

Regional Workshop on the Trade and Environmental Dimensions in
the Food and Food Processing Industries in Asia and the Pacific

**Improving the Environmental Sustainability and the
Export Competitiveness in the Food Sector:
Case of the Malaysian Palm Oil Industry**

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Contents of Case Study

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- 2) Trade and Environment linkage in the palm oil industry in Malaysia
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Rationale of the study

How does the Malaysian palm oil industry address Environmental Sustainability and Export Competitiveness in the food sector

- Examine present scenario of trends in global palm oil trade and Malaysian palm oil industry in relation to Environmental and Health requirements (EHR)
- Initiatives undertaken in Malaysia by government, institutions and all stakeholders in the palm oil supply chain in addressing these issues on EHR
- Study confined to examining activities in the palm oil supply chain in Malaysia pertaining to EHR

Agriculture and agro-food sector

Changes in today's international trade environment

- Consumers demanding higher quality products
- Growing concern about personal health, food safety and the environment
- Requirements becoming more stringent and have very important implications on market access and development
- Global business for edible oils and fats must come to terms with these challenges & tribulations

Palm Oil & The Global Edible oil industry

- Palm oil one of the most popular vegetable oils in the world.
- It competes with 16 other oils and fats for its market share.
- Palm oil production constituted 30.7 % share in total world production of 8 major oils in 2004
- International trade in world's oils and fat exports in 2005 was about 50 million tonnes & palm oil constituted 53% of the total.

Palm oil's competitiveness: High Yielding

Oil palm is the most efficient oilseed in terms of oil production per hectare of arable land

Oilseeds	Oil Yield (tonne/ha/annum)
Oil palm (Malaysian)	3.46
Rapeseed (EU)	1.33
Soybean (USA)	0.46
Sunflower (Argentina)	0.66

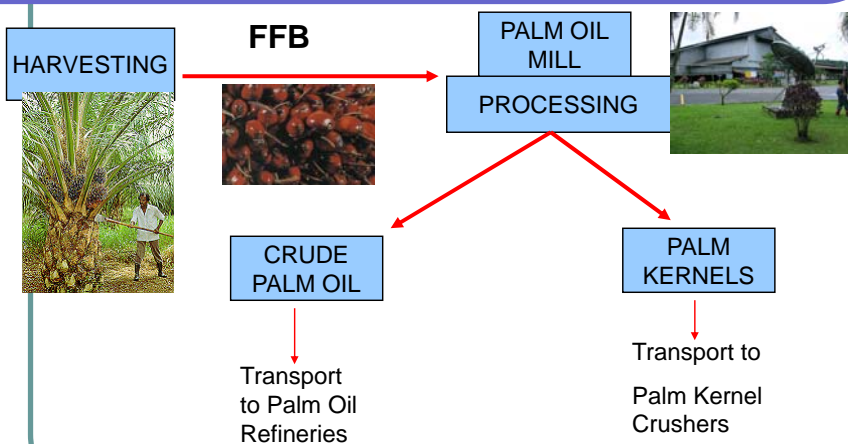
Source: Khoo (2001) –Paper presented by MOPB

Oil Palm Fruit

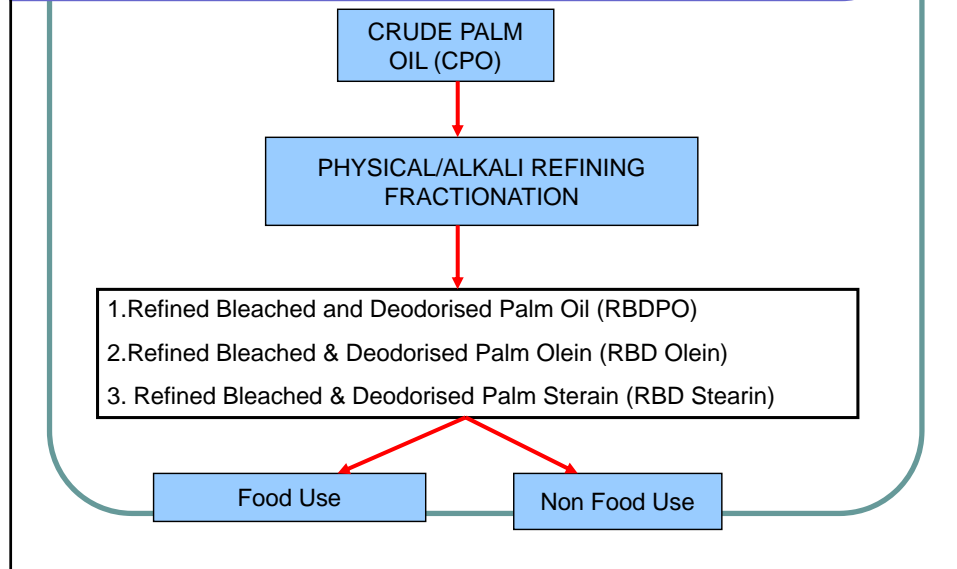
- Planting material is from seed
- Transplanted from nursery to field at about 9-15 months of age
- Planting density 120-150 palms per hectare
- Female inflorescence develops into bunch with fruitlets
- Each fruitlet consists of oil rich mesocarp and a nut with kernel within



Palm Oil Milling



Palm Oil Refining



Uses of Palm Oil and Its Products

- Food Uses



- Frying fats cooking oils and vanaspati
- Bakery shortenings and confectionery fats
- Margarines and dairy products
- Cocoa butter equivalent fats, extenders / replacers

- Non-Food uses



Importance of Palm oil Industry for Malaysia

- Backbone of country's development especially rural development
- Significant foreign exchange earner
- Provides employment to more than 500,000 people plus other multiplying effects
- >90% of palm oil produce is exported
- Malaysian palm oil is consumed in over 140 countries world-wide
- Provides more than 50% of global palm oil production

Malaysian Palm Oil Industry-Facts

- Commercial scale plantings started in 1911
- Currently covers nearly 4 million hectares of land
- Oil palm planted area in Malaysia distributed between private estates, government schemes, state-owned schemes and smallholders
- Growth in planted area credited to private sector and public policies in place and backed by institutional support

Distribution of Oil Palm planted area (Hectares) in Malaysia

Distribution of Oil Palm planted area (Hectares) by category in 2004 & 2005

Category	2004		2005	
	Hectares	%	Hectares	%
Private Estates	2,333,631	60.22	2,412,745	59.55
<u>Govt. Schemes</u>	611,759	15.79	653,893	16.14
FELDA	160,314	4.14	161,447	3.98
FELCRA	80,778	2.08	80,424	1.99
RISDA				
State Schemes	322,359	8.32	318,292	7.86
Smallholders	366,486	9.46	424,573	10.48
TOTAL	3,875,327	100.0	4,051,374	100.0

Source: MPOB

Status of oil palm processing capacity in Malaysia

Summary: Status of oil palm processing capacity in Malaysia (2001 & 2005)

Sector/Category	2001		2005 *	
	No.	Capacity (million) tonnes/year	No.	Capacity (million) tonnes / year
Palm oil mills	352	67.6 (FFB)	387	80.5 (FFB)
Refineries	47	15.5 (CPO)	52	18.1 (CPO)
Kernel crushers	38	4.3 (PK)	40	5.0 (PK)
Oleo-chemical	17	1.96 (oils)	17	1.82 (oils)

* estimated
Source: MPOB

Malaysian palm oil trade

- Palm oil commodity contributes significantly to country's economic development and foreign exchange earnings
- Industry's share to Malaysian agriculture sector forecasted to reach 37.1% in 2006
- In 2004 Malaysia exported 12.6 million tonnes of Crude and Processed Palm –accounted for 58% of global palm oil export and 27% of global oils and fats trade
- Export earnings of palm oil and palm based products in 2004 and 2005 amounted to USD 8.2 and USD 7.7 billion

Malaysian Palm oil exports to major countries (tonnes) Year 2005

Countries	Million Tonnes
China	2.96
EU-25	2.27
Pakistan	0.96
India	0.63
Egypt	0.61
USA	0.56
TOTAL	7.99

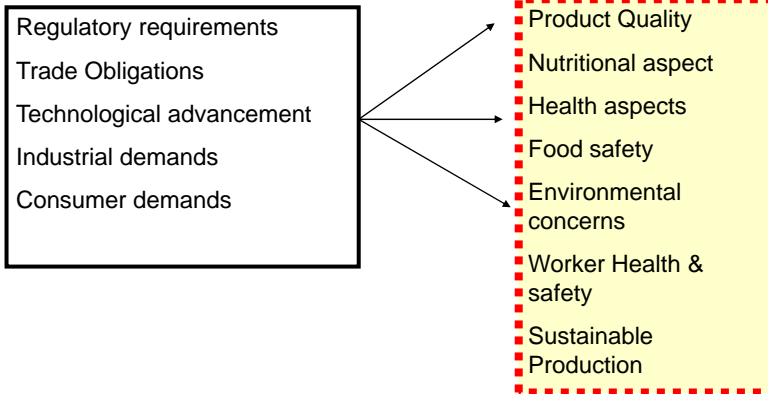
Malaysian palm oil industry –Facing increasing constraints

- Rising production costs
- Stagnating yields
- Shortage of labor
- Enhanced competition from Indonesia
- Massive subsidized production of competing oils in USA and Europe

Malaysian palm oil industry –mitigating factors

- These problems are mitigated by
- Advanced infrastructural development
 - Established as the world's leading producer and exporter of quality palm oil products
 - Rising world demand for oils and fats

Palm oil trade –New Challenges



Major market access / entry barriers in export markets for palm oil from Malaysia based on Environmental and Health Requirements

- Traceability and Food safety Issues
- Environmental Issues and Sustainability
- Nutrition and Health Issues

Major market access / entry barriers in export markets for palm oil from Malaysia based on Environmental and Health Requirements

Traceability and Food safety Issues

- Food related scares
- EU market requirements on Traceability & Food safety
- HACCP implementation
- Food service players and retailers are more demanding

Major market access / entry barriers in export markets for palm oil from Malaysia based on Environmental and Health Requirements

Environmental Issues and Sustainability

- Industry has come under closer scrutiny over health, social and environmental issues
- Pressure from environmental NGOs, retailers and food producers
- NGOs have accused the industry of causing environmental degradation and rain forest depletion
- Some of the NGOs have launched anti palm oil campaigns to harness support against palm oil
- Forest fires in the neighboring country might have a negative effect on the Malaysian industry
- Impacts the entire value chain

Major market access / entry barriers in export markets for palm oil from Malaysia based on Environmental and Health Requirements

Nutrition and Health Issues

- Misleading deductions and misinterpretation of facts pertaining to consumption of palm oil as food and its effect on health
- Negative publicity that palm oil is rich in saturated palmitic acid : increase blood cholesterol levels, risk to cardiovascular diseases-Nutritionally negative perception

Domestic environmental impacts of palm oil production in Malaysia

Issues

- Allegations that the industry is driving deforestation and loss of bio-diversity
- Blamed for destruction of habitats of wild animals-e,g Orang Utan
- Incidence of soil erosion during land preparation stage
- Loss of top soil
- Indiscriminate application of inorganic fertilisers –fertiliser run-off; ecologically damaging
- Excessive use of pesticides-run-off into surface waters
- Industry especially palm oil mills –discharge large quantities of effluent
- Palm oil mills also generate waste-biomass lead to environmental problems if not disposed properly

Improving Export Competitiveness and Environmental Sustainability in the palm oil industry in Malaysia

Malaysia has responded positively to the environmental challenges

- Palm oil is strategic industry for Malaysia
- Malaysia has limited land for expansion of oil palm industry
- Has to increase production by high yielding clones, employing improved techniques and practices
- How to optimize production and achieve sustainable conditions that takes into consideration the environment, local population and wildlife?
- **Oil palm cultivation in Malaysia is intrinsically a sustainable form of agriculture**

Initiatives to improve environmental sustainability

- Institutional and Government support
- Legislation in Malaysia
- Roundtable on sustainable palm oil (RSPO)
- Best Management Practices on Plantations
- Malaysian Standard on GAP
- EUREPGAP
- Environmental management systems (ISO 14001)
- HACCP

1. Institutional and Government support

- The Ministry of Plantation Industries and Commodities drives the palm oil agenda through
3 organizations
- Malaysian Palm Oil Association (MPOA)
- Malaysian Palm Oil Board (MPOB)
- Malaysian Palm Oil Council (MPOC)

- Malaysia continues to play an active role in Codex committee on oils and fats and the wider Codex Alimentarius Commission

2. Legislation in Malaysia

- Has developed in pace with nations economic development
- Palm oil industry is a highly regulated industry
- Industry adheres to more than 15 laws and regulations-Land Act, Environmental Quality Act, Occupational Safety and Health Act, Pesticide Act, Protection of Wildlife, Food safety, EIA

3. Roundtable on Sustainable Palm Oil (RSPO)

- A multi-stakeholder approach
- Objective-to promote growth and use of sustainable palm oil through co-operation within supply chain and open dialogue with its stakeholders
- Consists of members representing major players along palm oil supply chain
- It consists of Principles & Criteria for production of sustainable palm oil
- Takes into consideration long-term economic viability, environmental protection and conservation, recognition of the rights of workers and local communities

4. Best management practices on the plantation

- Malaysian palm oil industry has for some years now through a self initiated and regulated system adopted and institutionalized good agricultural and best management practices on the plantations
- IPM, recycling of waste materials from plantation and milling practices, minimise use of fertilisers, zero-burning, minimise soil erosion, soil conservation measures

5. MS-GAP

- Malaysian standard on Good Agricultural Practice (GAP)- generic standard
- Developed using multi-stakeholder approach
- Draft prepared by a working group comprising experts from various government agencies, grower associations, exporter associations, consumer associations, and smallholder organisation
- Coordinated by SIRIM and approved by Department of Standards Malaysia
- Specific standards for commodity e.g. oil palm, based on generic GAP is in final stage of being adopted

6. EUREPGAP

- 3 plantations in Malaysia are certified totaling 8,500 hectares
- EUREPGAP aims to provide re-assurances to consumers on
 - Food Safety/HACCP
 - Environmental Issues
 - Social Responsibility: Worker Health
 - Traceability

7. ISO 14001

- Number of palm oil mills and palm oil refineries have achieved certification to this ISO standard
- Requires processing establishments to assess their environmental impact and develop an environmental policy to address them
- It is an auditable standard

HACCP

- Palm oil refineries and palm kernel crushers have or are in the process of being certified to HACCP
- Palm oil mills are following suite due to pressure from downstream stakeholders
- Internationally accepted standard for managing food safety aspects

Recommendations based on experience of Malaysia in the palm oil sector

Government policies to improve export competitiveness-conformity to environmental and health standards

- Ministries to be kept themselves informed of current and proposed requirements, initiate policy adjustments
- Malaysia should continue its active involvement in Codex Alimentarius Commission
- Product Life cycle analysis – government's role
- Educate all stakeholders – institutional support
- Encourage certificated evidence
- Certification to globally accepted standards, lack of sufficient labs for pesticide residue analysis
- R & D studies on nutrition and health to be disseminated.

Recommendations based on experience of Malaysia in the palm oil sector

Government policy to improve environmental sustainability of palm oil and processed palm oil production

- Actively promote IPM in production-improve awareness and understanding of IPM techniques : especially smallholders
- Effective application of fertilisers
- Waste disposal- empty pesticide containers
- Communication to global public on socioeconomic benefits of oil palm cultivation in Malaysia
- Industry is carbon positive-should be able to claim carbon credits from reduction in GHG emission
- Recycling of waste materials

Recommendations based on experience of Malaysia in the palm oil sector

Initiatives that private sector organizations and SMEs should adopt

- Capacity building: Raising awareness to export requirements on E & H – moving away from traditional approaches
- Smallholder plantations (the SMEs in plantation business) require organizational and institutional support
- RSPO initiative-a pro-active move in the right direction

Recommendations based on experience of Malaysia in the palm oil sector

Regional cooperation mechanisms and modalities

- Palm oil producing countries should collaborate to engage in discussions with large retailers and importers on 'new' requirements on Environment and Health-e.g. participation at RSPO, EUREPGAP, UN funded discussions
- Encouraging stakeholder dialogue at regional and sub-regional level on Environmental & Health requirements-activities focused on policy analysis, and stakeholder involvement rather than implementation aspects
- Regional cooperation among palm oil producing countries within ASEAN must be enhanced to discuss implications of E&H requirements on oil palm cultivation and identifying problems in compliance.- UNESCAP could facilitate via Workshops, Capacity building

Thank You



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