SEMINAR ON OLEOCHEMICAL INDUSTRY IN MALAYSIA:
Downstream Expansion & Sustainability

CHEMICAL AND ADVANCED MATERIAL INDUSTRIES DIVISION
CONTENT OUTLINE:

- About MIDA
- Malaysian Investment Performance
- Chemical & Advanced Material Industries Division
- A Global Scenario of Oleochemical Industry
- Oleochemical Industry In Malaysia
- Oleochemical Projects Approved by MIDA
- Oleochemical Value Chain in Malaysia
- Current Policy
- Challenges
SERVICES PROVIDED by MIDA

FREE OF CHARGE

Services (Initial Stage)
- Meetings with State Authorities
- Business matching with Malaysian companies
- Visit to companies/suppliers
- Visit to potential locations

Evaluating & Granting Approval
- Manufacturing License
- Tax Incentives
- Expatriate Posts
- Import Duty Exemptions

Project Implementation Stage
- Handhold and assist investor until project is implemented

Invest in Malaysia > Your Profit Centre in Asia
MIDA WORLDWIDE NETWORK

22 Overseas Centres

Invest in Malaysia > Your Profit Centre in Asia
Invest in Malaysia > Your Profit Centre in Asia
ESTABLISHMENT OF 12 NATIONAL KEY ECONOMIC AREAS (NKEAs)

NKEAs selected which can materially impact economic growth

- Wholesale and retail
- Tourism
- Business services
- Oil, gas & energy
- Electrical & electronics
- Education
- Palm oil
- Healthcare
- Financial services
- Greater KL
- Agriculture
- Comms Content Infrastructure
- Healthcare
- Wholesale and retail
### FDI INFLOWS TO MALAYSIA BY SECTOR

Manufacturing sector continues to be the largest contributor to FDI inflows.

<table>
<thead>
<tr>
<th>Sector</th>
<th>2012</th>
<th>2013</th>
<th>Percentage of Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry and Fishing</td>
<td>104</td>
<td>328</td>
<td>215.7</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>3,146</td>
<td>3,643</td>
<td>15.8</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4,282</td>
<td>4,762</td>
<td>11.2</td>
</tr>
<tr>
<td>Construction</td>
<td>68</td>
<td>292</td>
<td>328.8</td>
</tr>
<tr>
<td>Services</td>
<td>2,568</td>
<td>3,647</td>
<td>42.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>10,169</td>
<td>1,2671</td>
<td>24.6</td>
</tr>
</tbody>
</table>

Source: DOSM
TOTAL INVESTMENTS APPROVED IN 2013

USD 66 billion
Approved investments
A new record for approved investments

2013: USD 66 billion
Increased by 29%

192,000
Jobs Created

2012: USD 54 billion

5,669
Projects Approved

72.5 : 27.5
Domestic-to-Foreign investment ratio
E&E, Transport, Petroleum & Chemical Industries contribute the lion’s share of approved investments in 2013.

**USD Billion**

### 2012

- **Fabricated Metal**
- **Rubber**
- **Machinery & Equip.**
- **Food**
- **Basic Metals**
- **E&E**
- **Petroleum**
- **Transport**
- **Chemical**

USD 13 bil.

### 2013

- **Fabricated Metal**
- **Rubber**
- **Machinery & Equip. Non-Metallic**
- **Food**
- **Basic Metal**
- **E&E**
- **Petroleum**
- **Transport**
- **Chemical**

USD 15 bil.
A GLOBAL SCENARIO OF OLEO CHEMICAL INDUSTRY
Major World Producers of Palm Oil (2013)

Total global crude palm oil production in 2013: 50.47 million tonnes

Source: MPOB website, 2013 Statistics, Oil World Statistic Update (March 2013)
Opportunities

Rising cost of doing business & raw materials in Europe

Natural/plant based products, greener alternatives to petrochemical

Palm oil is proven to be healthy and trans fats free

Commitments towards the Responsible Care Initiative with regulations under REACH Programme

High demand for sustainable & biogradable products
Global Scenario

- Significant expansion in production of fatty acid and fatty alcohol capacities in the Asia region.

- Asia has the highest capacity in the world of which 65% comes from SEA region (Malaysia & Indonesia)

- Major oleochemical producers in the world market: KLK, Oleon, Musim Mas, Croda, Emery, IOI, Wilmar.
Major Producers of Basic Oleochemical in the world
Oleochemical Industry in Asia

- **Asia creates large market for Oleo Industry**
  major consumer & producer of oleochemical products. 68% of the world consumption and 60% of world production.

- **Vertical Integration**
  Large plantations have started to invest in downstream feedstock processing
Plantation companies who have ventured into downstream oleochemical activities through Joint Ventures
OLEOCHMICAL INDUSTRY IN MALAYSIA....
SUCCESS STORY – PALM BASED OLEOCHEMICAL INDUSTRY

1970s
Resource-Based Food Industries

1980s
Started producing basic Oleo

Today
One of the largest basic oleo chemical producers with 20% of global production

By 2020
Innovation, R&D Driven Specialty Oleo Chemical Derivatives

Source: Economic Reports/Bank Negara Annual Report, Malaysia 11/12
Comprises of the basic oleo chemical and oleochemical derivatives subsector.

Malaysia is the largest producer of oleochemicals in the world: 20% of global capacity.

Almost 16 oleochemical plants are established in Malaysia.

Major Home Grown Players: IOI, KLK, Emery, Natural Oleochemical, Oleon, FGV.

Malaysia has the raw material but still lack on the technology innovation.

Related supporting regulation bodies:
- MPIC
- MPOB
- MPOC
Oleochemical Projects Approved by MIDA
Approved Oleochemical Projects in 2013

- **Domestic Investment**: RM333 Million
- **Foreign Investment**: RM149 Million
- **283 Job Opportunities**
- **4 Projects**: RM482 Million

Domestic Investment: RM333 Million

Foreign Investment: RM149 Million
Approved Oleochemical Projects From January- May 2014

8 Projects
RM 13.8 billion

2,791 Job Opportunities

Domestic Investment : RM6.2 billion

Foreign Investment : RM7.6 billion
OLEOCHEMICAL VALUE CHAIN IN MALAYSIA
Oleochemical Value Chain

FEEDSTOCK | BASIC | DERIVATIVE | SPECIALTY | CONSUMER | PRODUCTS
---|---|---|---|---|---
Plantation / Millers | ME, Fatty Acid, Fatty Ester, Glycerine | Sulfo Fatty Acid Ester, Alkyl Chlorides, Fatty Acid Ethoxylates | EGMS, Methyl Ester Sulphonate (MES) Methyl Ester | Food Industry, Toiletries Confectionary, Pharmaceutical Oil & Gas, Dairy Products

MAJOR OPERATING COMPANIES IN MALAYSIA

Plantation / Millers: Felda IFFCO, Kempas, Lam Soon
Basic: ME, Fatty Acid, Fatty Ester, Glycerine
Basic: Oleon, Carotech, Cargill, Sime Darby, IOI Group
Basic: Sulfo Fatty Acid Ester, Alkyl Chlorides, Fatty Acid Ethoxylates
Basic: EVYAP, Wilmar, Carbotech
Specialty: EGMS, Methyl Ester Sulphonate (MES) Methyl Ester
Consumer: Heinz, Crabtree & Evelyn, KitKat
Consumer:_Listerine, Clean & Clear, Scomi
Consumer: Petronas, P&G
Products: Crisco, Brands for food industry, toiletries, confectionary, pharmaceuticals, oil & gas, dairy products.
Existing and Emerging Applications

Food Emulsifiers
Surfactants *
Cosmetics
Bio lubricants
Surfactants
Agro Chemicals
Glycerol Additives
Biopolyols
Soaps and Detergents

EXISTING

EMERGING

* better improved performance
CURRENT POLICY

A policy described government, private "Statement of Important organizations"
**CATEGORY:**

**A. General List**
- IV Manufacture of Palm Oil Products and their Derivatives; Oleochemical or oleochemical derivatives or preparations.

**B. Small Scale Companies List**
- V. Manufacture of Oil Palm products and their derivatives; processed products from palm oil / processed products from palm from biomass/waste/by product
Challenges

- Less Financial exposure
- Growth in world population/serve larger market
- Scarcity of land/policies
- Export duty for CPO by Indonesia
- NGOs/Environmental Pressure
- Expansion by existing competitors
- Increase in energy cost
- Compliance of strict EU regulations - SMEs group
Thank you
PROMOTED INDUSTRY

Promotion of Investment Act 1986

ETP : EPP6
Developing oleo Derivatives

ETP : EPP7
Commercializing second generation biofuels

IMP3 : Trust 1- Expanding And Diversifying wider range of high value added palm oil products for international market
## Global Oleochemical capacity by Region from 2005-2013 (000’ tonnes)

<table>
<thead>
<tr>
<th>Region</th>
<th>2005</th>
<th>2007</th>
<th>2009</th>
<th>2011</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>1,800</td>
<td>1,740</td>
<td>1,740</td>
<td>1,740</td>
<td>1,740</td>
</tr>
<tr>
<td>Europe</td>
<td>2,295</td>
<td>2,345</td>
<td>2,345</td>
<td>2,075</td>
<td>2,175</td>
</tr>
<tr>
<td>Asia, of which</td>
<td>3,940</td>
<td>6,020</td>
<td>6,975</td>
<td>7,720</td>
<td>11,100</td>
</tr>
<tr>
<td><strong>SEA</strong></td>
<td>2,600</td>
<td>3,625</td>
<td>4,085</td>
<td>4,540</td>
<td>7,220*</td>
</tr>
<tr>
<td>Japan</td>
<td>370</td>
<td>370</td>
<td>370</td>
<td>370</td>
<td>370</td>
</tr>
<tr>
<td>China</td>
<td>510</td>
<td>1,550</td>
<td>2,030</td>
<td>2,220</td>
<td>2,480</td>
</tr>
<tr>
<td>India</td>
<td>460</td>
<td>475</td>
<td>490</td>
<td>590</td>
<td>1,030</td>
</tr>
<tr>
<td>South America</td>
<td>100</td>
<td>170</td>
<td>330</td>
<td>380</td>
<td>400</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>190</td>
<td>190</td>
<td>190</td>
<td>190</td>
<td>250</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>8,325</td>
<td>10,465</td>
<td>11,580</td>
<td>12,105</td>
<td>15,665</td>
</tr>
</tbody>
</table>

Source: LMC Oleochemicals 2012 report
MALAYSIA HAS SIGNED SEVEN (7) BILATERAL FTAs

- **Malaysia-Japan Economic Partnership Agreement (MJEPA)**
  - Entry into force 13 July 2006

- **Malaysia-India Comprehensive Economic Cooperation Agreement (MICECA)**
  - Entry into force 1 July 2011

- **Malaysia-Pakistan Comprehensive Economic Partnership Agreement (MPCEPA)**
  - Entry into force 1 January 2008

- **MNZFTA (Malaysia-New Zealand)**
  - Entry into force 1 August 2010

- **Malaysia-Chile FTA**
  - Entry into force 25 Feb 2012

- **Malaysia-Turkey FTA**
  - Signed in Apr 2014 & to be ratified in 2014

- **MAFTA (Malaysia-Australia FTA)**
  - Entry into force 1 Jan 2013
HUMAN CAPITAL

• 20 Public And 21 Private Universities :-
  (6 Chemical Engineering & UKM has a specific course on Oleochemicals)

• 400 Colleges, Polytechnics, Industrial Training Institutes and Private Colleges

• 7 reputable foreign University branch campuses in Malaysia
  ✓ University of Nottingham Malaysia
  ✓ Curtin University Sarawak
  ✓ University of Southampton Malaysia
  ✓ Newcastle University Medicine Malaysia
  ✓ Heriot-Watt University Malaysia
  ✓ Swinburne University Of Technology, Sarawak
  ✓ Monash University Malaysia

(source: MOHE 2013)