national AB

Notification
Accredited CBs have to apply to Scheme Owner to become notified CBs to enable them to issue accredited certificates recognised by Scheme Owner

CBs receive and process applications for certification

CBs conduct audits and make decisions to award MSPO Certificate for Plantation Management or Certificate for Supply Chain

Applicants for Oil Palm Management Certification
Applicants for Supply Chain Certification
5 Accredited CBs

- DQS Certification (M) Sdn Bhd
- SGS (Malaysia) Sdn Bhd
- Bureau Veritas (M) Sdn Bhd
- TUV NORD (Malaysia) Sdn Bhd
- SIRIM QAS International Sdn Bhd

6 more CBs undergoing Accreditation

- CARE Certification International (M) Sdn Bhd
- BSI Services Sdn Bhd
- Prima Cert International Sdn Bhd
- Control Union (Malaysia) Sdn Bhd
- NIOSH Certification Sdn Bhd
- Global Gateway Certification Sdn Bhd
MSPO Standards
MS 2530-1:2013 – Malaysian Sustainable Palm Oil (MSPO) Part 1: General principles

MS 2530-2:2013 – Malaysian Sustainable Palm Oil (MSPO) Part 2: General principles for independent smallholders

MS 2530-3:2013 – Malaysian Sustainable Palm Oil (MSPO) Part 3: General principles for oil palm plantations and organised smallholders

MS 2530-4:2013 – Malaysian Sustainable Palm Oil (MSPO) Part 4: General principles for palm oil mills
MSPO Standards cover:

1 Management commitment and responsibility

2 Transparency

3 Compliance to legal requirements

4 Social responsibility, health, safety and employment conditions

5 Environment, natural resources, biodiversity and ecosystem services

6 Best practices

7 Development of new plantings
## Contents of MS 2530:2013

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<th>Principles</th>
<th>Criteria</th>
<th>Indicators</th>
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<tr>
<td>General principles for independent smallholders</td>
<td>7</td>
<td>22</td>
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<td>Part 3</td>
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<td>General principles for oil palm plantations and organised smallholders</td>
<td>7</td>
<td>33</td>
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<tr>
<td>Part 4</td>
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<tr>
<td>General principles for palm oil mills</td>
<td>6</td>
<td>25</td>
<td>80</td>
</tr>
</tbody>
</table>
Principle 1: Management commitment and responsibility

- Implementation of **MSPO Policy**
- Conduct **Internal Audit** periodically
- Conduct **Management review** to ensure effectiveness of MSPO implementation
- **Continual improvement** plan in place
Principle 2: Transparency

- Relevant information & documents relevant to MSPO requirements
- Establish procedures for consultation & communication
- Implement procedures for traceability of products
Principle 3: Compliance to legal requirements

- Compliance to applicable laws and regulations
- Land use and Customary Land Rights respected
- Legal ownership of land demonstrated
- Free, Prior and Informed Consent (FPIC) in place
Principle 4: Social responsibility, health, safety and employment condition

- Social impact assessment (SIA) conducted
- Complaints and grievances mechanism in place
- Commitment to contribute to local sustainable development
- Employees safety and health policy in place
- Good employment conditions established
- Appropriate training is provided
Principle 5: Environment, natural resources, biodiversity and ecosystem services

- Environmental management plan in place
- Efficiency of energy use and use of renewable energy
- Waste management plan implemented
- Action plan to reduce scheduled & solid waste
- Water management plan implemented
- Identify High Biodiversity Value habitats & ERT species
- Zero burn practices for waste disposal & land preparation
Principle 6: Best practices

- Procedures to prevent soil erosion, siltation, contamination of water developed and implemented
- Business or Management plan implemented
- Transparent and fair price dealing implemented
- Contractors shall understand and comply with MSPO requirements
Principle 7: Development of new plantings

- No planting on land with high biodiversity value
- No conversion of Environmentally Sensitive Areas (ESAs)
- New planting & replanting on peat lands as per MPOB guidelines & industry best practices
- Social & Environmental Impact Assessment (SEIA) conducted
- Information on soil types & topography
- Extensive planting on steep areas & fragile soils avoided
- Recognise customary land rights & owners (FPIC)
Technical Working Committee on MSPO Standards (2017)

- Government: 13%
- Industry upstream: 16%
- Industry downstream: 19%
- Smallholders organisations: 14%
- Environmental NGOs: 14%
- Indigenous Peoples: 11%
- Academia/R&D: 8%
- Workers Organisations: 5%
Progress of MSPO Certification
Oil Palm Statistics for 2016
5,737,985 ha

MSPO Certified Areas

Private estates (75 estates) & FELDA (2 clusters)
241,377.73ha (5.7%)
Independent smallholders (18 clusters)
4,004.19ha (0.4%)

TOTAL 245,381.92ha (4.2%)

As of August, 2017

https://www.mpocc.org.my/facts-and-figures
MSPO Certified Mills

<table>
<thead>
<tr>
<th>State</th>
<th>Certified Mills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johor</td>
<td>2</td>
</tr>
<tr>
<td>Negeri Sembilan</td>
<td>1</td>
</tr>
<tr>
<td>Pahang</td>
<td>3</td>
</tr>
<tr>
<td>Sabah</td>
<td>7</td>
</tr>
<tr>
<td>Sarawak</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
</tr>
</tbody>
</table>

Total milling capacity = 1,467 mt/hr
Estimated production capacity = 1.2 million tonnes

As of August, 2017

https://www.mpocc.org.my/facts-and-figures
## Annual targets for MSPO Certification

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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</thead>
<tbody>
<tr>
<td>Plantations (ha)</td>
<td>2,957</td>
<td>297,000</td>
<td>1,782,000</td>
<td>1,470,000</td>
</tr>
<tr>
<td>Mills</td>
<td>21</td>
<td>28</td>
<td>123</td>
<td>280</td>
</tr>
</tbody>
</table>
MSPO Certified Companies (15)

- Achi Jaya Plantations Sdn Bhd
- Boustead Plantation Bhd
- FELDA
- FGV Plantations (M) Sdn Bhd
- Genting Plantations Bhd
- IJM Plantations Bhd
- JC Chang Group
- Keresa Plantation Bhd
- PPB Oil Palms Bhd
- Rinwood Pelita (Mukah) Plantation
- Sabah Softwood Bhd
- Sarawak Oil Palms Bhd
- Sime Darby Plantation Sdn Bhd
- Ta Ann Holding Bhd
- Tradewinds Plantation Bhd
- Kuala Lumpur Kepong Bhd
Pensijilan MSPO mandatori pada 2019

Oleh Fadzil Ghazali
afadzil@pmob.gov.my

Putrajaya

Penutupan pensijilan Minyak Sawit Mampam Malaysia (MSPO) akan diadakan mandatori kepada pihak industri sawit negara secara berperingkat bermulai akhir tahun lalu.


Menurut Peraturan Perladangan dan Komoditi, Datuk Seri Mah Siew Keong berkata belian sedar langkah ini agak tegak namun iza perlu dilaksanakan untuk kebaikan industri bagi jangka masa panjang.

Standard minyak sawit


Belian berkata jika kementerian ini dalam proses menyediakan insentif untuk membantu pihak industri sawit Malaysia. Tuinskam pekebun kecil bagi memenuhi syarat-syarat pensijilan MSPO.

“Kami akan menyediakan insentif kewangan pada jun tahun ini untuk membantu pensijilan industri, itu kini sedang disuahkan,” tambah belian.

Pelaksanaan skim MSPO, yang bermula pada 1 Januari 2013 hingga kini adalah secara sukarela. Setakat ini, kawasan seluas 222,778 hektar daripada 574 juta hektar kawasan ditanam sawit mempunyai pensijilan MSPO. Kawasan ini diusahakan oleh ladang dan pekebun kecil.

Setakat Disember 2016, enam peratus daripada keluasan ladang sawit dan hanya 0,3 peratus daripada kecassan pekebun kecil yang mempunyai sijil MSPO.

Mah berkata langkah menjadikan pematuhan MSPO secara mandatori bertujuan untuk menaik taraf keseluruhan industri dan ia penting ke arah penjaamaan minyak sawit tempatan sebagai produk yang dihasilkan secara ramping dan selam.


**Tambah juru audit**

Menjaga pertukaran perjanjian teknologi antara MPOB dan Premium Food Corporation (PFC) yang berlangsung di Siti Kembangan pada bulan November ini, Mah telah memberi tahu pembentuk bahawa kerajaan akan menambah jumlah juru audit untuk pensijilan MSPO sebagai langkah mengurangkan kos untuk memenuhi keperluan pensijilan itu. "Kami mempertimbangkan jumlah juru audit pensijilan MSPO. Ini akan menjaga pensijilan hebat untuk mengurangkan kos perkhidmatan di samping meningkatkan kecepatan," tambah belian.

Mah berkata belian telah berterma dengan beberapa pelembagai kecil di empat negeri dan mereka telah menyuapkan kebimbangan mengenai keperluan pematuhan pensijilan MSPO secara mandatori menjelang tahun 2019.

“Kami faham dengan kebimbangan mereka. Pihak kementerian akan mengadakan beberapa siri perjumpaan dengan pelembagai kecil di sepanjang masa berbincang dengan ini untuk menjelaskan keperluan mematuhi pensijilan kemampuan sebagai usaha meluaskan pasaran minyak sawit negara," katanya.
Timelines for implementation of mandatory MSPO Certification

**31 DEC 2018**
With RSPO Certification
RSPO-certified entities (plantations and mills) have to obtain MSPO certification by 31 December 2018.

**30 JUNE 2019**
Without any Certification
Oil palm entities (plantations and mills) without RSPO certification will have to obtain MSPO certification by 30 June 2019.

**31 DEC 2019**
Smallholders
All independent and organised smallholders will have to obtain MSPO certification by 31 December 2019.
What’s next?
**What’s next for Malaysian Palm Oil sector**

### Sustainable Development
- **Costs & Resources**
  - Depleting resources and rising costs
- **Stringent policies**
  - Increase regulatory changes and reforms
- **Unpredictable Weather**
  - Extreme patterns due to global warming
- **Rising demands**
  - Sustainability agenda for clean & green development of palm

### Efficient Operations
- **Higher Oil Yields**
  - Stagnant oil yields
- **Innovation**
  - Automation & Mechanisation
- **Talent creation & retention**
  - Competent, committed talent
  - Labour intensive
  - Unable to attract local talents / young generation

### Rebranding of Malaysian Palm Oil
- **Increasing consumer awareness**
- **Certified Sustainable Palm Oil (MSPO)**
- **Other green products**
  - Biodiesel, biochemical, biomass
- **Anti-Palm Oil lobby**
  - ENGO and SNGO attacks
- **Internet and Social Media**
  - Transparency
  - Accessibility of information, allegations, complaints
Competitiveness, Differentiation and Sustainability

• Can these go hand in hand?
• Oil palm industry is at the crossroad
  □ Increasing scarcity of two critical inputs, namely LAND and WORKERS
  □ Continued debates, challenges and barriers on issues relating to SUSTAINABILITY
ABUNDANCE OF OIL PALM BIOMASS

10% oil
90% biomass

OIL PALM FRONDS

PALM KERNEL CAKE

SHELL, 5.5%

EMPTY FRUIT BUNCH, 22%

OIL PALM TRUNK

FIBRE, 13.6%

POME
A VISION FOR MALAYSIAN PALM OIL TO REMAIN COMPETITIVE

- MSPO to be made the basis for **branding** Malaysian palm oil.

- Strong Government **commitment** towards strengthening and acceptance of MSPO certified products by the global markets.

- Major **Promotional** efforts of MSPO certified palm oil in global markets.

- Government **assistance** to industry and smallholders in the implementation of MSPO certification.

CERTIFYING MALAYSIAN PALM OIL FOR THE WORLD
R&D needs?
R&D needs ~ MSPO sustainability standards

• Are ARPOS members doing enough to support the sustainable development of the Malaysian palm oil industry in a coordinated way?

• To what extent is the ARPOS research community addressing key issues and questions related to palm oil sustainability?
R&D needs ~ MSPO sustainability standards

• What types of *research questions and agenda* need prioritizing going forward for the sustainable development of the Malaysian palm oil industry?

• Which topics, themes and academic disciplines are so far *under researched* and how can these play a stronger role in future research programmes?
R&D needs ~ MSPO sustainability standards

• Should universities and research institutes work towards becoming ‘key institutions’ whereby they play a more central role in supporting the development of the industry? If so, how can this be achieved?

• How can universities work closely with industry and other key stakeholders in identifying research areas, with co-benefits?

• What about funding needs for ARPOS Network?
Some suggested R&D research areas ~ MSPO

- **Land use change**
  - Deforestation, peatland conversion, forest & carbon stocks, communal lands (new plantings)

- **Technologies & by-products**
  - Fronds, OPT, roots, EFB, palm press fibre, palm kernel shell, boiler ash, POME

- **Emissions**
  - LCA, Energy use, GHG, air & water pollution

- **Biodiversity & Conservation**
  - Mammals, birds, plants, insects, ecosystem services/functions

- **Socio-economic**
  - Livelihood & wellbeing, fair pricing, land tenure/rights, legal requirements, market access/incentives, economic assessments, child & forced labour, human trafficking, health & safety, wages, gender equality, women’s empowerment
Invitation to:

CERTIFIED SUSTAINABLE PALM OIL FORUM: THE WAY FORWARD

13 November 2017 | 1.00 pm - 4.00 pm
KUALA LUMPUR CONVENTION CENTRE

In conjunction with

Thank You

Malaysian Palm Oil Certification Council (MPOCC)
15th Floor, Bangunan Getah Asli (Menara)
148, Jalan Ampang, 50450 Kuala Lumpur, Malaysia
Website: www.mpocc.org.my
Tel: + 603 2181 0192 | Fax: +603 2181 0167
E-mail: info@mpocc.org.my