

FAIR TRADE APPROACH AND SUPPLY OF SUSTAINABLE PALM

Tan Sri Datuk Dr. Yusof Basiron
CEO, Malaysian Palm Oil Council



Presentation Outline

- **Need for fair trade and market access.**
- **Global oils and fats supply and demand outlook.**
- **Emerging gap in global supply and demand of oils and fats.**
- **Limits to growth.**
- **World population – A 100 Year Outlook**
- **Food security – A Growing Concern**
- **Palm oil as part of the solution; sustainability and viability.**
- **Emission saving values; myth versus reality.**
- **Conclusion.**

Need for Fair Trade and Unimpeded Market Access

- Palm oil can be a major part of the solution to global oils and fats shortage problem because of its superior relative yield, minimal use of land resource and sustainability.
- Fair trade regime must prevail, to assure palm oil production can expand sustainably, producers are remuneratively rewarded, and market access is assured.
- Palm oil's capability to be produced sustainably must be studied seriously to prevent damaging allegations by ENGOs from being assumed as the truth.

Trade Barriers - Renewable Energy Directive (RED)

- Directive had affected palm oil exports into Europe and disrupted the business of biodiesel producers planning to use palm oil as feedstock for their biofuel production.
- Palm oil greenhouse gas emission default values were severely misrepresented to disqualify palm oil from being used as approved biofuel in the European Union (EU).
- Only palm oil is not given the right to trade on fair grounds and had to be singled out for sustainability compliance while other competing oils were not subjected to similar unfair treatment.

Trade Barriers - World Bank Criteria

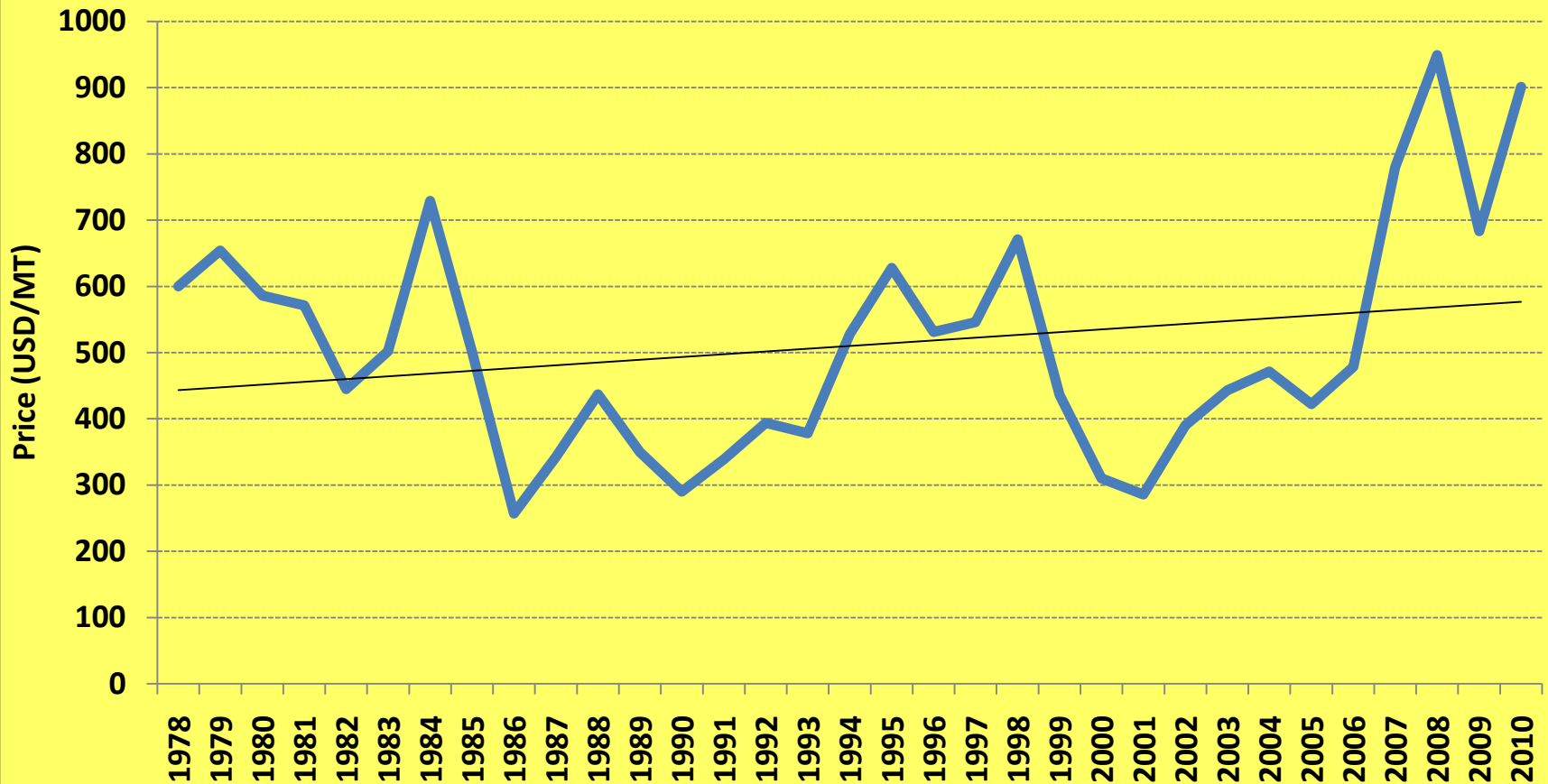
- **World Bank procedures now increasingly make the bank a co-regulator with NGOs instead of fulfilling its original role in assisting development.**
- **World Bank demands that its borrowers comply with sustainability and environmental standards that are more onerous than any government of a palm oil producer, including Malaysia.**
- **They even go beyond those of the Roundtable on Sustainable Palm Oil, a body set up jointly by Worldwide Fund for Nature (WWF) and oil palm producers which sets voluntary sustainability standards for the industry.**

Outlook on Global Oils & Fats Supply and Demand

CPO Price Movement Since 1978

(Steady long term increase in price observed, but exponential increase lately)

CPO Price (cif, Rott)

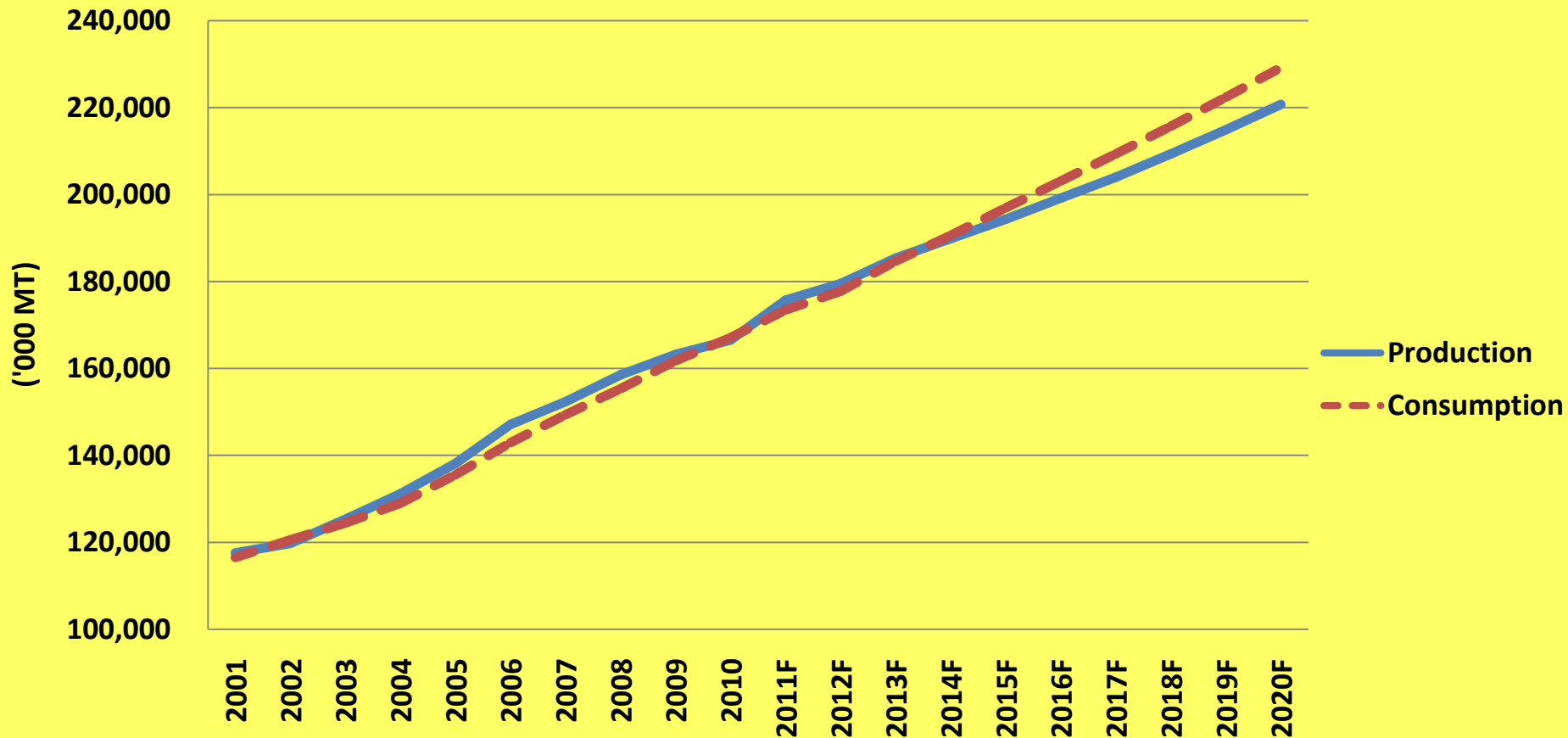


Emerging gap in Global Oils & Fats Supply and Demand

World Oil & Fats Trade

(Supply gap emerged in 2010, will become more prominent by 2014 indicating long term shortages)

Global Oils & Fats - Supply and Demand Scenario



Palm Oil Production - Malaysia

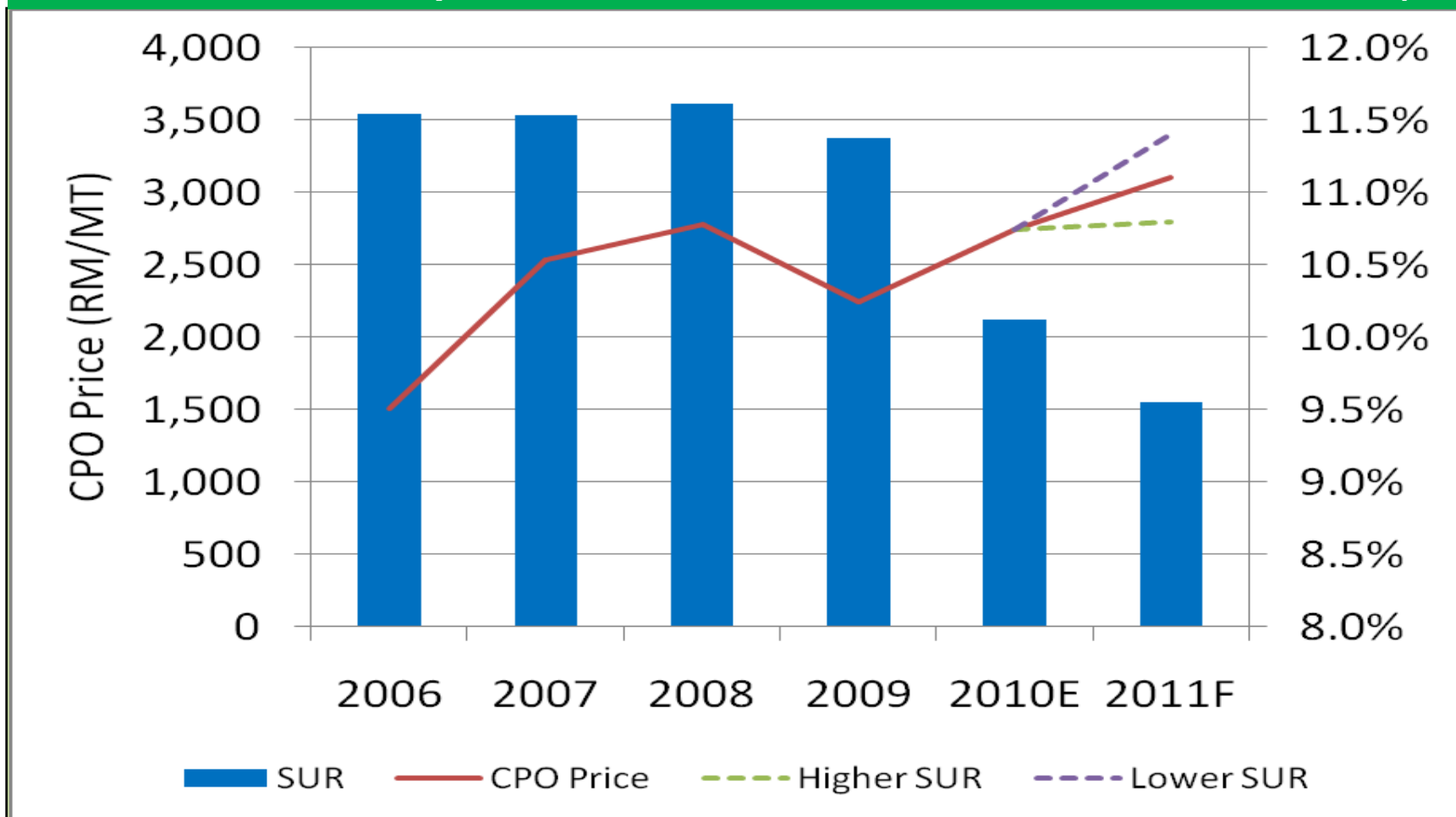
	2009	2010	As at Aug 2011
Production (million MT)	17.56	16.99	12.01
Revenue (RM billion)	49.90	59.90	52.5
Stock level (million MT)	2.20	1.40	1.76

Production has declined for two consecutive years, from 17.734 million tonnes in 2008 but is forecasted to recover in 2011 due to new matured areas and better yield

El Nino induced dryness early in 2010 and flooding later in the year were the causes of the decline. Lack of new land and reduced planting in previous years also led to reduced supplies.

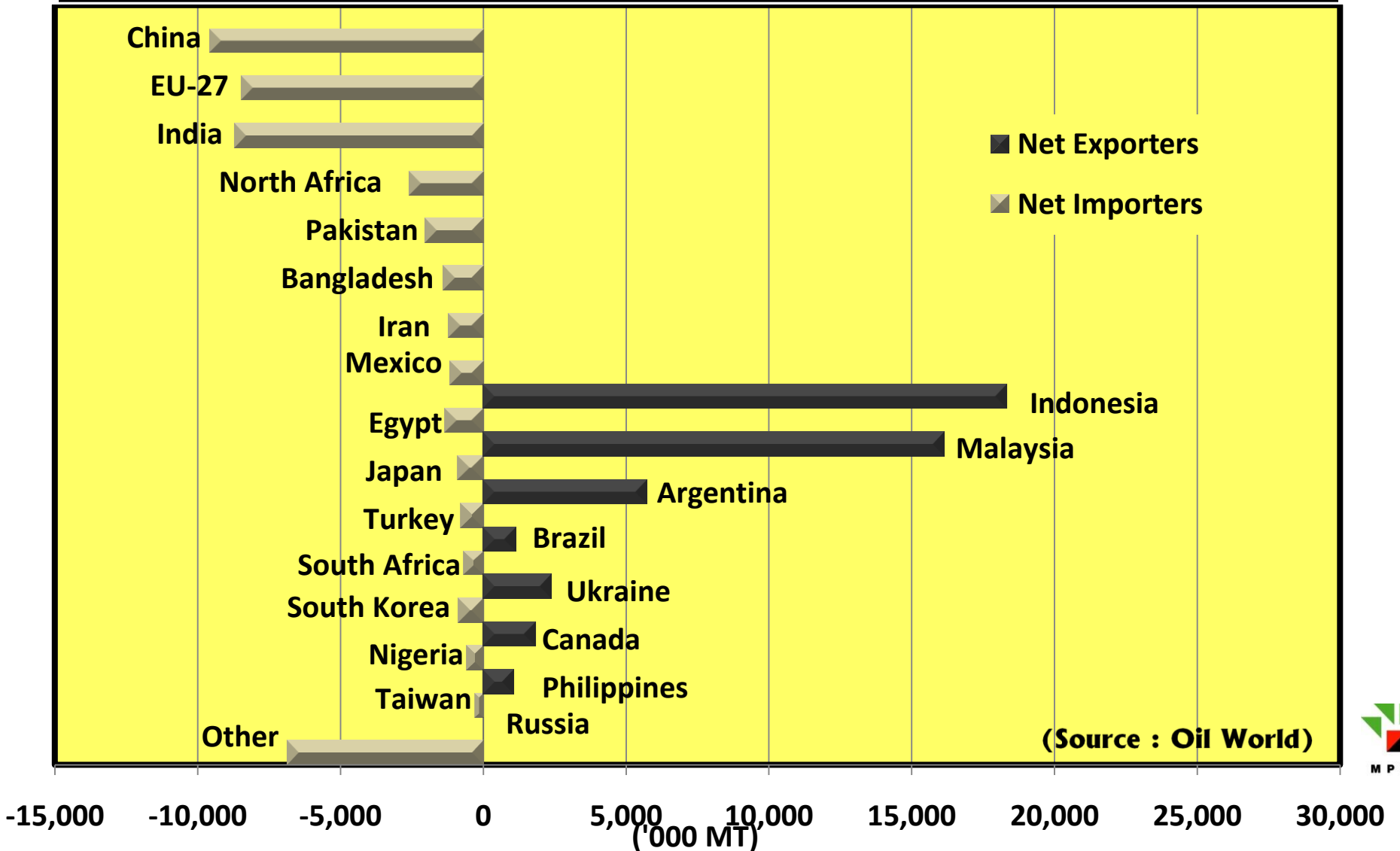
CPO Price and Global Oils and Fats Stock Usage Ratio (SUR)

(Palm oil price has increased due to three consecutive years of declining SUR. Prices are expected to remain firm at least until December 2011)



(Source : MPOC Data)

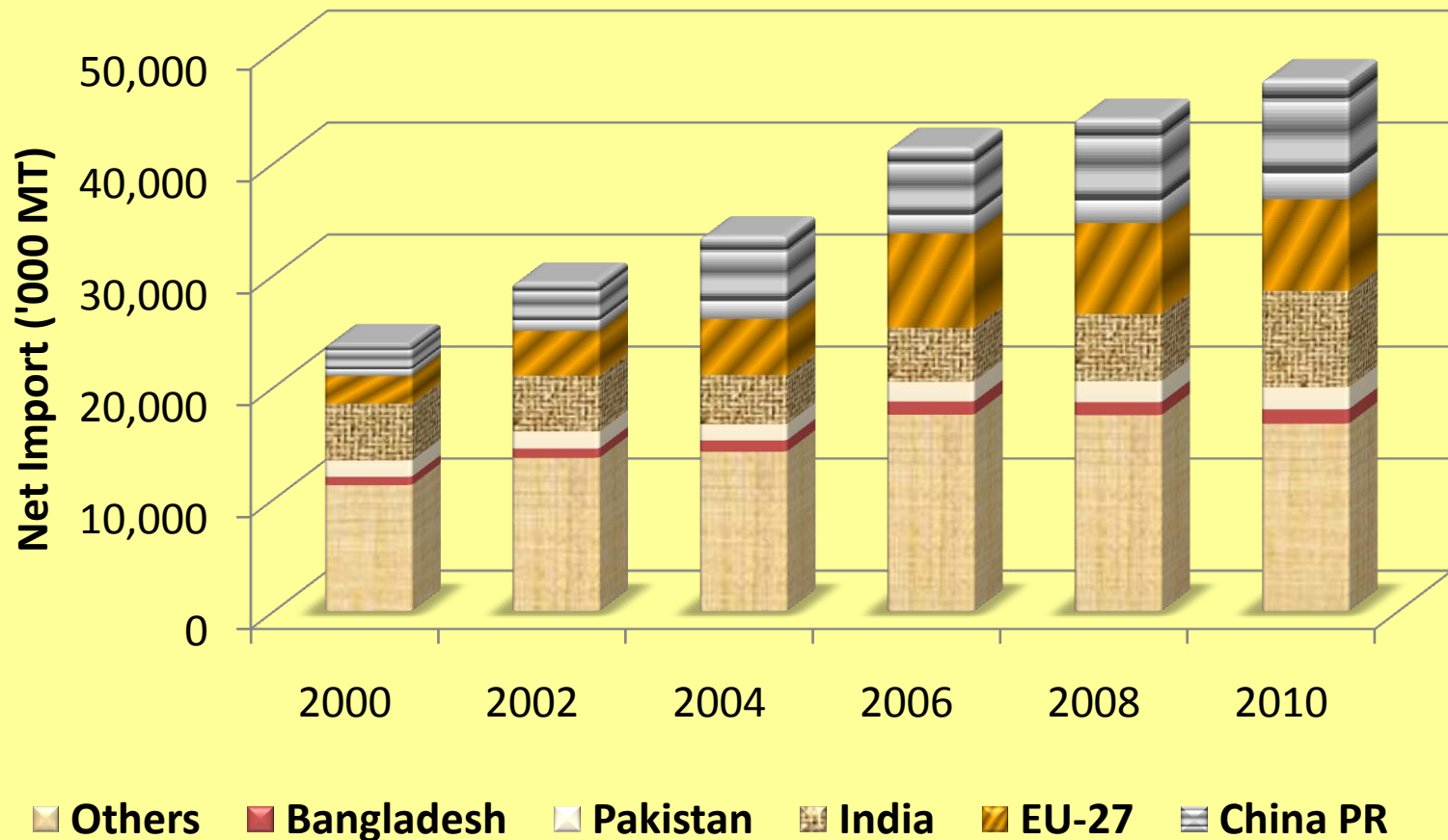
Net Importing and Exporting Countries for Oils & Fats (2010) reflecting real availability



Net Importing Countries of Oils & Fats

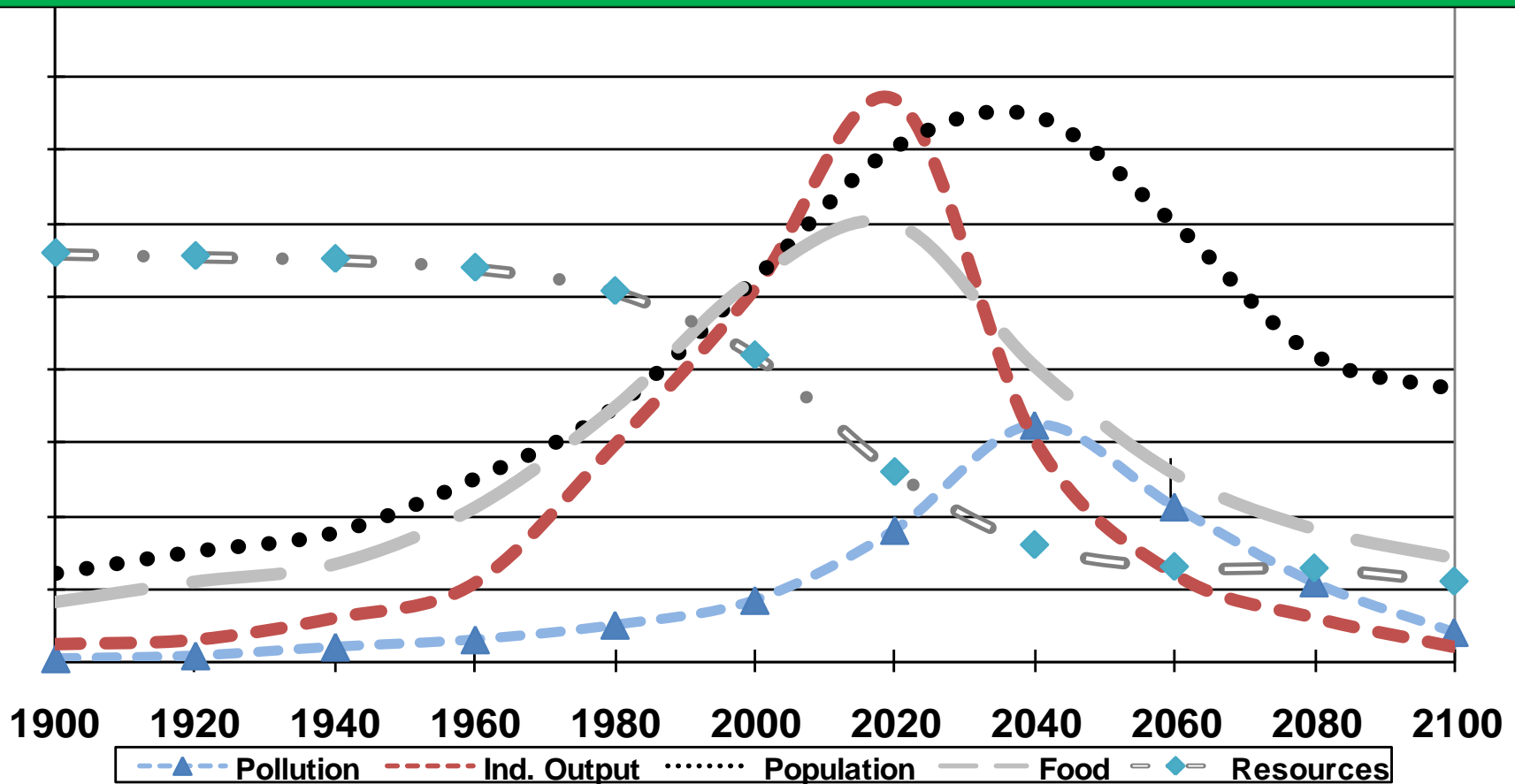
(Net imports have almost doubled from 25 mil tonnes to 47 mil tonnes in 2010. The trend is still strongly upward indicating chronic shortages).

Net Importing Countries



(Source : Oil World)

The Basic Limits to Growth Model

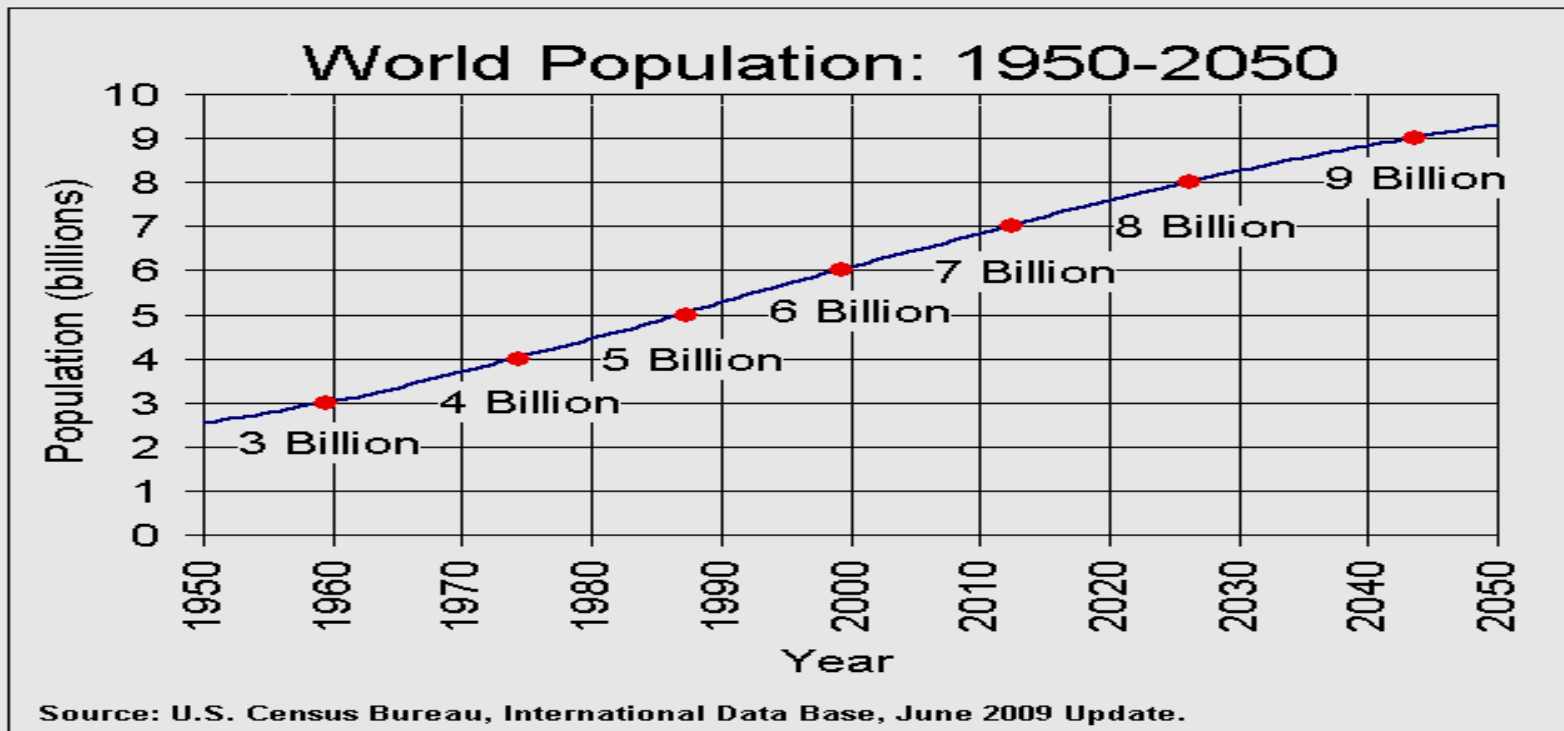


Exponential growth causes reduction of resources & pollution increase.

This will force a reversal of growth. If industry can improve production and resist the decline, high prices due to shortages may occur in the coming years benefiting producers. (Previous two charts show the possible on-set of shortages in oils and fats with prices increasing).

World Population – A 100 year outlook

World Population: 1950-2050

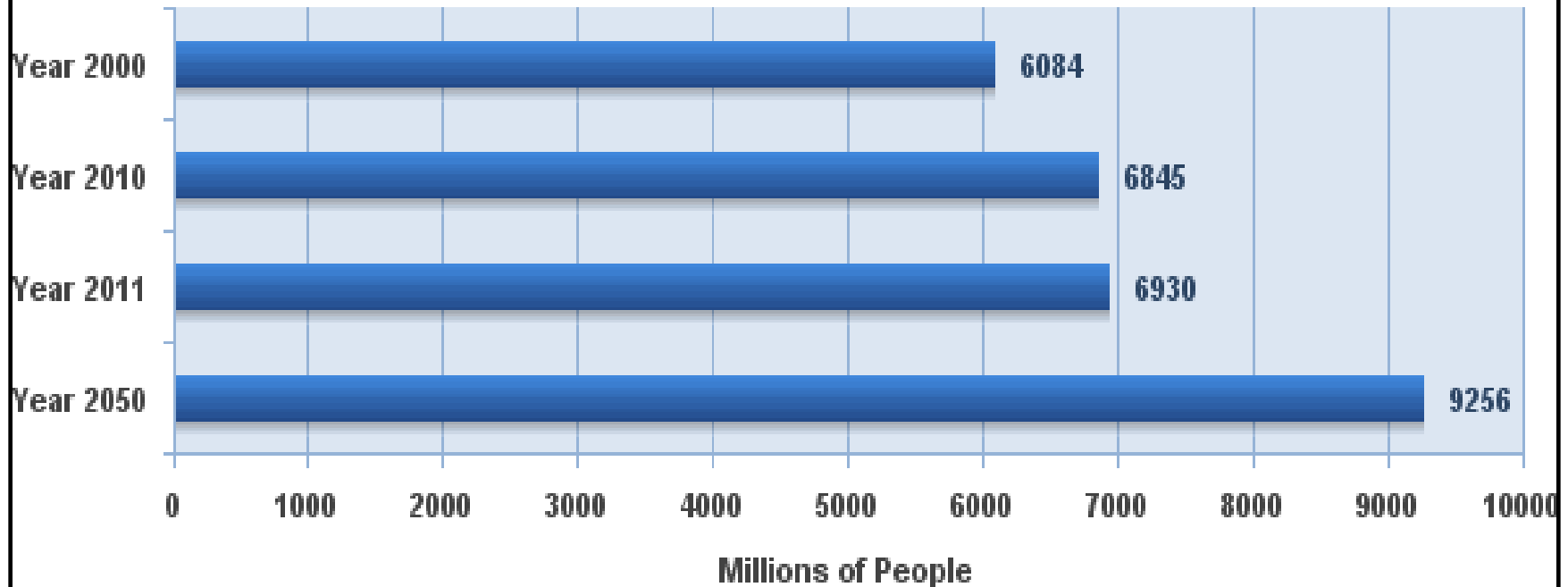


World's 10 Most Populous Countries

#	Country	2000 Population	2010 Population	2011 Population	2050 Expected Pop.
1	<u>China</u>	1,268,853,362	1,330,141,295	1,336,718,015	1,303,723,332
2	<u>India</u>	1,004,124,224	1,173,108,018	1,189,172,906	1,656,553,632
3	<u>United States</u>	282,338,631	310,232,863	313,232,044	439,010,253
4	<u>Indonesia</u>	213,829,469	242,968,342	245,613,043	313,020,847
5	<u>Brazil</u>	176,319,621	201,103,330	203,429,773	260,692,493
6	<u>Pakistan</u>	146,404,914	184,404,791	187,342,721	276,428,758
7	<u>Bangladesh</u>	130,406,594	156,118,464	158,570,535	233,587,279
8	<u>Nigeria</u>	123,178,818	152,217,341	155,215,573	264,262,405
9	<u>Russia</u>	146,709,971	139,390,205	138,739,892	109,187,353
10	<u>Japan</u>	126,729,223	126,804,433	126,475,664	93,673,826
TOP TEN Countries		3,618,894,827	4,016,489,082	4,054,510,166	4,950,140,178
Rest of the World		2,466,012,769	2,829,120,878	2,875,544,988	4,306,202,522
TOTAL World Population		6,084,907,596	6,845,609,960	6,930,055,154	9,256,342,700

Source : US Census Bureau

Total World Population – Past, Present & Future



Source: Internet World Stats - www.internetworldstats.com/stats8.htm

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Food Security

A Growing Concern of the World

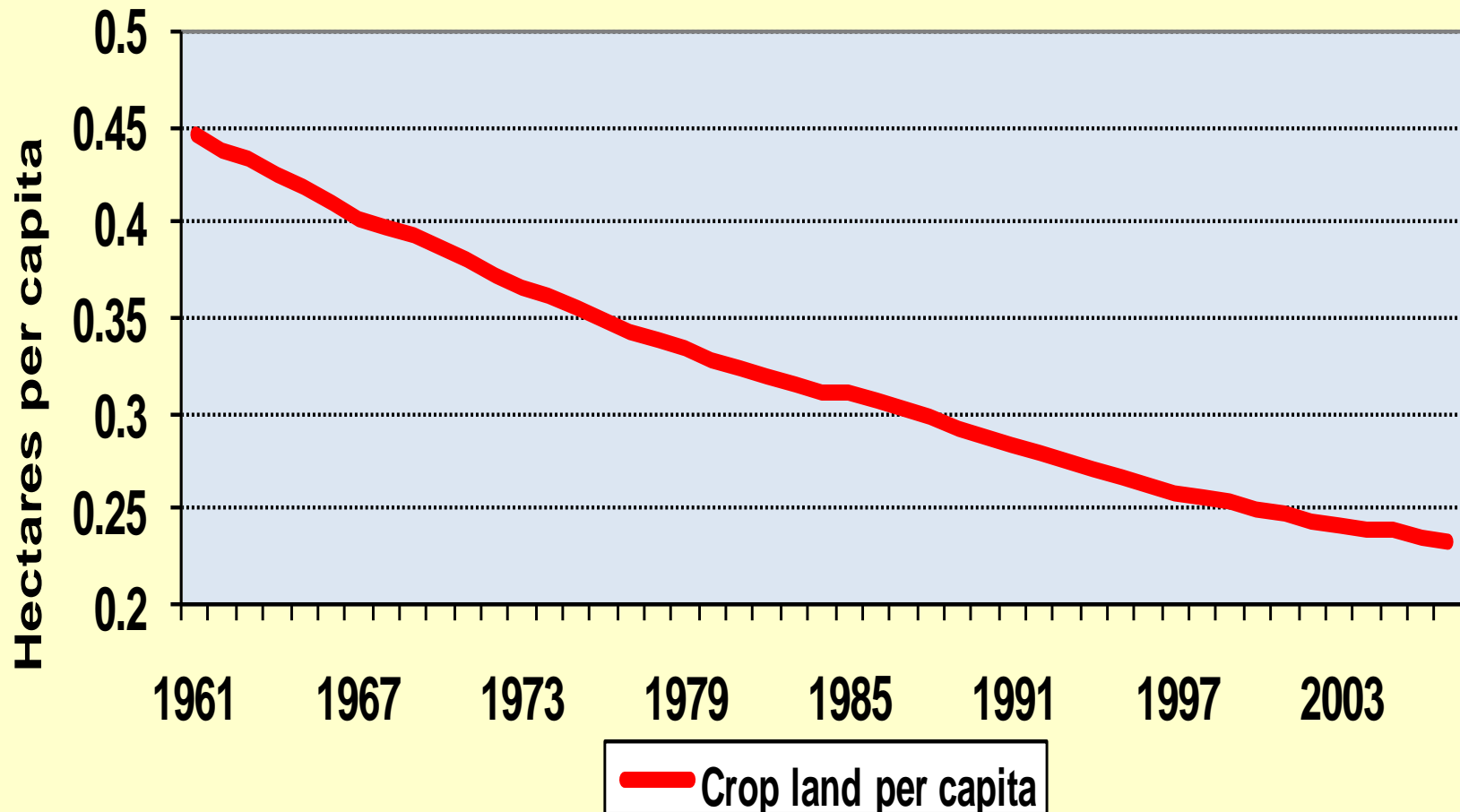
- Access to sufficient food will be a global concern due to global population increase
- World population is expected to increase by 80 mil annually and forecasted to reach 9.3 billion by 2050
- This will require additional 2.5 million MT of oils and fats, plus an additional 2.5 million MT increase from higher income effect.
- Food security is also vital to those living in poverty, thus low cost supply of food is needed.
- 5 mil MT additional oils and fats require 10 mil ha of new soyabean land or 1 mil ha of new oil palm land

Food Security

A Growing Concern of the World

- Top 10 most populous countries comprise almost 60% of world population
- Demand by these countries could lead to shortage of supplies to other countries
- Consumption is forecasted to exceed production by 2014
- There is a limit to growth of supply but no limit to population growth
- Need to increase efficiency of supply which palm oil is best equipped to address
- Even George Soros and Warren Buffett are buying land for agriculture in Argentina and Brazil

World Arable & Permanent Crop Land Per Capita



Source : FAOSTATS

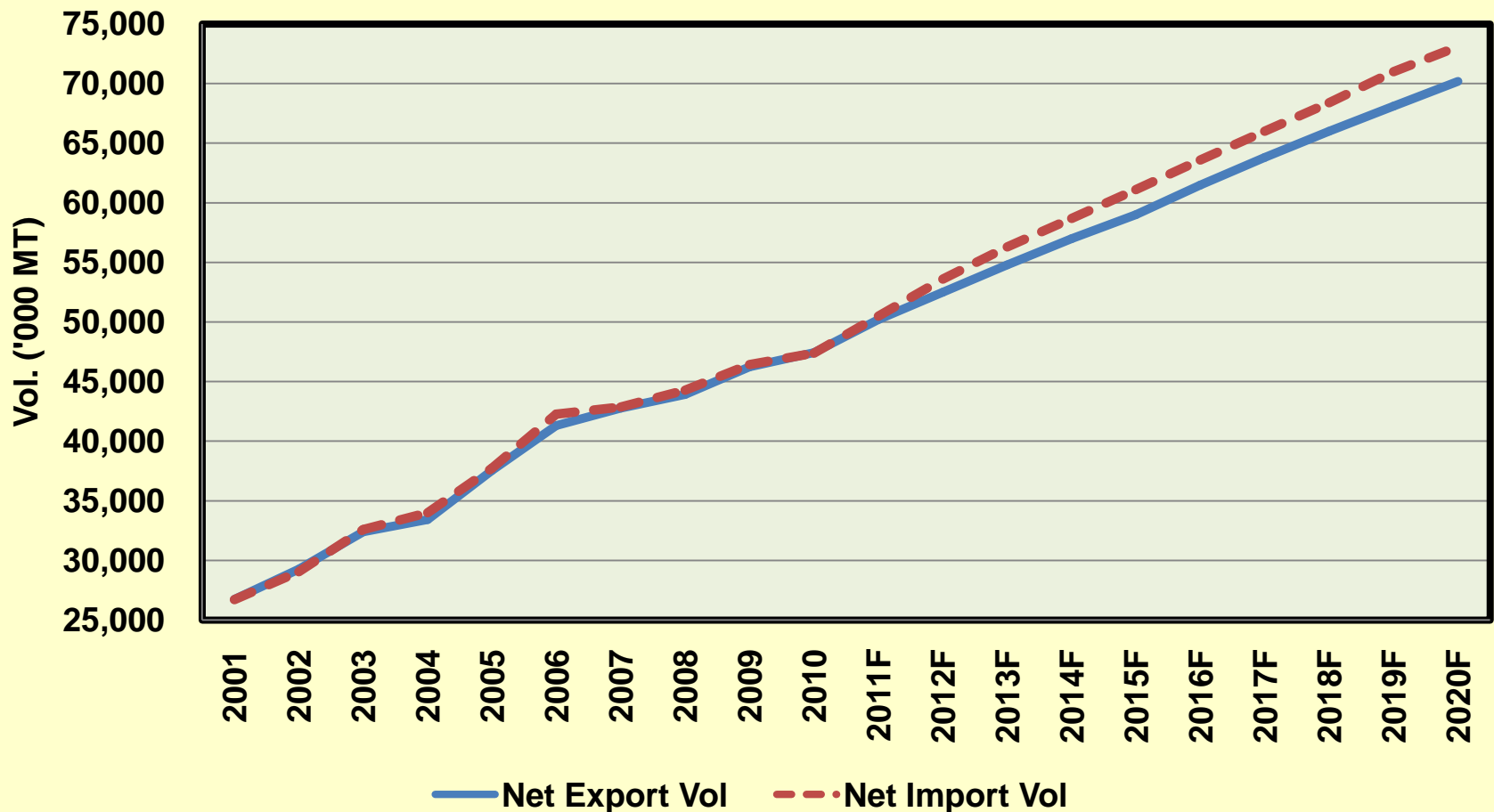
Per capita crop land has declined since 1960 thus adding more pressure on farms to increase yields



Emerging gap projected in future trends of net imports and net exports of oils & fats

(Future prices will have to increase to stimulate production and dampen demand to bring the market back into equilibrium)

Net Export and Import Volume of Oils & Fats (2001 - 2020F)





Malaysian Palm Oil: Part of the solution – sustainability and viability

Sustainability and Viability of Malaysian Palm Oil

- **Sustainable production by taking care of 3Ps: *People, Planet, Profit***
- **Environment-friendly**
(conservation of forests, 'avoided deforestation effect', & biodiversity)
- **Proof of sustainability**

Urgent need to ensure food security in world

> 1 billion (15%) of world population today do not have food on a regular basis

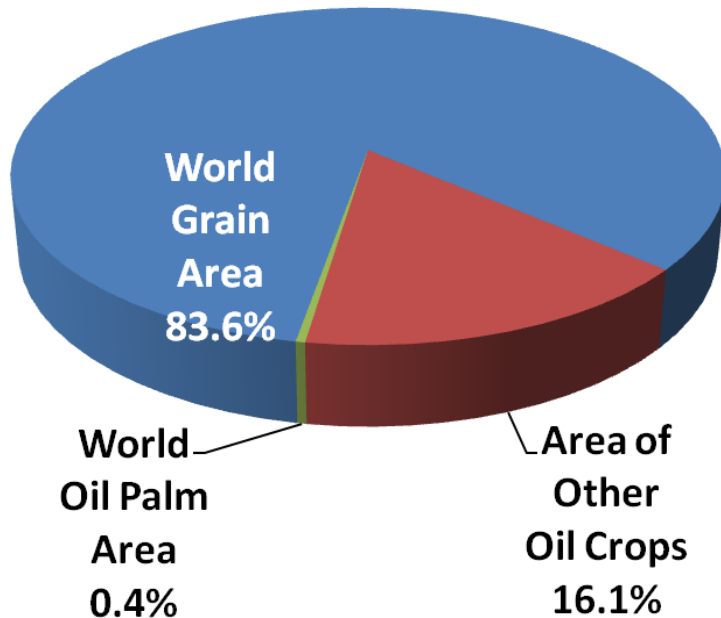
November 2009: *World Summit on Food Security* in Rome to address food security issues

April 2010: World Bank launched *Global Agriculture & Food Security Program (GAFSP)* to improve food security & income in low-income countries

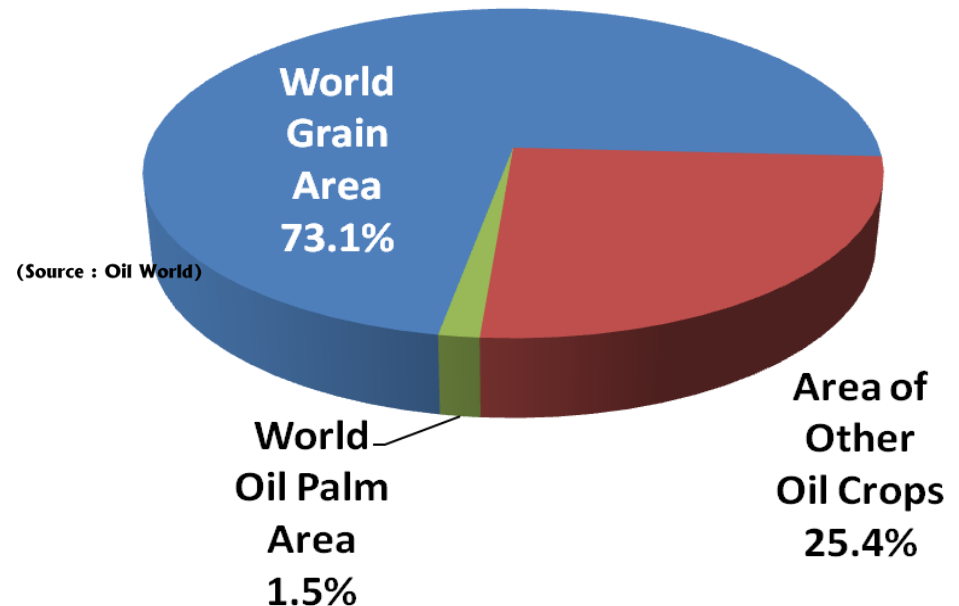
April 2011: Asian Development Bank says surging food prices could force millions of peoples across developing Asia into extreme poverty

Oil palm is the most efficient, effective and highest yielding form of vegetable oil production

1971



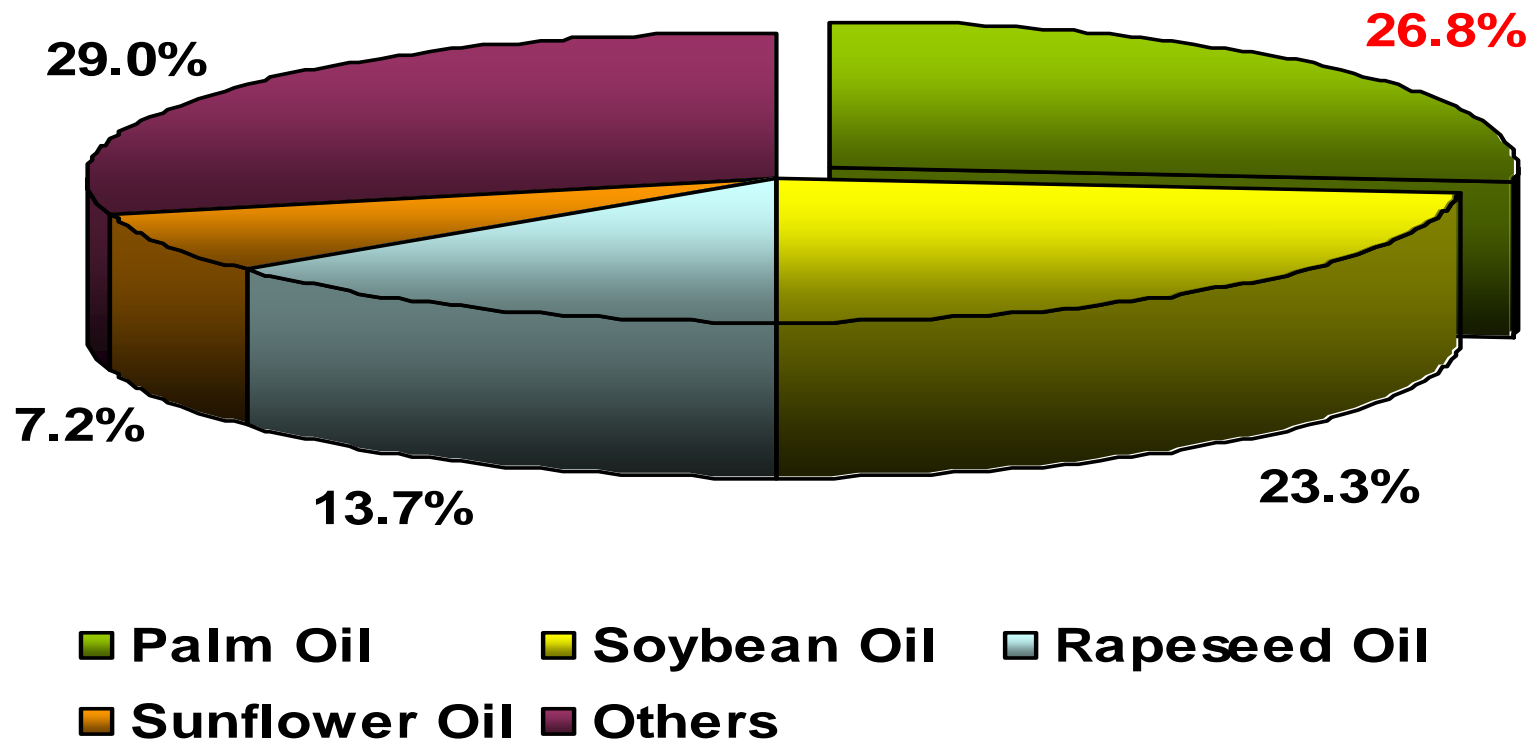
2009



In 2009, oil palm share of grain and oilseeds land area usage was tiny (only 15 out of 969 million cultivated hectares or 1.55%), but supplied 75% of global net export availability. Since 1971, palm has added 12 million ha, compared to other oil crops which increased cultivation area by 114 million hectares

(Source : Oil World)

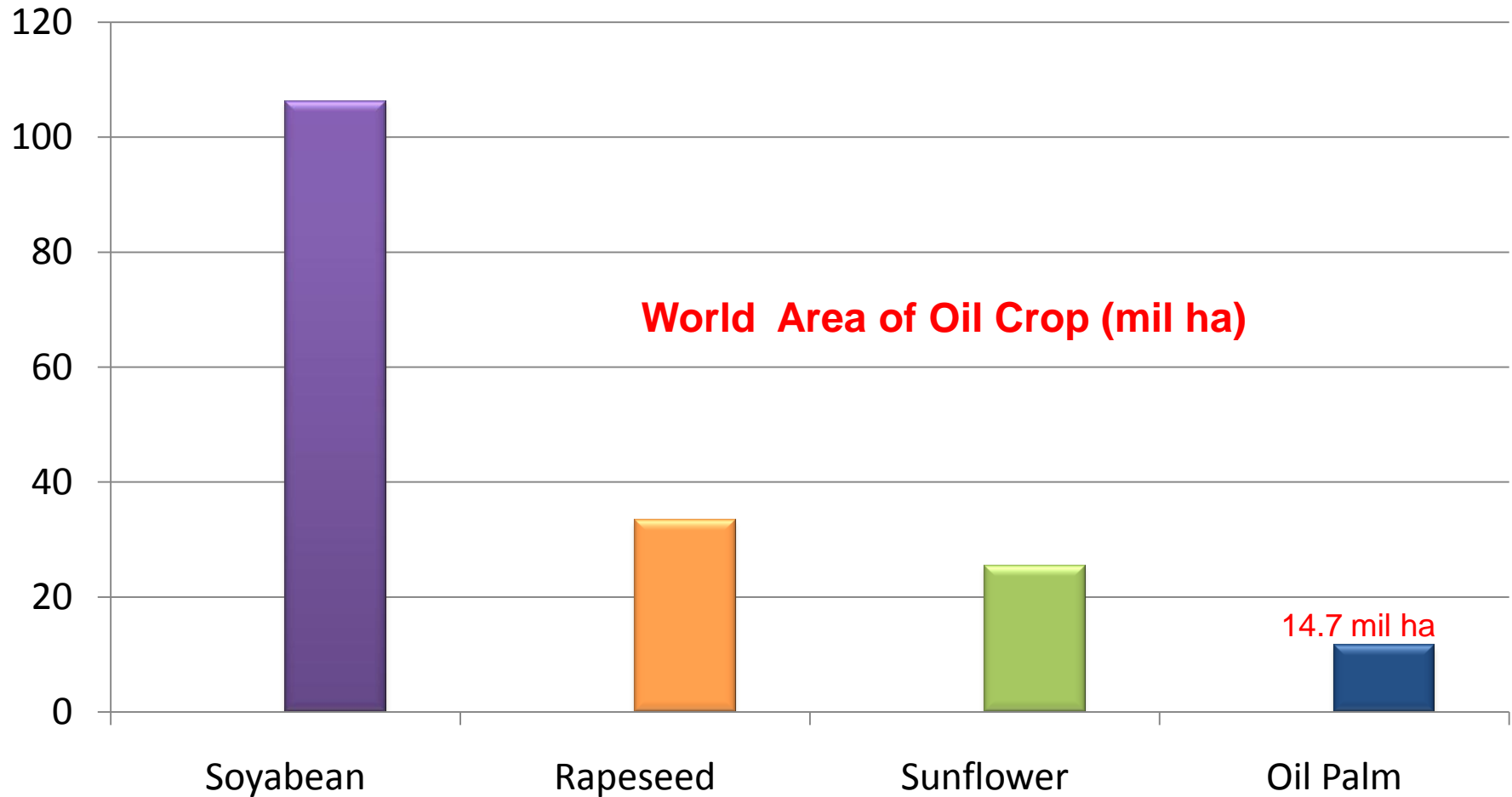
World's Oils & Fats Production in 2010



Total: 171.6 mil tonnes

Source: Oil World

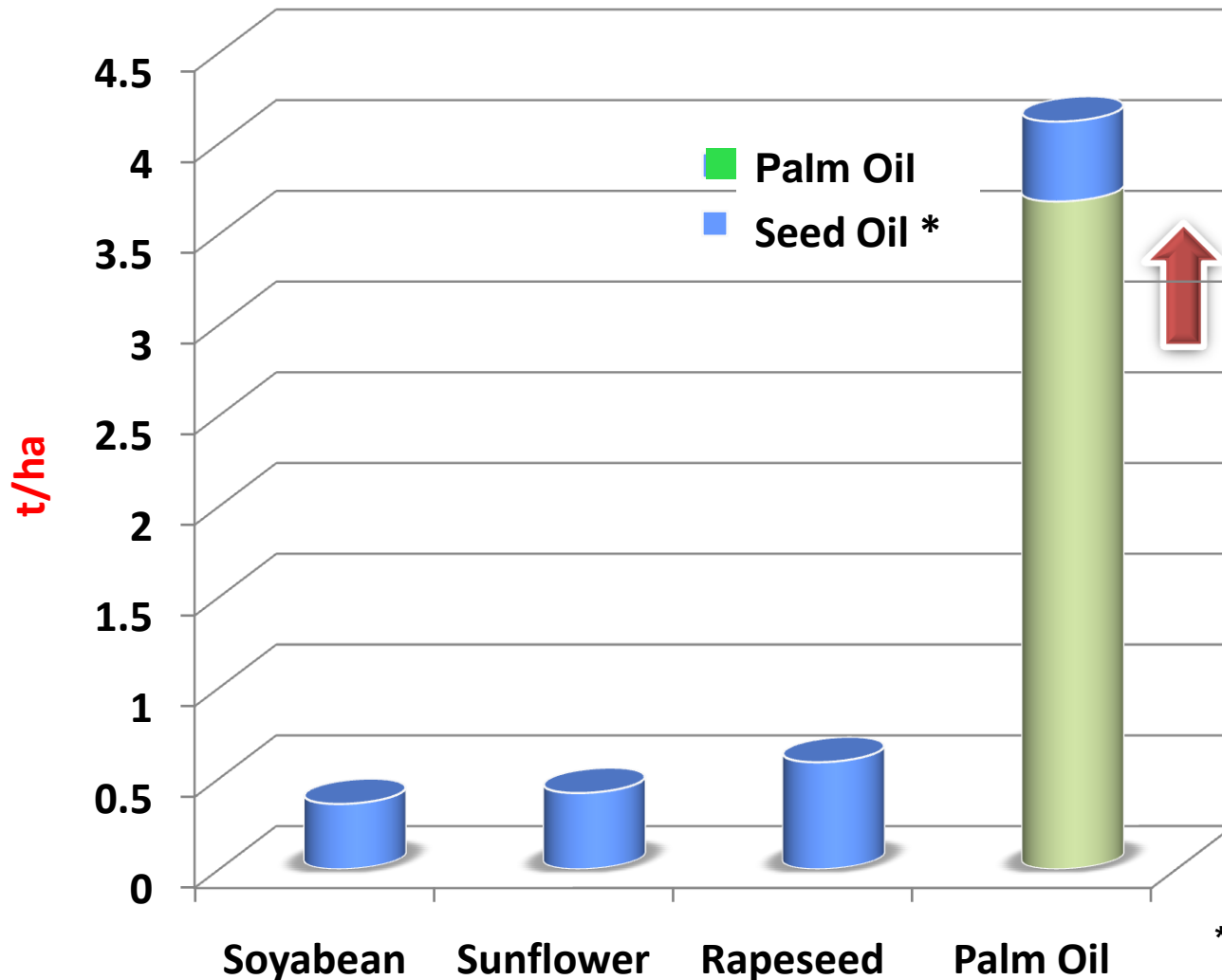
Oil palm is the most efficient, effective and highest yielding among all vegetable oils produced



Source: FAO

In 2009, oil palm industry occupied only 5.7 % of global oil crop area but accounted for one-third of global edible oil production

Yield - Palm Oil vs Other Oilseeds



Productivity of oil palm is:

- **11x** more than soyabean
- **10x** more than sunflower
- **7x** more than rapeseed

* Includes palm kernel oil

Source: * FAO ** Oil World *** MPOB

Cultivated Area of Oil Seeds in the World (2008)

Land Use Type	Total Area (million ha)	As % of Area
Total Agricultural Land *	4884	100
Oil Seeds **	232	4.75
Soyabean **	92	1.88
Rapeseed **	29	0.59
Sunflower **	24	0.49
Oil Palm **	11	0.23^a
Coconut **	9	0.18
Other Oil Seeds **	67	1.37
Malaysian Oil Palm ***	4.5	0.09

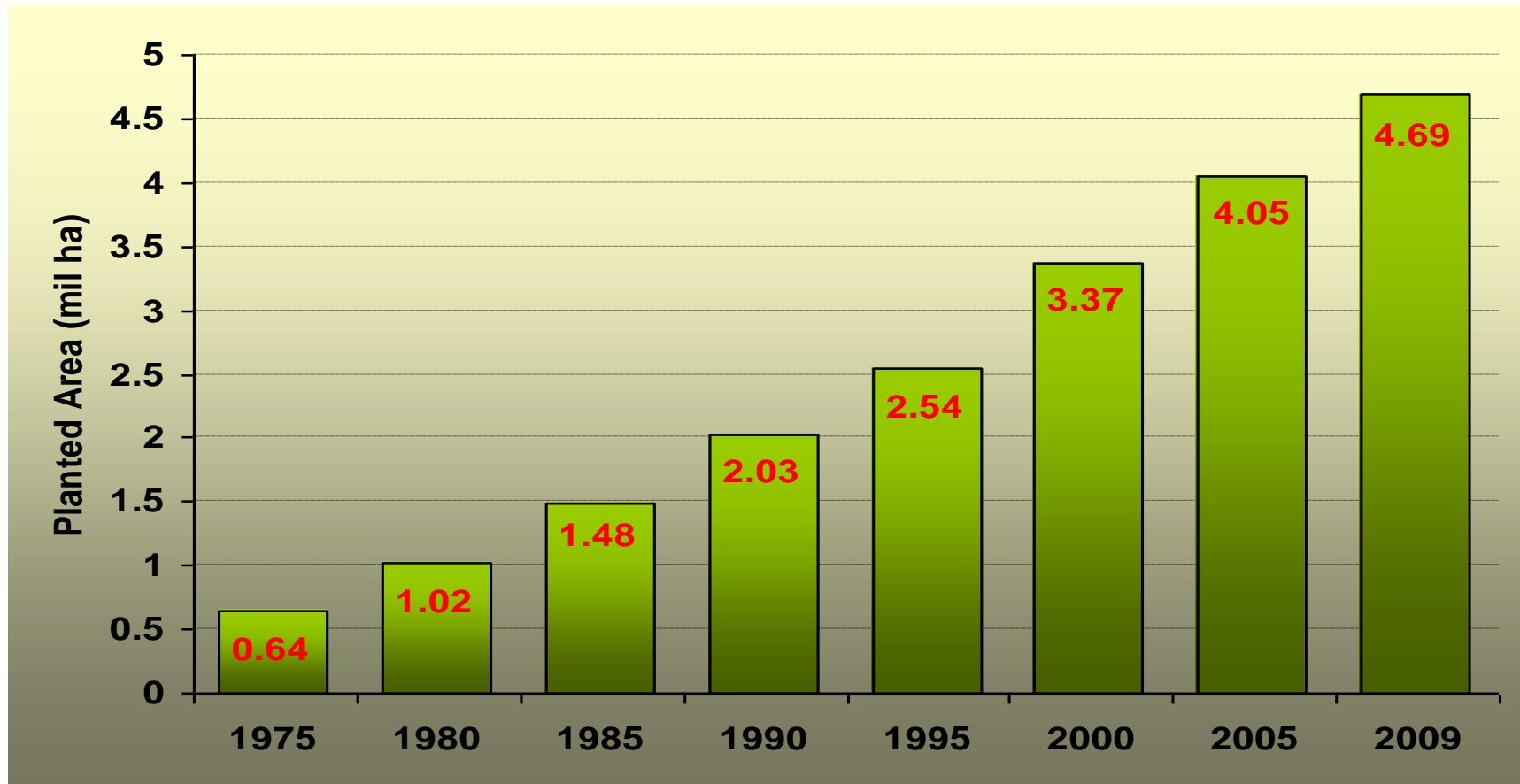
Source: * FAO ** Oil World *** MPOB

Note: a – Oil palm cultivation comprises 4.7% total land area planted with oil seeds & 0.23% of world agricultural land

Efficient use of land

- Current total land to produce 4 major vegetable oils is 176.8 m ha
- Hypothetically, if oil palm, being the most efficient oil crop, given the role to produce vegetable oil for the world, it only needs 30.3 million ha
- Makes available 146.5 m ha or 6 times size of UK for other land use
- If all 176.8 million ha planted with oil palms, 651 million MT oil produced; equivalent to 5 times present demand
- Rest of the oil can be used for other purposes; i.e. example for biofuel
- This is more than enough to meet world's demand for food & biofuel of 263 million MT by the year 2030

Oil Palm Planted Area (mil ha)



Source:
MPOB, 2010

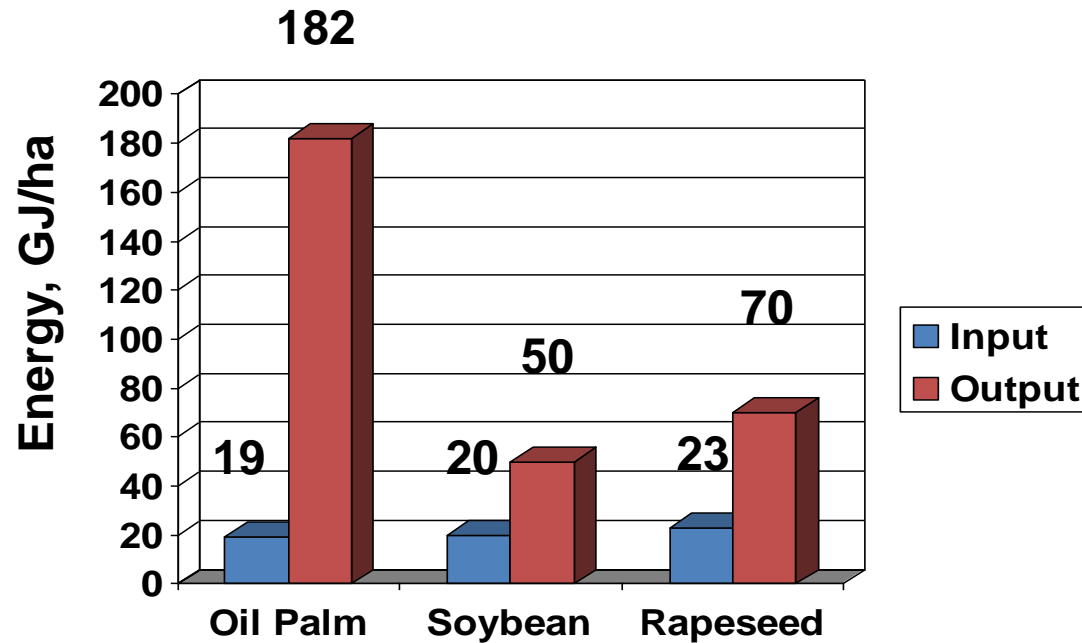
4.69 mil only represents 14.3% of total land area (32.86 mil ha). Maintain a good ratio of oil palm area & forest (i.e. 1 ha oil palm = 3.9 ha forest)

Malaysian Palm Oil is sustainably produced

- Sustainable agriculture is resource-conserving, socially supportive, commercially competitive and environmentally sound
- **Palm oil sustainable production takes care of 3Ps: *Planet, people and profit*, strictly in this order**
- **Malaysian palm oil industry in existence for almost a hundred years**

Energy-efficient Crop

Oil palm is an energy efficient crop that requires less energy input to produce 1 tonne of oil



Source: Wood & Corley, 1991

- The energy expressed by the ratio of energy output to input is wider for oil palm than any other commercially grown oil crops.
- The oil palm's cultivation and processing requires lower inputs of agrochemicals (pesticides), fertilizers and fossil fuels to produce one tonne of oil, with fewer resulting emissions and pollutants

Malaysian Palm Oil Industry - *Adopting Good Agricultural & Management practices*

- **“Zero” burning policy**
- **Natural fertilizers**
- **Erosion control**
- **Moisture retention**
- **Integrated Pest Management**
- **Recycling of biomass**

Environmental Awareness



Zero-Burning Policy

Integrated Pest Management



Integrated Pest Management (IPM) using biological control is increasingly practised in the plantations

Oil Palm Cultivation Conserves Natural Resources



Growing leguminous cover crops to protect land

Palm Oil Industry strives for zero waste

- **Treated EFB can be used as a raw material for the production of palm based biomass briquettes**



100% Pulverized EFB
(PEFB)

Pulverized EFB + sawdust
(PEFB+SD) (50:50)

EFB Fibre + sawdust
(FEFB+SD) (50:50)

- **As a substitute raw material for commercial sawdust briquette industry**
- **Made either from 100% palm biomass or mixed with sawdust.**

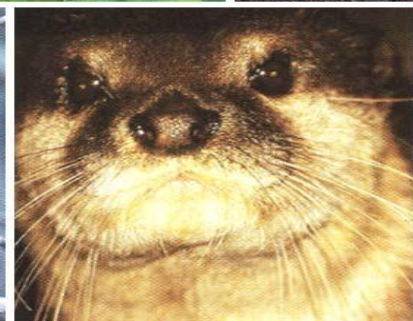
POME Biogas

Present & Future Utilization

- Due to CDM & SREP programmes, more biogas plants to be set up in the country.
- Under CDM project, foreign companies actively promote and support the biogas projects in the oil palm industry.



Oil Palm Plantations: Biodiversity, Riparian Reserves & Wildlife Corridor



Biodiversity



Riparian Reserves



Wildlife Corridor

Socially Responsible

- Sarawak State Government enforces customary rights of its native people
- Oil palm industry is a major employer with 0.5 mil people employed directly
- Help reduce migration and instrumental in the development of secondary towns and centers in rural areas
- Provides places of worship, houses, schools, clinics, and other basic necessities in estates

Malaysian Palm Oil- A Highly-Regulated Industry

- 1) *National Land Code 1965*
- 2) *Land Acquisition Act 1960*
- 3) *Land Conservation Act 1960 revised in 1989*
- 4) *Protection of Wildlife Act 1972*
- 5) *Environmental Quality Act 1974 (Environmental Quality) (Prescribed Premises) (Crude Palm Oil) Regulation 1977*
- 6) *Environmental Quality (Clean Air) Regulation 1978*
- 7) *Labor Law*
- 8) *Workers' Minimum Standard of Housing & Amenities Act 1990*
- 9) *Occupational Safety & Health Act 1977*
- 10) *Pesticides Act 1974 (Pesticides Registration) Rules 1988*
- 11) *Pesticides (Licensing for sale & storage) Rules 1988*
- 12) *Pesticides (Labeling) Regulations 1984*
- 13) *Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987*
- 14) *Factories & Machinery (Noise Exposure) Regulations 1989*

Malaysian Palm Oil Industry's Success in Alleviating Poverty

- Employs half a million people directly which is 44 times that of rubber industry (next biggest perennial crop).
- Indirect employment another half million people.
- Export value of RM 59.8 billion in 2010
- Oil palm plantations form nuclei for rural townships
- Corporate social responsibility efforts from industry to build schools (better education)
- FELDA settler's income of RM 1,386 compared to National Poverty Line of RM 529

Malaysian Palm Oil Industry's Ability to Alleviate Poverty

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Malaysian Palm Oil Plays Responsible Role to Co-Exist with Biodiversity

- Malaysian Palm Oil Wildlife Conservation Fund (MPOWCF)
- Established in 2006
- Long-term commitment from palm oil industry & Government
- RM 20 mil fund with each party contributing RM10 mil each
- Fund efforts and studies on sustainability of wildlife flora & fauna
- A number of projects has completed

Malaysian Palm Oil Wildlife & Conservation Fund

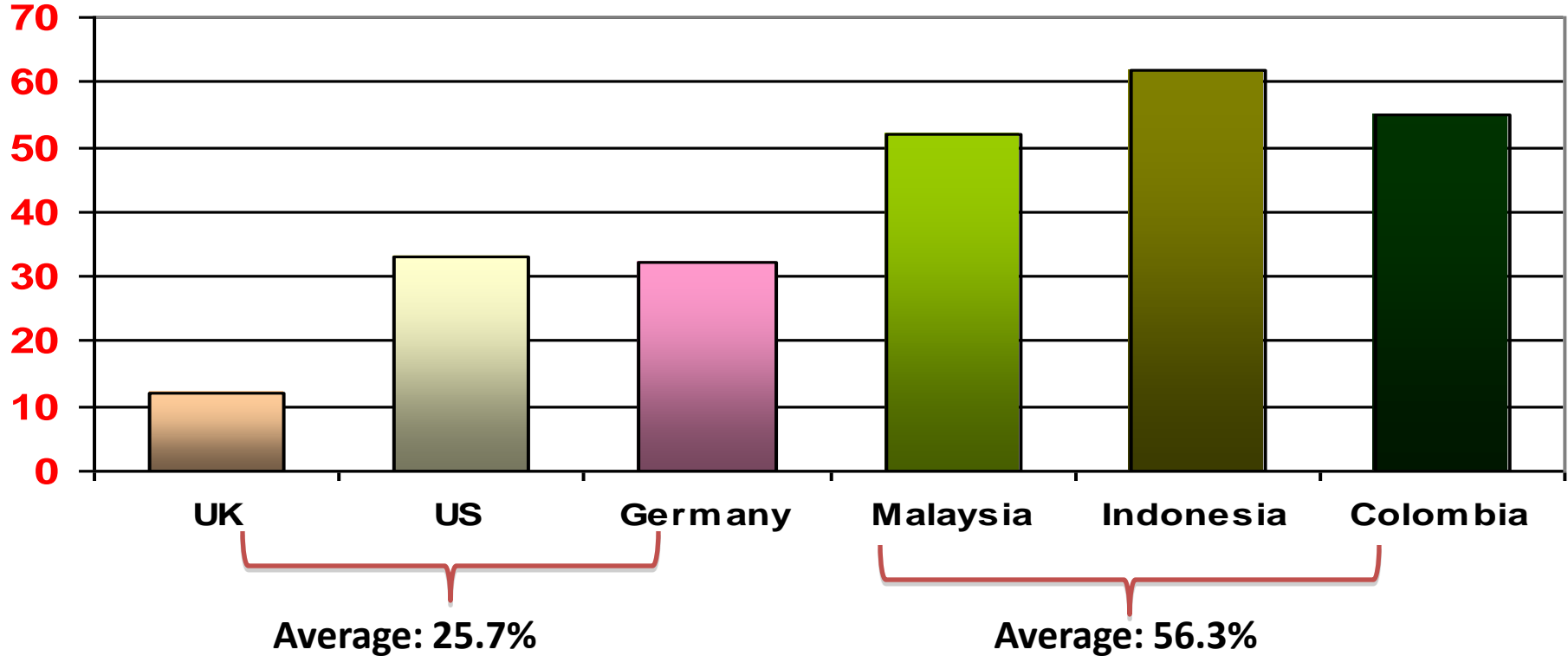
- Aimed at enhancing conservation of wildlife and biodiversity efforts
- Beneficial to all palm oil stakeholders worldwide
- 7 completed projects to date including the operation of a mobile ranger patrol in association with Sabah Forestry
- Sabah's Orang Utan population surveyed and shown to be highly viable (11,400 individuals). Showcased this through MPOC's Orang Utan Colloquium (2009)
- MPOC co-funded Sabah's Wildlife Rescue Centre and Program at the cost of RM1.35 million. First of its kind in wildlife conservation of highly endangered species
- Currently, MPOC is negotiating the establishment and operation of a **Mega Wildlife Sanctuary**



Forest Sustainability

(Palm oil helps save forests in many developed and developing net importing countries, while producer countries have ample forest reserves)

% of Forest over Land Area



Forest Sustainability

Trends in extent of deforestation in selected countries (1990-2010)

Country	Forest area ('000 ha)			Annual Change Rate (%)*	
	2000	2005	2010	2000-2005	2005-2010
Australia	154,920	153,920	149,300	-0.13	-0.61
Indonesia	99,409	97,857	94,432	-0.31	-0.71
Argentina	31,861	30,599	29,400	-0.81	-0.80
Malaysia	21,591	20,890	20,456	-0.66	-0.42



*Note: * Negative percentage means deforestation*
Source: FAO Global Forest Resources Assessment (2010)

- Malaysia is committed to 1992 Rio Summit pledge to maintain at least 50% of total land area under forest cover

Palm oil is friendly to environment

- Climate change issues
 - Palm oil is not the cause of **deforestation**
 - Palm oil is the cause of **avoiding deforestation**
- Avoid carbon dioxide emission into atmosphere
- Palm biofuel

Palm Biodiesel Efficiency

Mileage per hectare per year -based on a VW Polo

Soy Biodiesel



8,000 km

440 litre



Rapeseed Biodiesel



23,660 km

1,300 litre

Bioethanol



33,000 km

2,500 litre

Jatropha Biodiesel



45,500 km

2,500 litre

Sundiesel (BtL)



75,330 km

4,050 litre

Biomethane



99,600 km

4,980 litre

Palm Biodiesel



109,000 km

6,000 litre

Source: "Biofuels", Fachagentur
Nachwachsende Rohstoffe e.V.
(FNR), 2006 and own data

Malaysia is a signatory to

- 1) The Convention on Biological Diversity 1992
- 2) International Tropical Timber Agreement, and
- 3) Charter of the Indigenous-Tribal Peoples of Tropical Forests

Malaysia is committed to preserving its forest resources through Sustainable Forest Management (SFM). At the Rio Summit 1992, Malaysia pledged to maintain forests at least 50% of land area



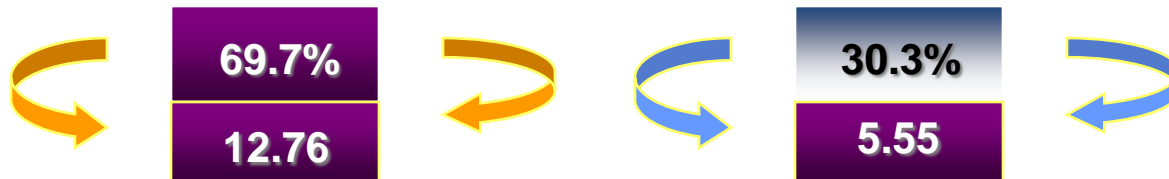
Forest Land Use in Malaysia (mil ha)

Total Forest Area
18.31 (55.7% land area)

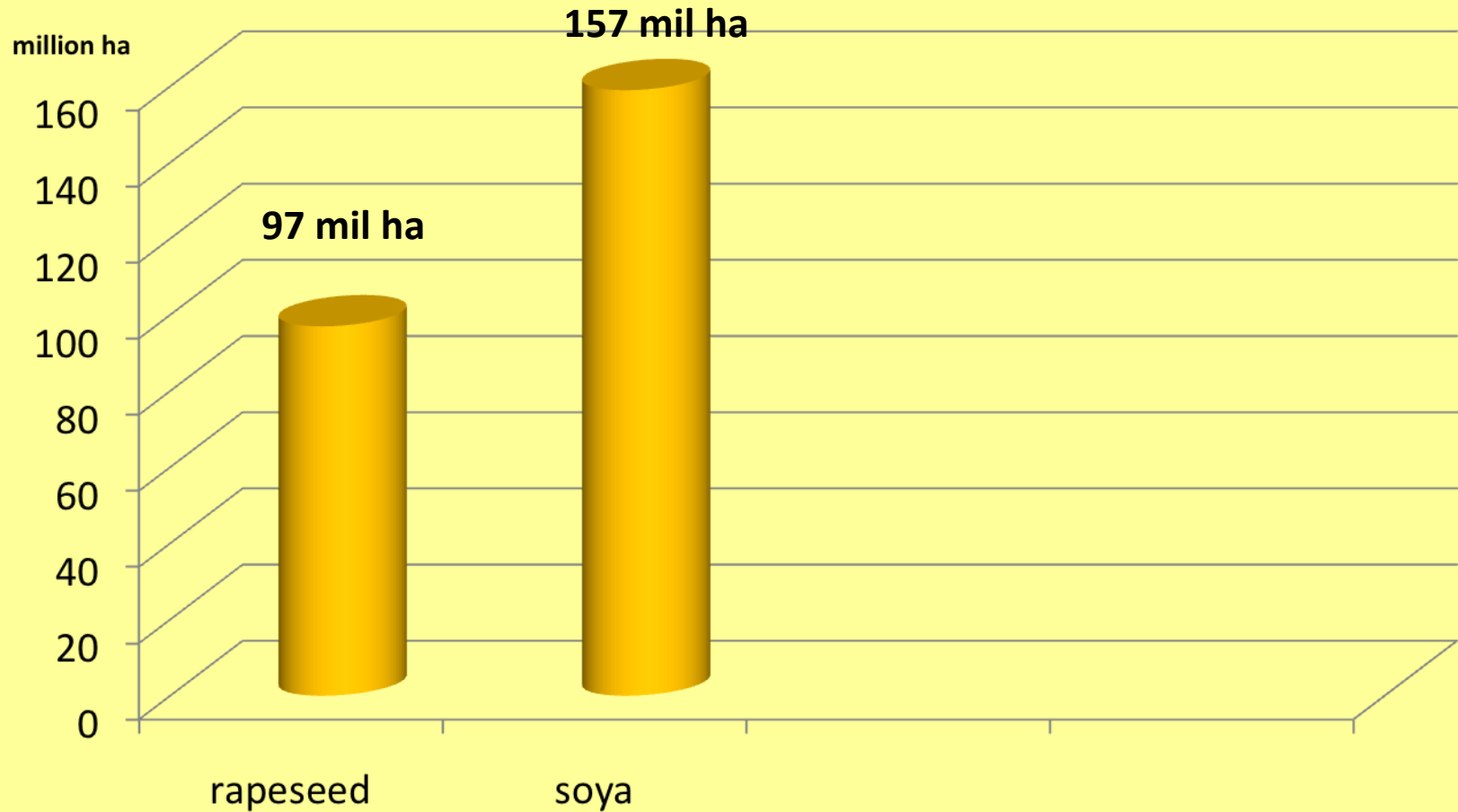
STATE LAND/ ALIENATED LAND (3.3%)	
0.57	
PRODUCTION (CONVERSION)	
0.57	

PERMANENT RESERVED FORESTS (83.4%)	
15.30	
PRODUCTION (SFM)	TOTALLY PROTECTED
12.19	3.11

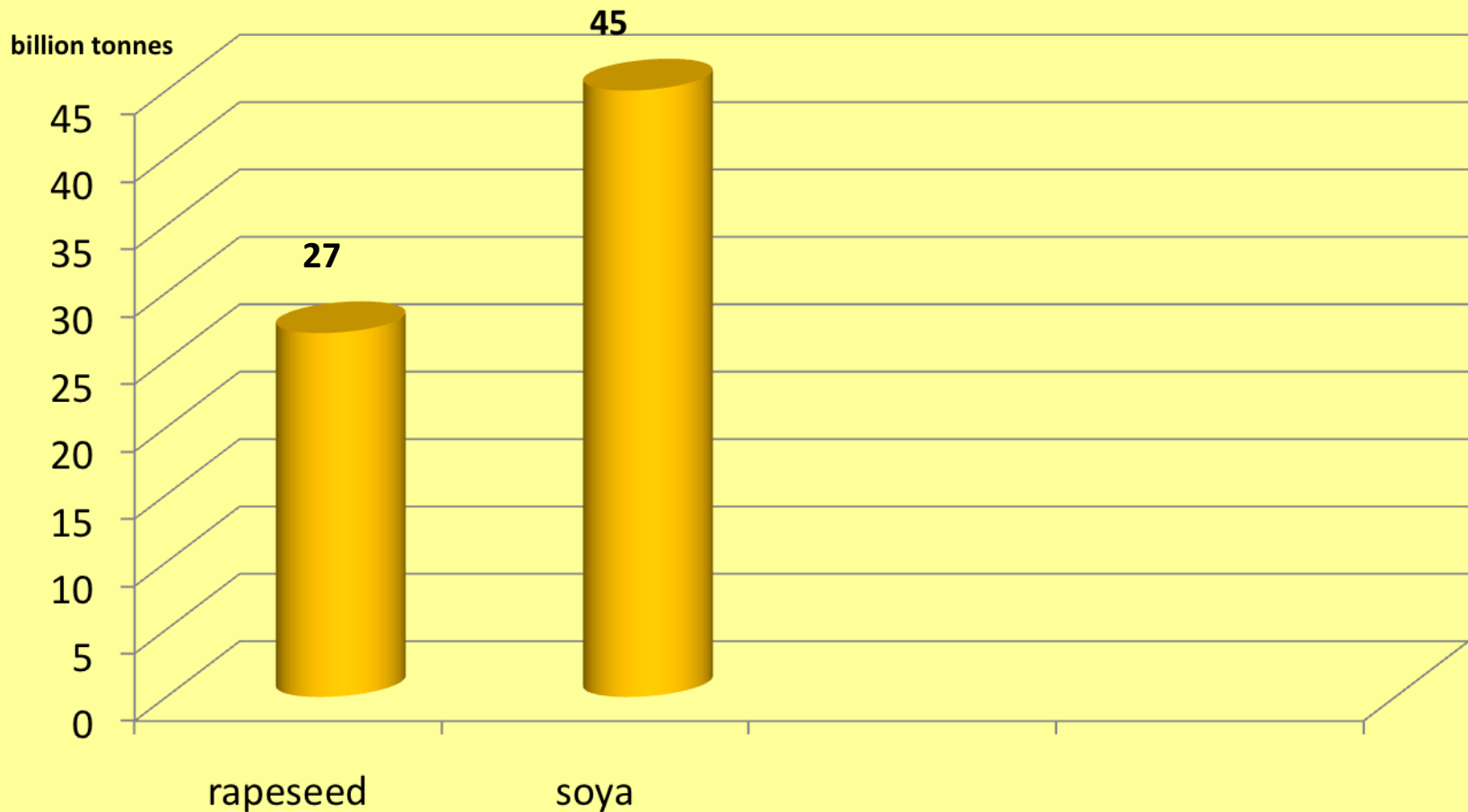
NATIONAL PARKS/ WILDLIFE & BIRD SANCTUARIES (13.3%)	
2.44	
TOTALLY PROTECTED	
2.44	



Deforestation is avoided when palm oil substitutes rapeseed or soya oils



CO₂ emission into atmosphere is avoided when palm oil substitutes rapeseed or soya oils



Sustainability criteria: EU Directive

- Minimum 35% greenhouse gas emission saving compared to fossil fuel
- No *conversion* of land with high carbon stock since January 2008 (wetlands, continuously forested areas, peatlands)
- No raw material from land that had high biodiversity value from January 2008 (primary forest, biodiverse grassland, nature protection areas)
- (EU raw materials must meet EU rules on agro-environmental practices)

There will be some further elements to *report* on

- Commission to determine them soon; no consequences

Based on presentation of Mr. Ewout DEURWAARDER (European Commission)



RSPO as proof of palm oil sustainability

- **Malaysian plantations first in world to be RSPO certified**
- **10 Malaysian plantations have obtained certification with minor changes on plantation practices**
- **Shows Malaysian palm oil industry has been using sustainable practices for a long time**
- **2.2 million tonnes of Certified Sustainable Palm Oil available but uptake slow**
- **Companies seeking RSPO certification may stagnate if uptake is slow**

Myth versus Reality

• Actions by World Bank

- The World Bank Group is suspending the long-standing palm oil-financing programme.

- The framework under consideration is a direct move away from the World Bank's historical mission and would elevate it to be steward of environmental standards.

- The effects would reverberate around the developing world with the most detrimental effect on the peoples of Asia and Africa.

• Indirect Land Use Change (ILUC)

- *Fargione et al (2008)* stated that palm oil production from clearing forested land gives palm oil a carbon debt lasting 86-840 years, based on simplistic assumptions.

- Co-products and indirect land use change effect of oil palm substituting (deforestation avoidance effect) rapeseed & soyabean from being cultivated were not considered.

- Palm oil production in truth has a carbon credit effect (not a carbon debt) if these factors are considered.



Conclusion

- **Unfair trade barriers against palm oil are created under the guise of environment sustainability**
- **Fair trade approach should be promoted to address the need to meet the shortfall of oils & fats**
- **Denying fair trade access to palm oil would result in the world depending on low yield crops which could lead to further deforestation, higher carbon emission while suppressing development in developing countries**

Conclusion

- Palm oil is leading vegetable oil in world
- Very important source of food
- Malaysian palm oil is sustainably produced (3Ps) either for food or biofuel
- Palm biodiesel can meet EU Directive requirements
- Palm oil is friendly to environment
- Look at palm oil as “avoiding deforestation” and not as cause of “deforestation”
- Prevents biodiversity loss in process of avoided deforestation
- Avoided CO₂ emission helps mitigate climate change



Conclusion

- **Malaysian palm oil is a responsible industry that wants to co-exist with biodiversity**
- **Malaysian Palm Oil Wildlife Conservation Fund (MPOWCF)**
- **Has been using sustainable & responsible practices to produce palm oil for long time**
- **This explains why Malaysian plantations first in world to obtain RSPO certification**



Conclusion

- **Palm Oil is the most suitable oil to help solve future shortages in oils and fats**
- **It is the most sustainable and contributes to greater carbon emission savings**
- **Less land area is used because of its higher yield, resulting in 10 times less land cleared for planting compared to most other oilseed crops**

**Malaysia continues to serve the needs of the
consuming countries and the world...**

**Balancing between economic,
environment, & social needs of
mankind!**



A photograph of a palm oil plantation shrouded in thick fog, with the trees appearing as a dense, misty wall.

Thank You

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<http://www.ceopalmoil.com>