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Palm Oil Green Development  
Campaign



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## **Palm Oil and Food Security: The Impediment of Land Supply**

How Environmentalists and “No Conversion”  
are Inflating Food Prices

**A Report by World Growth**

December 2010



## WORLD GROWTH Palm Oil Green Development Campaign

### **Alleviating Poverty through Wealth Creation**

Palm oil provides developing nations and the poor a path out of poverty. Expanding efficient and sustainable agriculture such as Palm Oil Plantations provides small and large plantation owners and their workers with a means to improve their standard of living.

### **Sustainable Development**

Sustainable development of palm oil plantations and growth of the palm oil industry in developing nations can and will be achieved through consultation and collaboration with industry, growers, lobby groups and the wider community.

### **Climate and the Environment**

Palm Oil is a highly efficient, high yielding source of food and fuel. Palm Oil plantations are an efficient way of producing fossil fuel alternatives and capturing carbon from the atmosphere.

### **Opportunity and Prosperity**

Developing nations must be allowed the chance to grow and develop without political intervention by environmental groups or developed nations. It is crucial that developing nations be given the same opportunities which developed nations have benefited from.

### **Property Rights**

Efficient palm oil plantations and the growing demand for palm oil give smaller land holders greater opportunities to make a living off their land, maintain their ownership and support their rights to property and prosperity.

## Executive Summary

Over 1 billion people across the world were undernourished in 2009. The majority of these live in the developing world.

A growing global population, the state of the global economy and a sharp increase in the price of food has meant that the number of people living in hunger increased in 2009.

While that number is predicted to decline with increasing economic growth in developing nations and moderating food prices, the “no conversion” agenda of environmental non-government organisations poses a serious threat to the continued growth of the world’s food supply.

The “no conversion” agenda, promoted by environmental non-governmental organizations (ENGOs) and which has now infiltrated the operations of several international aid agencies and organisations such as the World Bank, seeks to halt the conversion of any land to other uses including agriculture or plantations.

It is well documented that the “no conversion” agenda will directly harm those living in poverty in developing nations who will lose the jobs and economic growth associated with the expansion of the agriculture industry. There has been little attention paid to the impact of “no conversion” on global food prices and food security.

The detriment of the ENGO agenda to food security is most clearly shown through the debate over the environmental impact of palm oil.

The oil palm is cultivated in 43 developing countries in the humid tropics. In these countries it makes an important contribution to economic development, improved food security, and poverty reduction.

Oil palm is more than seven times as productive as rapeseed per hectare and more than ten times as productive as soya beans. As a consequence, in the past four decades the global area planted for oil palm has grown eight-fold. Palm oil and palm kernel oil now accounts for well over one-third of the global market for vegetable oils.

Over the past three decades, the price of palm oil in real terms has fallen by around 1 percent per annum, which represents a major improvement in food security for consuming countries.

If palm oil had not been grown commercially, its land would have been reallocated to alternative uses but less vegetable oil would have been produced, other things being equal. The real price of the vegetable oils would have risen and food security would have suffered, particularly in Asia and Africa.

An examination of the “no conversion” position in relation to palm oil makes it clear that attempts to restrict future land conversion and as a result, the expansion of high yielding food crops such as palm oil will have a highly detrimental impact on future food security.

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## Introduction

This paper addresses the issue of global food security and the important role that palm oil plays in enhancing food security, both for those who are involved in producing palm oil as well as those who rely on it as a food staple for their daily diet. Over the past four decades considerable progress has been made in reducing global hunger and palm oil has played a vital role in this achievement. However, this role has been largely unappreciated in developed countries.

There is, therefore, a pressing need to set the record straight in the interests of sound public policy and to protect those who live on the margins of existence in the developing world.

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Oil can be obtained from the African oil palm — *Elaeis guineensis* — in two ways. Palm oil is extracted from its fruit pulp, while palm kernel oil is derived from its seeds. These oils are widely used for cooking, particularly in the developing world. They are also used as raw materials for the manufacture of a wide range of manufacturing products — processed foods, soap and detergents, cosmetics, candles, paints, industrial lubricants, antioxidant in steel production, and, most recently, as a feedstock from which biodiesel is produced.

The oil palm is a native of West Africa. The Dutch introduced the plant to Java in 1848 and the British took it to the Malayan peninsula in 1910. Since that time, oil palm has become an increasingly important driver of economic development, improved food security, and poverty reduction in the major producing countries in South-east Asia, Papua New Guinea, Central and West Africa, and to a lesser extent in tropical Latin America. In all cases, smallholders play significant roles, both as participants in land development schemes and as independent growers.

After reviewing the current state of food security in the world, this paper will canvass the twin roles that palm oil plays in improving food security for those who produce and for those who consume it in developing countries.

## State of Global Food Security

Despite the considerable progress that had been made in reducing global hunger over the past four decades — see Chart 1— around one billion people in the world are considered to be undernourished by the Food and Agriculture Organisation (FAO) of the United Nations.<sup>1</sup> Moreover the recent increases in world food commodity prices, if they were to persist, are likely to exacerbate the severity and the extent of this problem as well as impede progress in overcoming it.

The FAO has estimated that approximately 1.023 billion were undernourished in 2009 but it expected this figure to decline to 925 million in 2010. This fall was predominantly due to the operation of two factors.

Firstly, growth returned to the world economy in 2010 in the wake of the sharp downturn that had been caused by the global financial crisis of 2008-09. The International Monetary Fund (IMF) expects that

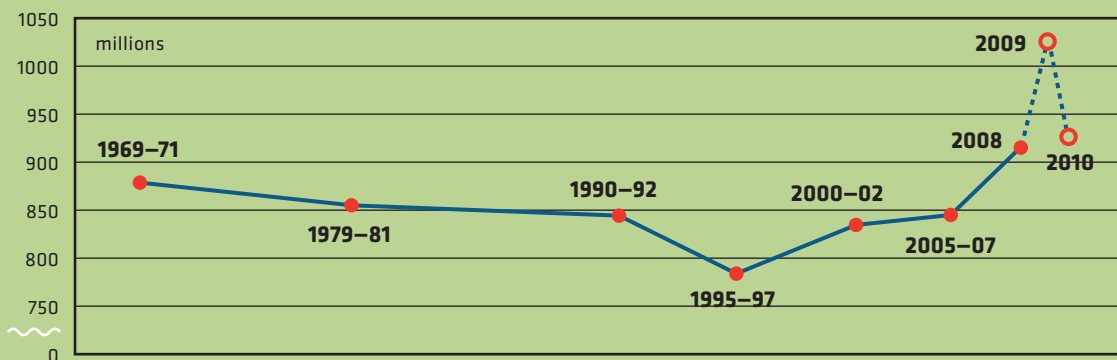
world economic output will grow by 4.2 per cent in 2010, compared to a contraction of 0.6 per cent in the previous calendar year.<sup>2</sup> Moreover, it also expects that this growth will be concentrated in the developing and emerging economies, particularly in Asia. These are the very economies where undernourishment tends to be most prevalent.

Secondly, world food commodity prices have declined since they peaked in the middle of 2008. Nevertheless, food prices remain above the levels that prevailed immediately before the global financial crisis and this restricts the ability to those affected by the price increases to cope with the consequences of those increases. For example, vulnerable households deal with increased food prices by selling assets and cutting back on food consumption, both of which have adverse consequences for them over the longer term.

On the supply side, however, the spike in world commodity prices did encourage farmers around the

### Chart 1

#### Number of Undernourished People in the World, 1969-71 to 2010

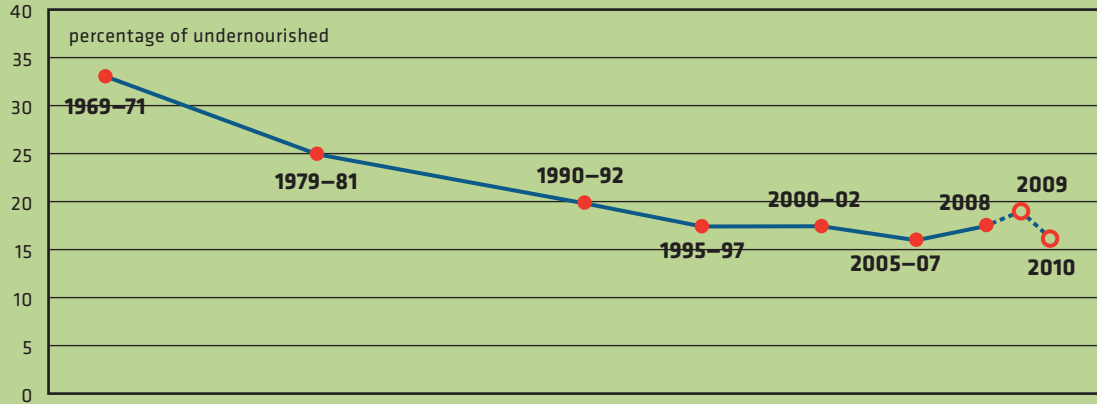


Note: Figures for 2009 and 2010 are estimated by FAO with input from the United States Department of Agriculture, Economic Research Service.

Source: FAO.

1 FAO [Food and Agriculture Organisation of the United Nations], 2010a, *The State of Food Insecurity in the World 2010*, FAO, Rome. For this purpose the FAO measures hunger or undernourishment in terms of the minimum dietary requirement that is required for an individual to undertake light activity and maintain a minimum acceptable weight to height ratio.

2 IMF [International Monetary Fund], 2010, *World Economic Outlook: Rebalancing Growth*, IMF, Washington, DC, April

**Chart 2****Proportion of Undernourished in the World 69-2010**

Source: FAO.

world to expand plantings and to switch to more intensive production methods for many food crops.<sup>3</sup> As a consequence of these developments inventories of food commodities recovered and stocks-to-use ratios increased. Both of these developments are likely to carry-over into 2010-11. In fact, from sugar to wheat, most of the indicators point to increasing world supplies of these food commodities. This was a leading factor behind the sharp declines in international prices of major food staples during 2010.

The progress that has been made in reducing the prevalence of hunger in developing countries is even more impressive than what has been achieved in

**The progress that has been made in reducing the prevalence of hunger in developing countries is even more impressive than what has been achieved in terms of absolute numbers**

terms of absolute numbers — Chart 2 has the details. The proportion of people in developing countries who are considered to be undernourished by the FAO has been more than halved since the beginning of the 1970s.<sup>4</sup> By 2010, the rate of prevalence has declined more or less continuously from 33 percent to 16 percent. This is, however, still well above the target that has been set for the Millennium Development Goals.

Although the recent spike in world food commodity prices in the lead-up to the peak in mid-2008 was associated with a degree of regression to 2009 but that loss has since been eliminated by the more recent easing in prices together with the acceleration in economic growth as the developing economies rebounded out of the trough of the global business cycle.

The majority of undernourished people live in the developing economies. Two-thirds of them live in just seven countries — Bangladesh, China, the Democratic Republic of the Congo, Ethiopia, India, Indonesia, and Pakistan. The proportion of undernourished people is highest in sub-Saharan Africa, where it is estimated at 30 percent.<sup>5</sup>

3 FAO [Food and Agriculture Organisation], 2010b, Food Outlook: Global Market Analysis, FAO, Rome, June

4 FAO 2010a

5 FAO 2010a

## Anti-Palm Oil Campaigns – No Conversion

ENGOs have attacked palm oil as a commodity based on claims that the plantation's expansion has led to widespread deforestation.

Anti-palm oil ENGOs also contend that the expansion of palm oil has led to the endangerment of the orangutan, loss of biodiversity, increased carbon emissions and the displacement of local communities.

These arguments are used to further the “no conversion” position which is central to ENGO campaigns. The “no conversion” position argues that no forest land should be converted for any purpose, including agriculture, plantations or enhancing food security. Recently, the “no conversion” agenda has shifted from advocating against the conversion of primary forest to advocating against the conversion of any land including degraded or secondary land—further restricting the capacity to expand agricultural production.

The “no conversion” ethos has also infiltrated the policies of international bodies such as the World Bank, International Finance Corporation and international aid agencies. In 1991, former World Bank President James Wolfensohn established a partnership with WWF on forestry and endorsed a ban on all funding for projects which converted tropical primary forest. The latest World Bank review of palm oil states, more mildly, that it seeks to “limit deforestation”.

Despite the World Bank's stated objective of alleviating poverty there is no indication that the Bank has given any consideration to the impact of the restriction of land for agriculture on food security or prices.

By artificially restricting the future growth of agricultural land and, as a result, food supply, the “no conversion” position taken by ENGOs and the World Bank has the potential to materially damage the prospects for reducing hunger and poverty as the world's population grows in the future.

The impact of the “no conversion” impediment is exacerbated when it is applied to palm oil. The current tactics from ENGOs and the World Bank will place signif-

icant pressure on food prices and efforts to alleviate poverty, but also has the potential to lead to even greater land conversion to compensate for the loss of expansion in a high yielding crop such as palm oil.

## Global Food Security and Access & Palm Oil Production

Palm oil is the most important tropical vegetable oil in the global market for oils and fats, as measured by either production or international trade. Palm oil is a highly versatile product and can be found in more than 50 percent of the packaged products that are sold in supermarkets.<sup>6</sup> The products range from cooking oils, margarine, ice cream, biscuits, and chocolates to soaps, detergents, and cosmetics. Global consumer brands such as *Flora*, *KitKat*, *Dove* and *Persil* contain ingredients that are derived from oil palm.

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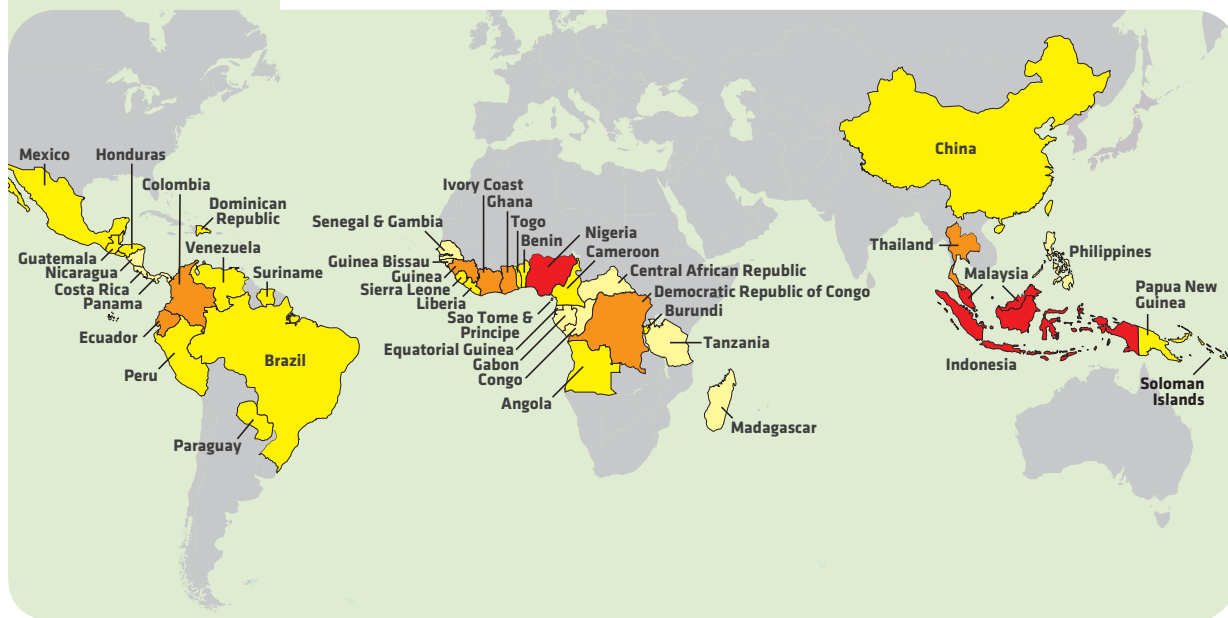
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Oil palm is cultivated in about 43 countries, all of which are developing countries in the humid tropics — see Chart 3.<sup>7</sup> In these countries, the oil palm industry is often an important part of the local economy, both as a source of export income and as a supplier of raw materials for local manufacturing industry. Over a century, oil palm has become an increasingly important driver of economic development, improved food security, and poverty reduction in the major producing countries in South-east Asia, Papua New Guinea, Central and West Africa, and to a lesser extent in tropical Latin America.

In large part this is due to the fact that oil palm is by far the most productive of all the vegetable oil crops. It yields more oil per hectare than any of the other major oilseed crops, such as rapeseed, sunflower, soya bean, peanut, or cottonseed. For example, the oil yield per hectare from well managed oil palm is more than seven

6 Cheng Hai Teoh, 2010, *Key Sustainability Issues in the Palm Oil Sector: A Discussion Paper for Multi-Stakeholders Consultations*, Report commissioned by the World Bank Group, The World Bank and the International Finance Corporation, Washington, DC

7 Cheng Hai Teoh 2010

**Chart 3****Extent of Cultivation of Oil Palm in 2006**

Source: FAO.

times greater than the oil yields from commercially grown rapeseed and more than ten times that for soya beans.<sup>8</sup> In terms of energy balance it takes less sunlight to produce a unit of palm oil than any of the others.

Over the past four decades, the global area planted to oil palm grew eight-fold. In Malaysia the area under cultivation increased five-fold over this period and 23-fold in Indonesia. By 2009 the global area of mature oil palm was 12 million hectares, of which 5.4 million hectares was in Indonesia. Over the 1980s new plantings averaged around 100,000 hectares per year globally and they accelerated to about 200,000 hectares per year in the 1990s. Between 1999 and 2003, the rate of new plantings was about 500,000 hectares per year.<sup>9</sup>

Since 1980 the global production of palm oil has increased more than nine-fold to 45.1 million tonnes. In line with the very rapid expansion of its planted area, Indonesia overtook Malaysia as the world's biggest producer of crude palm oil in 2007. Indonesia

and Malaysia together account for 85 percent of world production of crude palm oil. Significant increases in production have also occurred in Thailand, Ecuador, Colombia and Papua New Guinea. In 2009 these four countries accounted for 6.6 percent of global production of crude palm oil.

In Malaysia the export value of crude palm oil and its derivatives rose from US\$ 903 million of merchandise exports in 1980 (6.1 percent of the total) to US\$ 13.8 billion in 2007. By the time of the Asian financial crisis of 1997-98, palm oil was Malaysia's most important source of foreign exchange. Export receipts from crude palm oil exceeded that from crude petroleum, petroleum products, and forestry by a wide margin. According to Prof. KS Jomo of the UN Department of Economic and Social Affairs, the palm oil industry saved Malaysia during the crisis by spurring economic growth.<sup>10</sup>

The oil palm industry is also a major export earner for

8 Based on average global yields for the period from 2001 to 2006 (Foreign Agricultural Service, 2007, 'Indonesia: Palm Oil Production Prospects Continue to Grow', *Commodity Intelligence Report*, US Department of Agriculture, 31 December [accessed on 27 October 2010 at [http://www.pecad.fas.usda.gov/highlights/2007/12/Indonesia\\_palmoil/](http://www.pecad.fas.usda.gov/highlights/2007/12/Indonesia_palmoil/)]

9 Chandran, MR, 2010, 'The Palm Oil Industry: Contributing Towards Sustainable Global Business', Presentation to 2010 Annual Convention of the National Institute of Oilseed Products, Palm Springs, California, USA, March 2010

10 Cheng Hai Teoh 2010

both Indonesia and Papua New Guinea. In 2007 crude palm oil generated foreign exchange earnings of about US\$ 7.9 billion for Indonesia.<sup>11</sup> Papua New Guinea earned US\$264 million in foreign exchange in 2006 from its exports of crude palm oil.<sup>12</sup>

Beyond its primary function as a producer of cooking oil, the oil palm industry is proving to be the catalyst for the development of new manufacturing industries in developing countries that are based on palm oil or its by-products. These developments increase the global demand for palm oil thereby increasing the economic returns to all those in the industry in the producing countries. They include the large numbers of smallholders and rural labourers involved in growing, harvesting, and processing the fruit, who are likely to be among the most vulnerable in terms of food security.

These emerging industries have involved the production of specialty fats, cocoa butter substitutes, oleochemicals (chemicals derived from plant and animal fats), soaps, household detergents, nutraceuticals, and, most recently, biofuel feedstock.

- Neste Oil, a Finnish oil refining company, is building the world's largest biodiesel plant in Singapore. The plant will use mainly palm oil from the region as feedstock, will have the capacity to produce 800,000 tonnes of biodiesel a year, and is expected to be completed in late 2010.
- Another major palm-oil-based biofuel producer is Sime Darby. The Malaysian-based business conglomerate has the capacity to produce 290,000 tonnes of biodiesel a year from two plants in Malaysia and one in the Netherlands operated by its Dutch subsidiary, CleanerG BV.<sup>14</sup>

- Indonesia has installed capacity to produce 1.2 million tonnes of oleochemicals a year. It also has the capacity to make about 3 million tonnes of biodiesel a year.<sup>15</sup>

#### The importance of oil palm to smallholders

Smallholders have been and continue to be significant to the development of the palm oil sector. They have contributed either as participants in land development schemes or as independent growers, cultivating anything up to between 50 and 100 hectares of land.

- Globally, about 3 million smallholder families are involved in the palm oil sector.<sup>16</sup> This is equivalent to around 15 million people.
- In Malaysia smallholders operated about 30 percent of the 4.5 million hectares planted to oil palm under Federal and State Government management schemes in 2008.<sup>17,18</sup> Independent smallholders were responsible for about 11 percent of the total area.<sup>19</sup>
- Smallholders in Indonesia started cultivating oil palm in 1975. By 2009 smallholders accounted for

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11 Cheng Hai Teoh 2010

12 James Cook University 2010

13 Neste Oil, 2010, "NExBTL plant to Singapore", *Neste Oil Website* [accessed on 27 October 2010 at <http://www.nesteoil.com/default.asp?path=1,41,540,2384,7906,13931> ]

14 Sime Darby Berhad, 2008, "Biodiesel", *Sime Darby Website* [accessed on 27 October 2010 at <http://www.simedarbyplantation.com/Biodiesel.aspx> ]

15 Ambono Janurianto, 2010, "Indonesian palm oil industry: Impact on world oils supply and demand", *Paper presented to Palm Oil and Lauric Oils Conference POC2010*, 8-10 March, Kuala Lumpur

16 Roundtable on Sustainable Palm Oil, 2010, *Roundtable on Sustainable Palm Oil Website* [accessed at [www.rspo.org](http://www.rspo.org) ]

17 These include the schemes managed by the Federal Land Development Authority (FELDA), Federal Land Consolidation and Rehabilitation Authority (FELCRA), and the Rubber Industry Smallholders Development Authority (RISDA) (Ayat K Ab Rahman, Ramli Abdullah, Faizah Mohd Shariff, and Modh Arid Simeh, 2008, "The Malaysian Palm Oil Supply Chain: The Role of the Independent Smallholders", *Oil Palm Industry Economic Journal*, 8(2), pp. 18-27).

18 Cheng Hai Teoh 2010

19 Cheng Hai Teoh 2010

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44 percent of the 7.1 million hectares planted to oil palm in Indonesia.<sup>20 21</sup> This includes independent smallholders and those that operate under “nucleus estate” arrangements.<sup>22</sup>

- In Thailand approximately 108,000 smallholders operated approximately three-quarters of the 512,000 hectares under oil palm in 2009.<sup>23 24</sup>
- In Papua New Guinea some 20,000 smallholders were responsible for about 42 percent of the 134,000 hectares planted to oil palm in 2008. They produced some 35 percent of the crude palm oil output in Papua New Guinea in that year.<sup>25 26</sup>
- In Nigeria more than 80 percent of national palm oil output was produced by smallholders from semi-wild or intercropped holdings in 2006. The smallholders in question worked about 1.6 million hectares of land.<sup>27</sup>

**Importance of oil palm in rural employment**

Owing to the low level of mechanization in perennial plantation tree crops, the development, maintenance, and harvesting oil palm are labour intensive activities that require large numbers of workers, particularly at harvest time. The oil palm industry is therefore a major employer of rural labour.

In Malaysia, the number of people employed by the oil palm sector grew from 92,352 in 1980 to about 570,000 in 2009.<sup>28</sup> Another 290,000 people are employed in downstream operations. In Malaysia the sector also provides employment for migrant workers from Indonesia, Thailand and Bangladesh who then provide substantial remittances to their home countries.

Estimates of the number of people who are employed in the palm oil sector in Indonesia vary considerably. The generally accepted view is that over three million people are involved in that country’s industry.<sup>29</sup>

**Pivotal role of oil palm in Malaysia & Indonesia**

Oil palm has been a major driver of food security and economic development through agricultural diversification in both Indonesia and Malaysia. Agricultural diversification and development continue to be fundamental to economic development, poverty reduction, and improved food security. Three out of four poor people in developing countries live in rural areas and most depend on agriculture for their livelihoods. Promoting agricultural development is clearly an imperative for

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20 Cheng Hai Teoh 2010

21 Palm Oil HQ Pty Ltd, 2009, “How palm oil helps feed an increasingly hungry world”, *Palm Oil HQ Website*, 16 November [accessed on 26 October 2010 at <http://www.palmoilhq.com/PalmOilNews/how-palm-oil-helps-feed-an-increasingly-hungry-world/>].

22 Under a “nucleus estate” arrangement, the project sponsor owns and operates the estate plantation, which is generally near a processing plant and is large enough to provide a substantial share of the throughput required to achieve an economic scale of operation for the plant. After a time the sponsor contacts with smallholders nearby (sometimes called “satellite” growers) to plant oil palm so as to provide the additional throughput that is required. The arrangement has been extensively used for tree crops throughout the developing world.

23 Cheng Hai Teoh 2010

24 Wiwan Boonyaprateeprat, 2010, “Thai Oil Palm Situation in Globalization”, *Presentation to Conference on Sustainable Palm Oil Production for BioEnergy in Thailand sponsored by the German Federal Ministry of Environment, Nature Conservancy and Nuclear Safety*, 18-19 March, Deutsche Gesellschaft für Technische Zusammenarbeit [GTZ] Representative Office, Berlin [accessed on 27 October 2010 at <http://www.gtz.de/de/dokumente/en-boonyaprateeprat-thai-oil-palm-2010.pdf>].

25 James Cook University, 2010, “Improving palm oil production for PNG”, *James Cook University Website*, 25 October [accessed on 26 October 2010 at [http://www.jcu.edu.au/research/excellence/JCUPRD\\_036949.html](http://www.jcu.edu.au/research/excellence/JCUPRD_036949.html)].

26 Orwell, I., 2009, “Smallholder Definitions - PNG National Interpretation Working Group”, *Presentation to Task Force for Smallholders meeting*, Roundtable on Sustainable Palm Oil, 1 November, 2009, Kuala Lumpur

27 Sonja Vermeulen and Nathalie Goad, 2006, *Towards better practice in smallholder palm oil production*, International Institute for Environment and Development, London.

28 Malaysia Ministry of Plantation Industries & Commodities, 2009

29 Cheng Hai Teoh 2010

meeting the Millennium Development Goal of halving poverty by 2015 and continuing to reduce poverty and hunger for several decades thereafter.

Prior to the 1960s, the tree crop sector in both countries was heavily dominated by the production of rubber. Following the slump in world rubber prices, Malaysia embarked on a diversification programme that drove large scale development of the palm oil sector. The decision to diversify followed recommendations by a World Bank mission that resulted in the establishment of the Federal Land Development Authority (FELDA) in July 1956 with the dual objectives of resettling the poor and landless and diversifying the agricultural sector away from rubber.<sup>30</sup> FELDA established the first such scheme based on oil palm in 1961.

Today FELDA is the largest producer of crude palm oil in Malaysia. It manages 720,000 hectares of oil palm and in the process has resettled 112,635 landless families.<sup>31</sup>

In Malaysia the palm oil sector has played a key role in the eradication of rural poverty through the Federal land development agencies — particularly the Federal Land Development Authority (FELDA) and the Federal Land Consolidation and Rehabilitation Authority (FELCRA) — as well as by various state government agencies. The important contribution made by FELDA in this regard has been well documented by Lee and Shamsul.<sup>32</sup>

In 1978 the Indonesian Government introduced a nucleus estates program — Perkebunan Inti Rakyat (PIR) — with financial support from the World Bank. PIR played a key role in developing oil palm for smallholders in Indonesia.

PIR was an integral part of the Indonesian Government's transmigration program to resettle poor and landless families from Java, Bali and Sumatra to the less densely populated islands of the

Indonesian archipelago, particularly Borneo (Kalimantan). Under the transmigration program, a government-linked plantation company would develop "plasma areas" of about two hectares for each settler family adjacent to the company's nucleus estate.<sup>33</sup> At its peak some 535,000 families, or almost 2.5 million people, were relocated in this way.

Between 1986 and 1999, the PIR scheme developed 164,000 hectares of nucleus estates and 425,000 hectares of plasma smallholder areas in Indonesia.<sup>34</sup>

In 1995 the Indonesian Government replaced PIR by KKPA — Koperasi Kredit Primer Angota. KKPA enables local farmer cooperatives to access funds at subsidized repayment rates. Between 1995 and 2000, about 193,000 hectares of plasma areas and 79,000 hectares of nucleus estates were developed under KKPA.<sup>35</sup>

### Global Food Security and Access & Palm Oil Consumption

About 80 percent of global consumption of palm oil is for eating or for food preparation. Palm oil is a staple part of the national diet in many developing countries. The major developing country markets include India, China, Indonesia, Malaysia, Pakistan, Thailand, and Nigeria — see Table 1 for details.

In 2010 the world consumption of all vegetable oils stood at 137.5 million tonnes.<sup>36</sup> Palm oil and palm kernel oil accounted for 36.3 per cent of the global mar-

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<sup>30</sup> Cheng Hai Teoh 2010

<sup>31</sup> Ahmad Tarmizi, 2008, "Felda - A success story", *Global Oils & Fats Business Magazine*, 5(1), pp 7-11

<sup>32</sup> Lee and Tengku Shamsul, 2006, *Felda's Fifty Years: Land Pioneers to Investors*,

<sup>33</sup> Vermuelen and Goad 2006

<sup>34</sup> Rosediana Suharto, 2009, "Sustainable production in Indonesia", *Presentation to the China International Oils and Oilseeds Industry Summit 2009*, 8-10 July 2009, Beijing

<sup>35</sup> Rosediana Suharto 2009

<sup>36</sup> Foreign Agricultural Service, 2010, *Oilseeds: World Markets and Trade*, US Department of Agriculture, Washington, DC, October

**Table 1****Global Consumption of Palm Oil 2009-2010, Selected Countries**

Country	Domestic Consumption ('000 tonnes)	Global Market Share (%)
India	6,750	15.0
China, The Peoples Republic of	6,320	14.1
EU-27	5,024	11.2
Indonesia	4,685	10.4
Malaysia	3,697	8.2
Pakistan	2,130	4.7
Thailand	1,361	3.0
Nigeria	1,232	2.7
United States	927	2.1
Bangladesh	880	2.0
Egypt	760	1.7
Columbia	665	1.5
<b>Global Consumption</b>	<b>44,941</b>	<b>100.0</b>

Source: USDA Foreign Agricultural Service 2010

ket. Their major competitors in terms of market share were soya bean oil and (27.7 per cent) and rapeseed oil (16.1 per cent).

The global demand for palm oil has grown in line with the growth in population and in household income. In recent years both of these factors have been growing relatively strongly in the developing countries. Global demand for palm oil has also benefited from a significant dietary switch away from animal fats to vegetable oils, particularly in developed countries.

As a consequence, the growth in the global consumption of palm oil has substantially outstripped the growth in the consumption of all of the other vegetable oils. For example, between 1980 and 2009 the consumption of palm oil has increased ten-fold, while its major competitor — soybean oil — enjoyed less than a three-fold increase in consumption.<sup>37</sup>

The much faster growth in the consumption of palm oil is to a large extent due to the relative prices of palm oil and its various substitutes in the kitchen and on the table. As Chart 4 highlights, palm oil has consistently had a clear price advantage over its major competitors, such as the oils made from soya bean, rapeseed and sunflower.<sup>38</sup> This price advantage reflects the substantially greater productivity of palm oil per hectare of land. It has enabled palm oil to penetrate new markets and progressively gain market share in its traditional markets.

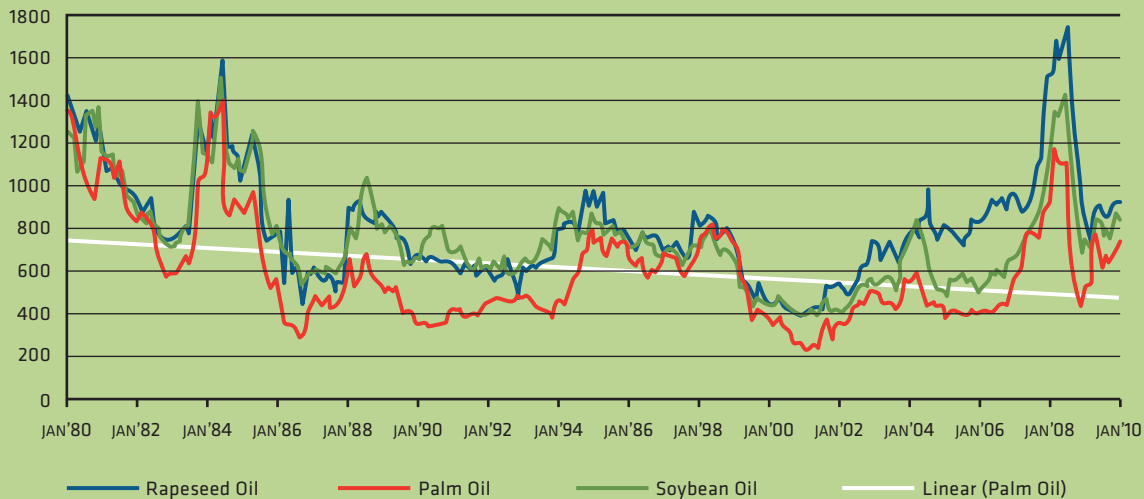
Chart 4 includes the linear trend in the real prices of crude palm oil over the period since January 1980. As is true for most agricultural and mineral commodities, there has been a clear downward trend in the real price of crude palm oil over the past three decades of around 1 per cent per annum. This trend reflects productivity gains that have been made by palm oil producers over this period.

<sup>37</sup> Cheng Hai Teoh 2010

<sup>38</sup> Although sunflower oil was not included in Chart 4, its inclusion does not change either the overall pattern or the conclusion that it implies.

Chart 4

Annual Vegetable Oil Prices 1980-2010



Source: International Monetary Fund [IMF], 2010, "Monthly data, *Primary Commodity Prices*, IMF, Washington, DC [accessed on 8 November 2010 at <http://www.imf.org/external/np/res/commod/index.asp>], US Bureau of Economic Analysis (US implicit GDP deflator) and World Growth estimates

These productivity gains have generally been passed on to the consumers of palm oil as a consequence of the competition among palm oil producers to sell their output to the final consumer, as well as the competition between palm oil producers and those who produce animal fats or other vegetable oils. As palm oil is a food staple this has been a major benefit for consumers of palm oil in the developing countries, particularly those at the bottom of the income scale. In January 2010, the price of palm oil was around 40 per cent lower than it was in January 1980. Other things being equal, this represents a major improvement in food security for the consuming countries.

A good test of this conclusion is the thought experiment that asks, "what would have happened had palm oil not existed?" The land that has been used to grow oil palm would almost certainly have been reallocated to alternative productive uses. These would have included using some of the land to grow other vegetable oils to try to fill the gap that would have been

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created in the global oils market by the assumed demise of palm oil.

Nevertheless, it is inescapable that less vegetable oil would be able to be produced globally. As a consequence the real prices of the remaining oils would have had to rise, compared to what we have observed in practice. Food security would have unambiguously suffered from the loss of access to palm oil. Among the worst affected would have been poor people in the most vulnerable developing countries in Asia and Africa.

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## Concluding Comments

Any efforts to reduce or limit the role of palm oil in the developing world would be likely to have an adverse impact on food security, both in the countries that currently produce it as well as those that consume it as a food staple.

Palm oil has done more to enhance food security than any of the other vegetable oils and many other crops. Its inherently high productivity and labour-intensity makes it an ideal crop for the developing countries in the trop-

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ics that are capable of growing it. Moreover, palm oil's clear and persistent price advantage over its substitutes makes it highly attractive for the many households in the developing world who rely on it as a food staple. It makes no sense to willingly abandon these advantages.

The campaigns by ENGOs and the World Bank which seek to artificially restrict forest conversion and the expansion of oil palm plantations have the potential to raise food prices and restrict the supply of edible oil to the poor. This is in addition to the obvious impact of reducing avenues for raising standards of living through oil palm cultivation for the poverty stricken in South-East Asia and Africa.

There can be adverse consequences associated with either the production or consumption of palm oil in the developing world but these vary with the circumstances of each case. Those adverse consequences are best addressed at their source by responses that are tailored to the particular case. Blanket restrictions or limitations on either production or consumption of palm oil will almost certainly prove to be both ineffective and economically inefficient. Those who are at risk of hunger and malnutrition will not thank us for pursuing such solutions, nor should they.



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