Malaysian Palm Oil: Assuring Sustainable Supply of Oils & Fats into the Future

Tan Sri Datuk Dr. Yusof Basiron
Chief Executive Officer
Malaysian Palm Oil Council
1. Palm oil’s ability to meet food security requirement

2. Malaysian palm oil industry’s roles in:
   - Reliable & affordable supply of oils & fats
   - Fulfilling oils and fats requirement of net importing countries
   - India’s Requirement for oils and fats
   - Sustainable Production, Conservation of Forest / Biodiversity

3. Conclusion
The world population is projected to grow from 7 billion in 2011 to 9 billion by 2043, an increase of 29 percent. Food production must meet this rate of increase.

The future of palm oil is driven by growth in demand for food, oleochemicals and biofuel due to population and economic growth.

Source: U.S. Census Bureau, International Data Base, June 2009 Update.
IMPORTANCE OF PALM OIL & ITS DERIVATIVES

1. Source of food (global food security): 80%
2. Oleochemicals: 15%
3. Biofuel: 2%
4. Renewable energy source: Potential Remains Largely Untapped through Palm Biomass

Palm Oil Currently Accounts for 28% of Global Oils & Fats Supply

- Palm Oil: 28%
- Others: 23%
- Soybean Oil: 13%
- Sunflower Oil: 7%
- Rapeseed Oil: 29%

Palm Oil
Others
Sunflower Oil
Soybean Oil
Rapeseed Oil
World Oils & Fats Production 2011

<table>
<thead>
<tr>
<th></th>
<th>Palm Oil</th>
<th>Soyabean Oil</th>
<th>Rapeseed Oil</th>
<th>Sunflower Oil</th>
<th>Others</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(’000 MT)</td>
<td>50,228</td>
<td>41,481</td>
<td>23,658</td>
<td>13,176</td>
<td>50,518</td>
<td>179,061</td>
</tr>
</tbody>
</table>

(’000 MT)
Oils & Fats Exports 1990 - 2011

1990
- Palm Oil, 36
- Soyabean Oil, 14
- Sunflower Oil, 9
- Others, 34
- Rapeseed Oil, 7

2011
- Palm Oil
  - 57%
- Soybean Oil
  - 14%
- Sunflower Oil
  - 8%
- Others
  - 16%
- Rapeseed Oil
  - 5%
Fighting Hunger Worldwide

The cost of hunger to developing nations is an estimated US$450 billion per year.

It takes only 25 US cents for WFP to give a hungry schoolchild a cup of food with all the nutrition needed for the day.

The number of undernourished people worldwide is just under 1 billion - equivalent to the population of North America and Europe combined.

Hunger Map 2011

<table>
<thead>
<tr>
<th>Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Incomplete data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undernourished</td>
<td>&lt;5%</td>
<td>5-9%</td>
<td>10-19%</td>
<td>20-34%</td>
<td>≥35%</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Extremely low</td>
<td>Very low</td>
<td>Moderately low</td>
<td>Moderately high</td>
<td>Very high</td>
<td></td>
</tr>
</tbody>
</table>

Source: The State of Food Insecurity in the World 2011, Food and Agriculture Organization of the United Nations. Please note that the 2011 data in some cases dates back to 2010 so may not always reflect the present situation in individual countries.

© 2011 World Food Programme

The designations employed and the presentation of material in this map do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, area or city or of its authorities, or concerning the delimitation of its frontiers or boundaries.

*The Least Developed Countries are designated by the United Nations and are represented approximately by a dotted line. The final status of certain territories is not yet agreed upon by the parties.

WFP World Food Programme

wfp.org
World’s growing dependence on palm oil will boost demand further into the future

Source: Oil World
# Top 10 Major Destinations of MPO Export in 2011 ('000 TONNES)

<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China P.R.</td>
<td>3,982</td>
</tr>
<tr>
<td>2</td>
<td>Pakistan</td>
<td>1,820</td>
</tr>
<tr>
<td>3</td>
<td>India</td>
<td>1,667</td>
</tr>
<tr>
<td>4</td>
<td>EU</td>
<td>1,144</td>
</tr>
<tr>
<td>5</td>
<td>U.S.A</td>
<td>1,054</td>
</tr>
<tr>
<td>6</td>
<td>Egypt</td>
<td>710</td>
</tr>
<tr>
<td>7</td>
<td>Japan</td>
<td>541</td>
</tr>
<tr>
<td>8</td>
<td>Philippines</td>
<td>510</td>
</tr>
<tr>
<td>9</td>
<td>Singapore</td>
<td>477</td>
</tr>
<tr>
<td>10</td>
<td>Vietnam</td>
<td>420</td>
</tr>
<tr>
<td>COUNTRY</td>
<td>JAN - APR 2012</td>
<td>JAN - APR 2011</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>CHINA P.R</td>
<td>1,050,637</td>
<td>1,063,565</td>
</tr>
<tr>
<td>INDIA</td>
<td>576,645</td>
<td>286,214</td>
</tr>
<tr>
<td>NETHERLANDS</td>
<td>386,427</td>
<td>295,420</td>
</tr>
<tr>
<td>PAKISTAN</td>
<td>324,431</td>
<td>462,828</td>
</tr>
<tr>
<td>EGYPT</td>
<td>334,951</td>
<td>155,925</td>
</tr>
<tr>
<td>UNITED STATES</td>
<td>308,608</td>
<td>349,509</td>
</tr>
</tbody>
</table>
Fulfilling oils and fats requirement of net importing countries

- China
- EU27
- India
Fulfilling oils and fats requirement of net importing countries

• Soybeans: Owing to the sharply reduced opening stocks (down 21 Mn T), world supplies will decline sharply below the year-ago level also in Sept/Febr 2012/13 because production will recover by only about 6 Mn T in the northern hemisphere.

• Combined world production of sunflowerseed, rapeseed and cottonseed is expected to decline by 1 Mn T in 2012/13 in contrast to a year-on-year boost of 7.5 Mn T in 2011/12.

"Source Oil World"

A low global stocks of oilseeds, suggesting a tightening supply of the raw materials for competing edible oils, particularly for soybeans out of South America and the United States, remains a bullish factor for palm oil.
Fulfilling oils and fats requirement of net importing countries

- Owing to insufficient domestic production and reduced stocks, Chinese imports of oilseeds as well as of oils set to rise sharply in Jan/Sept 2012.
- Domestic oilseed production especially for soybean and rapeseed, has been on a declining trend in recent years as a result of reduced acreage devoted to oilseeds and little or no growth in average yields
- China soybean imports are projected at 61 million tons, up 5 million from 2011/12.
A growing production deficit has developed in recent years as a result of accelerating consumption and insufficient domestic production.

Rapeseed production is seen falling to 4-year lows of only 18.1 Mn T in the European Union and 0.95 Mn T in Ukraine in the summer of 2012.

The biggest increase in consumption occurred as a result of sharply increasing usage of oils & fats for biodiesel production during the past 7 years when 65% of the consumption growth had to be covered with imports, either in form of seed or as oil.
• Oil World has forecasted that the import of India’s vegetable oils for 2011/2012 session at 9.1 Mln Mt (8.6 Mln Mt in 2010/2011).
• Palm oil is expected to cover the bulk of the imports at 6.95 Mln Mt, followed by Sunflower oil and soya oil at 1 Mln Mt and 0.80 Mln Mt respectively.
India S& D Gap

Source: Oilworld Annual
# India: 2012 S&D

<table>
<thead>
<tr>
<th>('000 T)</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011E</th>
<th>2012F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Stock</td>
<td>1,204</td>
<td>892</td>
<td>1,446</td>
<td>1,666</td>
<td>1,657</td>
<td>1,681</td>
</tr>
<tr>
<td>Production</td>
<td>9,142</td>
<td>9,373</td>
<td>8,625</td>
<td>9,082</td>
<td>9,819</td>
<td>9,900</td>
</tr>
<tr>
<td>Import</td>
<td>5,317</td>
<td>6,847</td>
<td>8,925</td>
<td>9,168</td>
<td>8,717</td>
<td>9,052</td>
</tr>
<tr>
<td>Export</td>
<td>337</td>
<td>387</td>
<td>308</td>
<td>448</td>
<td>416</td>
<td>520</td>
</tr>
<tr>
<td>Consumption</td>
<td>14,434</td>
<td>15,279</td>
<td>17,022</td>
<td>17,811</td>
<td>18,096</td>
<td>18,500</td>
</tr>
<tr>
<td>Ending Stock</td>
<td>892</td>
<td>1,446</td>
<td>1,666</td>
<td>1,657</td>
<td>1,681</td>
<td>1,613</td>
</tr>
<tr>
<td>Stock Usage Ratio</td>
<td>6.0%</td>
<td>9.2%</td>
<td>9.6%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>
# Impact on World Biofuel Demand

## PROJECTED WORLD REQUIREMENTS FOR FOOD & BIOFUELS (M tonnes)

<table>
<thead>
<tr>
<th>Source</th>
<th>2015</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>147.2</td>
<td>160.7</td>
</tr>
<tr>
<td>Biofuels</td>
<td>57</td>
<td>102</td>
</tr>
<tr>
<td>TOTAL</td>
<td>204.2</td>
<td>262.7</td>
</tr>
</tbody>
</table>

*Source: Legge (2008)*
ASPO depletion curves for all oil and gas

Production, Billion of Barrels per Year

Oil topping point

Oil and gas topping point

Regular Oil  Heavy etc  Deepwater  Polar  NGL  Gas  Non-Con Gas

Due to the manner in which the production decline rate is developing, the IEA anticipates a powerful decline in production in all oil fields from 70 million barrels/day in 2007 to 27.1 million barrels in 2030 (see Illustration 5).

Illustration 5: Development of petroleum production in current fields

---

22 Höök, Hirsch and Aleklett 2009
23 IEA 2008a.
Figure I. Trend in EU biodiesel production 1998-2011  Source: EBB 2011  
Note: 2011 figures are only estimations.
1. Increasing biodiesel consumption mandates in Brazil and Argentina along with robust European demand continues to divert South American soybean oil into the fuel market.

2. While the United States has seen some gain in soybean oil exports as a result of the limited South American supply, most of the offset has been in larger global exports of palm oil.

3. Further growth in biodiesel production is expected as capacity expands in response.
Per capita crop land has declined since 1960 thus more pressure on farms to increase yields
Malaysian palm oil dedicated primarily for food supply while biofuel use is minimal

<table>
<thead>
<tr>
<th>Year</th>
<th>CPO production (t)</th>
<th>Biodiesel production (t)</th>
<th>Biodiesel production as % of total CPO production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>15,823,745</td>
<td>128,236</td>
<td>0.81%</td>
</tr>
<tr>
<td>2008</td>
<td>17,734,441</td>
<td>197,610</td>
<td>1.11%</td>
</tr>
<tr>
<td>2009</td>
<td>17,564,937</td>
<td>238,469</td>
<td>1.36%</td>
</tr>
<tr>
<td>2010</td>
<td>16,993,000</td>
<td>190,374</td>
<td>1.13%</td>
</tr>
<tr>
<td>2011</td>
<td>18.911,520</td>
<td>49,999</td>
<td>0.26%</td>
</tr>
</tbody>
</table>

Malaysian PO industry generates nearly 42 million MT of various palm biomass. Potential for use as second generation renewable energy source is an important driver and opportunity towards reduced use of polluting fossil fuels.
High Land Productivity of Oil Palm Yield – Palm Oil vs Other Oilseeds

Productivity of oil palm is:
- 11x more than soyabean
- 10x more than sunflower
- 7x more than rapeseed

Source: * FAO ** Oil World *** MPOB
## Malaysian Palm Oil Production

### Efficient Use of Land

<table>
<thead>
<tr>
<th>Year</th>
<th>Land Area ('000 Ha)</th>
<th>Production ('000 MT)</th>
<th>Efficiency Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>1,480</td>
<td>4,133</td>
<td>1:2.79</td>
</tr>
<tr>
<td>1990</td>
<td>2,030</td>
<td>6,095</td>
<td>1:3.00</td>
</tr>
<tr>
<td>2000</td>
<td>3,370</td>
<td>10,840</td>
<td>1:3.22</td>
</tr>
<tr>
<td>2005</td>
<td>4,050</td>
<td>14,961</td>
<td>1:3.69</td>
</tr>
<tr>
<td>2011</td>
<td>4,980</td>
<td>18,912</td>
<td>1:3.80</td>
</tr>
</tbody>
</table>
Population Growth Drives Preference for palm oil as food, avoiding more land conversion to other oil seed crops

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (billion)</th>
<th>2025</th>
<th>2040</th>
<th>2080</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>7.9</td>
<td>8.5</td>
<td>9.1</td>
</tr>
<tr>
<td>Projected Additional Palm oil to be supplied by Malaysia (m MT)</td>
<td>2.7</td>
<td>5.3</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>Estimated Additional land needed for palm oil cultivation in Malaysia (m ha)</td>
<td>0.7</td>
<td>1.4</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Additional land needed to cultivate Rapeseed to offset this oil palm cultivation (m ha)</td>
<td>4.5</td>
<td>9.0</td>
<td>13.4</td>
<td></td>
</tr>
<tr>
<td>Additional land needed to cultivate Sunflower to offset oil palm cultivation (m ha)</td>
<td>5.7</td>
<td>11.3</td>
<td>17.0</td>
<td></td>
</tr>
<tr>
<td>Additional land needed to cultivate Soybean to offset oil palm cultivation (m ha)</td>
<td>7.2</td>
<td>14.4</td>
<td>21.6</td>
<td></td>
</tr>
</tbody>
</table>

• 7-11 times more land needed if other oil crops were to substitute Malaysian palm oil to meet future demand.
• 21.6 m ha of land needed for soybean cultivation in 2080 is equivalent to 2/3 of land area of Malaysia.
10% oil
90% biomass

Oil palm plantation area
4.85 million hectares

Estimated biomass
78.72 million tonnes (dry)

Crude Palm Oil (CPO)
16.99 million tonnes

Palm Oil Mill Effluent (POME)
58.6 million tonnes

Estimated oil palm fronds
46.37 million tonnes (dry)

Estimated empty fruit bunch (EFB)
6.73 million tonnes (dry)

Estimated oil palm trunks
14.45 million tonnes (dry)

Estimated oil palm fibre and shells
11.17 million tonnes (dry)
Abundance of Oil Palm Biomass

- **OIL PALM FRONDS**
- **OIL PALM TRUNK**
- **FRESH FRUIT BUNCH**
- **EMPTY FRUIT BUNCH 22%**
- **FIBRE, 13.5%**
- **CRUDE PALM KERNEL OIL**
- **CRUDE PALM OIL**
- **SHELL, 5.5%**
- **POME**
- **PALM KERNEL CAKE**

10% oil
90% biomass
Use biomass to produce biofuel so that palm oil continued to be used for food
The International Energy Agency’s *Clean Energy Progress Report* was launched in April 2011. Here are some of the key findings:

**Biofuel for transport**

1. Global biofuel production grew from 16 billion litres in 2000, to more than 100 billion litres in 2010.

2. This biofuel provides around 3% of the world’s fuel for transport. (In Brazil, biofuel provides 21% of all transport fuel, compared with 4% in the US and 3% in the European Union)

3. The US currently leads spending on biofuels public research, development and demonstration projects, with USD 189 million in 2010. On a per capita basis, this represents 60 cents per person per year in 2010.
The production of Sustainable Palm Oil

• Consumer demand for palm oil requires it not only to be safe and high quality but also sustainable
• The EU demand for CSPO will be fully met as there are ample supply of CSPO
• “Customers are always right” to this end Malaysia will meet and supply what the customers want
C3. CSPO & CSPK Annual Production Capacity (mt) by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>CSPO</th>
<th>CSPK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 08</td>
<td>619,012</td>
<td>154,335</td>
</tr>
<tr>
<td>Dec 09</td>
<td>1,473,912</td>
<td>338,740</td>
</tr>
<tr>
<td>Dec 10</td>
<td>3,522,207</td>
<td>803,999</td>
</tr>
<tr>
<td>Dec 11</td>
<td>5,573,202</td>
<td>1,296,488</td>
</tr>
<tr>
<td>Mar 12</td>
<td>6,017,193</td>
<td>1,388,170</td>
</tr>
</tbody>
</table>
C6. CSPO Supply, Sales (mt); Uptake (%) by Year

CSPO Supply / Sales (mt)

- CSPO Supply
- CSPO Sales
- CSPO Market Uptake by Year

Note: Market Uptake ratio for the past 12 months
Poor uptake of Certified Sustainable Palm Oil

- CSPO production in 2011 was 5.6 million tonnes. As at March 2012 CSPO production was 6 million tonnes.
- Malaysian and Indonesian plantations contribute 45% each of RSPO production, & South America (2.4%).
- Poor uptake of CSPO by MNCs e.g. Nestle, Unilever; implementation date pushed back by MNCs.
- Malaysia will continue to get more production units certified and compliant with an ever increasing stringent set of standards mandated by Malaysia’s own legislations.
Malaysia’s deforestation rate is lowest

Forest area & deforestation rate in selected countries (1990-2010)

<table>
<thead>
<tr>
<th>Country</th>
<th>Forest area (Million ha)</th>
<th>Deforestation (Million ha)</th>
<th>2000-2005</th>
<th>2005-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>154.92</td>
<td>153.92</td>
<td>149.30</td>
<td>1.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>99.41</td>
<td>97.86</td>
<td>94.43</td>
<td>1.55</td>
</tr>
<tr>
<td>Argentina</td>
<td>31.86</td>
<td>30.60</td>
<td>29.40</td>
<td>1.26</td>
</tr>
<tr>
<td>Malaysia</td>
<td>21.59</td>
<td>20.89</td>
<td>20.46</td>
<td>0.70</td>
</tr>
</tbody>
</table>

Source: FAO Global Forest Resources Assessment (2010)

- Malaysia would not deforest unnecessarily and will continue to use land judiciously
- Committed to Rio Summit pledge – to maintain at least 50% of total land area under forest
### Conservation of Forest / Biodiversity

Malaysian oil palm industry is land conservation friendly

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Area or %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysian palm oil area</td>
<td>4.85 million ha</td>
</tr>
<tr>
<td>Malaysian agricultural land area</td>
<td>6.89 million ha</td>
</tr>
<tr>
<td>Total world land area for vegetable oils</td>
<td>244 million ha</td>
</tr>
<tr>
<td>Total world agricultural land area</td>
<td>5,660 million ha</td>
</tr>
<tr>
<td>Malaysian palm oil as % of total Malaysian agricultural land area</td>
<td>70%</td>
</tr>
<tr>
<td>Malaysian palm oil as % of total world land area for oil bearing crops</td>
<td>2.0 %</td>
</tr>
<tr>
<td>Malaysian palm oil as % of total world agricultural land area</td>
<td>0.09%</td>
</tr>
<tr>
<td>(of 5,660 million ha)</td>
<td></td>
</tr>
<tr>
<td>Malaysian palm oil’s contribution to global oils &amp; fats supply</td>
<td>11.4%</td>
</tr>
</tbody>
</table>
Land Use, Land Use Change and Forestry (LULUCF) is made up of Forestry and (Oil Palm) Plantation Sector.

* Trend Estimate
Conservation of biodiversity in Protected RainForests (PRFs)

• Tropical rainforests of Malaysia are very complex ecosystems
• Malaysia is committed to protect its PRFs and biodiversity
• Pledge made at Earth Summit in Rio (1992)
• This commitment manifested since 7th Malaysia Plan (1996-2000) until now
• Malaysia is also a signatory to Convention on Biological Diversity
• Importance of Biological Diversity conservation accorded high priority
• National Policy on Biological Diversity adopted in April 1998
Conservational efforts of Malaysian Palm Oil Industry

Malaysian Palm Oil Wildlife Conservation Fund (MPOWCF)

- Launched in 2006
- RM 20,000,000:- RM 10m from Malaysian palm oil industry
- RM 10m as grant from Malaysian government
- MPOWCF welcomes donations & grants
- Matches third party funding on a 1:1 basis
Issues of Concern to the Oil Palm Industry

• Deforestation allegations against palm oil by western NGOs.

• A developing country needs to develop, especially its land, just like developed countries. Sustainable agriculture should be redefined to mean that a country has 33% of its land as permanent forest.

• Arbitrary cut-off date for no deforestation is a blockade to development especially for food security and improved income for the developing countries.

• Irony: developed countries with less forest have used the no deforestation claim to justify their soya and rapeseed as sustainable biofuel, while Malaysia with large tracts of forest is disqualified from participating in the biofuel market because of the cut off date for no deforestation. Penalized for late development
Impact of Labor and Land Shortages

• Overseas Investment by Malaysian palm oil companies to mitigate the labour and land shortages, thus continue to be a sustainable supplier of palm oil globally

• Malaysian plantation companies started this exodus initially to Indonesia where currently close to 20 per cent of land there is being cultivated by Malaysian companies

• Malaysian plantation companies like IOI, KLK, Felda Holdings and Sime Darby are now venturing further afield to Indonesia, Thailand, Cambodia, Papua New Guinea and increasingly to West Africa

Read more: Wake-up call for Malaysian palm oil industry
http://www.btimes.com.my/Current_News/BTIMES/articles/fledass/Article/#ixzz1vhhYIEzS
Sime Darby company operates palm and rubber plantations in Malaysia and Indonesian islands of Sumatera, Kalimantan and Sulawesi. With a land bank of over 633,000 hectares, including 300,000 hectares in Indonesia. It is one of the largest plantation companies in the world.

Sime Darby has invested in a 220,000 hectares palm oil plantations in Liberia through Felda Holdings Bhd and Lembaga Tabung Haji a J/V company, owns 40,000 hectares of plantations land in Kalimantan, Indonesia.

Felda is also looking at the option of expanding its land base into Myanmar (30,000 hectares) and Cambodia (10,000 hectares).

KLK has a plantation land bank of more than 150,000 hectares in Malaysia (Peninsular and Sabah) and in Indonesia 139,126 Hectares (Belitung, Sumatra and Kalimantan).

IOI has a land bank of 60,000 hectares of plantation land in Indonesia.

---

### Malaysian Investment in Oil Palm Plantation Overseas (Hectares)

<table>
<thead>
<tr>
<th></th>
<th>Indonesia</th>
<th>Africa</th>
<th>Myanmar</th>
<th>Cambodia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sime Darby</td>
<td>300,000</td>
<td>22,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KLK</td>
<td>139,126</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felda</td>
<td>40,000</td>
<td></td>
<td>30,000*</td>
<td>10,000*</td>
</tr>
<tr>
<td>IOI</td>
<td>60,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Future Expansion
Orang utan conservation

• A 33% permanent forest definition for sustainability may be sufficient for meeting the conservation needs of the orang utans and other wildlife. This appears as the NORM practiced in developed countries.

• Oil palm cultivation also provides a food source for animals which is an added advantage.

• Over production of animals (crowding) has to be managed by culling as done in developed countries.

• Land is needed to produce food and raw materials for over populated metros in Calcutta, Bombay, Cairo and many more where human tragedies due to food shortages are the norm, and priority should be given to help them.
• The Malaysian Palm oil industry has negligible carbon footprint of 0.015 % of global total GHG emission.

• Doubling the planted area does not cause any significant increase in emission.

• Durban climate change meeting did not achieve any immediate GHG reduction commitments. Canada withdrew from Kyoto protocol to reserve its right to mine tar sand and continue to generate GHG.

• Why must palm oil be penalized now with GHG reduction commitments through RSPO, RED, and EPA’s RFS2, when the world will only talk seriously on GHG emission in 2020?

• Green protectionism? Green colonialism? Vested Interests?
Satellite-tracking, population dynamics, ecology and conservation of the Bornean banteng in Sabah

MPOC’s Collaboration with the Danau Girang Field Centre of Cardiff University, UK to conserve unique and rare wildlife
MPOWCF Programmes in 2012

Our Upcoming Mega Project

The Borneo Elephant Wildlife Sanctuary (BEWS)

In recent years, there have been reports on human-elephant conflict especially in areas where oil palm plantations exist on the boundaries of permanent forest reserves. This is currently most evident in Sabah, where the Bornean pygmy elephant is unique to the Sabah environment.

Working in collaboration with Sabah Wildlife Department (SWD), we have initiated the concept of a Borneo Elephant Wildlife Sanctuary (BEWS) to address such conflicts and create a controlled public access sanctuary to better understand and care for these magnificent animals.

MPOC has committed to a launch and operational grant of RM5 million to realize the BEWS. However, the full cost is estimated to be double this amount (nearly RM10 million) and additional funds are being solicited from a variety of sources including Federal and State funding.

We now provide you a unique opportunity to participate in the BEWS through MPOWCF. Interested? Please contribute generously and your contribution will be acknowledged through a number of opportunities. Our target is to raise at least another RM2 million from Malaysian palm oil industry contributors. Please make your cheque payable to 'Malaysian Palm Oil Council (MPOWCF)'.

A joint effort between SWD and MPOC to establish the Borneo Elephant Wildlife Sanctuary (BEWS). This is aimed to protect and conserve the Pygmy Elephant. BEWS will ultimately become a research and reference centre for the Pygmy Elephant.

Active participation and investments from oil palm sector is anticipated to realize this objective for the long term!
# Global S & D

<table>
<thead>
<tr>
<th>('000 T)</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011E</th>
<th>2012F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Stock</td>
<td>17,402</td>
<td>18,072</td>
<td>18,857</td>
<td>19,610</td>
<td>20,239</td>
<td>20,173</td>
</tr>
<tr>
<td>Production</td>
<td>151,490</td>
<td>157,747</td>
<td>162,626</td>
<td>170,058</td>
<td>175,841</td>
<td>179,423</td>
</tr>
<tr>
<td>Import</td>
<td>54,635</td>
<td>58,258</td>
<td>61,431</td>
<td>62,367</td>
<td>62,957</td>
<td>66,628</td>
</tr>
<tr>
<td>Export</td>
<td>57,075</td>
<td>59,849</td>
<td>63,134</td>
<td>64,432</td>
<td>66,643</td>
<td>67,505</td>
</tr>
<tr>
<td>Consumption</td>
<td>148,380</td>
<td>155,371</td>
<td>159,980</td>
<td>167,339</td>
<td>172,262</td>
<td>177,569</td>
</tr>
<tr>
<td>Ending Stock</td>
<td>18,072</td>
<td>18,857</td>
<td>19,802</td>
<td>20,240</td>
<td>20,174</td>
<td>20,703</td>
</tr>
<tr>
<td>Stock Usage Ratio</td>
<td>12.2%</td>
<td>12.1%</td>
<td>12.4%</td>
<td>12.1%</td>
<td>11.7%</td>
<td>11.7%</td>
</tr>
</tbody>
</table>
Stock Usage Ratio vs CPO Price

The chart shows the relationship between stock usage ratio and CPO price from 2006 to 2012. The price of CPO (CPO Price) is represented by a line graph, while the stock usage ratio is represented by bars for each year. The data points are as follows:

- **2006**: Stock Usage Ratio: 11.20%, CPO Price: 2,500 RM
- **2007**: Stock Usage Ratio: 11.40%, CPO Price: 2,500 RM
- **2008**: Stock Usage Ratio: 12.00%, CPO Price: 3,000 RM
- **2009**: Stock Usage Ratio: 12.20%, CPO Price: 4,000 RM
- **2010**: Stock Usage Ratio: 12.40%, CPO Price: 3,500 RM
- **2011**: Stock Usage Ratio: 12.20%, CPO Price: 3,000 RM
- **2012**: Stock Usage Ratio: 12.00%, CPO Price: 2,500 RM
Selected Vegetable Oils Prices, North West Europe (US$/MT),
Selected Vegetable Oils Prices, North West Europe (US$/MT),

International Prices Feb 15 - May 29, 2012

CPO Cif Rott
SBO, Brazil
Conclusions

• Palm oil **will continue** to be a major source of oils & fats that is required to meet global food security demands.

• Oil palm cultivation is shown to require less land to produce each unit equivalent of edible oil.

• When arable land is limited, it makes sense to choose palm cultivation over other oilseeds given the higher yields from oil palm.

• Higher yield projections increasing stepwise from 4Mt/ha to almost 12MT/ha will make palm the oilseed crop of choice in many countries aspiring for greater food (oils) security.
Conclusions (cont)

• Malaysia has pledged and continues to retain at least 50% of country’s land mass under forest cover

• Malaysia is a signatory to UN sponsored biodiversity agreements & honors these pledges even while seeking economic advancements for its people

• Limited land and labour availability will require Malaysian palm oil industry to conserve land and move towards better cultivation practices, including investing overseas.

• Certification is voluntary and mostly welcome by the industry that has clearly demonstrated its ability to meet international standards, despite low offtakes and negligible premium offered by buyers.
Conclusions (cont)

World supply (lower soyabean crops) has not been able to replenish stocks for the 3rd year running. However, softening demand and price distortion in Indonesia may prevent palm oil prices from rising in the near future, and it should be maintaining a good discount to soyabean oil.

(http://www.mpoc.org.my)
THANK YOU

Visit my blog: http://www.ceopalmoil.com