Deforestation due to Palm Oil Plantations in Indonesia

Towards the Sustainable Production of Palm Oil

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Key Words: Deforestation, Palm Oil, Sustainable, Corporate Social Responsibility, Legislation

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Table of Contents

1. Introduction

2. The Advantages of Palm Oil
   2.1 Productivity and Potential Sustainability
   2.2 Economic Advantages

3. The Disadvantages of Palm Oil
   3.1 Rapid Expansion
   3.2 Social Conflict
   3.3 Climate Change
   3.4 Palm Oil as a Biofuel

4. The Legal System
   4.1 Introduction to the Legal System
   4.2 Introduction to the Judicial System
   4.3 Provincial and District governments
   4.4 The Impact of Decentralization
   4.5 Government Policies that Promote the Unsustainable Production of Palm Oil (UPPO)
   4.4 How can Indonesian Legislation be adapted to Facilitate the Sustainable Production of Palm Oil (SPPO)?
   4.5 Natural Resource Management
5. The Sustainable Production of Palm Oil (SPPO)

5.1 Hurdles to Sustainability

5.2 Management Strategies that Minimise the Social Impacts of Plantations

6. The Roundtable on Sustainable Palm Oil (RSPO)

6.1 The RSPO Criteria

6.2 Adoption of Best Management Practices (BMP)

6.3 The Certification Process

6.4 Achievements of the RSPO

6.5 Problems with the RSPO

6.6 Criticisms of the RSPO

6.7 Improvements to the RSPO

6.8 Conquering Corruption

7. The Role of Corporate Social Responsibility (CSR)

7.1 Socially Responsible Investment (SRI)

7.2 The Role of Banks

7.3 The Role of Supermarkets

8. Major players in the Palm Oil Industry: Corporate Profiles

8.1 Producers

8.2 The Salim Group

8.3 Sinar Mas

8.4 Royal Golden Eagle (RGE PTE LTD)
8.5 The Astra International Group (AAL)
8.6 Wilmar International Limited
8.7 Cargill
8.8 The Bakrie Group
8.9 Manufacturers
8.10 Unilever
8.11 Nestle
8.12 Cadbury
8.13 Coles

9. Consumers
9.1 Amending Legislation to Facilitate an Ethical Choice
9.2 Is Certification Economically Viable?
9.3 The Contingent Valuation Method (CVM)
9.4 The Palm Oil Survey

10 The Future of Palm Oil

11. Conclusion

12. Epilogue
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAL</td>
<td>The Astra International Group</td>
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<tr>
<td>APFP</td>
<td>Asia Pacific Forest Program</td>
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<tr>
<td>BG</td>
<td>The Bakrie Group</td>
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<tr>
<td>BKM</td>
<td>Best Known Method</td>
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<tr>
<td>BKP</td>
<td>Best Known Practices</td>
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<tr>
<td>BSP</td>
<td>Bakrie Sumatera Plantations Tbk</td>
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<td>CPO</td>
<td>Crude Palm Oil</td>
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<td>CSPO</td>
<td>Certified Sustainable Palm Oil</td>
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<td>EFB</td>
<td>Empty Fruit Bunches</td>
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<td>EoF</td>
<td>Eyes on the Forest</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>FFB</td>
<td>Fresh Fruit Bunches</td>
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<td>FoE</td>
<td>Friends of the Earth</td>
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<td>GAR</td>
<td>Golden Agri Resources</td>
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<td>GMR</td>
<td>PT Gunung Mas Raya</td>
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<tr>
<td>Ha</td>
<td>Hectare</td>
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<tr>
<td>HCVF</td>
<td>High Conservation Value Forest</td>
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<td>IDX</td>
<td>Indonesian Stock Exchange</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>IIS</td>
<td>Pt Inti Indosawit Subar</td>
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<td>IIU</td>
<td>Inti Indorayon Utama</td>
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<td>IMT</td>
<td>Pt Ivo Mas Tunggal</td>
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<td>ING</td>
<td>International Netherlands Group</td>
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<td>IPM</td>
<td>Integrated Pest Management</td>
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<td>IUCN</td>
<td>International Union for the Conservation of Nature</td>
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<tr>
<td>LONSUM</td>
<td>PT Perusahaan Perkebunan London Sumatra</td>
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<td>PT SIMP</td>
<td>PT Salim Ivomas Pratama</td>
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<td>RSPO</td>
<td>Roundtable on Sustainable Palm Oil</td>
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<td>RSPO P&amp;C</td>
<td>RSPO Principles and Criterion</td>
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<tr>
<td>SMART</td>
<td>PT Sinar Mas Agro Resources and Technology Tbk</td>
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<tr>
<td>SPPO</td>
<td>Sustainable Production of Palm Oil</td>
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<td>SRI</td>
<td>Socially Responsible Investment</td>
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<td>TFT</td>
<td>The Forest Trust</td>
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Abstract

_Palm oil is one of the world’s leading agricultural crops and the major source of vegetable oil worldwide._ The social and environmental impacts of palm oil plantations are immense, threatening some of the world’s most bio-diverse rainforest and ancient cultures. This paper examines the problem in Indonesia through an analysis of the issue at each level of the supply chain. The legislation which has facilitated the unsustainable expansion of palm oil plantations has also been summarized and possible amendments explored. The concept of sustainably produced palm oil (SPPO) and the effectiveness of the Roundtable on the Sustainable Palm Oil (RSPO) in regulating the industry will be assessed. Indonesia’s major palm oil producers are analysed through an examination of their commitments to Corporate Social Responsibility (CSR) and criticisms by non-government organisations (NGOs) working in the field. The major manufacturers who purchase this palm oil are also critically examined. Finally the role of the consumer is explored through a discussion of the Australian labelling legislation that ultimately dictates consumer awareness.

1. Introduction

The environmental, social and economic impacts of the palm oil industry in Indonesia are extensive. The increasing expansion of palm oil plantations is rapidly contributing to the demise of some of the world’s most bio-diverse tropical rainforest, exacerbating global climate change, promoting wide-
spread social unrest and facilitating a vicious cycle of corruption within Indonesian society. This paper explores these issues in depth through an analysis of the problems found at each level of the supply chain, extending from the adverse impacts of production in Indonesian through to labelling legislation, which impedes consumers’ ethical choices in Western supermarkets.

The major corporations involved in the production of palm oil and their responsibility to minimize the environmental and social impacts of their operations will be assessed through an exploration of their alleged commitments to Corporate Social Responsibility (CSR) and allegations of violations of these obligations from non-governmental organisations (NGOs) working in the field. These ‘corporate profiles’ will be conducted for the primary manufacturers of palm oil with respect to their responsibility to purchase certified sustainable products.

2. The Advantages of Palm Oil

Palm oil is obtained from the fruit of the African palm oil tree (*Elaeis guineensis*)\(^1\) (Figure 1). It is the most widely produced edible vegetable oil in the world.\(^2\) In 1999, it accounted for 12% of the total consumption of cooking oils in the EU and for approximately 20% of the world production of cooking oils.\(^3\) In 2005, it overtook soy oil with an annual production of 33.5 million tonnes.\(^4\) In 2008, it accounted for over a third of the 130 million tonnes of vegetable oil produced globally.\(^5\) The rapid success of the palm oil as an agricultural crop can be largely attributed to its high productivity rate\(^6\), with first harvests just three years after plantation.\(^7\)


2.1 Productivity and Potential Sustainability

The high photosynthetic rate of the oil palm enables it to produce between eight to ten times more oil per hectare per year (ha/yr) than other oil seeds such as rapeseed or soybean. It has an output-to-input energy ratio of 9:1, compared to 3:1 for other oilseed crops. The average yield of palm oil is approximately 4.2 tonnes ha/yr, whereas rapeseed oil and soybean oil produce only 1.2 and 0.4 tonnes respectively (Figure 2). As a result of such high productivity, the oil palm requires less land to produce a higher yield than other oil seed crops. For example, whilst the oil palm occupies 9.2 million ha of agricultural land and produces 31.8% of global oils and fats, the soybean crop would require 10 times this amount of land to produce the same yield.

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9 Ibid.

Another significant advantage of the oil palm over other oil seeds is its superior ability to absorb carbon dioxide (CO$_2$). The oil palm emits eight to ten times more oxygen (O$_2$) and absorbs up to ten times more CO$_2$ ha/yr than other annual crops grown in temperate countries. Moreover, palm oil requires less fertilizer per unit of output than any other crop.  

2.2 Economic Advantages

The prolific growth of the palm oil industry has brought significant economic benefits to Indonesia through its development as an important source of both foreign exchange and employment. In 1997, the palm oil industry employed 2 million people and exported 2.9 million tonnes of palm oil, generating an estimated US$1.4 billion. This accounted for 31% of Indonesia’s agricultural exports and 3.5% of total non-oil and gas exports. Exports of crude palm oil (CPO) have increased from

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10 Ibid.
12 Ibid.
13 Ibid.
14 Ibid.
1.47 million tons, generating US$745.2 million in 1998, to 6.33 million tonnes, generating US$2.0 billion in 2002.\(^\text{15}\)

### 3. The Disadvantages of Palm Oil

Despite palm oil’s potential to become a “major source of sustainable and renewable raw material for the world’s food, oleochemical and biofuel industries”\(^\text{16}\), its production has resulted in mass deforestation, social upheaval and the near extinction of several animal species.\(^\text{17}\) These endangered species include the Sumatran tiger (*Panthera tigris sumatrae*) (Figure 3)\(^\text{18}\), the Sumatran Orang-utan (*Pongo abelii*) and the Bornean Orang-utan (*Pongo pygmaeus*)\(^\text{19}\) (Figure 4). Indonesia has the second highest rate of deforestation in the world.\(^\text{20}\) Between 1990 and 2000, 1.3 million ha of forest was lost every year.\(^\text{21}\) Between 2000 and 2005 this rate accelerated to 1.8 million ha per year, representing a 2% annual deforestation rate.\(^\text{22}\) A report published by the United Nations Environment Programme (UNEP) in 2007 stated that palm oil plantations are currently the leading cause of rainforest destruction in Malaysia and Indonesia.\(^\text{23}\)

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The loss of the Bali Tiger (*Panthera tigris balica*) in the 1940s and the Java Tiger (*Panthera tigris sondaica*) in the 1980s has been largely attributed to human-induced habitat fragmentation. The Sumatran Tiger is currently facing a similar fate due to the expansion of palm oil plantations, listed as critically endangered on the International Union for Conservation of Nature (IUCN) Red list. The species inhabits approximately 58,321 km² of forested habitat in 12 ‘Tiger Conservation Landscapes’ totalling 88,351 km². In 2004, the Sumatran tiger population was estimated at 400 to 500 in the Indonesian government’s first and second national tiger action plans.

Figure 3. A critically endangered Sumatran tiger with one paw missing. WWF speculate this was most likely a result of illegal poaching facilitated by shrinking habitat. Source: Deforestation on Sumatra Island (2010) The Guardian.co.uk. <http://www.guardian.co.uk/environment/gallery/2009/oct/06/deforestation-sumatra-redd?picture=353069780> accessed 31 May 2010.


The Sumatran Orang-utan is also listed as critically endangered on the IUCN Red list.\textsuperscript{28} There are currently around 7,300 occupying 20,552 km\textsuperscript{2} of forest.\textsuperscript{29} Similarly, the Bornean Orang-utan is listed as endangered on the IUCN Red list, with estimates of between 45,000 and 69,000 individuals, living in 86,000 km\textsuperscript{2} of suitable habitat.\textsuperscript{30} The Bornean Orang-utan populations have declined by over 50% in the last 60 years due to agricultural expansion and human induced fires.\textsuperscript{31} The decline of the species is predicted to continue at this rate.\textsuperscript{32} It has been estimated that approximately 1000 Orang-utans die every year due to habitat degradation, forest fires, illegal logging, encroachment and mining.\textsuperscript{33} Degradation of the Orang-utans natural habitat often forces them into unsuitable forest, resulting in higher death rates and fewer birth rates.\textsuperscript{34} On the occasion that they refuse to leave their former territory, they are often killed by farmers protecting newly planted crops.\textsuperscript{35}

\textsuperscript{29} Ibid.
\textsuperscript{31} Ibid.
\textsuperscript{32} Ibid.
\textsuperscript{33} Speech by Sen Nick Xenophon on the 23\textsuperscript{rd} of November 2009.
\textsuperscript{35} Ibid.
Figure 4. A Sumatran Orang-utan with a tranquilizer dart in its side in order for rangers to relocate him to a different part of Borneo island, away from this palm oil plantation. Photo was taken on November 19, 2008. (AFP/AFP/Getty Images). Source: www.boston.com/.../01/scenes_from_indonesia.html.

In 2007, the United Nations Environment Program (UNEP) predicted that if current trends continue, Orang-utans will be extinct in the wild within two decades (Figure 5). Nasi et al. demonstrated that well-connected networks of natural forest corridors in the plantation landscape are critical in maintaining primate populations. The destruction of these corridors for the expansion of palm oil plantations further contributes to the demise of the species.


Palm oil plantations support significantly fewer species than primary forest, degraded landscapes and even other agricultural crops. Consequently, palm oil plantations pose a serious risk to the survival of numerous plant and animal species. Fitzberg et al. found that across all taxa surveyed, an average of only 15% of species recorded in primary forest could also be found in palm oil

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39 Ibid.
One-hundred and forty six species or 21.9% of all mammals in Indonesia are currently listed as ‘threatened’ on the IUCN Red List.\textsuperscript{41} Nikoloyuk \textit{et al.} speculate that the main threat to the biodiversity of Indonesia’s tropical forests is not the forestry industry, but the conversion of forest to agricultural land for palm oil production.\textsuperscript{42}

### 3.1 Rapid Expansion

The palm oil industry in Indonesia has grown at an extremely rapid rate. Palm oil plantations expanded from approximately 106,000 ha in the 1960’s to 2.5 million ha in 1997, implying an average growth rate of 11.2% per annum.\textsuperscript{43} Whereas in 1985, there were only 600,000 ha of palm oil plantations, there were over 6.5 million ha by 2005 (Figure 6).\textsuperscript{44} Moreover, approximately 3.5 million ha of rainforest was destroyed during the establishment of these plantations.\textsuperscript{45}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{chart.png}
\caption{Rainforest cleared (million ha) from 1980 to 2010.}
\end{figure}

\begin{itemize}
\item \textsuperscript{40} Emily B. Fitzherbert, Matthew J. Struebig, Alexandra Morel, Finn Danielsen, Carsten A Bruhl, Paul F. Donald and Ben Phalan, ‘How will oil palm expansion affect biodiversity’ (2008) \textit{Trends in Ecology and Evolution} 23(10).
\item \textsuperscript{41} IUCN (World Conservation Union) \textit{2006 IUCN Red List of Threatened Species} (IUCN, Gland, Switzerland, 2006).
\item \textsuperscript{43} Anne Casson, ‘Which Way Forward? People, Forests, and Policymaking in Indonesia’ (2002).
\item \textsuperscript{44} Ibid.
\end{itemize}
The palm oil industry is driven by the high demand of the export market. The world demand for palm oil is expected to increase from 20.2 million tonnes a year to 40 million tonnes in 2020, representing a 4% annual rate of increase (Figure 7). With palm oil production costs in Indonesia among the cheapest in the world and the increasing demand for palm oil, foreign investment is expected to increase.

The growing affluence of India and China, the world’s top two importing nations, will further increase this demand. China and India are now responsible for approximately one third of global palm oil imports (Figure 8).

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In order to meet such a demand, a further three million ha of new estates must be planted.\textsuperscript{50} Approximately 1.6 million ha of lowland rainforest in Sumatra and 2.6 million ha in Borneo has already been approved for clearance.\textsuperscript{51} According to industrial planning, this plantation area will be extended to 16.5 million ha by 2020. The Director of the Sumatra Orang-utan Conservation Programme, Ian Singleton, speculates that the Indonesian government has plans to establish the largest oil palm plantation in the world.\textsuperscript{52} This would require approximately 845 kilometres of “oil palm fence” to be established along the Malaysian border, which would destroy rainforest allegedly reserved as Orang-utan sanctuaries.\textsuperscript{53}

\subsection*{3.2 Social Conflict}

\textsuperscript{52} Ibid.
\textsuperscript{53} Ibid.
Charlotte Louise Richardson 200431233

Colchester et al. found that large scale palm oil plantations affect local communities in a variety of ways.\textsuperscript{54} These include: the reallocation of land and resources, alterations in vegetation and ecosystems, foreign investment and new infrastructure, the movement of people and settlements, the transformation of local and international trade, and the influx of government agencies.\textsuperscript{55} Sargeant found that these impacts have resulted in an increase in ‘outright violence’ among local communities.\textsuperscript{56} Colchester et al. found that a significant majority of the local people interviewed felt palm oil companies had cheated them of their land, persuading them into agreements through false promises and denying them a voice in decision-making.\textsuperscript{57} The ways in which community land is dubiously acquired by large scale corporation is detailed in table 1.

Table 1. Colchester et al. found these mechanisms were most commonly utilized by companies acquiring community land. Source: Marcus Colchester, Norman Jiwan, Andiko, Martua Sirait, Asep Yunan Firdaus, A. Surambo and Herbert Pane, ‘Promised Land: Palm Oil and Land Acquisition in Indonesia: Implications for Local Communities and Indigenous Peoples’ (2006) Forest Peoples Programme, Perkumpulan sawait Watch, HuMA and the World Agroforestry Centre at 15.

<table>
<thead>
<tr>
<th>Dubious mechanisms used to acquire community land</th>
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<tr>
<td>Non-recognition of customary rights as land title</td>
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<td>Circumventing the necessary licences in plantation establishment</td>
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<tr>
<td>Not providing information to communities (not being transparent)</td>
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<td>Refusing to negotiate consensus agreements</td>
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Casson argues that companies force local communities to give up their traditional life styles, often without compensation. Similarly, Potter and Lee state that the establishment of palm oil plantations has led to the “systematic dispossession of local people from their land.” They argue that this process is facilitated by regional governments who convince local people to surrender their land and participate in company activities. Walker speculates the palm oil industry has led farmers to become “pay-dependent plantation workers whose existence is determined by the global market price of a single plant product.”

<table>
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<th>Manipulating customary leaders into making forced sales</th>
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<tr>
<td>Not paying compensation</td>
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<tr>
<td>Not providing promised community benefits</td>
</tr>
<tr>
<td>Not developing smallholders land</td>
</tr>
<tr>
<td>Encumbering smallholders with unjustifiable debt</td>
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<tr>
<td>Carrying out Environmental Impact Statements too late</td>
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<td>Not developing land within the specified time period</td>
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<tr>
<td>Repressing community resistance through coercion</td>
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<tr>
<td>Violating human rights</td>
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59 Ibid.
59 Lesley Potter and Justin Lee, ‘Tree Planting in Indonesia: Trends, Impacts and Directions’. Occasional Paper No 18. CIFOR, Bogor, Indonesia at x.
60 Ibid.
The number and nature of jobs created by the palm oil industry is highly controversial, varying substantially across the literature. By some accounts, 4,500,000 people, including workers and immediate families, in Indonesia rely on palm oil plantations as their source of income. Others contend the industry has created only 0.12 jobs per hectare, which are often below minimum wage and dangerous.

There are also concerns that modern, self-funded companies will be less motivated to be socially responsible than previous firms that relied on funds from international agencies or government sources. Although all new estates are supposed to be in partnerships with local communities, this requirement is rarely enforced by local authorities. Potter and Lee argue that the “behaviour of privately owned, self-funded companies is predominantly profit seeking...with little concern for social issues.”

### 3.3 Climate Change

Another consequence of the UPPO is the emission of greenhouse gases during plantation establishment and extraction. Approximately 15% of all anthropogenic greenhouse gas emissions are a result of global deforestation. In order to quickly and efficiently clear land for the establishment of plantations, corporations frequently utilize the ‘controlled burning’ technique. Controlled burning releases large amounts of CO\(_2\) into the atmosphere and is hazardous to both workers and existing plantations. The clearing of peat land is even more problematic as it releases

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65 Ibid.
66 Ibid.
considerably more carbon than rainforest.\textsuperscript{69} Despite a total burning moratorium being implemented by the Indonesian government, many fire ‘hot spots’ in plantation areas are still being observed by satellites.\textsuperscript{70}

Forest and peat fires not only contribute to global warming, but are a major threat to Indonesia’s public health, biodiversity and regional economy.\textsuperscript{71} Wetlands International has estimated that over 130,000 km\textsuperscript{2} of peatland forests in south-east Asia has already been deforested and drained.\textsuperscript{72} Consequently, an average of two giga-tonnes of CO\textsubscript{2} is being released annually through decomposition, equivalent to 8\% of the total CO\textsubscript{2} emissions from fossil fuels. Approximately 90\% of these emissions are being released from Indonesia.\textsuperscript{73} Uryu et al. found the average annual CO\textsubscript{2} emissions between 1990 and 2007 emissions from deforestation in the Riau province of Sumatra alone were equivalent to 122\% of the Netherlands’ total annual emissions, 58\% of Australia’s, 39\% that of the UK’s and 26\% of Germany’s.\textsuperscript{74}

\textsuperscript{69} Emily B. Fitzherbert, Matthew J. Struebig, Alexandra Morel, Finn Danielsen, Carsten A Bruhl, Paul F. Donald and Ben Phalan, ‘How will oil palm expansion affect biodiversity’ (2008) \textit{Trends in Ecology and Evolution} 23(10).

\textsuperscript{70} Eric Wakker, Palm Oil, Crisis and Forest Loss in Indonesia (1998) \url{http://forests.org/archive/indomalay/oilpalm.htm} accessed 15/3/10.

\textsuperscript{71} ‘Fires in APP/Sinar Mas Concessions Add to Region’s Haze Woes, Threaten New UN Biosphere Reserve’ (Press Release 27 July 2009); Emily B. Fitzherbert, Matthew J. Struebig, Alexandra Morel, Finn Danielsen, Carsten A Bruhl, Paul F. Donald and Ben Phalan, ‘How will oil palm expansion affect biodiversity’ (2008) \textit{Trends in Ecology and Evolution} 23(10).

\textsuperscript{72} Fred Pearce, ‘Bog Barons: Indonesia’s carbon catastrophe’ (2007) \textit{New Scientist}

\textsuperscript{73} Ibid.

\textsuperscript{74} Uryu et al. 2008. Deforestation, Forest Degradation, Biodiversity Loss and CO2 Emissions in Riau, Sumatra, Indonesia.

WWF Indonesia Technical Report, Jakarta, Indonesia. Published at: \url{http://www.worldwildlife.org/wildplaces/borneo/updates/disappearingforest.cfm}
It is estimated that the 1997 fires, which covered 5 million hectares of Indonesia, were responsible for 40% of the total anthropogenic emissions produced that year (Figure 9). According to the World Wildlife Fund (WWF) and the Economic and Environment Program for Southeast Asia (EEPSEA) Report, approximately 80% of the fires in Sumatra and Kalimantan were deliberately ignited for the establishment of palm oil plantations. Satellite imagery has confirmed these studies.

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76 Ibid.
80 Ibid.
Recent studies have illustrated that even without fire, the draining of peatland for palm oil plantations emits significant quantities of carbon dioxide. This is due to the process of oxidation, whereby deforestation exposes the inorganic molecules in peat to direct sunlight, causing them to decompose. This process produces between 130 and 180 tonnes of CO$_2$ per hectare every year. Consequently, each hectare of peatland drained for the establishment of plantations will emit between 3750 and 5400 tonnes over the next decade.

The palm oil extraction process also releases significant quantities of greenhouse gases. Extraction releases large amounts of methane when the high level of organic matter contained in the waste water decomposes. Large quantities of waste water are created when the fruits are removed and sterilized to destroy an enzyme that would cause the palm oil to become rancid.

### 3.4 Palm Oil as a Bio-fuel

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80 Ibid.

81 Ibid.


Palm oil production is increasingly being promoted in sustainable energy campaigns worldwide. With the rapidly increasing oil prices after 2000, the demand for bio-diesel from palm oil significantly increased. It has been estimated that annual world biodiesel requirement by 2050 could be as much as 277 million tonnes, twice the vegetable oil production in 2008 and seven times the total palm oil production. Fuel-orientated companies have assumed prominent roles in the emerging industry. Moreover, European countries have promoted the use of palm oil by investing millions of dollars into national subsidies towards biodiesel. Consequently, Europe is now a leading importer of palm oil (Figure 10). Ernsting argues that these government subsidies and incentives have artificially boosted the biofuel market.


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87 Ibid.
However, the long term utilization of palm oil as a biofuel is likely to be unsustainable. The energy saved from using palm oil as a substitute for coal is questionable considering the high energy costs involved with transportation and storage. Moreover, clearing one hectare of tropical forest releases between 500 and 900 tonnes of CO₂ emissions. As converting a hectare of palm oil into biodiesel saves approximately six tonnes of CO₂ emissions annually, it takes 80 to 150 years of production to offset the initial emissions released from deforestation.

4. The Legal System

In order to appreciate how the legal system facilitates the UPPO in Indonesian society, it is necessary to outline the basic components of the Indonesian legal structure. The following section explores the different aspects of the legal system, with particular reference to laws pertaining to agricultural and forestry practices.

4.1 Introduction to the Legal System

The Indonesian legal system is comprised of traditional Customary Law (adat), Dutch Colonial Law and National Law (Figure 5). Customary law, applying to ‘people governed by custom’ was the predominant legal system in the period prior to colonialism in the late sixteenth century. Dutch Colonial law is the civil law system that was imposed through the process of colonization in the seventeenth Century, and National law is based on Indonesian principles of law and justice.

89 Palm oil must be stored at approximately 50 degrees Celsius in order to keep it in liquid form. (Gerd Schuster, Willie Smits and Jay Ullal, ‘Thinkers of the Jungle: The Orang-utan Report’ (2007)).
established following independence in 1945. These three systems adopt different policies towards forestry practices. Historically, Dutch Colonial law sought economic profit with little regard for indigenous peoples. Similarly, although National law theoretically preserves indigenous rights, in practice the Indonesian elite and foreign investors benefit at the expense of local laws. In contrast, adat law prioritises the rights of indigenous peoples to own land.

Indonesia is a unitary republic (Undang Undang Dasar) with an elected legislature and president. The constitution was the first official document to formally recognise adat law and specifically acknowledges the right of indigenous people to be self-governing and their customary rights to land. Although it was not amended during Suharto’s 32 year reign, his resignation instigated several amendments, including: restricted powers and term of office of the President, decentralisation of authority from the central government to provincial and regional governments, and the creation of four different representative bodies. These bodies include the House of Regional Representatives (Dewan Perwakilan Daerah [DPD]), the Constitutional Court (Mahkamah Konstitusi [MK]), the People’s Consultative Assembly (Majelis Permusyawaratan Rakyat [MPR]) and the House of People’s Representatives (Dewan Perwakilan Rakyat [DPR]) (Figure 11). The DPR consists of elected and appointed representatives and functions to create legislation and hold the President and his Ministers accountable. The MPR is the highest representative body with the power to amend the Constitution, issuing policy statements in the form of resolutions (ketetapan) and the outline of state policy (Garis Besar Haluan Negara [GBHN]). The country’s economic plan is included in the GBHN.
4.2 Introduction to the Judicial System

The Indonesian judicial system consists of several different types of courts that are all overseen by the Supreme Court (Mahkamah Agung). In accordance with the Dutch Civil law tradition, precedent is not applicable. Most civil disputes are heard at one of the 250 State Courts, which each have their own territorial jurisdiction. Appeals are heard before one of the 20 District High Court’s (Pengadilan Tinggi), and appeals from the High Court are heard before the Supreme Court.

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Charlotte Louise Richardson 200431233

(Mahkamah Agung). The Supreme Court can conduct a case review (Peninjauan Kembali) if new evidence is found that justifies a re-hearing. In 1970, the Supreme Court was given the authority to review legislation below the level of statute (hak uji material). In 1986, the Act on Administrative Courts gave courts the capacity to review administrative decisions.

4.3 Provincial and District Governments

Indonesia is divided into 33 provinces and three major districts comprised of: Yogyakarta in central Java, Acehnese in Sumatra, and the capital district of Jakarta (Figure 12). Each province is controlled by a provincial government with its own representative assembly (Dewan Perwakilan Rakyat Daerah [DPRD]). The provincial government is directed by a Governor, who is appointed by the President. Each province is sub-divided into regencies (kabupaten) and cities (kota), which are further subdivided into subdistricts (kecamatan) and again into village groupings (either desa or kelurahan). The village administration is responsible for the village and is headed by an elected village chief (kepala desa).

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101 Ibid.

The district government executive body consists of the head (bupati) and the deputy head (wakil bupati), both of whom are elected by local legislative members (Dewan Perwakilan Rakyat Daerah or DPRD), and supported by technical services (Dinas Teknis Pemerintah), such as the Forestry Service. The bupati appoints the officials of the technical services (Dinas).  

4.4 The Impact of Decentralization (Desentralisasi)

Following the demise of Suharto’s New Order regime in 1998, Indonesia transformed from one of the world’s most centralized countries to one of the most decentralized. In 2007, provinces and districts spent over 37% of the total public expenditure on facilitating this process. The decentralization legislation implemented in 2001 gave greater autonomy and powers to regional authorities. As a result, the provincial and regional government leaders are the politically relevant parties in Indonesia today.

The two main laws forming the foundation of decentralization legislation were passed by Parliament in 1999 and implemented in January 2001. These were Law No 22/1999, ‘Regarding Regional Government,’ and Law No. 25/1999, ‘Regarding Inter-Governmental Fiscal Balance.’

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108 Ibid.


replaced a 1974 act on Regional Government and a 1979 act on Local Government.\textsuperscript{112} The most important provision of this law for Forestry policy is Article 10, which states that: “Local government has the authority to manage natural resources occurring in its jurisdiction and shall be responsible to secure environmental sustainability in accordance with laws and regulations”.\textsuperscript{113} This law also granted local governments the authority to pass regulations in conjunction with the local House of Representatives and the power to grant decrees, as long as they are consistent with higher regulations.

In 2000, the government passed the Parliament Act No. III/2000, which removed the power of the central government Ministries to issue decrees. These laws collectively dictated the responsibilities of provincial and regional government bodies, and their corresponding intergovernmental financial activities. Local governments were thus empowered with political decision making authority, leading in many cases to districts immediately passing laws to satisfy the demands of local people.\textsuperscript{114}

While the decentralization of power can theoretically produce efficiency and equity gains,\textsuperscript{115} it has actually facilitated the UPPO by allowing the illegal expansion of plantations to pass unnoticed under the protection of a complicated and disjointed forestry management system. Djogo and Syaf comment that whilst decentralization has the potential to increase community participation it can easily lead to conflict when it involves the transfer of ownership and use of valuable natural resources.\textsuperscript{116}

\textsuperscript{113} Ibid.
4.5 Government Policies that Facilitate the Unsustainable Production of Palm Oil (UPPO)

Indonesian policy has always facilitated agricultural production. The notion of sustainable agriculture and reducing over-exploitation of resources has never been a major policy concern. Kartodihardjo and Supriono argue that timber plantation development policies have legitimized the degradation of primary forest. Colchester et al. categorised the development of government policies that facilitate the UPPO into five main phases. These include the PIR-Trans phase (prior to 1993), the Deregulation Phase (1993-1996), the Privatisation Phase (1996-1998), the Cooperatives Phase (1998-2002) and the current Decentralization Phase (2002-2006).

The PIR-Trans Phase: Prior to October 2003, government policies focused on allocating forest to establish palm oil plantations on the outer islands of Indonesia. These areas were allocated to large-scale, state owned companies, known as Perusahaan Terbatas Perkebunan Nasional (PTPN) operators. PTPN companies controlled smaller plantations owned by local farmers, known as plasma estates. Collectively these plantations were known as Nucleus and Smallholder Estates (NES) (Perkebunan Inti Rakyat (PIR)). Regional forestry offices (Kanwil Kehutanan) were authorised to grant plantation licences covering a total of 100 hectares.

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118 Ibid.
121 Ibid.
122 Ibid.
124 Ibid.
In 1989, the government encouraged the establishment of ‘nucleus estates’, which grouped together smallholders and encouraged them to plant 2 ha of palm oil on their property. However, this program was implemented without any research into the soil quality, much of which was converted forest with infertile soil. There was also no assessment into the susceptibility of the site to pest and disease attacks. Consequently, there were pervasive issues of over-fertilization as inexperienced farmers attempted to compensate for poor soil quality.

The PIR-Trans phase was also characterised by a general lack of recognition of adat law. Local people were often inserted into the Transmigration schemes and taken to either Transmigration villages (Translok) or mixed settlements (Transmigrasi sisipan). Migrants often complained of sub-standard housing, low prices for oil palm fresh-fruit bunches (FFB) and long delays in payment, debt settlement and the transferral of land titles.

**Deregulation phase:** October 2003 marked the beginning of the deregulation phase with the passing of two laws which were part of the National Deregulation Policy Package. This policy granted greater authority to local governors to promote regional development and encourage private

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127 Ibid.

128 Ibid.

129 The Transmigration programme was an initiative of the Indonesian government to move landless people from densely populated areas of Indonesia to less populous areas of the country. (TR Leinback, ‘The transmigration programme in Indonesian national development strategy: current status and future requirements’ (1989) Habitat International 13 (3) 81-93).

130 Ibid.

companies to be committed to their investment. The new laws allowed regional governors to issue permits for the conversion of forest to plantations of up to 200 hectares. Conversion of forested areas over 200 ha remained the responsibility of the Directorate General of Estate Crops in Jakarta.

**Privatisation Phase:** The final years of the Suharto government regime was characterised by a rapid increase in private investment. Multiple laws facilitating this process were passed, including laws which consolidated the procedures by which companies could secure permits for developing plantation estates. These laws specified that a company must first obtain a temporary, one-year, start-up permit (*ijin prinsip*), which could subsequently be converted to a permanent permit (*itin tetap*) and to which an expansion permit could then be attached.

**Cooperatives Phase:** Following the demise of Suharto, the *reformasi* era saw the passing of natural resource management laws designed to benefit local communities. A law was passed to prohibit the conversion of forest to palm oil plantations (*hutan lindung*) in an effort to harmonize local and regional spatial planning procedures. However, simultaneously provincial governments were given the authority to issue three-year plantation permits to cooperatives (*ijin usha perkebunan*) of up to 1000 hectares. Similarly, the central Ministry of Forests and Estate Crops retained the power to grant permits for up to 20,000 ha.

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132 Ibid.
133 Ibid
134 Ibid
135 Id at 45.
136 Ibid.
137 Ibid
138 Ibid
139 Ibid
140 Ibid.
Decentralization: Decentralization instigated the passing of a new law which gave *bupatis* the authority to issue permits of up to 1000 hectares.\(^{141}\) Permits over 1000 ha were issued by the Ministry of Agriculture. In 2005, the Government again enacted a law which prohibited the conversion of primary forest to monocultures. However, soon after the moratorium was established, the Ministry of Forestry and Estates stated they would be evaluating proposals for conversion ‘based on merit’. Although a step in the right direction for forest conservation, the moratorium had little effect in practice.

Although the conversion of primary forest into plantations must theoretically be approved by the Ministry of Forestry and Estates, regional governments rarely comply with this regulation.\(^ {142}\) Similarly, although the Ministry has the power to revoke plantation licences, they have limited authority at the regional level.\(^ {143}\)

At the regional level, *Bupatis* and the Regional Development Planning Board (BAPPEDA, *Badan Perencanan Pembangunan Daerah*) have allowed the unsustainable, often illegal expansion of plantations to proceed for primarily economic reasons. Palm oil estates are the most likely to attract foreign investment, create local employment and export income and stimulate the establishment of industries downstream.\(^ {144}\) Potter and Lee (1998) speculate that *Bupatis* and BAPPEDA have the legal authority to grant access to land and ‘ease the passage for the developments of their choice through the complicated regulatory process.’\(^ {145}\) They argue that “oil palm companies, backed by wealthy

\(^{141}\) Areas with overlapping district boundaries remained with the provincial governors.


\(^{143}\) Id at 20.

\(^{144}\) Ibid.

investors with considerable personal influence, have the capacity to cultivate favour with local officials.”

As the Constitution and other Indonesian laws give the state the authority to control and allocate natural resources for the “benefit of the Indonesian people”, they have the power to reallocate land for state and private purposes. This includes the right to revoke community land rights for the expansion of palm oil plantations. Colchester et al speculate that “[a]ll too often the law treats what are in reality indigenous peoples’ lands as State lands.” They argue that in order to mitigate the detrimental effects of palm oil plantations, the national and regional government policies that allow the conversion of community land to increase economic revenue must be reformed.

4.4 How can Indonesian legislation be adapted to facilitate the Sustainable Production of Palm Oil (SPPO)?

Ernsting argues that the government must restrict the exportation of CPO by the major industry players and that these restrictions must be enforced. Kartodihardjo and Supriono recommend that the government change the status of primary natural forests to permanent forest and pass legislation which prohibits these forests being converted to other uses. Although, ideally the establishment of new plantations should be legally prohibited, perhaps it is better to have imperfect

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146 Id at 21.
148 Ibid.
149 Ibid.
150 Ibid.
and enforceable legislation than perfect unachievable ones. Thus, the establishment of new plantations should be restricted to degraded land or grassland.

4.5 Natural Resource Management

“The achievement of sustainable agricultural development requires the explicit integration of natural resource management concerns with the economic policy framework for agriculture.”

Barbier argues that the main obstacle to the SPPO in Indonesia is the lack of an economic policy that adequately addresses problems of natural resource management. This gap in policy has resulted in a lack of monitoring resource exploitation, and thus a failure to adequately adjust agricultural programs and incentives in response to environmental degradation. The slow response to resource over-exploitation by policy reform has resulted in large-scale unsustainable agriculture.

5. The Sustainable Production of Palm Oil

154 Id at 879-895.
155 Ibid.
156 Ibid.
“Done right, palm oil should generate wealth and employment for local communities. Done wrong, oil palm estates can lead to land alienation, loss of livelihoods, social conflicts, exploitative labour relations and degraded ecosystems.”

The most important aspect of the SPPO is ensuring primary rainforests are not cleared for the establishment of new plantations. Other environmentally sound practices include: contour terracing on sloping land, using buffalo carts to transport FFB’s and not burning residual vegetation prior to replanting. Nitrogen fixing legumes can also be used to prevent soil erosion. The establishment of early warning systems to detect insect infestations can also prevent the use of insecticides. Planting non-native plants, such as *Euphorbia heterophylla*, to attract beneficial insects also helps keep insect infestations under control. Permanent buffer zones of forest within the plantations also provide a source of insect and fungal predators to control crop pests. In order to reduce flooding, riparian forest and steep hill land should not be cleared.

In addition, wildlife corridors should be established on estate boundaries for conservation purposes.

The science of environmentally sound factory waste management is well established. Palm oil cake can be transported to Europe and used as animal feed; empty fruit bunches (EFB) and palm oil mill effluent (POME) should be recycled and used as fertilizer. When POME is purified it can be used as a fertilizer.
harmlessly discharged into rivers.\textsuperscript{163} A zero-burning policy is also now a well-established principle to ensure the SPPO.\textsuperscript{164} Lord and Ross suggest twenty-five innovative methods to becoming a responsible palm oil producer (Table 2).\textsuperscript{165}


<table>
<thead>
<tr>
<th>No.</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Formulate a corporate environmental policy</td>
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<tr>
<td>2</td>
<td>Develop an Environmental Management System (EMS)</td>
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<tr>
<td>3</td>
<td>Set performance standards for all aspects of the industry</td>
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<td>4</td>
<td>Carry out environmental impact assessment to evaluate new developments for the ability to sustain nature intact</td>
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<td>5</td>
<td>Provide management plans on biodiversity and identify and conserve high conservation value forest</td>
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<td>6</td>
<td>Adopt zero-burn techniques</td>
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<tr>
<td>7</td>
<td>Maintain genetically diverse genepools within breeding programs and then subsequently exploit genotype x environment interaction</td>
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<tr>
<td>8</td>
<td>Implement precision agriculture program</td>
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<tr>
<td>9</td>
<td>Establish soil conservation and erosion control measures</td>
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<tr>
<td>10</td>
<td>Integrate methods to increase fertilizer efficiency and minimize losses</td>
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<td>11</td>
<td>Capture the nutrients from flume liquid border (FLB) and Palm Oil Mill Effluent (POME) through land application and compost</td>
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<td>12</td>
<td>Adopt Integrated Pest Management practices (IPM) within the plantations</td>
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<td>13</td>
<td>Treat insecticides where possible when treating infestations</td>
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<td>14</td>
<td>Develop local weed control strategies by planning all herbicide applications</td>
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<td>15</td>
<td>Reduce and minimize within the plantations in particular adopt low-pressure tyres</td>
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<tr>
<td>16</td>
<td>Conserve expansion reserves</td>
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<tr>
<td>17</td>
<td>Enhance high milling efficiency and product quality</td>
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<tr>
<td>18</td>
<td>Improve efficiency and reduce waste in milling and refining (aim for Zero discharge of effluent from palm oil mills)</td>
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<tr>
<td>19</td>
<td>Improve energy efficiency at all levels within the plantation and service departments</td>
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<tr>
<td>20</td>
<td>Improve transport efficiency both in field and between plantation and mills through the adoption of a transport policy</td>
</tr>
<tr>
<td>21</td>
<td>Identify sources of pollution and target their reduction</td>
</tr>
<tr>
<td>22</td>
<td>Manage water and waterways to prevent pollution</td>
</tr>
<tr>
<td>23</td>
<td>Reduce emissions to air</td>
</tr>
<tr>
<td>24</td>
<td>Establish Occupational Safety &amp; Health Management</td>
</tr>
<tr>
<td>25</td>
<td>Improve social contribution to rural economy</td>
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</tbody>
</table>

Pin Koh and Wilcove suggest the SPPO could be achieved through the establishment of partnerships between NGO’s and palm oil corporations.\textsuperscript{166} This would involve NGOs purchasing small areas of existing plantations and using the revenue to establish a network of privately owned nature reserves.\textsuperscript{167} It has been proven that even small forest fragments can hold considerable biodiversity

\textsuperscript{163} Emily B. Fitzherbert, Matthew J. Struebig, Alexandra Morel, Finn Danielsen, Carsten A Bruhl, Paul F. Donald and Ben Phalan, ‘How will oil palm expansion affect biodiversity’ (2008) \textit{Trends in Ecology and Evolution} 23(10).
\textsuperscript{164} Ibid.
\textsuperscript{167} Ibid.
value.\textsuperscript{168} The scheme would be mutually beneficial as NGOs conserve the forest using palm oil revenues and companies can enhance their CSR reputation.\textsuperscript{169} Pin Koh and Wilcove argue that these joint ventures could drive the development of the market for SPPO and thus create an economic incentive for companies to continue sustainable production.\textsuperscript{170} The Indonesian government could also play a role in this initiative by leasing government owned land to NGOs to facilitate land acquisition.\textsuperscript{171}

Fitzherbert et al. also recommend group partnerships as useful mechanisms to facilitate the SPPO. They argue that “strategic alliances between multiple stakeholders, such as oil palm producers, environmental organisations, rural communities, government agencies and carbon off setters, have the largest chance of success.”\textsuperscript{172}

5.1 Hurdles to Sustainability

Palm oil plantations are more frequently established on primary forest than on pre-existing cropland.\textsuperscript{173} This is due to the revenue generated from the sale of the timber, in contrast to planting on cleared or abandoned land with no economic benefits.\textsuperscript{174} However, in the Indonesian part of Borneo alone, there are eight million ha of \textit{Imperata cylindrica} grassland and in the whole country over 25 million ha on which plantations could be established.\textsuperscript{175}

\textsuperscript{168} Emily B. Fitzherbert, Matthew J. Struiebig, Alexandra Morel, Finn Danielsen, Carsten A Bruhl, Paul F. Donald and Ben Phalan, ‘How will oil palm expansion affect biodiversity’ (2008) \textit{Trends in Ecology and Evolution} 23(10).
\textsuperscript{169} Ibid.
\textsuperscript{170} Ibid.
\textsuperscript{171} Ibid.
\textsuperscript{172} Emily B. Fitzherbert, Matthew J. Struiebig, Alexandra Morel, Finn Danielsen, Carsten A Bruhl, Paul F. Donald and Ben Phalan, ‘How will oil palm expansion affect biodiversity’ (2008) \textit{Trends in Ecology and Evolution} 23(10).
Some companies even purchase palm oil concessions to harvest the timber and then fail to establish the plantation. By March 1999, only 2% of the land allocated for palm oil plantations in West Kalimantan had been planted.\textsuperscript{176} Although the Asian economic crises impeded some of this development, this very poor performance indicates that companies may be more interested in exploiting concessions for timber than establishing plantations. Moreover, many of the private palm oil companies are subsidiaries of larger companies with logging interests.\textsuperscript{177} For example, RGM and Sinar Mas produce both pulp and paper, and palm oil.\textsuperscript{178} Potter and Lee argue that the “prospect of quick profits and the relatively limited establishment capital needed [to establish palm oil plantations] appears conducive to attracting companies with these backgrounds.”\textsuperscript{179}

The consequences of such business strategies are extremely detrimental to Indonesia’s biodiversity.\textsuperscript{180} Peh \textit{et al.} found that the conversion of primary forests to palm oil plantations reduced the species richness of forest birds by 77% whereas the conversion of rubber plantations to palm oil plantations resulted in only a 14% decline.\textsuperscript{181} Similarly, Koh & Wilcove found that the species richness of forest butterflies decreased by 83% when primary forest were converted to palm oil plantations. Koh & Wilcove (2008) stress that the establishment of palm oil plantations on already degraded land, abandoned land or grassland is essential to ensure the long-term survival of Indonesia’s endemic flora and fauna.

\textsuperscript{177} Ibid.
\textsuperscript{179} Ibid.
5.2 Management strategies that minimise the social impacts of palm oil plantations

Ironically, the rapid expansion of plantations without social considerations often leads to unsuccessful plantations due to social conflict. Thus, minimising tension with local communities should be a business priority. Corporate-community partnerships provide one way in which companies can overcome such difficulties. Vermeulen et al. found that positive impacts of these partnerships include “opportunities for income diversification, local access to paid employment and the development of new skills, improvement of local infrastructure and environmental improvement”. Nawir & Santoso found that a successful partnership must have “commercial feasibility, equitable contractual agreements, the full understanding of both parties of the potential benefits and costs, and risks of joining the partnership, and a shared understanding of co-management and participatory approaches”. Companies can further minimize social conflict through the establishment of schools, health centres with visiting doctors, roads, electricity and running water. Building community halls, cooperative shops, and sporting facilities is also beneficial.

6. The Roundtable on Sustainable Palm Oil (RSPO)

186 Ibid.
Charlotte Louise Richardson 200431233

The RSPO was established by WWF in 2002 with the objective of “promoting the growth and use of sustainable palm oil products through credible global standards and engagement of stakeholders.”\(^{187}\)

It is a non-profit, multi-stakeholder organisation that is comprised of palm oil producers, manufacturers, retailers, banks, investors and NGOs.\(^{188}\) Periodic audits of plantations and mills are conducted by independent certifiers.\(^{189}\)

The first members of the RSPO were Aarhus United UK Ltd, Karlshamns AB (Sweden), Golden Hope Plantations Berhad, Migrso, Malaysian Palm Oil Association, Sainsburys and Unilever (the Netherlands).\(^{190}\) There are now over 500 members from more than 25 countries (Figure 13). RSPO members account for approximately 35% of the palm oil produced worldwide.\(^{191}\)


**6.1 The RSPO Sustainability Criteria**


\(^{188}\) Ibid.

\(^{189}\) Ibid.


In 2003, the RSPO established criteria to measure the sustainability of palm oil plantations and refineries. These include:

**Principle 1: Transparency**

Transparency requires companies to disclose information to other stakeholders regarding their environmental, social and legal issues. This allows NGOs to gain a more comprehensive understanding of the company’s operations.

**Principle 2: Compliance with local, national and international ratified laws and regulations**

Compliance with local, national and international laws ensures companies respect adat rights, thus mitigating disputes between corporations and local communities.

**Principle 3: Use of best practices by growers and millers**

The application by millers and growers of the best-known method (BKM) helps to maintain soil fertility, water quality and minimize agrochemical usage.

**Principle 4: Environmental responsibility**

In order to be environmentally responsible, the company must identify any negative impacts of their operations on the ecosystem and endangered species. These impacts must then be addressed in the company management plans and operations. In addition, companies should use renewable energy sources wherever possible and adopt recycling and BKMs of waste disposal.

**Principle 5: Appropriate work labour practices**

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193 Ibid.


195 Ibid.

196 Ibid.
Appropriate work labour laws are essential in order to ensure plantation workers are paid in accordance with industry standards. Any negotiations for land use with indigenous communities must be transparent to mitigate corruption.  

**Principle 6: Development of new plantings.**

New plantations cannot be established on primary forest and controlled burning may not be utilised as a mechanism to clear land.

**6.2 Adoption of Best Management Practices**

In addition to compliance with these principles, RSPO members must show a commitment towards the SPPO through the adoption of Best Management Practices (BMP). By adopting BMP, companies must use Integrated Pest Management (IPM), rather than agrochemicals like pesticides to control insect populations. IPM involves the use of barn owls to control rat populations rather than pesticides or the planting of leguminous crops to minimize soil erosion. BMP of waste management strategies include reusing palm oil’s EFBs as fertilizer and using the fibre for pulp and paper production.

**6.2 Stages of Certification**

There are five main stages in the RSPO certification system. The first stage is the ‘mainstreaming process’ in which the staff are briefed on the RSPO Principles and Criteria (P&C) and make a commitment to follow these guidelines. The second stage is the ‘baseline audit’, which identifies the gap between the company’s current performance and the standard required by the RSPO. This audit may be performed by an in-house review panel, an independent consultant, or a certification

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197 Ibid.
The third stage is the ‘preparation for certification’, in which a certification task force is established to close the gaps identified in the previous stage. Activities may include High Conservation Value Forest (HCVF) assessments, identification of potential environmental impacts, restoration of riparian buffer zones and installation of boundary markers for land holdings. Following preparation, the RSPO hires a certification body to undertake a pre-audit. The final stage involves the actual certification audit, in which a team of specialists assess each RSPO P&C to measure the company’s performance. They also assess all the other plantations owned by the company to ensure there are no ‘major breaches’ of the RSPO P&C. Certification will only be awarded when all major non-compliances have been addressed.

6.4 Achievements of the RSPO

The first sustainable palm oil certification was awarded in 2008. There are now 351 ordinary members, 78 affiliate members and 10 supply chain associates. Ordinary members include palm oil producers, processors, traders, manufacturers, retailers, banks, investors and NGOs. Affiliate members are organisations which are not as actively involved as the ordinary members, but have an interest in the RSPOs objectives and activities.

In July 2009, approximately 4% or 1.5 million tonnes of the palm oil produced was RSPO certified. Since certified palm oil became commercially available in December 2008, approximately 250,000

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201 Ibid.
202 Ibid.
203 Ibid.
204 Ibid.
205 Ibid.
tonnes of palm oil has been purchased.\textsuperscript{210} Over the last year, certified producers sold approximately 22\% of their palm oil at a premium price.\textsuperscript{211} In September and October (2009), market uptake rose to approximately 50\% with over 100,000 tons of certified palm oil purchased globally.\textsuperscript{212} By January 2010, RSPO certified plantations were able to supply 1.76 million tonnes of sustainable palm oil annually, which is approximately 13 times the amount imported into Australia every year.\textsuperscript{213}

In October 2009, the president of the RSPO, Jan Kees Vis, stated that “six years after the foundation of the RSPO, we are witnessing the first stages of a viable market for sustainable palm oil, now is a great time for more producers and users of palm oil to join the endeavour, so that one day all palm oil will be produced in a socially and environmentally sustainable way.”\textsuperscript{214}

6.5 Problems with the RSPO

Although the RSPO has had some success in promoting the SPPO, there are still a number of significant issues that must be resolved. Firstly, some of the criteria are still weak because they lack operational meaning and are thus difficult to monitor and audit.\textsuperscript{215} Practically implementing the principles is also problematic due to a general lack of company knowledge, motivation and effective corporate governance. Principle 5 and 6, concerning the social criteria and the development of new plantations have proven to be the most difficult to implement.\textsuperscript{216}

\begin{thebibliography}{99}
  \bibitem{211} Trade in sustainable palm oil has taken off' (Press Release, 30 October 2009)
  \bibitem{214} Trade in sustainable palm oil has taken off' (Press Release, 30 October 2009)
  \bibitem{215} Ibid.
\end{thebibliography}
Moreover, the plantations that have become certified are generally already well established. Newer companies that have recently been granted logging licences have proven much less inclined to adopt the RSPO P&Cs. Another issue is that preservation areas established for conservation purposes are not necessarily protected from loggers. The RSPO cannot guarantee the long term safety of such nature reserves. Furthermore, the RSPO has not successfully marketed the certified palm oil product. Consequently, awareness about the impacts of UPPO remains limited. Nikoloyuk et al speculate that the abundance of technical experts on the RSPO executive board has led to the under representation of marketing issues that are crucial for corporate motivation.

6.6 Criticisms of the RSPO

There are a number of NGOs which remain critical of the RSPO certification system. Greenpeace is one such organisation and has published numerous reports targeting RSPO members, particularly Unilever and Unilever suppliers. In 2007, they published a report called ‘Cooking for the Climate’, in which the RSPO was heavily criticized. More recently, Greenpeace launched a campaign against Nestlé for sourcing palm oil from Sinar Mas, which has been accused of clearing primary rainforest to establish plantations. This has had a negative impact on the RSPO as Sinar Mas has been a member since 2005. Ian Duff, a Greenpeace campaigner, stated publicly that the RSPOs conditions of membership are "not strong enough and not policed".

Friends of the Earth (FoE) have also criticized the RSPO for having low standards and not properly sanctioning its members. They have further criticised them for allowing that sustainability

217 Ibid.
218 Ibid.
219 Ibid.
220 Ibid.
224 Kai Tabacek, ‘Nestlé stars in smear campaign over Indonesian palm oil,’ Sustainable Business Intelligence (18/3/2010)
certification on a ‘plantation-by-plantation’ basis, thus allowing a company to obtain a ‘stamp of approval’ based on only one sustainable plantation.\textsuperscript{225} In October 2007, they demonstrated their disagreement with the RSPO by staging an installation of synthetic tree stumps outside a RSPO meeting in Brussels, Belgium (Figure 14).

![Figure 14. Friends of the Earth staged an installation outside a meeting of the Roundtable for Sustainable Palm Oil in Brussels, Belgium. Source: ‘RSPO: Stop destructive Palm Oil: EU must say no to palm oil for energy and transport fuel’ (Press Release, 9 October 2007).](image)

Barison comments that “although the RSPO has progressed towards formulating a set of principles and criteria for sustainable production, [it] has yet to implement a scheme to enable SPPO to be certified with full traceability. It is not easy to implement such an ambitious scheme, since maintaining the chain of custody for traceability purposes will be difficult and expensive.”\textsuperscript{226} Other critics refer to the RSPO as “Really Slow Progress Overall” and have stressed the need for harsher penalties for offending companies.\textsuperscript{227} Although Vengeta Rao, a secretary general of the RSPO state that membership will be terminated if auditors find evidence of non-compliance, not a single

\textsuperscript{225} ‘RSPO: Stop destructive Palm Oil: EU must say no to palm oil for energy and transport fuel’ (Press Release, 9 October 2007).
\textsuperscript{227} ‘The Other Oil Spill’ The Economist (June 24, 2010).
company has had their membership revoked. Moreover, the RSPO has not yet implemented an effective action on the greenhouse gases associated with palm oil plantations.

Such a substantial body of negative publicity has become a deterrent to companies considering RSPO certification. Nikoloyuk et al. point out that “producers who largely joined the initiative to combat negative publicity now see the leading certified companies becoming targets for future attacks.”

6.7 Improvements to the RSPO

There are a number of potential improvements that could be adopted by the RSPO in order to rectify current flaws which have become focal points for public criticism. Perhaps the most pressing amendment to the RSPO criteria should be a condition whereby all plantations owned by the major company must be certified to obtain membership into the RSPO. If this process presents too great a deterrent to be practically implemented, there should at the very least be specifications that state that a company must be transparent and forthright about only certifying a fraction of its subsidiaries. Moreover, the RSPO should ensure they monitor and enforce the RSPO P&C at every stage of production. Palm oil has a very complex supply chain; it must be grown, farmed, crushed, refined and processed (Figure 15).

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Nikoloyuk et al. argue that in order for the RSPO scheme to be effective, the RSPO criteria must be incorporated into Indonesian legislation. They stress that the initiative should be seen as a “precursor to legislation rather than an alternative to government regulation.” However, incorporating these standards into legislation does not mean they will be enforced. Corruption is pervasive in Indonesia and would most likely impede the proper implementation of this legislation.

6.8 Conquering Corruption

The Indonesian forestry industry is characterised by corruption and failures of government. From petty bribery by forest officials to payments to the highest levels of administration, corruption riddles Indonesian society. Forest guards, politicians, customs officials, and forest bureaucrats

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230 Ibid.
233 Ibid.
who issue dubious permits are all involved in facilitating the UPPO.\textsuperscript{234} Corruption is also facilitated by the poor pay of government officials, which increases the likelihood of bribery, particularly when officials control valuable natural resources.\textsuperscript{235} Sargeant speculates that the corrupt allocation of concessions continues to prevail because it encourages foreign investment.\textsuperscript{236}

Corruption in Indonesia is also a result of weak political institutions, poorly developed ‘checks and balances’ among government agencies, and pervasive nepotism.\textsuperscript{237} Moreover, the lack of transparency in large conglomerates prevents the collection of data that allows the Indonesian government to make informed decisions.\textsuperscript{238}

The integration of different Government departments could be promoted through communication in organised meetings mediated by an external party. The cooperation and utilization of an already established pre-existing organisation such as Transparency International (TI)\textsuperscript{239} may be useful in monitoring the success of anti-corruption mechanisms. TI stress the need for developed countries to provide practical assistance to developing countries in order to curb corruption.\textsuperscript{240} Sargeant argues that in order to become transparent companies must publish accurate boundary maps and the geographic coordinates of all their land holdings, including villages and associated smallholder palm oil estates.\textsuperscript{241}

\textsuperscript{234} Ibid.
\textsuperscript{239} http://www.transparency.org.
5. The Role of Corporate Social Responsibility

Corporate Social Responsibility (CSR) is the notion that companies should “integrate social and environmental concerns in their business operations and in their interactions with their stakeholders on a voluntary basis.” The environmental component of CSR is defined as the obligation to ensure the environmental impacts of a company’s operations, products and facilities are appropriately managed. It is the companies’ duty to eliminate waste and emissions, maximise efficiency of resource consumption and comply with the principle of intergenerational equity. An increasing number of corporations are beginning to adopt voluntary codes of conduct in order to incorporate environmental responsibility into their corporate identity to minimize the risk of consumer backlash in a changing society.

Private investors and corporations are now the primary driving force behind the growth of the palm oil industry. In 1998, approximately half of the palm oil plantations in Indonesia were owned by private companies, one-third by smallholders and the remainder by the state. This is largely a result of the Suharto government implementing private business strategies to encourage foreign investment. These incentives included granting access to credit at concessionary rates for companies developing estates, planting new crops, or purchasing crushing facilities. They also

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Charlotte Louise Richardson 200431233

granted loans to newly emerging companies from an “executing bank” at a rate of 11% during land preparation and plantation, and 14% after the first yield.\textsuperscript{248}

By 1997 the private palm oil subsector was dominated by just 10 conglomerates: the Salim Group, the Sinar Mas Group, the Texmaco Group, the Raja Garuda Mas Group, the Astra International Group, the Hashim Group, the Surya Dumai Group, the Napan Group, the Duta Palma Group, and the Bakrie Group. These 10 companies owned land banks comprising 2.9 million ha or 64% of the total planted area by private enterprise.\textsuperscript{249} Most of these companies are also implicated in the pulp, paper and plywood industries.\textsuperscript{250}

Each of these companies has holding companies, companies that own their outstanding stock and do not produce palm oil, and numerous subsidiaries. This allows them to effectively circumvent Indonesian legislation which prohibits a single company from owning over 20,000 ha in any one province (Table 3).\textsuperscript{251} As forementioned, this also allows the company to become RSPO certified by having only one certified subsidiary, whilst the others continue to operate unsustainably.


<table>
<thead>
<tr>
<th>Group</th>
<th>Holding Company</th>
<th>Total area planted (ha)</th>
<th>Land bank (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salim Group</td>
<td>PT Salim Plantations\textsuperscript{2}</td>
<td>240,000</td>
<td>340,000</td>
</tr>
<tr>
<td>Sinar Mas Group</td>
<td>PT Golden Agri Resources</td>
<td>360,000</td>
<td>320,000</td>
</tr>
<tr>
<td>Texmaco Group</td>
<td>None</td>
<td>35,500</td>
<td>168,000</td>
</tr>
<tr>
<td>Raja Garuda Mas Group</td>
<td>PT Asian Agri</td>
<td>220,000</td>
<td>229,000</td>
</tr>
<tr>
<td>Astra Group</td>
<td>PT Astra Agro Lestari Tbk</td>
<td>125,500</td>
<td>192,400</td>
</tr>
<tr>
<td>Hashim Group</td>
<td>None</td>
<td>165,500</td>
<td>244,200</td>
</tr>
<tr>
<td>Surya Dumai Group</td>
<td>None</td>
<td>61,000</td>
<td>114,000</td>
</tr>
<tr>
<td>Napan Group</td>
<td>PT - PP London Sumatera Indonesia Ltd</td>
<td>39,000</td>
<td>235,600</td>
</tr>
<tr>
<td>Duta Palma Group</td>
<td>None</td>
<td>45,500</td>
<td>65,500</td>
</tr>
<tr>
<td>Bakrie Group</td>
<td>PT Bakrie Sumatra Plantations</td>
<td>34,500</td>
<td>19,300</td>
</tr>
</tbody>
</table>


\textsuperscript{249} Ibid.

\textsuperscript{250} Ibid.

7.1 Socially Responsible Investment (SRI)

Socially Responsible Investment (SRI) is one of the fastest growing areas of finance. In the last decade, the notion of SRI has begun to enter mainstream investment practices. There is “growing evidence of systematic attempts to add moral or social factors to traditional financial criteria in the construction of share (stock) portfolios.” This has important implications for CSR, as larger investment funds are now screening companies based on their CSR behaviour prior to investing. For example, the Ethical Investment Fund in Australia employs a rigorous and consistent screening process before investing. This process involves actively seeking out commercial activities which bring social or environmental benefits, and avoiding investing in activities which are socially or environmentally harmful. Approaching investors in the palm oil industry and encouraging them to adopt a similar screening process would provide an incentive for companies to operate sustainably.

7.2 The Role of Banks

Banks fund a large proportion of the corporations that clear forest for the UPPO. An example of the powerful influence of banks in developing the palm oil industry can be seen through the relationship between the International Netherlands Group (ING) and the Sinar Mas subsidiary, PT Salim Ivomas Pratama (SIP). In April 2002, ING granted SIP a US$100 million loan for their palm oil plantations. In contrast, the World Bank has suspended the International Finance Corporation (IFC) funding of the palm oil sector until the development of adequate indicators that can measure the

253 Ibid.
255 Ibid.
257 Ibid.
extent of its environmental and social impacts. The IFC noted the influential power of their decision in that “many private banks turn to the IFC for leadership in their lending procedures and use the Performance Standards to guide them.”258 The president of the World Bank, Robert B. Zoellick, stated that “an integral part of the IFC’s strategy is to only work with clients who are committed to achieving internationally recognized certification of their operations.”259

7.3 The Role of Supermarkets

Since the 1990s, the increasingly prevalent supply chain characterised by environmental abuse and excessive luxury has emerged in public awareness.260 NGO’s and the media have facilitated this process, pushing industries to adopt increasingly stringent ethical and moral codes. In recent years, these organisations have begun to put pressure on the supply chains of supermarkets, demanding the ethical sourcing of products.261 Encouraging supermarkets to source products containing sustainably produced palm oil facilitates an ethical choice for consumers. This approach utilizes a ‘pressure chain’, in which consumers drive supermarkets to act, supermarkets drive companies to act and companies pressure their palm oil supplier to become sustainable (Figure 16).

Figure 16. The pressure chain from the consumer to the oil palm producer. Source: Author (2010).

261 Ibid.
8. Major Players in the Palm Oil Industry: Corporate Profiles

There are three main stages involved in the production and dispersal of palm oil worldwide: the production, manufacturing and consumption stages (Figure 17). The following section details the major producing companies in Indonesia and the manufacturers who source palm oil from Indonesia, through a juxtaposition of their alleged commitments to CSR with criticisms by NGOs in the field. Section 9 will then address the role of legislation in western countries in enabling consumers to make an ethical choice when purchasing products containing palm oil.

Figure 17. The production and dispersal of palm oil, including the producer, manufacturer, and consumer. Source: Author (2010).

8.1 Producers
The Salim Group is one of the largest conglomerates in Asia. The business was established by the Salim family in 1990 who still own 52% through Hong Kong-based First Pacific Company. It has a vast, expanding network which spans across a number of food industries in Indonesia, the Middle East, Thailand and Malaysia. The Salim Group own the company Indofood Agri Resources Ltd (IndoAgri) which produces 90% of Indonesia’s instant noodles and over 60% of the domestic market for branded cooking oils, shortenings and margarine, baby foods, and snack foods. IndoAgri has three major palm oil subsidiaries, PT SIMP (PT Salim Ivomas Pratama), PT Perusahaan Perkebunan London Sumatra (LONSUM) and PT Gunung Mas Raya (GMR) (Figure 18). Its ownership of such a significant share of the market makes IndoAgri the largest Indonesian consumer of CPO. In total, it owns 549,287 ha of land, of which 227,721 ha have been planted and 35,566 ha remains unplanted.

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263 Rendi A. Witular, ‘Salim in Driving Seat at Indofood’ The Jakarta Post (26 June 2004).
264 Ibid.
265 Ibid.
266 ‘Indofood Group a Giant in Food Industry’ The Indonesian Commercial Newsletter (1 July 2007).
267 Ibid.
269 WWF Asia Pacific Forest Program & WWF Indonesia, Case study PT Gunung Mas Raya (2003).
270 Ibid.
Commitment to CSR

IndoAgri “considers environmental compliance and protection to be an integral and critical part in the conduct of its operations, and it is committed to achieving high standards of environmental management and sustainable production of CPO.”

Its major environmental concerns are the discharge of effluent and waste from the mills and land clearance for plantation establishment. IndoAgri explicitly state that “it is solely operating oil palm plantations and refineries and is not involved in clearing tropical rain forest for conversion to oil palm.” Whilst PT SIMP and LONSUM are RSPO members, GMR is not certified.

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273 Ibid.

A study conducted by WWF Asia Pacific Forest Program (APFP) & WWF Indonesia\textsuperscript{275} found the GMR plantations, together with most other IndoAgri subsidiaries, have implemented a number of the RSPOs BMPs.\textsuperscript{276} All organic waste materials produced in the plantations and CPO mills were recycled and all mills had adopted an IPM program, such as the use of barn owls for rat control.\textsuperscript{277}

**Criticisms**

Although the WWF APFP & WWF Indonesia report found a number of responsible management practices in the GMR plantations, they also found some significant legal violations. GMR had expanded its plantations outside its allocated concessionary boundaries, cleared HCVF, converted peat swamps into plantations, utilized the controlled burning technique and been implicated in land disputes.\textsuperscript{278}

The Salim group has also been heavily criticised for their longstanding, crony relationship with the Suharto family.\textsuperscript{279} The World Rainforest Movement (WRM)\textsuperscript{280} claims that the Salim group and the Sinar Mas Group established a joint venture in the mid-1980s, involving two of Soehartos sons, Sigit Harjojudanto and Tommy Soeharto, and Soeharto’s cousin, Sudwikatmono.\textsuperscript{281} Although this joint venture came to an end in the late 1980’s, the Soeharto family maintained interests in both

\textsuperscript{275} WWF-Indonesia is an independent foundation registered under Indonesian law. It is managed by a Board of Trustees consisting of the Board of Advisors, Board of Trustees and Executive Board (For more information see Appendix B). *About WWF, WWF* <http://translate.google.com.au/translate?hl=en&sl=id&u=http://www.wwf.or.id/&ei=KVJBTPfIIWEvAO5gNmQDQ&sa=X&oi=translate&ct=result&resnum=1&ved=0CCgQ7gEwAA&prev=/search%3Fq%3DWWF%2Bindonesia%26hl%3Den>

\textsuperscript{276} WWF Asia Pacific Forest Program & WWF Indonesia, *Case study PT Gunung Mas Raya* (2003).

\textsuperscript{277} Ibid.

\textsuperscript{278} WWF Asia Pacific Forest Program & WWF Indonesia, *Case study PT Gunung Mas Raya* (2003).


\textsuperscript{280} The World Rainforest Movement (WRM) is an international organization that advocates for social change, the respect of human rights and environmental conservation. (*About the World Rainforest Movement, World Rainforest Movement* <http://www.wrm.org.uy/about/index.html>accessed 2 August 2010.)

\textsuperscript{281} Ibid.
groups. Similarly, Dieleman & Sachs speculate that the Salim Groups rapid success was largely due to its relationship with Soeharto.

8.3 Sinar Mas

Founded in 1962, Sinar Mas owns one of the largest palm oil conglomerates in Indonesia, PT Sinar Mas Agro Resources and Technology Tbk (SMART). SMART owns approximately 134,000 ha of palm oil plantations in Sumatra and Kalimantan and operates 15 mills, four kernel crushing plants and three refineries. It cultivates and harvests palm trees, processes FFB into CPO and refines CPO into cooking oil and margarine. In 2005, SMART finalised a US$5.5 billion investment deal with China National Offshore Oil Corporation (CNOOC) and Hong Kong Energy. Another one of Sinar Mas’s major companies, PT Ivo Mas Tunggal (IMT), and its multiple subsidiaries own a total planted area of 87,000 ha, which includes both nucleus and plasma estates. They operate eight CPO milling facilities with a total capacity of 450 tonnes per hour and two Kernel Crushing Plants with a joint capacity of 350 tonnes per day.

Commitment to CSR

Sinar Mas insists they are committed to CSR in all their palm oil operations. It has recently recruited the Netherlands-based Control Union Certification (CUC) and British Standard Institute (BSI) to audit

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282 Ibid.
287 Ibid.
its operations, the results of which are expected within the next month. Sinar Mas is a member of the RSPO through IMT and SMART. Both companies are subsidiaries of Golden Agri Resources (GAR). SMART reaffirmed its commitment to the SPPO production in April, 2010. The company announced that it would no longer develop on HCVF, peatland or primary forest. The organisations senior representative stated in their 2009 annual RSPO audit that: “We will always improve our practices to comply with RSPO criteria and we are very open to discuss with any stakeholder under RSPO scheme.” IMT has also committed to implementing sustainable practices in its palm oil operations. Since the RSPO released the P&C for the SPPO in 2005, they have conducted the “RSPO Gap Analysis and made many improvements in compliance with sustainable criteria.” They aim to obtain sustainability certification in all of their mills and plantations by 2009 to 2012.

**Criticisms**

An investigation by ‘Eyes on the Forest’ (EoF) in 2008 revealed that Sinar Mas subsidiaries were constructing a legally dubious highway through peatland forest in the Riau Province of Sumatra, critical habitat for the endangered Sumatran tiger. EoF found that Sinar Mas had already completed a 45 km highway which resulted in a 50 m wide gap in the forest, releasing large amounts of CO₂ emissions (Figure 19). WWF Indonesia claims that “APP [Sinar Mas paper and pulp company] is the single biggest contributor to the destruction of natural forest and peat soil in the

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289 SMART Reaffirms its Commitment to Sustainable Palm Oil Jakarta Post (27 April 2010).
291 Ibid.
292 Ibid.
293 Ibid.
294 EoF is a coalition of environmental NGOs in Riau, including Friends of the Earth (FoE), the Riau Forest Rescue Network and WWF Indonesia. EoF monitors the status of the remaining forests in Riau and disseminates the information globally. (Eyes on the Forest, Asia Pulp & Paper/ Sinar Mas Group Threatens Senepis Forest, Sumatran Tiger Habitat, and Global Climate: Investigative Report’ (2008) Available at www.eyesontheforest.or.id.)
296 Ibid.
original ecosystem where the [UNESCO] Biosphere Reserve was established. Between 1996 and 2007, APP had pulped 177,000 ha- 65 percent of all natural forest loss in the ecosystem.”


In 2009, Sinar Mas were accused of starting forest and peat fires in its concessions in Central Sumatra. EoF satellite images reveal that 50% of forest fires in the Biosphere Reserve occurred inside Sinar Mas concessions. This is in direct contravention of their license conditions and responsibilities as a member of the RSPO. They have also been accused of contravening ‘Presidential Decree Number 32 Year 1990’, which prohibits the clearance of natural forest on peat soil deeper

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297 The Giam Sial Kencil-Bukit Batu forest UNESCO Biosphere Reserve was the first ever biosphere to be proposed by APP and Sinarmas Forestry. The reserve covers 178,000 ha and was the seventh biosphere reserve in Indonesia. (First-ever Industry Proposed Biosphere Reserve Approved by International UNESCO MAB Committee: Stakeholder Update No 05/09 (2009) AAP< http://docs.google.com/viewer?a=v&q=cache:PuzsGbT4ptQI:www.asiapulppaper.com/portal/app_portal.nsf/Web-MenuPage/E43A786E2645CD8472575D800EBA88/%24FILE/090616APPStakeholderUpdate05-09.pdf+biosphere+riau&hl=en&gl=au&pid=bi&srcid=ADGEESi3hccIXHUv9Ow5oZo0DsP5XNkbGWH8FBF9HYM Kp27M9ixZ98sTRhNY6e1ye1kls1wAAsHhtf5c9a7Br2p9PuPZZEYC6YR4QLvOb4aNWC211_Q-f9yXtXuxwvXWVJJQntszti&sig=AHIEtbTnn2moFCRSG0Mp5_z9oXy9rS2lg>accessed 18 July 2010.

298 ‘Fires in APP/Sinar Mas Concessions Add to Region’s Haze Woes, Threaten New UN Biosphere Reserve’ (Press Release 27 July 2009).

299 Ibid.

300 Ibid.
than three meters. Together, APP and Asia Pacific Resource International (APRIL) have cleared over 130,000 hectares of primarily peat forest.

In 2009, Greenpeace released a report entitled "How Sinar Mas is Pulping the Planet." The report stipulates that SMART was deliberately clearing rainforest and peatland without the required permits from the government. Moreover, it states that this forest is critical habitat for the Sumatran tiger and Orang-utan. Sinar Mas responded to these allegations by claiming that Greenpeace’s report was based on "inaccurate, misleading, exaggerated and generalized data and claims." The company denied they cleared primary rainforest and stated that peatland plantations only comprised 4% of its total plantations. It further denied allegations of operating without the appropriate permits.

In May 2010, a senior campaigner at Greenpeace claimed they had new evidence that the Sinar Mas subsidiary, PT ALM, was destroying peatland deeper than three meters and HCVF in West Kalimantan. Moreover, Greenpeace claim to have found another of Sinar Mas’s subsidiaries, PT BAT,

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301 Ibid.
302 APRIL is owned by Royal Golden Eagle (RGE) and is one of the largest pulp and paper companies in the world. APRIL Indonesia is located on a 1,750 hectare site in Riau. APRIL’s operations include pulp and paper mills, an integrated chemical plant, and a power plant that generates all the energy for the complex, mainly from bio-fuels. (Asia Pacific Resources International Holdings Ltd. (APRIL) Zimbio<http://www.zimbio.com/Bursa+Lowongan+Kerja/articles/3aHs4J-ZeC2/Asia+Pacific+Resources+International+Holdings>accessed 19 July 2010; RGM International: Introduction<http://www.infopetro.com/company/ViewCompany.asp?id=462accessed 9 May 2010.
303 Greenpeace is an independent campaigning organisation that was established in 1971 and now contains 41 offices globally. It utilizes non-violent direct action to “expose global environmental problems and to force solutions which are essential to a green and peaceful future.” In 2007, Greenpeace had a total of 2.9 million financial supporters worldwide (Questions about Greenpeace in general (2009) Greenpeace International<http://www.greenpeace.org/international/en/about/faq_old/questions-about-greenpeace-in/#a3> accessed 3 July 2010).
305 Kai Tabacek, Nestlé stars in smear campaign over Indonesian palm oil,” Sustainable Business Intelligence (18/3/2010).
307 Ibid.
clearing rainforest bordering critical Orang-utan habitat. Greenpeace argues that this new evidence “clearly shows that buying palm oil from members of the RSPO does not protect consumer companies from buying a product connected to forest destruction and climate change. The only solution is to demand a full moratorium on all forest and peat land clearance from all suppliers of palm oil.”

8.4 Royal Golden Eagle (RGE PTE LTD)

RGE PTE LTD, previously known as RGM International, is comprised of a number of independent companies. It is owned by Indonesia’s wealthiest man, Sukanto Tanoto. The company has total assets worth US$10 billion and employs over 50,000 people. RGM owns and operates the world’s largest pulp mill, Riau Andalan Pulp and Paper (Riaupulp) in Sumatra and one of Asia’s largest CPO producers, Asian Agri. Asian Agri owns 160,000 ha of palm oil plantations, 19 mills and four refineries.

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314 Ibid.
Commitment to CSR

RGE claim it does not source timber from primary rainforest and HCVF, and only establishing plantations on unproductive and degraded land. RGE ensures it only uses the latest technology to facilitate low environmental impact processes. Moreover, its effluent treatment facilities and environmental performance is in compliance with international standards: ISO 9001, ISO 14001 and OHSAS 18001 certifications.

Asian Agri is a member of the RSPO through its PT Inti Indosawit Subur (IIS) subsidiary. It exercises CSR through ISO certification of all its estates and mills, allowing trial audits to be conducted under the supervision of the Indonesian Smallholders TaskForce, working in collaboration with third parties such as universities, welcoming stakeholder visits to facilitate transparency and actively working towards attaining RSPO certification for all its palm oil plantations.

Criticisms

RGE’s pulp and paper company, Asia Pacific Resources International Limited (APRIL) is notorious for the detrimental environmental impacts of its operations. Yosef Ardi (2006) found that APRIL’s mills accepted wood from illegal sources. In 2006, WWF found deforestation in the Riau province.

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315 Ibid.
316 Ibid.
has been increasing in recent years, despite APP and APRIL’s commitments to conservation.\textsuperscript{322} Moreover, the rate of deforestation in Riau increased from 73,000 ha in 2002 to more than 200,000 ha in 2005, during a time when APRIL was experiencing financial difficulties.\textsuperscript{323} In addition, APRIL’s security guards were recently involved in disputes with local people who were planting oil palm within a concession owned by one of APRIL’s partner companies.\textsuperscript{324}

RGMs pulp mill, Inti Indorayon Utama (IIU) in Sumatra, has also been heavily criticised for invoking conflict with local people due to pollution and land disputes.\textsuperscript{325} An example of this conflict can be seen in a recent incident in which the expansion of a plantation resulted in a land-slide that killed 13 people. In addition, the plants waste tailings pipes frequently leak, damaging nearby farmers’ land.\textsuperscript{326} Although protestors managed to force IIU to close down in 1998 through establishing a series of road blocks, they were soon driven away when police shot seven and detained and tortured 90 people. The company denied any involvement in the police action.\textsuperscript{327}

8.5 The Astra International Group (AAL)

PT Astra Agro Lestari Tbk (AAL) is one of the largest plantation companies on the Indonesia Stock Exchange (IDX).\textsuperscript{328} In 2009, AAL managed 20 palm oil plantations, located in eight provinces in Sumatra, Kalimantan and Sulawesi. The total area under cultivation is 250,883 ha, comprised of

\textsuperscript{324} Ibid.
\textsuperscript{327} Joe Leahy, ‘Indonesia’s corporate clean-up’, Financial Times (21 February 2006).
Charlotte Louise Richardson 200431233

193,709 ha of nucleus plantations and 57,174 ha of plasma plantations. Its 20 mills have a total capacity of 940 tonnes of FFB per hour and its five kernel crusher plants have a capacity of 600 tonnes of kernels per day.

Commitment to CSR

AAL began implementing CSR programs in the 1970s based on the notion that success requires “working together....to provide benefit to the community as well as to the nation”. Its sustainability reports claim that its CSR programs are implemented at every level of production and progress monitored through periodic audits. The Company also implements the environmental management standards of the PT Astra International Tbk. Group or the “Astra Green Company” (AGC) which provides guidelines for all Astra subsidiaries. Specific management system guidelines have also been created to facilitate CSR. Moreover, AAL has been actively identifying and protecting HCVF in their plantations since 2006.

Criticisms

In 2007, Wetlands International accused AAL of severely degrading the Tripa peat swamp forests in order to establish palm oil plantations. The AAL concession is located within an area of forest

329 Ibid.
330 Ibid.
334 Ibid.
335 Ibid.
336 Wetlands International is a global organisation established in over 100 countries that work to sustain and restore wetlands and their resources. Their work ranges from research and community field projects to advocacy and engagement with governments, corporate and international policy conventions. (About Wetlands International (2007) Wetlands International: Wetlands for Water and Life <http://www.wetlands.org/Aboutus/tabid/54/Default.aspx >accessed 17 July 2010.).
which provides a buffer zone that protects communities from extreme weather events. The area also lies within the ‘Leuser Ecosystem’, a major biodiversity hotspot. The UNEP/UNESCO Great Ape Survival Programme (GRASP) lists the swamp forests as a priority site for the Sumatran Orang-utans as it is home to 4% of the wild population. AAL’s permit to clear this forest was allocated during the Suharto’s regime and now contravenes ‘Presidential Decree Number 32 Year 1990’, that prohibits the conversion of peat swaps deeper than three meters. Moreover, drainage of the plantations automatically drains the forest far outside of the concession boundaries. Wetlands International have evidence that AAL have also been contravening national legislation by utilizing the controlled burning technique (Figure 20).


338 Ibid.
An overflight investigation in June 2009, conducted by Yayasan Ekosistem Lestari, documented AAL actively converting drainage canals and setting fires for land clearance (Figure 21). In November 2009, AAL publically announced that it would be closing down due to negative publicity from environmental NGOs.


8.6 Wilmar International Limited

Wilmar was founded in 1991 and is now the world’s largest palm oil refiner, one of the world’s largest palm oil plantation owners and biodiesel manufacturers. Its activities include oil palm

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cultivation, refining, oilseeds crushing, processing and merchandising, specialty fats, oleochemicals and biodiesel manufacturing, and grains processing and merchandising. It employs over 60,000 people, has 160 processing plants and an extensive distribution network. Its products are sold to more than 50 countries worldwide.

**Commitment to CSR**

Wilmar allege that they have adopted a ‘responsible plantation management approach’, which enables them to enhance biodiversity, without compromising yields or profitability. They advocate that environmental conservation and economic prosperity can work through the utilization of sustainable agriculture. Wilmar state that it is crucial the production and use of palm oil is “done in a sustainable manner based on economic, social and environmental viability”. Their sustainability commitments include: not establishing plantations on HCVF, primary forest or peatland less than three meters deep; compliance with national legislation and the RSPO criteria; ensuring agreements with local communities are clearly defined and legally established; and adopting a zero-burning policy.

**Criticisms**

An internal audit by the IFC found that Wilmar’s practices were so socially and environmentally destructive that it should never have been eligible for financing. The IFC has suspended all future investment in Wilmar pending stakeholder consultations. In addition, Wilmar recently lost a long-

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344 Ibid.
345 Ibid.
running dispute with FoE over its links to illegal land clearance.\textsuperscript{350} Wilmar has also been accused of tax fraud by two Indonesian newspapers\textsuperscript{351} as it is due to receive “questionable” tax refunds worth $385 million over the three years from 2007 to 2009.\textsuperscript{352}

\section*{8.7 Cargill}

Cargill is an American owned agribusiness and is the largest importer of palm oil into the United States. Cargill owns and operates palm oil plantations in Indonesia, and purchases and trades palm oil worldwide. Their main subsidiaries are PT. Hindoli in South Sumatra and PT. Harapan Sawit Lestari and subsidiary in Kalimantan.\textsuperscript{353} These plantations cover a total land area of 41,000 hectares. In addition, they own and operate four palm oil mills with a total capacity of 320 tonnes of products per hour. They also purchase FFB from 11,500 smallholder farmers, who collectively own 23,000 ha plantations.

\textbf{Commitment to CSR}

Cargill became a member of the RSPO in 2004 and is “committed to the RSPO process of working towards the SPPO.”\textsuperscript{354} The company is ISO14001 certified,\textsuperscript{355} and claims to consistently use energy and resources efficiently, establish product lines that utilize renewable materials, and “facilitate a

\begin{itemize}
\item Ibid.
\end{itemize}
smaller environmental footprint for their customers.’356 Cargill’s four main commitments to sustainability include: conducting business with a ‘high level of integrity, accountability and responsibility’, developing ways to reduce its environmental impact and conserve natural resources; treating people with dignity and respect, and investing and engaging with local communities. 357

**Criticisms**

In May 2010, the Rainforest Action Network (RAN)358 accused Cargill of operating two undisclosed palm oil plantations in West Kalimantan.359 RAN claim to have evidence that Cargill has operated in contravention of its RSPO commitments by: failing to adhere to national legislation, failing to disclose ownership of plantations, clearing rainforest with no permits, failing to resolve company-community conflicts and destroying watersheds.360 Moreover, RAN has accused Cargill of polluting rivers and deceiving local communities into signing agreements they were not able to understand.361 They argue that Cargill has violated national legislation through: operating without an Environmental Assessment Report or Business Permit, clearing rainforest without Timber Cutting Permits, exceeding the maximum allowed concession area, clearing peatlands, and utilizing the controlled burning technique.362 Cargill has denied all such allegations.363

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358 RAN is an environmental organisation headquartered in San Francisco, California with offices in Tokyo, Japan, and Edmonton, Canada. They consist of thousands of volunteer scientists, teachers, parents, students and other concerned citizens globally. Their corporate campaigns seek to “push companies to balance profits with principles.” (About RAN (2010) The Rainforest Action Network< http://ran.org/content/about-ran>accessed 19 July 2010.)
362 Ibid.
363 Ibid.
8.8 The Bakrie Group

The Bakrie Group (BG) is the largest business group in Indonesia owned by ethnic Indonesians. The BG first entered into the palm oil industry in 1993 by converting 6,200 ha of its rubber estates into plantations. In January 2008, palm oil plantations comprised approximately 80% of the group’s total plantation area. The FFBs harvested from the estates are processed into CPO at one of their eight mills, which each have the capacity to process 390 tonnes of FFB per hour. The main holding company for the Bakrie Group is PT Bakrie Sumatera Plantations Tbk (BSP). The palm oil companies owned by the Bakrie group are detailed in Table 4.


<table>
<thead>
<tr>
<th>Plantation company</th>
<th>% owned by BSP</th>
<th>Other owners</th>
<th>Start of operations</th>
<th>Area (ha)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrowiyana</td>
<td>99.9%</td>
<td></td>
<td>1992</td>
<td>3,500</td>
<td>Tanjung Jabung, Jambi</td>
</tr>
<tr>
<td>Bakrie Bercootung Pratama</td>
<td></td>
<td></td>
<td>not yet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bakrie Pesaman Plantations</td>
<td>96.4%</td>
<td></td>
<td>1991</td>
<td>15,200</td>
<td>Pasaman, West Sumatra</td>
</tr>
<tr>
<td>Bakrie Sewit Prima</td>
<td>96.0%</td>
<td></td>
<td>not yet</td>
<td></td>
<td>Ketapang, West Kalimantan</td>
</tr>
<tr>
<td>Bakrie Sewit Perdana</td>
<td>96.0%</td>
<td></td>
<td>not yet</td>
<td></td>
<td>Ketapang, West Kalimantan</td>
</tr>
<tr>
<td>Bakrie Sewit Pratama</td>
<td>96.0%</td>
<td></td>
<td>not yet</td>
<td></td>
<td>Ketapang, West Kalimantan</td>
</tr>
<tr>
<td>Bakrie Sumatera Plantations</td>
<td>100.0%</td>
<td></td>
<td>1912</td>
<td>16,323</td>
<td>Pasaman, West Sumatra</td>
</tr>
<tr>
<td>Misindo Usama Perindo</td>
<td>100.0%</td>
<td>Sinar Mas</td>
<td>2000</td>
<td>70,000</td>
<td>Central Kalimantan</td>
</tr>
<tr>
<td>Patriot Andelas</td>
<td>96.0%</td>
<td></td>
<td>1996</td>
<td>10,000</td>
<td>Sanggau, West Kalimantan</td>
</tr>
</tbody>
</table>

366 Ibid.
367 Ibid.
Commitments to CSR

The BG is a member of the RSPO and perceives CSR as an “important part of [its] strategy and integral to its operations”. Its priorities are developing local communities and conforming to legal environmental regulations. The BG asserts that it has the “proper policies in place for the disposal of liquid waste from [its] mills which is normally recycled back as fertilizer.” Moreover, the BG adopts a zero burning policy and owns a number of conservation forests.

Criticisms

In 2007, an Indonesian television team captured BG violently assaulting villagers in Sei Kopas. The film captures BSP bulldozers destroying fields and villagers huts, whilst being protected by police officers from the Mobile Brigades and criminal gangs. Watch Indonesia (WI) claims that for numerous years, BSP has recruited the Mobile Brigades of the police force to work for them. Families are threatened if they attempt to work on their rice paddies. WI claim that local people have reacted with land occupations and demonstrations and BSP has retaliated with “intimidation,
terrors and violence.”  In February 2005, for example, BSP’s security company and the police in Asahan Village “attacked the village, tore down huts and injured seven farmers.”

8.9 Manufacturers

The next stage in the palm oil supply chain involves the manufacturers or the companies who purchase the palm oil from the producers. It is their responsibility to encourage the SPPO by purchasing certified palm oil, thus creating a market incentive for producers to act sustainably. The following section outlines several of the major palm oil manufacturers through an analysis of their alleged commitments to CSR and criticisms from prominent NGOs in the field.

8.10 Unilever

Unilever is an English-Dutch company with a long history of using palm oil in its products. They purchase around 1.5 million tonnes of palm oil each year or 3% of the world’s supply.

Commitment to CSR

In May 2008, the Unilever Group Chief Executive, Patrick Cescau, announced that all Unilever’s palm oil would be certified sustainable by 2015. At the Prince of Wales’ May Day Climate Change Summit in London, Cescau stated that Unilever was supporting the pending moratorium on deforestation of primary forests in Indonesia for the establishment of palm oil plantations. Unilever

374 Id at 2.
375 Id at 2.
377 Ibid.
assert that “as one of the largest consumers of palm oil, we have a duty to act responsibly towards
the areas of the world where this commodity is grown and processed.”

Unilever is not only a member of the RSPO, but was one of the founders and now chairs the body. They have pledged to have “fully traceable supply chains in place by 2010” for all palm oil distributed in Europe. In order to achieve this they will “work closely with governments, suppliers, NGOs and other users of palm oil and will make every effort to ensure that the RSPO applies effective sanctions to suppliers who persist in unlawful deforestation practices.”

In September 2009, Unilever announced that it would be suspending its $32.6 million contract with SMART. This strategic CSR action followed allegations that SMART was clearing forests without permits, clearing HCV forest and expanding onto peatlands. Greenpeace’s Executive Director, John Sauven, stated that this decision could “represent a defining moment for the palm oil industry. What we’re seeing here is the world’s largest buyer of palm oil using its financial muscle to sanction suppliers who are destroying rainforests and clearing peat lands. This has set a new standard for others to follow”. Unilever’s Chief Procurement Officer, Marc Engel, commented that the company is committed to purchasing sustainable palm oil and is therefore “taking a stance against a supplier who is accused of breaking the law.” Unilever’s Director of Sustainable Agriculture and

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379 Unilever cuts palm oil purchases from Indonesia’s PT Smart’ Food Magazine (15 December 2009).
381 Ibid.
382 ‘Unilever cuts palm oil purchases from Indonesia’s PT Smart’ Food Magazine (15 December 2009).
384 Ibid.
President of the RSPO, Jan-Kees Vis, stated that "[when] companies sign up to the RSPO, we expect them to live up to the RSPO principles."\textsuperscript{385}

**Criticisms**

In 2008, Greenpeace released a report entitled *Burning Up Borneo* which links deforestation to Unilever’s suppliers through the use of maps, satellite data, and fieldwork investigations.\textsuperscript{386} Although Unilever has since rectified this situation by suspending their contract with SMART, they have recently stated they will renew this contract if the audit conducted by CUC and BSI reveals Greenpeace’s allegations were incorrect.\textsuperscript{387}

**8.11 Nestle**

Nestlé was founded in 1866 and is today one of the world’s most successful companies. Nestlé’s operations encompass coffee and beverages, dairy, confectionery, infant nutrition, healthcare and pet care. They employ around 283,000 people and are located in almost every country in the world.\textsuperscript{388}

**Commitment to CSR**

Nestlé recognizes that deforestation of tropical rainforests and peatlands is "one of the most serious environmental issues facing us today."\textsuperscript{389} They explicitly state that deforestation contributes to approximately 20% of carbon dioxide emissions, more than the entire transport sector.\textsuperscript{390} The Executive Vice president of Nestlé, José Lopez, has announced they are committing to a partnership with The Forest Trust (TFT), a Swedish environmental charity that will independently audit its

\textsuperscript{385} Ibid.
\textsuperscript{386} Ibid.
\textsuperscript{388} Nestle History \textless http://www.nestle.com/Resource.axd?id=4FF18A81-0D77-43B4-949DFC5F74E4EB3\textgreater accessed 4 August 2010.
\textsuperscript{389} Update on Deforestation and Palm Oil (2010) NESTLE \textless http://www.nestle.com/MediaCenter/SpeechesAndStatements/AllSpeechesAndStatements/statement_Palm_oil.htm\textgreater accessed 21 July 2010.
\textsuperscript{390} Ibid.
Together with TFT, “Nestlé has established Responsible Sourcing Guidelines and has committed to ensuring that its products do not have a deforestation footprint. This is the first time any company has made such a commitment.” Nestlé has also committed to developing ‘action plans’ to ensure traceability and sustainability with Nestlé palm oil producers. The plans will include technical assistance to ensure full legal compliance by all plantations and to identify and protect HCV forests, peatlands and high carbon value forests. In addition, Nestlé is a member of the RSPO and have committed to only sourcing certified palm oil by 2015.

Criticisms

There has not yet been enough time to assess the validity of these sustainability commitments as they arose in response to a recent Greenpeace campaign. In March, 2010 Greenpeace released a report entitled Caught Red-handed, which exposed Nestle was sourcing their palm oil from Sinar Mas. The report was accompanied by a You-tube video which depicted a man in an office breaking off a kitkat finger which then morphs into an Orangutans’ bloody finger. The video was viewed by over 1 million people before Nestle had it removed from the air, which simply exacerbated the situation. In total, the video prompted approximately 200,000 emails of protest. By 31 March 2010, Nestle agreed to cease sourcing palm oil from Sinar Mas and its subsidiaries.

8.12 Cadbury plc

Cadbury plc manufactures, markets and distributes beverages and confectionery products globally. They own Cadbury, Schweppes, Halls, Trident, Dr Pepper, Snapple, Trebor, Dentyne, Bubblicious and

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391 ‘The Other Oil Spill’ The Economist (June 24, 2010)
392 Ibid.
393 Ibid.
395 Ibid.
396 ‘The Other Oil Spill’ The Economist (June 24, 2010).
397 In February 2010, Cadbury was taken over by Kraft Foods, which is not currently a member of the RSPO. (Kraft clinches Cadbury takeover deal ABC News (February 2 2010); RSPO <http://www.rspo.org/?q=search/node/kraft> accessed 27 July 2010.)
Bassett. They employ 54,000 people and are market leaders in sugar and in confectionery. They are an active member of the RSPO.  

**Commitment to CSR**

Cadbury plc states that they are “wholeheartedly committed to corporate and social responsibility from our key strategic goals to the individual actions of our people around the world everyday. It is central to who we are, what we do and the way we do it.” In August 2009, Cadbury removed palm oil from all dairy milk chocolate made in Australia and New Zealand in response to “outraged chocolate fanatics.” The managing director of Cadbury in New Zealand, Matthew Oldham, stated that the decision to revert back to using cocoa butter was a direct response to negative consumer feedback. He further stated that “Cadbury remains committed to its product quality and environmental and ethical sourcing commitments. Cadbury is a responsible business and we purchase certified sustainable palm oil - one of the few companies in New Zealand to do so.”

**Criticisms**

Although Cadbury claimed their decision to replace cocoa butter with palm oil was for the improved texture of their chocolate, critics suggest the change was aimed at decreasing production costs. Nevertheless, in response to consumer pressure, Cadbury has removed all palm oil from the chocolate produced in Australia and New Zealand.

**8.13 Coles**

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401 Ibid.
402 Ibid.
Coles has been established in Australia since 1914, when the founder, George Coles, opened the first
Coles Variety store in Melbourne.\textsuperscript{404} By 1973, Coles had established a supermarket in every
Australian capital city.\textsuperscript{405} Today Coles has over 100,000 employees and over 11 million customer
transactions per week.

\textbf{Commitment to CSR}

Coles state that it aims to use palm oil for Coles branded products, that is sourced in line with RSPO
Principles & Criteria.\textsuperscript{406} It has a policy which requires it to label ‘palm oil’ rather than vegetable
oils.\textsuperscript{407} It developed its own cleaning product range, ‘Coles Green Choice’, with RSPO certified palm oil.
However, Coles claim that as there is only a limited supply of sustainable palm oil, there is a gap
between the quantity of palm oil they require and the amount which is available. Consequently,
Coles assert that they avoid using palm oil wherever possible when developing new products.\textsuperscript{408}
Coles have developed a range of soap bars with coconut oil including; Coles Revitalizing Citrus Fresh
Soap, Coles Soothing Lavender Soap and Cols Nourishing Shea Butter.\textsuperscript{409} It has also removed palm oil
from some of their bakery products, Coles Choc Top, Coles Sultanas and Coles 2 Minute Instant
Noodles.\textsuperscript{410}

\textbf{Criticisms}

\begin{footnotes}
\textsuperscript{405} Ibid.
\textsuperscript{407} Ibid.
\textsuperscript{408} Ibid.
\textsuperscript{409} Ibid.
\textsuperscript{410} Ibid.
\end{footnotes}
In 2010, WWF created an Australian ‘Palm Oil Buyers Scorecard’ which assessed the ethical sourcing of six major palm oil manufacturers. The assessment was conducted against a range of objective criteria, from their membership status with RSPO to their usage of sustainable palm oil. Draft scores were sent to the companies with an overview of the scorecard methodology. Companies were then given an opportunity to send WWF their responses and any additional information.

Coles was in the lowest bracket of the three categories. Although it has recognized the necessity to source sustainable palm oil, “they have a long journey ahead of them in formulating their policies, action plans and beginning to buy sustainable palm oil.” Moreover, it has no policies in place to encourage the responsible use of palm oil and currently do not use any of the RSPO certified palm oil (CSPO).

There appears to be a discrepancy in Coles commitment to the sustainable sourcing of palm oil and the palm oil they are in fact sourcing. For example, the Coles website states that they “aim to use palm oil for Coles branded products which is sourced in line with the RSPO P&Cs for Sustainable Palm Oil Production.” However, they are not an active member of RSPO. When asked how much of the palm oil they source is certified, they responded that “At present we are not in a position to confirm that the palm oil used across our entire range of products come from sustainable sources.” Furthermore, although the Coles website states that “there is only a limited supply of..."
sustainable palm oil”, the RSPO claims that only a small portion of the available CSPO has actually been bought.419

9. Consumers

“By requesting that retailers and manufacturers use sustainable palm oil in everyday products, consumers can help motivate companies to increase their commitments.”420

Ultimately, a company’s success is in the hands of the consumer. If consumers’ demand of a particular product decreases, the supply of that product will subsequently decrease. Consequently, consumers play a “significant role in encouraging companies to change their practices.”421 This can be seen in Unilever suspending its $32.5 million contract with Sinar Mas due to the Greenpeace campaign exposing Sinar Mas’ illegal operations, Nestlé’s recent decision to follow suit and Cadbury removing palm oil from chocolate produced in Australia and New Zealand in response to consumer feedback.

However, problems arise when consumers are unaware or uninformed of the supply chain through which the products they purchase are produced. In Australia, and in many other countries, it is not legally obligatory to label palm oil as an ingredient in products. Consequently, consumers are not given the choice to boycott products containing palm oil in order to decrease the demand and thus the supply. The following section details this issue in depth using Australian legislation as the case study.

420 Ibid.
9.1 Amending Legislation to Facilitate an Ethical Choice

“Unless the gaps in the knowledge of both palm oil producing companies and stakeholders regarding environmental protection are addressed, environmental degradation is likely to continue and the corporate ‘tick-boxing’ trickery would carry on concealing the real picture from stakeholders.” 422

The area of palm oil plantations needed to supply Australia with its current annual importation of 130,000 tonnes is approximately 32,500 hectares.423 Palm oil is an ingredient in approximately 40% of the food products stocked in Australian supermarkets.424 In the United Kingdom, it has been estimated that as many as seven out of 10 products stocked in supermarkets contain palm oil.425 It is a constituent in frying and cooking oils, margarines, mayonnaise, ice-cream, chocolates and sweets, soups, flavourings, instant meals, bread and cakes, cosmetics, lipsticks, soap and other personal hygiene items, in candles, detergents, and cleaning agents (Figure 22).426 In cosmetics, palm oil is often labelled ‘Elaeis guineensis’, ‘Glycerol stearate’ and ‘stearic acid’. In food products, palm oil is labelled ‘sodium sulphate (SLS)’, ‘Sodium lauryl sulphate (SLS)’, ‘Sodium dodecyl sulphate’ and palm kernel oil or palmolein. It has been estimated that the average Australian unknowingly consumes over 10kg of palm oil annually.427

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427 Speech by Sen Nick Xenophon on the 23rd of November 2009.
Figure 22. A variety of products that contain palm oil that is currently labelled as vegetable oil. Source: Shopping Guide: How to Identify Unlabelled Palm Oil <http://www.palmoilaction.org.au/pages/shopping-guide.html> accessed 12 May 2010.

Under current legislation, Food Standards Australia New Zealand (FSANZ), manufacturers can label palm oil as ‘vegetable oil’ and/or ‘vegetable fat’ on packaging (Appendix A). This is particularly misleading as palm oil originates from a fruit, not a vegetable and is high in saturated fats, unlike vegetable oil. Xenophon (2009) suggests that this ‘level of disclosure is inadequate and is deliberately misleading consumers’. He argues that “Australians aren’t able to make an informed choice for themselves and their family about what they buy at the supermarket because they are not being given all the facts.”

Legislation in consumer countries must be amended to order to enable consumers to make ethical choices. This would create a niche market for sustainably produced palm oil and provide an economic incentive for corporations to act sustainably. Although there is a danger that reducing the demand and over-saturating the market will cause companies to become more exploitative of

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429 Speech by Sen Nick Xenophon on the 23rd of November 2009.
resources and less concerned with long-term regional development, this is unlikely considering there are such large markets in India and China (Figure 23). A report conducted by the European Union Ministry of Forestry, found some of the major players in the palm oil industry were not concerned about Western markets because of the significant demand in India and China. One correspondent described Sumatra as the, “The garden of China.”


**9.2 Is Certification Economically Viable?**

Considering the increasing level of consumer concern regarding the environmental and social impacts of the products they purchase, it would seem advantageous for corporations to source sustainable palm oil. Such a strategy would minimize reputational risk, and thus the chances of a decline in the consumer loyalty in the company. Ecological NGOs are aware of companies’

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432 Ibid.
vulnerability to this type of criticism and are increasingly using it as a tool to manipulate corporate behaviour. Although certifying palm oil plantations and mills will initially entail higher costs, it will be beneficial in the long term.

9.3 The Contingent Valuation Method (CVM)

The CVM provides a measure of the projected profit that will be generated from a proposed change in business strategy. It involves distributing a large number of surveys which require people to indicate their preference for either the current product or the modified product.\(^{433}\) The name of the method refers to the fact that ‘the values revealed by respondents are contingent upon the constructed or simulated market presented in the survey’.\(^{434}\) There are three basic components the CVM survey must contain. These include: a description of the proposed change the respondent is being asked to value, a mechanism for extracting the choice from the respondent and their socio-economic status such as age, race, sex, income, education, marital status and environmental attitudes.\(^{435}\)

9.4 The Palm Oil Survey

Using the CVM method outlined above, a survey was designed to attain the ‘willingness-to-pay’ function for sustainably produced palm oil. This analysis provides an estimation of the projected economic viability of this change in business strategy.

**Aim:** This aim of this survey was to determine the ‘willingness-to-pay’ function for a product containing sustainable palm oil than for a product containing regular palm oil.

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\(^{435}\) Ibid.
Methods: The survey was modelled on a CVM template extracted from an economic paper. It was then sent to 500 people via my personal email, a networking service and face-book (Appendix A). It contained a brief description of the detrimental social and environmental impacts of palm oil in Indonesia. Respondents were then required to state if they felt it is there right to be informed if palm oil is an ingredient in the products they purchase, and how much more they would be willing to pay for SPPO compared to non-certified palm oil.

Results: Fifty people responded to the survey. The result illustrated that 98% of people would pay an extra 10% for sustainably produced palm oil, 89% would pay an extra 20%, 61% would pay an extra 30% and 26% would pay an extra 40% and 50% for a sustainable product (Figure 24). All the respondents felt they should be informed if palm oil is in the products they purchase.

![Figure 24. The number of people who are willing to pay an extra 10%, 20%, 30%, 40%, 50% in order to purchase a product that contains sustainably produced palm oil. n=54. Source: Author.](image)

10. The Future of Palm Oil
Indonesia has drafted rules for a two-year ban on permits for forest clearing, after signing a $1 billion climate aid deal with Norway aimed at avoiding greenhouse gas emissions from deforestation. A number of presidential decrees to implement the plan have been prepared and will bypass the agenda driven Indonesian parliament. Included in the decrees is a two-year moratorium on new permits and permit extensions on converting peat land, natural forest, conversion forest, protected forest, production forest and “outside these areas”. Moreover, the decrees state that “there will be an assessment of the economic impact and revocation of permission to convert peat land and cessation of issuing new permits”. Companies with large-scale establishment plans will be compensated according to the size of the concession. The government will encourage holders of existing permits in primary forest areas or deep peat lands to swap to degraded land. The head of the secretariat of Indonesia’s National Climate Change Council, Agus Purmomo, stated that existing licenses will be revoked wherever and however possible within the confines of the Indonesian legal system. He stated that “if we have to go through cancellations in the court system, we will do it.”

However, Media Indonesia has suggested the announcement of the moratorium may have spurred the government into action to quickly grant new forest licenses for APP and APRIL. They claim that since the moratorium 17 new licenses to log natural forest have been issued in Riau, providing up to 29 percent of APP’s and 50 percent of APRIL’s raw material for mills in Riau.

11. Conclusion

The environmental and social consequences of the UPPO are extremely detrimental to Indonesia’s rich biodiversity, to traditional indigenous communities, and to society as a whole. As the demand...

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436 Sunanda Creagh and Yayat Supriatna ‘Q+A: Indonesia issues draft rules on forest clearing’ Jakarta Post (6 July 2010).
437 Sunanda Creagh and Yayat Supriatna ‘Q+A: Indonesia issues draft rules on forest clearing’ Jakarta Post (6 July 2010).
438 Sunanda Creagh, ‘Indonesia to scrap permits to save forests: official’ Jakarta Post (31 May 2010).
439 Jeremy Hance, Large Scale Forest Destruction in Sumatra undermines Indonesia’s deal with Norway’ Mongabay (13 July 2010).
for edible vegetable oils and bio-fuels increases so too will the demand for the plantation expansion.

There are two critical tools identified in this paper that may be used to minimize any further damage to the Indonesian environment. The first is through motivating the government with economic incentives to amend legislation so that it no longer facilitates the UPPO. An example of this tool being practically implemented is the recent $1 billion climate change deal between Norway and Indonesia. Norway has provided a significant economic incentive for the government to pass legislation which mandates a moratorium on any further deforestation for plantation expansion.

Another major tool that can be utilized to minimize the detrimental impacts of the UPPO involves CSR and market pressure at every level of the supply chain. It is evident that consumers can change the type of palm oil purchased by manufacturers through consumer pressure. Examples of this include Unilever and Nestlé ceasing their multi-million dollar contracts with Sinar Mas, and Cadbury completely removing palm oil from chocolate produced in Australia and New Zealand. In practice, the use of this tool presents two problems, both of which must be addressed in order to move forward. The first is the dubious nature and unreliability of the RSPO. The second is the lack of transparency in the packaging legislation in western countries. The first problem may be tackled through modifying the RSPO, such that it becomes a reliable source of SPPO. If the fundamental construction of the organisation is rooted in corruption then the establishment of a new, credible certifying body may provide a more viable solution to this obstacle. The second problem may be addressed by amending labelling legislation so that palm oil is correctly identified rather than disguised as ‘vegetable oil’. This will open the market for the labelling of certified sustainable palm oil, allowing a competitive advantage for environmentally responsible companies.

It is essential that the utilization of these tools to address the critical issue of deforestation as a result of palm oil plantation expansion be conducted as soon as possible. Despite some significant progress, the palm oil industry is continuing to destroy the Indonesian rainforest. The solution requires effort and cooperation at every level of the supply chain. From the reduction of corporate
corruption in Indonesia to the ethical choice of the consumer in a western supermarket, the solution requires the cognitive awareness that we have reached the tipping point for the rainforests of Indonesia. If the solutions are not implemented now, they will be lost forever.

Appendix A

Palm Oil Survey

Age:

Sex:

Income:

Education:

Do you consider yourself an environmentally conscious person?

Are you concerned about living conditions in the developing world?

Palm oil is the most widely produced edible vegetable oil in the world. It has an enormously high yield and absorbs more carbon dioxide than most other oils. However, despite its massive potential as a sustainable crop, palm oil plantations have resulted in mass deforestation, social conflict and the endangerment of many species endemic to Indonesia, including the Sumatran tiger and the Orang-utan.
In South East Asia alone, **about 300 soccer fields are deforested every hour for oil palm plantations**. As a result, more than **1000 orang-utans die every year** due to loss of habitat. In 2005, there were over **6.5 million ha** of lowland rainforest replaced by oil palm lines. If palm oil continues to be produced in this way, the orang-utan could **be extinct in less than 20 years**.

Source: blogs.newamerica.media.org/images/12.jpg

However.....
If palm oil is produced sustainably, it has the potential to be a major source of sustainable and renewable raw material for the world’s food, chemical and biofuel industries. Corporations need to stop establishing plantations on primary rainforest and start using already degraded land or pre-existing cropland. Planters prefer to clear tropical forests to earn income from the sale of timber instead of planting in cleared or abandoned land.

In Borneo alone, there are over 8 million ha of fallow grassland. In the entire country more than 25 million ha on which oil palms could be easily established. The higher costs involved with planting on grasslands result in the unnecessary deforestation of the lowland rainforest.

Currently it is not required by law for palm oil to be labelled on the products you buy. Palm oil is disguised under the label of ‘vegetable oil’ and is in everything from the packet of chips you buy at the 711 to the shampoo and cleaning products you purchase. It is estimated that Australians consume approximately 10kg of palm oil a year without even noticing!

Source: http://www.treehugger.com/20090828-borneo-deforestation.jpg

Please indicate your response:
Do you feel it is your right as a consumer to be informed if palm oil is in the products you buy? 

Yes/No

Would you be prepared to pay an extra 10% to ensure the products you buy contain certified sustainably produced palm oil that has not contributed to the destruction of the rainforest and the extinction of the Orang-utan? Y/N

Would you be prepared to pay an extra 20% to ensure the products you buy contain certified sustainably produced palm oil that has not contributed to the destruction of the rainforest and the extinction of the Orang-utan? Y/N

Would you be prepared to pay an extra 30% to ensure the products you buy contain certified sustainably produced palm oil that has not contributed to the destruction of the rainforest and the extinction of the Orang-utan? Y/N

Would you be prepared to pay an extra 40% to ensure the products you buy contain certified sustainably produced palm oil that has not contributed to the destruction of the rainforest and the extinction of the Orang-utan? Y/N

Would you be prepared to pay an extra 50% to ensure the products you buy contain certified sustainably produced palm oil that has not contributed to the destruction of the rainforest and the extinction of the Orang-utan? Y/N

THANK YOU! Your efforts are much appreciated 😊